



## TABLE OF CONTENTS

|                                 |    |
|---------------------------------|----|
| Part Number Guide               | 2  |
| Fan Selection Guide             | 3  |
| AC Fans                         | 4  |
| AC Impellers                    | 26 |
| DC Fans                         | 28 |
| DC Fans - High Value Challenger | 60 |
| Special Function Information    | 61 |
| Fan Trays - Thermalcare AC/DC   | 62 |
| Blowers                         | 66 |
| Fan Filter                      | 69 |
| Fan Guards                      | 70 |
| Fan Cords                       | 71 |
| AC Power Cords                  | 72 |
| Cross Reference                 | 81 |

Note 1: The drawings and photos featured in this catalog may not reflect the newest frames and designs that are currently available. Design changes and improvements may be made without prior notification.

Note 2: Data tolerance is +/-10%.

Note 3: ORION FANS meet UL/cUL, TUV, VDE and CE Standards. All ORION FANS are UL/cUL approved and most carry European approvals as well. Models not currently registered with European approval agencies will be submitted (at our discretion) upon customer request.

Note 4: Additional AC and DC voltages not covered in this catalog are available by special order. Ultra High and Ultra Low speeds are also available by special order. (Minimums may apply.)

Note 5: We make additions to our product line frequently. If you cannot find what you are looking for please give us a call at 800-323-2439 or 214-340-0265 or visit our website at [www.orionfans.com](http://www.orionfans.com).

Note 6: Product is warranted against defects in workmanship and materials for 1 year from date of purchase.

### FAN FACTS...

#### LIFE EXPECTANCY

Dual Ball bearing fans will run continuously and reliably for up to 60,000+ hours based on L10 calculations. L10 life for sleeve bearing fans is up to 30,000 hours and sealed sleeve over 50,000 hours. Life will vary depending on the fan size and operating conditions and temperature.

#### FRAMES

AC Fans - Diecast aluminum  
DC Fans - UL94V-0 glass fiber reinforced plastic is standard for frame sizes 120mm and smaller. Aluminum frames are standard for 127mm and larger. 120mm frames are available in both plastic and aluminum.

#### IMPELLERS

Glass reinforced thermoplastic - UL94V-0. Optional metal impellers are available for a number of models.

ISO 9001:2008 Certified 951001232-A



# ORION AC & DC FANS



## Part Number Construction [ General Information ]

Building an AC Part Number: OA109AP-22-1TB-18. (Note: Many AC fans are available with sensor functions by special order.)

| OA                                                                                                               | 109                                                                                                                   | AP                                                                                                                                                                                           | 22                                                                                                            | 1                                                                                                        | T                                                                                                                            | B                                                                                                                                                | 18                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OA = Orion AC ... Orion AC fan part numbers will generally begin with "OA" (Orion AC) or "OAB" (Orion AC Blower) | "109" = Model Number ... Model numbers designate frame sizes. In this case "109" will always refer to a 120X38mm fan. | AP = Frame Construction ... Frames are available as "AP" (Aluminum Painted), "AN" (Aluminum Natural Sanded), SAP - Stackable aluminum painted SAPL - stackable aluminum painted, low profile | "22" = Voltage ... Standard AC voltages are "11" (115VAC), "22" (230VAC), "11/22" or "1/2" (115/230 dual VAC) | "1" = Speed ... AC Fans are generally available as "1" (high speed), "2" (medium speed), "3" (low speed) | "T" = Termination ... AC Fans are available (except as noted) with power connection terminals (T) or with 12" Lead wires (W) | B = Bearing Type ... Standard bearing types are "B" (ball bearing) and "S" (sleeve bearing) Sometimes followed by XC indicating high performance | 18 = Special Function Code ... A suffix after the bearing designator usually indicates a specific modification to the fan. In this case "18" indicates a metal impeller which is different from the Thermoplastic impeller which comes standard on this model |

Building a DC Part Number: OD1238-12HTB01 (Note: some models will include a "C" or an "XC" in the part number)

| OD                                                                                                               | 1238                                                                                                                    | -                                                                                                                                             | 12                                                                                                | H                                                                                                                                                                                                 | T                                                                                                                                | B                                                                                                            | 01                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OD = Orion DC ... Orion DC fan part numbers will generally begin with "OD" (Orion DC) or "ODB" (Orion DC Blower) | "1238" = Model Number ... Model numbers designate frame sizes. In this case "1238" will always refer to a 120X38mm fan. | [blank] = Frame Construction ... PT or blank - Thermoplastic construction. AP - diecast aluminum black SAP - stackable diecast aluminum black | "12" = Voltage ... Standard DC voltages are "05" (5VDC), "12" (12VDC), "24" (24VDC), "48" (48VDC) | "H" = Speed ... DC Fans are generally available as "H" (high speed), "M" (medium speed), "L" (low speed) "HH" (extra high speed) and "LL" (extra low speed) "V" (vaneaxial) "XC" high performance | "T" = Termination ... DC Fans are available (except as noted) with power connection terminals (T) or with 12" Lead wires [blank] | B = Bearing Type ... Standard bearing types are "B" (ball bearing) and "S" (sleeve) and "SS" (sealed sleeve) | 01 = Special Function Code ... A suffix after the bearing designator usually indicates a specific modification to the fan. In this case "01" indicates a 5VTTL tach o/p * |

[none]

- 01 Standard
- 02 Tachometer Output 5VTTL\*
- 03 Alarm Output 5VTTL \*
- 04 Thermistor Speed Control (hub)
- 05 Thermistor Speed Control (wire)
- 06 PWM Input
- 07 Dual Speed
- 08 Temperature Sensor
- 09 Tachometer\* + Alarm\*
- 10 Tachometer\* + Thermistor
- 11 Tachometer\* + PWM
- 12 Tachometer\* + Temperature Sensor
- 13 Alarm\* + Thermistor
- 14 Alarm\* + PWM
- 15 Alarm\* + Temperature Sensor
- 16 Tachometer\* + Alarm\* + PWM
- 17 Tachometer\* + Alarm\* + Thermistor
- 18 Extra Long Lead Wires
- 19 Metal Impeller
- 20 High Temperature
- 21 Conformal Coating
- 22 Customized
- 55 IP-55

\* To specify "open collector" instead of 5VTTL please add the letter "a" after the "Special Function Code".

Additional suffixes consisting of both numbers and letters may be applied for multiple fan modifications .

Special function codes will not appear on the fan label unless specified by the customer.

# ORION AC & DC FANS



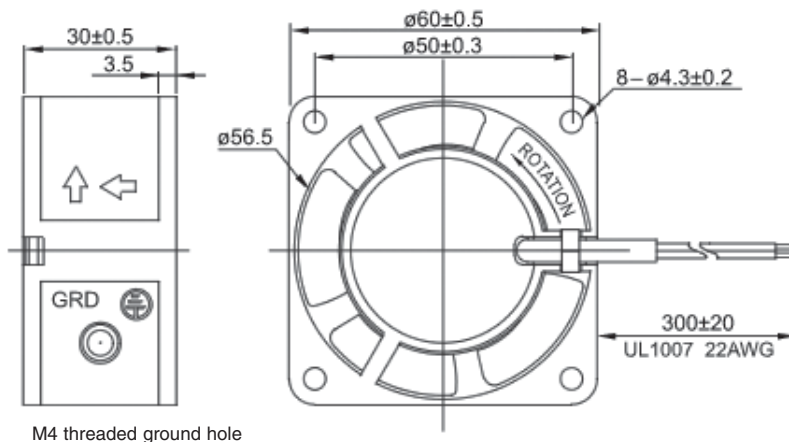
## Fan Selection Guide [ Size, Voltage, Air Flow ]

| Series                 | Dimensions (mm) | Dimensions (inches) | Voltages (AC) | Air flow (CFM) | Input Power (Watts) | Page Number |
|------------------------|-----------------|---------------------|---------------|----------------|---------------------|-------------|
| OA60                   | 60X60X30        | 2.36"x1.20"         | 115-230,DV    | 11             | 4                   | 4           |
| OA825                  | 80X80X25        | 3.15"x1.00"         | 115-230,DV    | 13-25          | 4-9                 | 5           |
| OA80                   | 80X80X38        | 3.15"x1.50"         | 115-230,DV    | 17-31          | 5-12                | 6           |
| OA92                   | 92X92X25        | 3.62"x1.00"         | 115-230,DV    | 19-30          | 6-13                | 7           |
| OA938                  | 92X92X38        | 3.62"x1.50"         | 115-230,DV    | 19-32          | 19-32               | 8           |
| OA125                  | 120X120X25      | 4.7"x1.0"           | 115-230,DV    | 42-81          | 6-13                | 9           |
| OA109                  | 120X120X38      | 4.7"x1.5"           | 115-230,DV    | 62-110         | 8-15                | 10          |
| OA109 AIOS             | 120X120X38      | 4.7"x1.5"           | 115-230       | 75-99          | 12-15               | 13          |
| OA4715                 | 120X120X38      | 4.7"x1.5"           | 115-230       | 110            | 24                  | 12          |
| OA109(XC)              | 120X120X38      | 4.7"x1.5"           | 115-230       | 131            | 22                  | 11          |
| OA119                  | 127X127X38      | 5.0"x1.5"           | 115-230       | 66-125         | 5-12                | 14          |
| OA172SAPL              | 172X150X38      | 6.7"x5.9"x1.5"      | 115-230       | 103-212        | 26-28               | 15          |
| OA172SAP               | 172X150X51      | 6.7"x5.9"x2.0"      | 115-230       | 110-235        | 16-35               | 16          |
| OA5920                 | 172X150X51      | 6.7"x5.9"x2.0"      | 115-230       | 180            | 41                  | 18          |
| OA172SAP(XC)           | 172X150X51      | 6.7"x5.9"x2.0"      | 115-230       | 300            | 50                  | 17          |
| OA172                  | 172X51          | 6.7"x2.0" -         | 115-230       | 135-235        | 16-35               | 16          |
| OA162                  | 172X55          | 6.7"x2.16" -        | 115-230       | 241            | 31                  | 19          |
| OA180                  | 176X176X89      | 6.9"x3.5"           | 115-230       | 420            | 70                  | 21          |
| OA180APL               | 180X180X65      | 7.0"x2.6"           | 115-230       | 430            | 70                  | 20          |
| OA254                  | 254X89          | 10"x3.5" -          | 115-230       | 547            | 35                  | 22          |
| OA254(XC)              | 254X89          | 10"x3.5" -          | 115-230       | 320-850        | 35-75               | 23          |
| OA225                  | 225X225X80      | 8.85"x3.15"         | 115-230       | 600            | 72                  | 24          |
| OA280                  | 280X280X80      | 11"x3.15"           | 115-230       | 1130           | 148                 | 25          |
| Series                 | Dimensions (mm) | Dimensions (inches) | Voltages (DC) | Air flow (CFM) | Options Available   |             |
| OD2510                 | 25X25X10        | 1.0"x0.39"          | 5,12          | 1.8-3.2        | 1,2                 | 28          |
| OD3010                 | 30X30X10        | 1.18"x0.39"         | 5,12          | 3.2-5.2        | 1,2                 | 29          |
| OD4010                 | 40X40X10        | 1.57"x0.39"         | 5,12,24       | 5.2-7.6        | 1,2                 | 30          |
| OD4010-SS              | 40X40X10        | 1.57"x0.39"         | 12,24         | 7              |                     | 61          |
| OD4020                 | 40X40X20        | 1.57"x0.79"         | 5,12,24       | 5-7.6          | 1,2                 | 31          |
| OD4020-SS              | 40X40X20        | 1.57"x0.79"         | 12,24         | 9              |                     | 61          |
| OD4028                 | 40X40X28        | 1.57"x1.1"          | 5,12,24       | 7.0-11         | 1,2                 | 32          |
| OD4028(XC)             | 40X40X28        | 1.57"x1.1"          | 12            | 26.5           | 1,2,3,5             | 33          |
| OD5210                 | 52X52X10        | 2.04"x0.39"         | 5,12          | 10-12          | 1,2                 | 34          |
| OD6010                 | 60X60X10        | 2.36"x0.39"         | 12            | 14-21          | 1,2                 | 35          |
| OD6015                 | 60X60X15        | 2.36"x0.59"         | 5,12,24       | 14-19          | 1,2                 | 36          |
| OD6020                 | 60X60X20        | 2.36"x0.79"         | 5,12,24       | 10-18          | 1,2                 | 37          |
| OD6025                 | 60X60X25        | 2.36"x1.0"          | 5,12,24,48    | 12-37          | 1,2,55              | 38          |
| OD6025-SS              | 60X60X25        | 2.36"x1.0"          | 12,24         | 25             |                     | 61          |
| OD6038V                | 60X60X38        | 2.36"x1.5"          | 12,24         | 36-61          | 1,2                 | 39          |
| OD8015                 | 80X80X15        | 3.15"x0.59"         | 5,12,24       | 21-30          | 1,2                 | 40          |
| OD8025                 | 80X80X25        | 3.15"x1.0"          | 5,12,24,48    | 22-40          | 1,2                 | 41          |
| OD8025-SS              | 80X80X25        | 3.15"x1.0"          | 12,24         | 40             |                     | 61          |
| OD8032                 | 80X80X32        | 3.15"x1.25"         | 12,24,48      | 39-50          | 1,2,3,5             | 42          |
| OD8038 and OD8038V     | 80X80X38        | 3.15"x1.5"          | 12,24,48      | 38-112         | 1,2,3               | 43,44       |
| OD9220                 | 92X92X20        | 3.62"x0.79"         | 12,24         | 21-33          | 1,2                 | 45          |
| OD9225                 | 92X92X25        | 3.62"x1.0"          | 5,12,24,48    | 29-60          | 1,2                 | 46          |
| OD9225-SS              | 92X92X25        | 3.62"x1.0"          | 12,24         | 52             |                     | 61          |
| OD9238V                | 92X92X38        | 3.62"x1.5"          | 12,24,48      | 108-135        | 1,2                 | 47          |
| OD1225                 | 120X120X25      | 4.7"x1.0"           | 12,24,48      | 45-86          | 1,2                 | 48          |
| OD1232                 | 120X120X32      | 4.7"x1.25"          | 12,24,48      | 93-120         | 1,2,3,5             | 49          |
| OD1238                 | 120X120X38      | 4.7"x1.5"           | 12,24,48      | 45-154         | 1,2,3,5,55          | 50,51       |
| OD1238(XC) and OD1238V | 120X120X38      | 4.7"x1.5"           | 12,24,48      | 130-283        | 1,2,3,55            | 52,53       |
| OD1238-SS              | 120X120X38      | 4.7"x1.5"           | 12,24         | 91-105         |                     | 61          |
| OD127AP                | 127X127X38      | 5.0"x1.5"           | 12,24,48      | 86-140         | 1,2,3,5             | 54          |
| OD127(XC)              | 127X127X38      | 5.0"x1.5"           | 12,24,48      | 133-242        | 1,2,3,5             | 55          |
| OD172SAPL              | 172X150X38      | 6.7"x5.9"x1.5"      | 12,24,48      | 120-225        | 1,2,3,5             | 56          |
| OD172AP                | 172X150X51      | 6.7"x5.9"x2.0"      | 12,24,48      | 125-230        | 1,2,3,5,55          | 57          |
| OD172SAP(XC)           | 172X150X51      | 6.7"x5.9"x2.0"      | 12,24,48      | 230-307        | 1,2,3,5,55          | 58          |
| OD180                  | 180X180X65      | 7.1"x2.6"           | 12,24,48      | 250-430        | 1,2,3,5             | 59          |
| OD254                  | 254X89          | 10"x3.5"            | 12,24,48      | 500-850        | 1,2,3,5,55          | 60          |

# OA60 Series



60 x 30mm  
(2.36" x 1.18")



M4 threaded ground hole

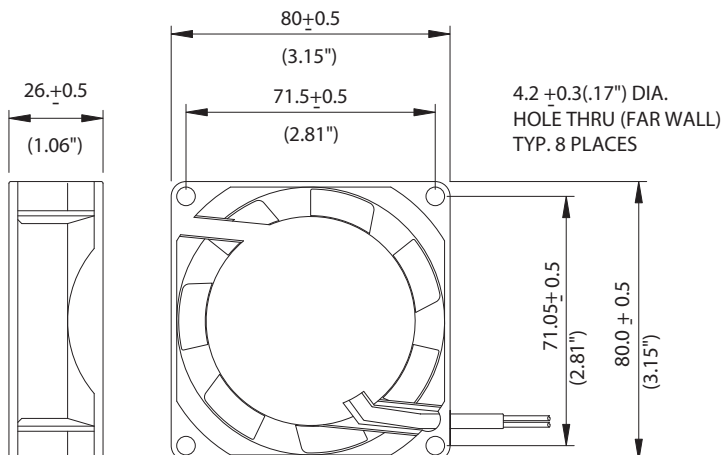
|                       |                                                |                                                                                                                                        |  |
|-----------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C) |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                        |  |
| Connection            | 2x Lead Wires 22 AWG                           |                                                                                                                                        |  |
| Motor                 | Shaded pole, impedance protected               |                                                                                                                                        |  |
| Bearing System        | Dual ball                                      |                                                                                                                                        |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                        |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                        |  |

| Part Number          | OA60AP-11-1WB          | OA60AP-22-1WB          |
|----------------------|------------------------|------------------------|
| Nominal Voltage      | 115VAC                 | 230VAC                 |
| Voltage Range        | 80 ~ 130VAC            | 160 ~ 260VAC           |
| Rated Power          | 4 W                    | 4 W                    |
| Rated Speed (RPM)    | 3100                   | 3100                   |
| Airflow (CFM)        | 11                     | 11                     |
| Noise Level (dB)     | 28                     | 28                     |
| Max. Static Pressure | 0.11" H <sub>2</sub> O | 0.11" H <sub>2</sub> O |

# OA825 Series



80 x 25mm  
(3.15" x 1.0")



|                       |                                                |                                                                                                                    |
|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C                       |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                    |
| Connection            | 2x Lead Wires 22 AWG or terminals              |                                                                                                                    |
| Motor                 | Shaded pole, impedance protected               | <u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C) |
| Bearing System        | Dual ball or Sleeve                            |                                                                                                                    |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) | <u>Dual Voltage</u><br>Connection via 4x leads.<br>Fans can be configured for 115V or 230V operation.              |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                    |

| Air Flow (CFM) | Static Pressure (\"H2O) - Ball Bearing (Top) | Static Pressure (\"H2O) - Sleeve Bearing (Middle) | Static Pressure (\"H2O) - Ball Bearing (Bottom) |
|----------------|----------------------------------------------|---------------------------------------------------|-------------------------------------------------|
| 0              | 0.21                                         | 0.14                                              | 0.11                                            |
| 5              | 0.14                                         | 0.10                                              | 0.08                                            |
| 10             | 0.11                                         | 0.07                                              | 0.05                                            |
| 15             | 0.09                                         | 0.04                                              | 0.02                                            |
| 20             | 0.05                                         | 0.02                                              | 0.00                                            |
| 25             | 0.00                                         | 0.00                                              | 0.00                                            |

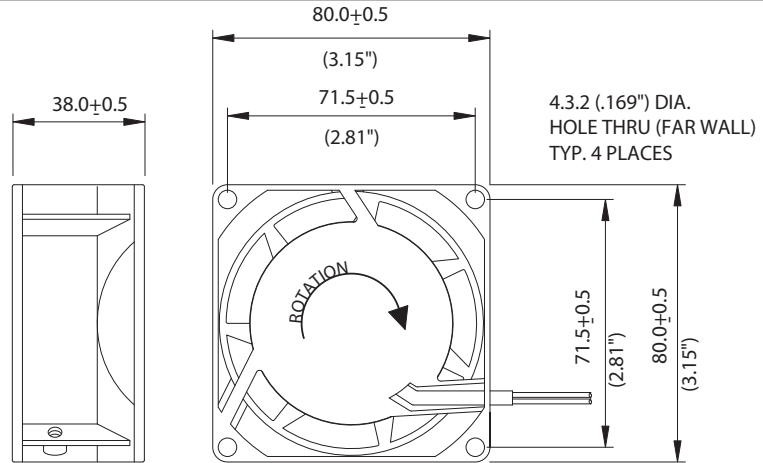
| Model Number       | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure ("H2O) |
|--------------------|-------------|---------------|------------|----------|---------------|-------|-----------------------------|
| OA825AP-11-1*      | 3000        | 25            | 28         | 115      | 80~130        | 9     | .21                         |
| OA825AP-11-2*      | 2300        | 18            | 24         | 115      | 80~130        | 6     | .14                         |
| OA825AP-11-3*      | 1900        | 16            | 19         | 115      | 80~130        | 4     | .11                         |
| OA825AP-22-1*      | 3000        | 25            | 28         | 230      | 160~260       | 9     | .21                         |
| OA825AP-22-2*      | 2300        | 18            | 24         | 230      | 160~260       | 6     | .14                         |
| OA825AP-22-3*      | 1900        | 16            | 19         | 230      | 160~260       | 4     | .11                         |
| OA825AP-11/22-1W** | 3000        | 25            | 28         | 115/230  | 80~260        | 9     | .21                         |
| OA825AP-11/22-2W** | 2300        | 18            | 24         | 115/230  | 80~260        | 6     | .14                         |
| OA825AP-11/22-3W** | 1900        | 16            | 19         | 115/230  | 80~260        | 4     | .11                         |

\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)  
 \*\* Indicate "B" (Ball Bearing) or "S" (Sleeve Bearing)

# OA80 Series



AC Fan - 115V, 230V, Dual Voltage  
80 x 38mm(3.15" x 1.5")



M4 GROUND HOLE

|                       |                                                |                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C)<br><br><u>Dual Voltage</u><br>Connection via 4x leads.<br>Fans can be configured for<br>115V or 230V operation.<br><br>m0 |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                                                                                                                                                                                                                  |
| Connection            | 2x Lead Wires 22 AWG or terminals              |                                                                                                                                                                                                                                                                                                                                                  |
| Motor                 | Shaded pole, impedance protected               |                                                                                                                                                                                                                                                                                                                                                  |
| Bearing System        | Dual ball or Sleeve                            |                                                                                                                                                                                                                                                                                                                                                  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                                                                                                                                                                                                                  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                                                                                                                                                                                                                  |

| Airflow (CFM) | Static Pressure (\"H2O) - Curve 1 (Top) | Static Pressure (\"H2O) - Curve 2 (Middle) | Static Pressure (\"H2O) - Curve 3 (Bottom) |
|---------------|-----------------------------------------|--------------------------------------------|--------------------------------------------|
| 0             | 0.24                                    | 0.15                                       | 0.10                                       |
| 5             | 0.19                                    | 0.12                                       | 0.08                                       |
| 10            | 0.14                                    | 0.10                                       | 0.06                                       |
| 15            | 0.12                                    | 0.08                                       | 0.04                                       |
| 20            | 0.10                                    | 0.06                                       | 0.02                                       |
| 25            | 0.08                                    | 0.04                                       | 0.00                                       |
| 30            | 0.04                                    | 0.00                                       | -                                          |

| Model Number      | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure (\"H2O) |
|-------------------|-------------|---------------|------------|----------|---------------|-------|------------------------------|
| OA80AP-11-1*      | 3000        | 31            | 29         | 115      | 80~130        | 12    | 0.24                         |
| OA80AP-11-2*      | 2300        | 23            | 22         | 115      | 80~130        | 9     | 0.15                         |
| OA80AP-11-3*      | 1600        | 17            | 18         | 115      | 80~130        | 5     | 0.10                         |
| OA80AP-22-1*      | 3000        | 31            | 29         | 230      | 160~260       | 12    | 0.24                         |
| OA80AP-22-2*      | 2300        | 23            | 22         | 230      | 160~260       | 9     | 0.15                         |
| OA80AP-22-3*      | 1600        | 17            | 18         | 230      | 160~260       | 5     | 0.10                         |
| OA80AP-11/22-1W** | 3000        | 31            | 29         | 115/230  | 80~260        | 12    | 0.24                         |
| OA80AP-11/22-2W** | 2300        | 23            | 22         | 115/230  | 80~260        | 9     | 0.15                         |
| OA80AP-11/22-3W** | 1600        | 17            | 18         | 115/230  | 80~260        | 5     | 0.10                         |

\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)

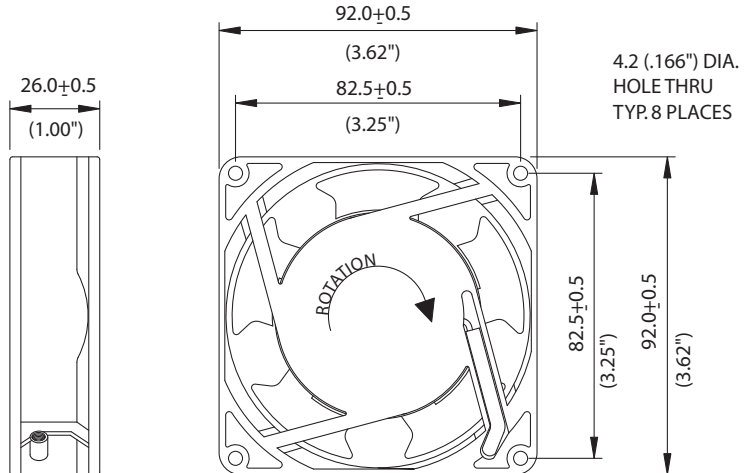
\*\* Indicate "B" (Ball Bearing) or "S" (Sleeve Bearing)

Alternate 5 blade frame style available (m2)

# OA92 Series



AC Fan - 115V, 230V, Dual Voltage  
92 x 25mm(3.62" x 1.0")



|                       |                                                |                                                                                                                                                                                                                                                                                                                                        |  |
|-----------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C)<br><br><u>Dual Voltage</u><br>Connection via 4x leads.<br>Fans can be configured for<br>115V or 230V operation. |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                                                                                                                                                                                                        |  |
| Connection            | 2x Lead Wires 22 AWG (~300mm) or terminals     |                                                                                                                                                                                                                                                                                                                                        |  |
| Motor                 | Shaded pole, impedance protected               |                                                                                                                                                                                                                                                                                                                                        |  |
| Bearing System        | Dual ball or Sleeve                            |                                                                                                                                                                                                                                                                                                                                        |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                                                                                                                                                                                                        |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     | m0                                                                                                                                                                                                                                                                                                                                     |  |

| Model Number      | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure (\"H2O) |
|-------------------|-------------|---------------|------------|----------|---------------|-------|------------------------------|
| OA92AP-11-1*      | 3000        | 35            | 30         | 115      | 80~130        | 13    | .20                          |
| OA92AP-11-2*      | 2300        | 27            | 22         | 115      | 80~130        | 10    | .14                          |
| OA92AP-11-3*      | 1900        | 22            | 19         | 115      | 80~130        | 6     | .09                          |
| OA92AP-22-1*      | 3000        | 35            | 30         | 230      | 160~260       | 13    | .20                          |
| OA92AP-22-2*      | 2300        | 27            | 22         | 230      | 160~260       | 10    | .14                          |
| OA92AP-22-3*      | 1900        | 22            | 19         | 230      | 160~260       | 6     | .09                          |
| OA92AP-11/22-1W** | 3000        | 35            | 30         | 115/230  | 80~260        | 13    | .20                          |
| OA92AP-11/22-2W** | 2300        | 27            | 22         | 115/230  | 80~260        | 10    | .14                          |
| OA92AP-11/22-3W** | 1900        | 22            | 19         | 115/230  | 80~260        | 6     | .09                          |

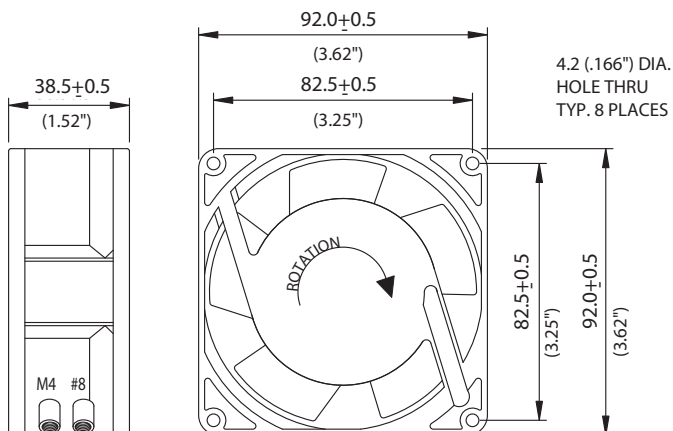
\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)

\*\* Indicate "B" (Ball Bearing) or "S" (Sleeve Bearing)

# OA938 Series



AC Fan - 115V, 230V, Dual Voltage  
92 x 38mm(3.62" x 1.5")



|                       |                                                |                                                                                                                                                                                                                                                                                                                                     |
|-----------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C)<br><br><u>Dual Voltage</u><br>Connection via 4x leads.<br>Fans can be configured for 115V or 230V operation. |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                                                                                                                                                                                                     |
| Connection            | 2x Lead Wires 22 AWG or terminals              |                                                                                                                                                                                                                                                                                                                                     |
| Motor                 | Shaded pole, impedance protected               | m0                                                                                                                                                                                                                                                                                                                                  |
| Bearing System        | Dual ball or Sleeve                            |                                                                                                                                                                                                                                                                                                                                     |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                                                                                                                                                                                                     |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                                                                                                                                                                                                     |

| Airflow (CFM) | Ball Bearing Static Pressure (\"H2O) | Sleeve Bearing Static Pressure (\"H2O) | Third Curve Static Pressure (\"H2O) |
|---------------|--------------------------------------|----------------------------------------|-------------------------------------|
| 0             | 0.22                                 | 0.17                                   | 0.09                                |
| 10            | 0.18                                 | 0.13                                   | 0.06                                |
| 20            | 0.14                                 | 0.10                                   | 0.03                                |
| 30            | 0.12                                 | 0.07                                   | 0.00                                |
| 40            | 0.08                                 | 0.04                                   | -                                   |
| 50            | 0.00                                 | 0.00                                   | -                                   |

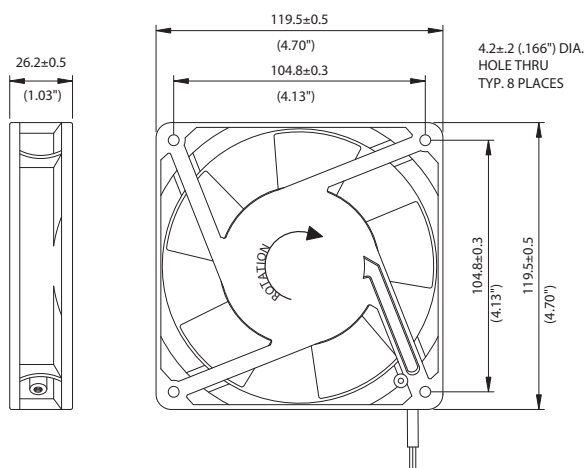
| Model Number       | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure ("H2O) |
|--------------------|-------------|---------------|------------|----------|---------------|-------|-----------------------------|
| OA938AP-11-1*      | 3100        | 50            | 32         | 115      | 80~130        | 9     | .22                         |
| OA938AP-11-2*      | 2400        | 39            | 23         | 115      | 80~130        | 5     | .17                         |
| OA938AP-11-3*      | 1800        | 26            | 19         | 115      | 80~130        | 3     | .10                         |
| OA938AP-22-1*      | 3100        | 50            | 32         | 230      | 160~260       | 9     | .22                         |
| OA938AP-22-2*      | 2400        | 39            | 23         | 230      | 160~260       | 5     | .17                         |
| OA938AP-22-3*      | 1800        | 26            | 19         | 230      | 160~260       | 3     | .10                         |
| OA938AP-11/22-1W** | 3100        | 50            | 32         | 115/230  | 80~260        | 9     | .22                         |
| OA938AP-11/22-2W** | 2400        | 39            | 23         | 115/230  | 80~260        | 5     | .17                         |
| OA938AP-11/22-3W** | 1800        | 26            | 19         | 115/230  | 80~260        | 3     | .10                         |

\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)  
 \*\* Indicate "B" (Ball Bearing) or "S" (Sleeve Bearing)

# OA125 Series



AC Fan - 115V, 230V, Dual Voltage  
120 x 25mm (4.7" x 1.0")



|                       |                                                                                |                                                                                                                    |  |
|-----------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                                                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C                       |  |
| Impeller              | PBT, UL94V-O plastic                                                           |                                                                                                                    |  |
| Connection            | 2x Lead Wires 22 AWG or terminals                                              | <u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C) |  |
| Motor                 | Shaded pole, impedance protected<br>Tachometer available (5VTTL), input 5 ~24V | <u>Dual Voltage</u><br>Connection via 4x leads.<br>Fans can be configured for 115V or 230V operation.              |  |
| Bearing System        | Dual ball or Sleeve                                                            |                                                                                                                    |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC)                                 |                                                                                                                    |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                                                     | m0                                                                                                                 |  |

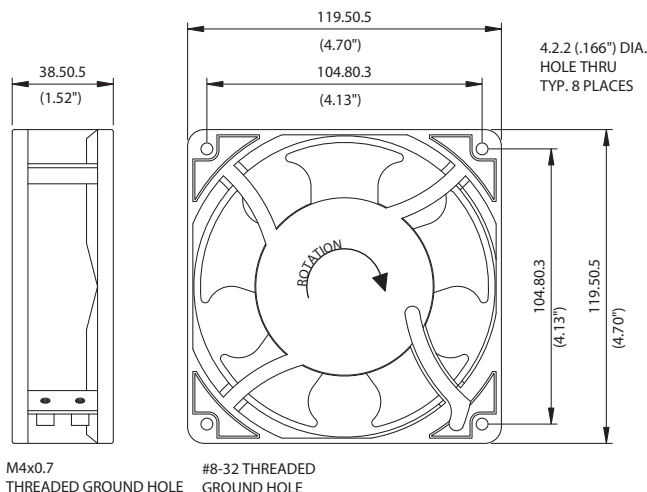
| Model Number       | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure ("H2O) |
|--------------------|-------------|---------------|------------|----------|---------------|-------|-----------------------------|
| OA125AP-11-1*      | 2900        | 81            | 33         | 115      | 80~130        | 13    | .23                         |
| OA125AP-11-2*      | 2300        | 60            | 27         | 115      | 80~130        | 10    | .18                         |
| OA125AP-11-3*      | 1600        | 42            | 22         | 115      | 80~130        | 6     | .12                         |
| OA125AP-22-1*      | 2900        | 81            | 32         | 230      | 160~260       | 13    | .23                         |
| OA125AP-22-2*      | 2300        | 60            | 27         | 230      | 160~260       | 10    | .18                         |
| OA125AP-22-3*      | 1600        | 42            | 22         | 230      | 160~260       | 6     | .12                         |
| OA125AP-11/22-1W** | 2900        | 81            | 32         | 115/230  | 80~260        | 13    | .23                         |
| OA125AP-11/22-2W** | 2300        | 60            | 27         | 115/230  | 80~260        | 10    | .18                         |
| OA125AP-11/22-3W** | 1600        | 42            | 22         | 115/230  | 80~260        | 6     | .12                         |

\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)  
 \*\* Indicate "B" (Ball Bearing) or "S" (Sleeve Bearing)  
 Frame Style - m0

# OA109 Series



AC Fan - 115V, 230V, Dual Voltage  
120x38mm (4.7"x 1.5")



|                       |                                                   |                                                                                                                                                                                                                                                                                                                                                           |  |
|-----------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                                  | <p><u>Operating Temperature</u><br/> Ball Bearing<br/> -20C ~ +80C<br/> Sleeve Bearing<br/> -10C ~ +50C</p> <p><u>Life Expectancy</u><br/> Ball Bearing<br/> 60,000 hours (L10 at 40C)<br/> Sleeve Bearing<br/> 30,000 hours (L10 at 40C)</p> <p><u>Dual Voltage</u><br/> Fans can be configured to run on 115V or 230V.<br/> Connection via 4x leads</p> |  |
| Impeller              | PBT, UL94V-O plastic                              |                                                                                                                                                                                                                                                                                                                                                           |  |
| Connection            | 2x 300mm Lead wires (22AWG) or terminals          |                                                                                                                                                                                                                                                                                                                                                           |  |
| Motor                 | AC shaded pole, impedance and thermally protected |                                                                                                                                                                                                                                                                                                                                                           |  |
| Bearing System        | Dual ball or Sleeve                               |                                                                                                                                                                                                                                                                                                                                                           |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)       |                                                                                                                                                                                                                                                                                                                                                           |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                        |                                                                                                                                                                                                                                                                                                                                                           |  |

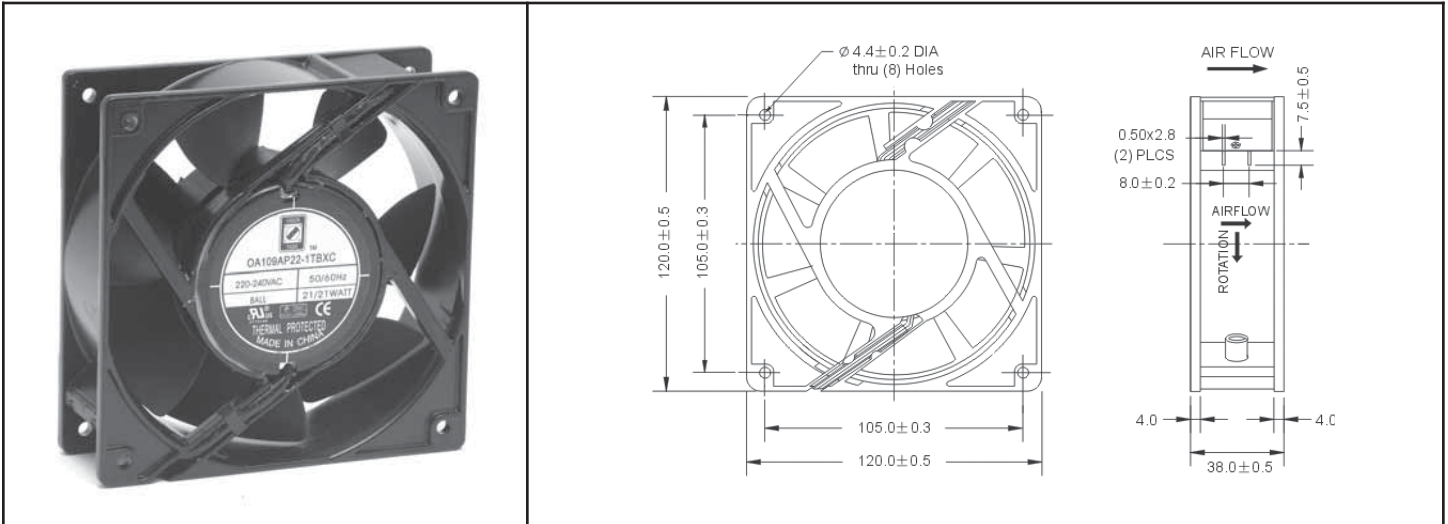
| Model Number       | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure ("H2O) |
|--------------------|-------------|---------------|------------|----------|---------------|-------|-----------------------------|
| OA109AP-11-1*      | 3000        | 110           | 42         | 115      | 80~130        | 15    | .28                         |
| OA109AP-11-2*      | 2300        | 71            | 35         | 115      | 80~130        | 11    | .24                         |
| OA109AP-11-3*      | 1600        | 51            | 25         | 115      | 80~130        | 8     | .15                         |
| OA109AP-22-1*      | 3000        | 110           | 42         | 230      | 160~260       | 15    | .28                         |
| OA109AP-22-2*      | 2300        | 71            | 35         | 230      | 160~260       | 11    | .24                         |
| OA109AP-22-3*      | 1600        | 51            | 25         | 230      | 160~260       | 8     | .15                         |
| OA109AP-11/22-1W** | 3000        | 110           | 42         | 115/230  | 80~260        | 15    | .28                         |
| OA109AP-11/22-2W** | 2300        | 71            | 35         | 115/230  | 80~260        | 11    | .24                         |
| OA109AP-11/22-3W** | 1600        | 51            | 25         | 115/230  | 80~260        | 8     | .15                         |

\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)  
\*\* Indicate "B" (Ball Bearing) or "S" (Sleeve Bearing)

# OA109 'XC Series'



AC Fan - 115V, 230V  
120x38mm (4.7"x 1.5")



|                       |                                                |                                                                                                                                                                |  |
|-----------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-10C ~ +65C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br>(* Wires ~300mm) |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                                |  |
| Connection            | 2x Lead wires (24AWG*) or Terminals            |                                                                                                                                                                |  |
| Motor                 | AC capacitor drive, thermally protected        |                                                                                                                                                                |  |
| Bearing System        | Dual ball                                      |                                                                                                                                                                |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                                |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                                |  |

| Part Number            | OA109AP-11-1 * B XC            | OA109AP-22-1 * B XC            |
|------------------------|--------------------------------|--------------------------------|
| Nominal Voltage        | 120 VAC                        | 230 VAC                        |
| Rated Power (50/60 Hz) | 20 / 21 W                      | 21 / 22 W                      |
| Nominal Current        | 0.17 / 0.18 A                  | 0.10 / 0.11 A                  |
| Frequency (Hz)         | 50 / 60                        | 50 / 60                        |
| Rated Speed (RPM)      | 2800 / 3300                    | 2800 / 3300                    |
| Airflow (CFM)          | 110 / 131                      | 110 / 131                      |
| Noise Level (dB)       | 43 / 47                        | 43 / 47                        |
| Max. Static Pressure   | 0.38" / 0.49" H <sub>2</sub> O | 0.38" / 0.49" H <sub>2</sub> O |

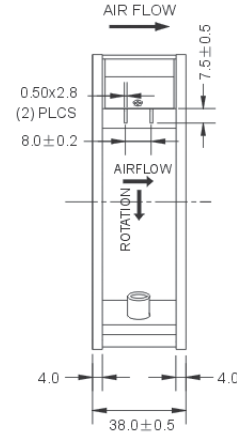
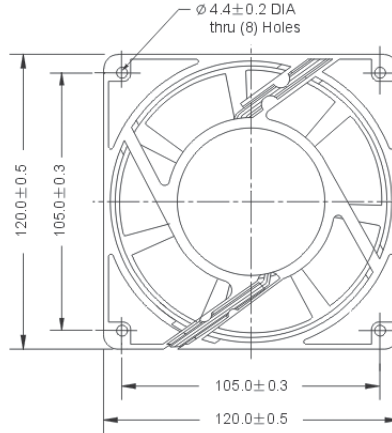
\* Insert "T" to specify Terminal or "W" to specify Wire leads

# OA4715 Series



AC Fan - 115V, 230V  
120x38mm (4.7"x 1.5")

AC \*\*\*  
challenger



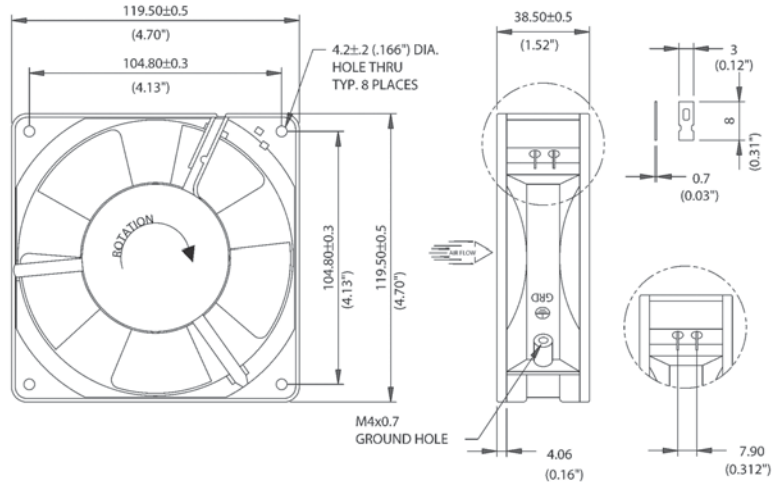
|                       |                                                |                                                                                                                                                  |  |
|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-10C ~ +70C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br>m4 |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                  |  |
| Connection            | Terminals                                      |                                                                                                                                                  |  |
| Motor                 | AC shaded pole, impedance protected            |                                                                                                                                                  |  |
| Bearing System        | Dual ball                                      |                                                                                                                                                  |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                  |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                  |  |

| Part Number          | OA4715-12TB            | OA4715-23TB            |
|----------------------|------------------------|------------------------|
| Nominal Voltage      | 120 VAC                | 230 VAC                |
| Nominal Current      | 0.30 A                 | 0.23 A                 |
| Rated Power          | 24 W (60Hz)            | 23 W (60Hz)            |
| Rated Speed (RPM)    | 3000                   | 3000                   |
| Airflow (CFM)        | 110                    | 110                    |
| Noise Level (dB)     | 44                     | 44                     |
| Max. Static Pressure | 0.37" H <sub>2</sub> O | 0.37" H <sub>2</sub> O |

# OA109 (AIOS)



AC Fan - 115V, 230V, Reverse Airflow  
120x38mm (4.7"x 1.5")



|                       |                                             |                                                                                                                                                                                                                                                                                    |  |
|-----------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                            | <p><u>Operating Temperature</u><br/>Ball Bearing<br/>-20C ~ +80C<br/>Sleeve Bearing<br/>-10C ~ +50C</p> <p><u>Life Expectancy</u><br/>Ball Bearing<br/>60,000 hours (L10 at 40C)<br/>Sleeve Bearing<br/>30,000 hours (L10 at 40C)</p> <p><u>AIOS</u><br/>Air Input Over Struts</p> |  |
| Impeller              | PBT, UL94V-O plastic                        |                                                                                                                                                                                                                                                                                    |  |
| Connection            | 2x 300mm Lead wires (22AWG) or terminals    |                                                                                                                                                                                                                                                                                    |  |
| Motor                 | AC shaded pole, impedance protected         |                                                                                                                                                                                                                                                                                    |  |
| Bearing System        | Dual ball or Sleeve                         |                                                                                                                                                                                                                                                                                    |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC) |                                                                                                                                                                                                                                                                                    |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                  |                                                                                                                                                                                                                                                                                    |  |

| Model Number     | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure (\"H2O) |
|------------------|-------------|---------------|------------|----------|---------------|-------|------------------------------|
| OA109AP-11-1 * R | 3100        | 99            | 47         | 115      | 80~130        | 15    | .33                          |
| OA109AP-11-2 * R | 2750        | 85            | 45         | 115      | 80~130        | 13    | .25                          |
| OA109AP-11-3 * R | 2300        | 75            | 38         | 115      | 80~130        | 12    | .16                          |
| OA109AP-22-1 * R | 3100        | 99            | 47         | 230      | 160~260       | 15    | .33                          |
| OA109AP-22-2 * R | 2750        | 85            | 45         | 230      | 160~260       | 13    | .25                          |
| OA109AP-22-3 * R | 2300        | 75            | 38         | 230      | 160~260       | 12    | .16                          |

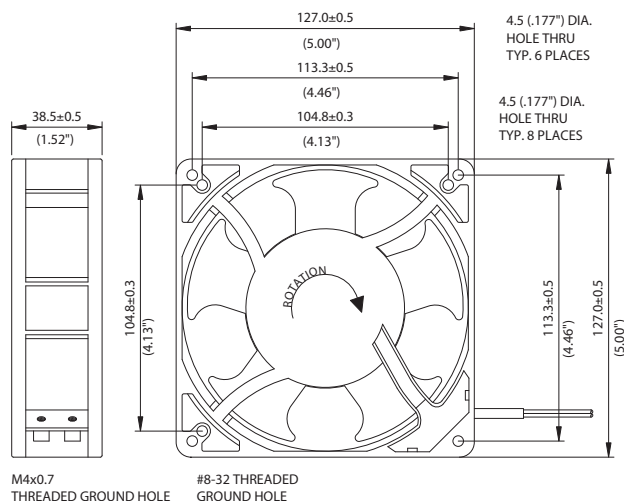
\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)



MODEL OA119AP-11-1

|          |            |
|----------|------------|
| 110/120V | 50/60HZ    |
| BALL     | 1G/14 WATT |

IMPEDANCE PROTECTED  
MADE IN TAIWAN



|                       |                                                                                |                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Frame                 | Diecast Aluminum                                                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C                       |
| Impeller              | PBT, UL94V-O plastic                                                           | <u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C) |
| Connection            | 2x Lead Wires 22 AWG or terminals                                              | <u>Dual Voltage</u><br>Connection via 4x leads.<br>Fans can be configured for 115V or 230V operation.              |
| Motor                 | Shaded pole, impedance protected<br>Tachometer available (5VTTL), input 5 ~24V |                                                                                                                    |
| Bearing System        | Dual ball or Sleeve                                                            |                                                                                                                    |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC)                                 |                                                                                                                    |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                                                     |                                                                                                                    |

The graph shows the performance of three fan models. The y-axis represents Static Pressure in inches of water (H2O), ranging from 0.00 to 0.25. The x-axis represents Airflow in cubic feet per minute (CFM), ranging from 0 to 120. Three curves are plotted: a top curve (Sleeve Bearing, -10C ~ +50C), a middle curve (Ball Bearing, -20C ~ +80C), and a bottom curve (Sleeve Bearing, -10C ~ +50C). All curves show a decrease in static pressure as airflow increases, with the top curve maintaining the highest pressure across the range.

| Airflow (CFM) | Static Pressure (H2O) - Top Curve | Static Pressure (H2O) - Middle Curve | Static Pressure (H2O) - Bottom Curve |
|---------------|-----------------------------------|--------------------------------------|--------------------------------------|
| 0             | 0.24                              | 0.15                                 | 0.10                                 |
| 40            | 0.16                              | 0.09                                 | 0.05                                 |
| 80            | 0.13                              | 0.06                                 | 0.00                                 |
| 120           | 0.05                              | 0.00                                 | -                                    |

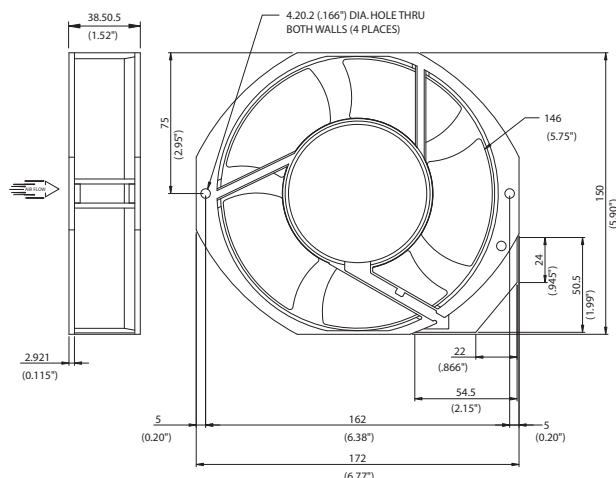
| Model Number  | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure ("H2O) |
|---------------|-------------|---------------|------------|----------|---------------|-------|-----------------------------|
| OA119AP-11-1* | 3000        | 130           | 46         | 115      | 80~130        | 14    | .24                         |
| OA119AP-11-2* | 2300        | 95            | 37         | 115      | 80~130        | 10    | .15                         |
| OA119AP-11-3* | 1400        | 74            | 28         | 115      | 80~130        | 7     | .10                         |
| OA119AP-22-1* | 3000        | 130           | 46         | 230      | 160~260       | 14    | .24                         |
| OA119AP-22-2* | 2300        | 95            | 37         | 230      | 160~260       | 10    | .15                         |
| OA119AP-22-3* | 1400        | 74            | 28         | 230      | 160~260       | 7     | .10                         |

\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing), "TS" (Terminal, Sleeve Bearing), "WS" (12" Wire Leads, Sleeve Bearing)

# OA172SAPL Series



172 x 150 x 38mm  
(6.7"x 5.9"x 1.5")



|                       |                                                |                                                                                                                                                  |  |
|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br>m2 |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                  |  |
| Connection            | 2x Lead Wires or Terminals                     |                                                                                                                                                  |  |
| Motor                 | Capacitor drive, thermally protected           |                                                                                                                                                  |  |
| Bearing System        | Dual ball                                      |                                                                                                                                                  |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                  |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                  |  |

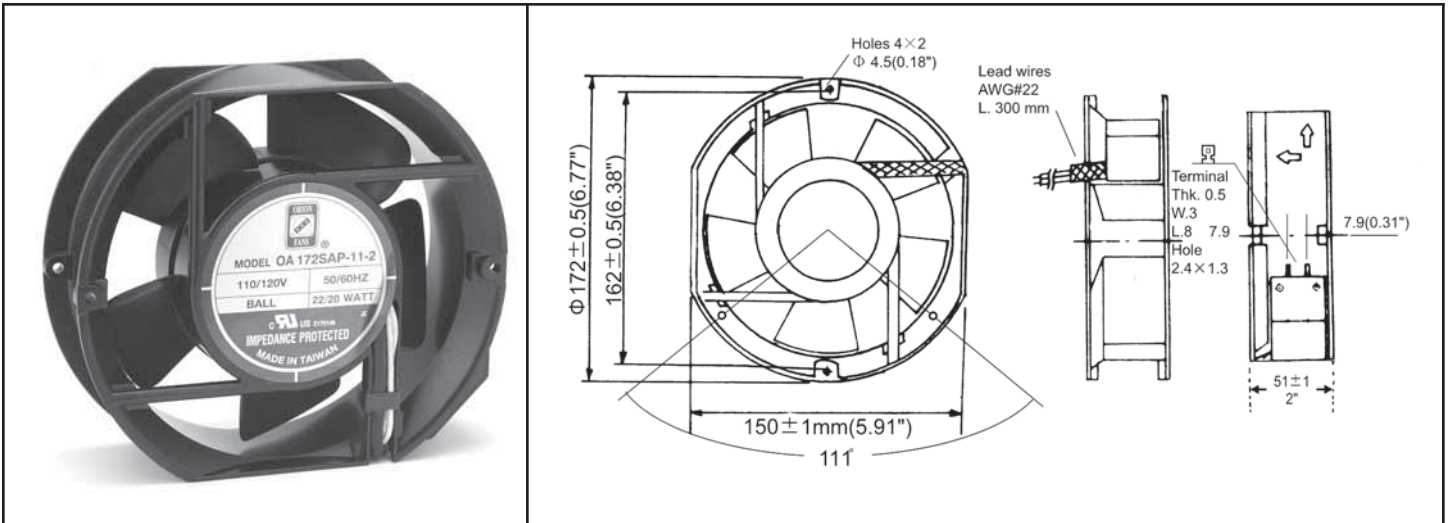
| Model Number     | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure (\"H2O) |
|------------------|-------------|---------------|------------|----------|---------------|-------|------------------------------|
| OA172SAPL-11-1 * | 3400        | 228           | 58         | 115      | 103~126       | 28    | 0.87                         |
| OA172SAPL-11-2 * | 2750        | 162           | 50         | 115      | 103~126       | 27    | 0.35                         |
| OA172SAPL-11-3 * | 1700        | 103           | 44         | 115      | 103~126       | 26    | 0.26                         |
| OA172SAPL-22-1 * | 3400        | 228           | 58         | 230      | 160~260       | 28    | 0.87                         |
| OA172SAPL-22-3 * | 1700        | 103           | 44         | 230      | 160~260       | 26    | 0.26                         |

\* Indicate "TB" (Terminal Ball Bearing), "WB" (12" Wire Leads, Ball Bearing)

# OA172S Series \*



172 x 150 x 51mm  
(6.7"x 5.9" x 2.0")



|                       |                                                |                                                                                                                                                  |  |
|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-40C ~ +70C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br>m0 |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                  |  |
| Connection            | 2x Lead Wires or Terminals                     |                                                                                                                                                  |  |
| Motor                 | Capacitor drive, impedance protected           |                                                                                                                                                  |  |
| Bearing System        | Dual ball                                      |                                                                                                                                                  |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                  |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                  |  |

| Model Number      | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure (\"H2O) |
|-------------------|-------------|---------------|------------|----------|---------------|-------|------------------------------|
| OA172SAP-11-1( )B | 3200        | 235           | 52         | 115      | 80~130        | 35    | 0.70                         |
| OA172SAP-11-2( )B | 2400        | 170           | 42         | 115      | 80~130        | 20    | 0.49                         |
| OA172SAP-11-3( )B | 1800        | 135           | 33         | 115      | 80~130        | 16    | 0.43                         |
| OA172SAP-22-1( )B | 3200        | 235           | 52         | 230      | 160~260       | 35    | 0.70                         |
| OA172SAP-22-2( )B | 2400        | 170           | 42         | 230      | 160~260       | 20    | 0.49                         |
| OA172SAP-22-3( )B | 1800        | 135           | 33         | 230      | 160~260       | 16    | 0.43                         |

( ) Indicate "T" for Terminal or "W" for Wire Leads

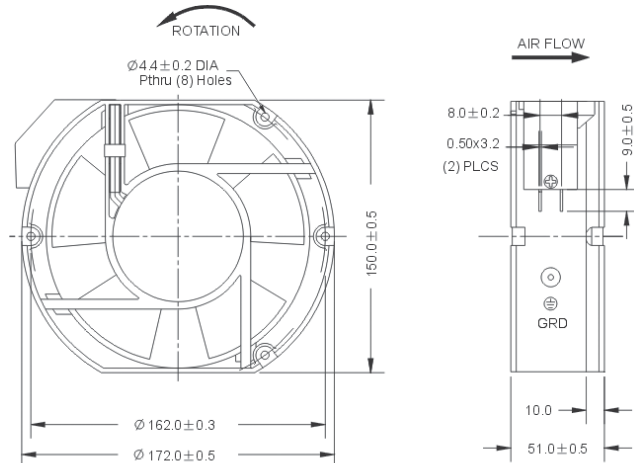


\* Use prefix OA172AP instead of OA172SAP to specify round frame instead of the flat-sided, "stackable" version.

# OA172 'XC Series'



172 x 150 x 51mm  
(6.7"x 5.9" x 2.0")



|                       |                                                |                                                                                                                                        |  |
|-----------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-40C ~ +70C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C) |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                        |  |
| Connection            | 2x Lead Wires or Terminals                     |                                                                                                                                        |  |
| Motor                 | Capacitor drive, thermally protected           |                                                                                                                                        |  |
| Bearing System        | Dual ball (Sleeve available)                   |                                                                                                                                        |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                        |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                        |  |

| Part Number          | OA172SAP-11-1 ( )B XC  | OA172SAP-22-1 ( )B XC  |
|----------------------|------------------------|------------------------|
| Nominal Voltage      | 120 VAC                | 230 VAC                |
| Voltage Range        | 100 ~ 125 VAC          | 200 ~ 240 VAC          |
| Rated Power          | 50 W (60Hz)            | 50 W (60Hz)            |
| Rated Speed (RPM)    | 3300                   | 3300                   |
| Airflow (CFM)        | 300                    | 300                    |
| Noise Level (dB)     | 61                     | 61                     |
| Max. Static Pressure | 0.78" H <sub>2</sub> O | 0.78" H <sub>2</sub> O |

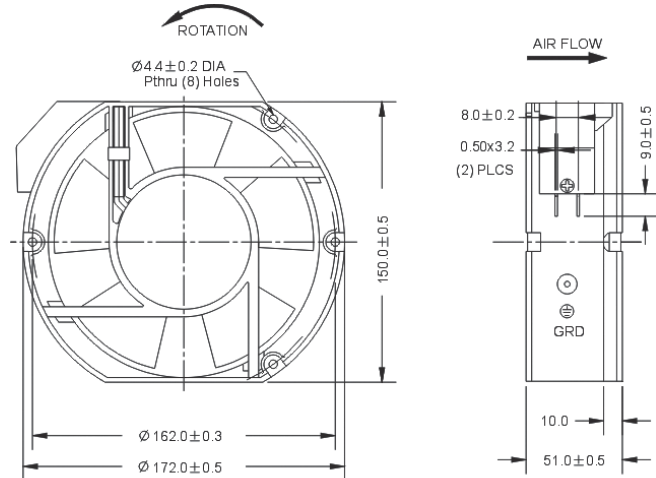
( ) Indicate "T" for Terminal or "W" for Wire Leads

# OA5920 'Challenger Series'



172 x 150 x 51mm  
(6.7"x 5.9" x 2.0")

AC ★★★  
challenger



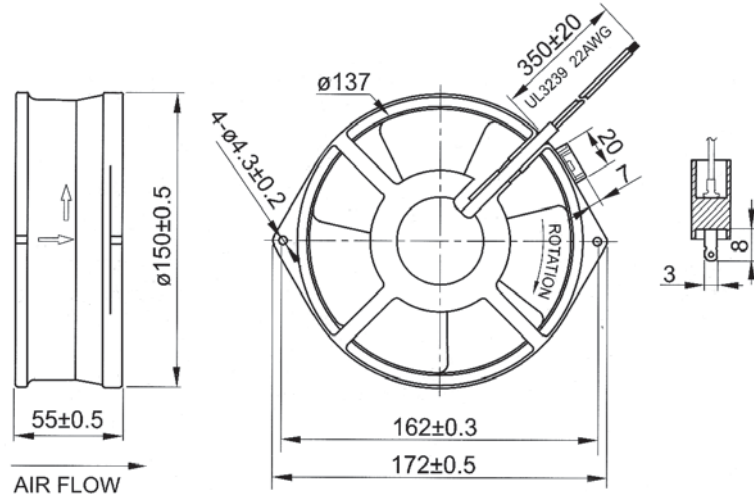
|                       |                                                |                                                                                                                                                  |                                                                                             |
|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-10C ~ +70C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br>m4 | <p>Static Pressure ("H<sub>2</sub>O") vs Airflow (CFM) graph showing performance curve.</p> |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                  |                                                                                             |
| Connection            | Terminals                                      |                                                                                                                                                  |                                                                                             |
| Motor                 | Shaded pole, thermally protected               |                                                                                                                                                  |                                                                                             |
| Bearing System        | Dual ball (Sleeve available)                   |                                                                                                                                                  |                                                                                             |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                  |                                                                                             |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                  |                                                                                             |

| Part Number          | OA5920-12TB            | OA5920-23TB            |
|----------------------|------------------------|------------------------|
| Nominal Voltage      | 120 VAC                | 230 VAC                |
| Voltage Range        | 80 ~ 130 VAC           | 160 ~ 260 VAC          |
| Rated Power          | 41 W (60Hz)            | 41 W (60Hz)            |
| Rated Speed (RPM)    | 3000                   | 3000                   |
| Airflow (CFM)        | 180                    | 180                    |
| Noise Level (dB)     | 55                     | 55                     |
| Max. Static Pressure | 0.51" H <sub>2</sub> O | 0.51" H <sub>2</sub> O |

# OA162 Series



172 x 55mm  
(6.7" x 2.2")



|                       |                                                |                                                                                                                                        |  |
|-----------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-40C ~ +70C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C) |  |
| Connection            | Terminals or Lead Wires                        |                                                                                                                                        |  |
| Motor                 | Shaded Pole, thermally protected               |                                                                                                                                        |  |
| Bearing System        | Dual ball (Sleeve available)                   |                                                                                                                                        |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                        |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                        |  |

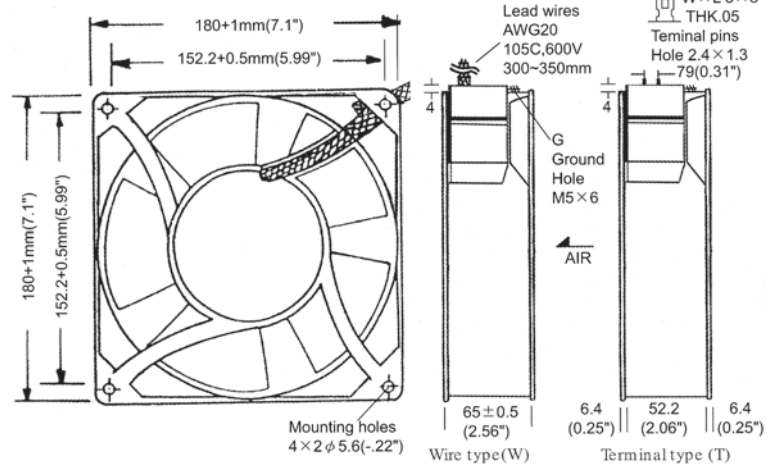
| Part Number          | OA162-5E-115 * B       | OA162-5E-230 * B       |
|----------------------|------------------------|------------------------|
| Nominal Voltage      | 120 VAC                | 230 VAC                |
| Voltage Range        | 80 ~ 130 VAC           | 160 ~ 260 VAC          |
| Rated Power          | 31 W (60Hz)            | 31 W (60Hz)            |
| Rated Speed (RPM)    | 3400                   | 3400                   |
| Airflow (CFM)        | 241                    | 241                    |
| Noise Level (dB)     | 66                     | 66                     |
| Max. Static Pressure | 0.73" H <sub>2</sub> O | 0.73" H <sub>2</sub> O |

\* Indicate "T" for Terminal or "W" for Wire leads

# OA180APL Series



AC Fan - 115V, 230V  
180 x 65mm (7.1" x 2.6")



|                       |                                                                             |                                                                                                                                                                                                  |                                                                                                            |
|-----------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Frame                 | Diecast Aluminum                                                            | <p><u>Operating Temperature</u><br/>Ball Bearing<br/>-20C ~ +80C</p> <p><u>Life Expectancy</u><br/>Ball Bearing<br/>60,000 hours (L10 at 40C)</p> <p>Available as dual speed or dual voltage</p> | <p>Static Pressure ("H2O) vs Airflow (CFM) graph showing performance curves for models -1, -2, and -3.</p> |
| Impeller              | PBT, UL94V-O plastic                                                        |                                                                                                                                                                                                  |                                                                                                            |
| Connection            | 2x Lead Wires 20 AWG or terminals                                           |                                                                                                                                                                                                  |                                                                                                            |
| Motor                 | Single phase Capacitor induction, 2/4 pole, inner rotor, thermal protection |                                                                                                                                                                                                  |                                                                                                            |
| Bearing System        | Dual ball                                                                   |                                                                                                                                                                                                  |                                                                                                            |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC)                              |                                                                                                                                                                                                  |                                                                                                            |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                                                  |                                                                                                                                                                                                  |                                                                                                            |

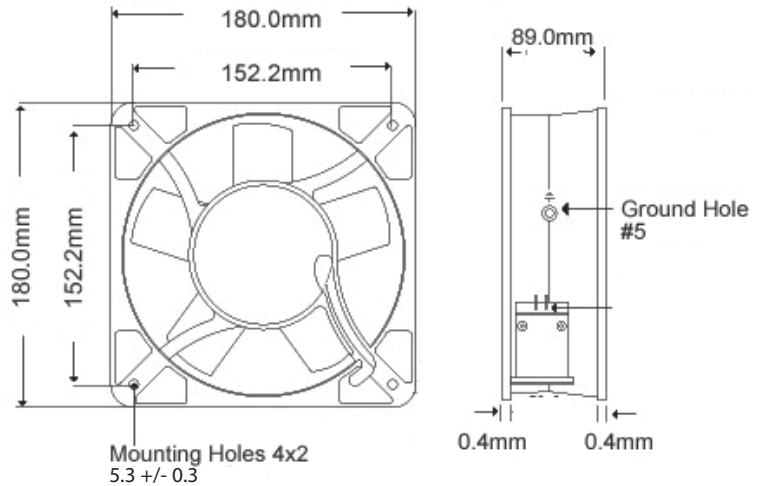
| Model Number    | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure ("H2O) |
|-----------------|-------------|---------------|------------|----------|---------------|-------|-----------------------------|
| OA180APL-11-1 * | 3300        | 405           | 60         | 115      | 60~130        | 70    | 0.83                        |
| OA180APL-11-2 * | 2200        | 280           | 47         | 115      | 60~130        | 50    | 0.58                        |
| OA180APL-11-3 * | 1650        | 210           | 40         | 115      | 60~130        | 38    | 0.43                        |
| OA180APL-22-1 * | 3300        | 405           | 60         | 230      | 120~260       | 70    | 0.83                        |
| OA180APL-22-2 * | 2200        | 280           | 47         | 230      | 120~260       | 50    | 0.58                        |
| OA180APL-22-3 * | 1650        | 210           | 40         | 230      | 120~260       | 38    | 0.43                        |

\* Indicate "TB" for terminal or "WB" for wire leads

# OA180AP Series



AC Fan - 115V, 230V  
180 x 89mm (7.1" x 3.5")



|                       |                                                |                                                                                                                                                            |  |
|-----------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br>CSA Approved |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                            |  |
| Connection            | 2x Lead Wires 20 AWG or terminals              |                                                                                                                                                            |  |
| Motor                 | Capacitor drive, thermally protected           |                                                                                                                                                            |  |
| Bearing System        | Dual ball                                      |                                                                                                                                                            |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                            |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                            |  |

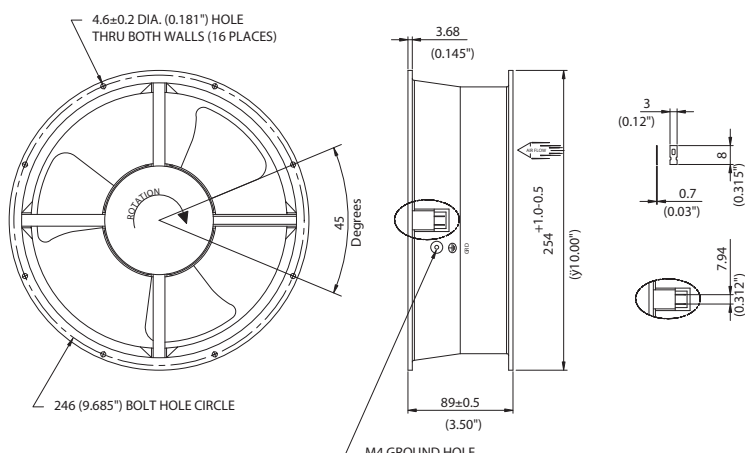
| Part Number                 | OA180AP-11-1 *          | OA180AP-22-1 *         |
|-----------------------------|-------------------------|------------------------|
| Nominal AC Voltage          | 115 (50/60 Hz)          | 230                    |
| Voltage Range               | 60 ~ 130 VAC            | 120 ~ 260 VAC          |
| Rated Power (50/60 Hz)      | 70 W                    | 70 W                   |
| RPM (50/60 Hz)              | 3350                    | 3350                   |
| Airflow - CFM (50/60 Hz)    | 375                     | 375                    |
| Noise Level - dB (50/60 Hz) | 62                      | 62                     |
| Max. Static Pressure        | 00.86 "H <sub>2</sub> O | 0.86 "H <sub>2</sub> O |

\* Indicate "TB" for terminal or "WB" for wire leads

# OA254 Series



254 x 89mm  
(10.0" x 3.5")



|                       |                                                    |                                                                                                                                                                                                                     |  |
|-----------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                                   | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br><u>Approvals</u><br>UL/cUL: E170149<br>TUV: R50133700<br>CE<br><br>m2 |  |
| Impeller              | PBT, UL94V-O plastic                               |                                                                                                                                                                                                                     |  |
| Connection            | 2x Lead Wires or Terminals                         |                                                                                                                                                                                                                     |  |
| Motor                 | Capacitor drive, impedance and thermally protected |                                                                                                                                                                                                                     |  |
| Bearing System        | Dual ball                                          |                                                                                                                                                                                                                     |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC)     |                                                                                                                                                                                                                     |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                         |                                                                                                                                                                                                                     |  |

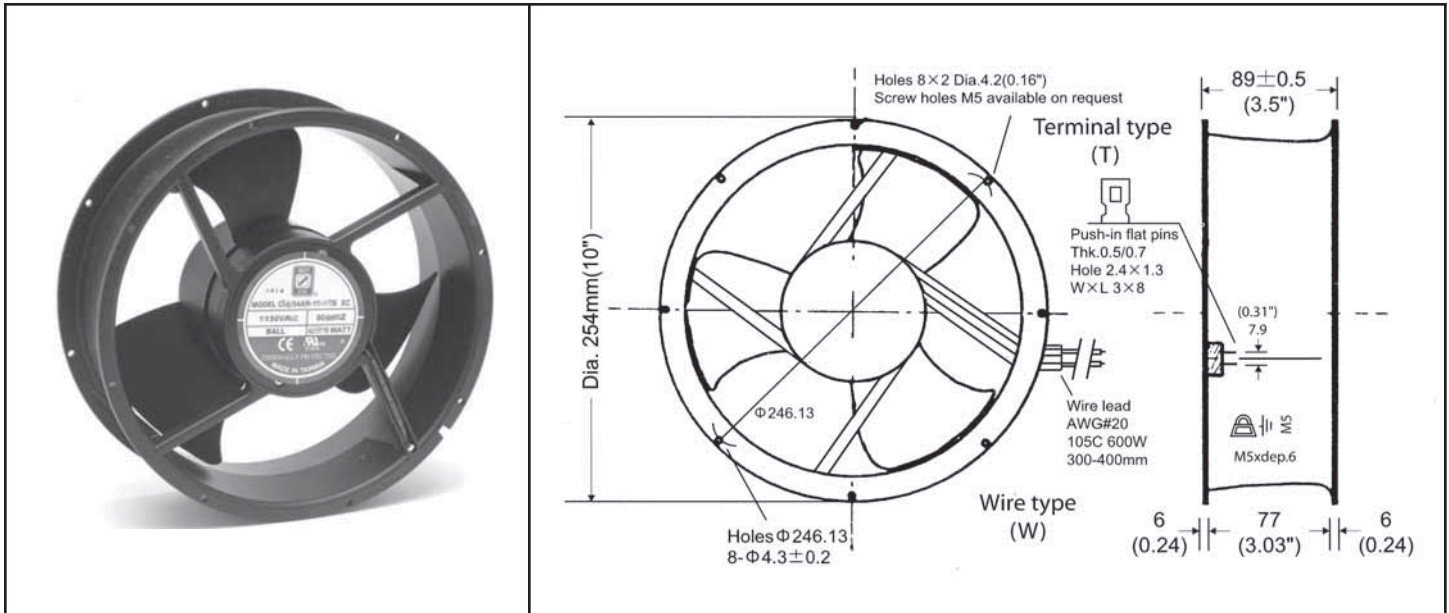
| Part Number                     | OA254AP-11-1 *                | OA254AP-22-1 *                |
|---------------------------------|-------------------------------|-------------------------------|
| Nominal Voltage                 | 115VAC                        | 230VAC                        |
| Voltage Range                   | 80 ~ 130VAC                   | 160 ~ 260VAC                  |
| Rated Power (50/60 Hz)          | 31/35 W - (0.30 / 0.29 A)     | 31/35 W - (0.14 / 0.14 A)     |
| Rated Speed (50/60 Hz)          | 1400 / 1650                   | 1400 / 1650                   |
| Airflow - CFM (50/60 Hz)        | 460 / 547                     | 460 / 547                     |
| Noise Level - dB (50/60 Hz)     | 52 / 55                       | 52 / 55                       |
| Max. Static Pressure (50/60 Hz) | 0.32 / 0.39" H <sub>2</sub> O | 0.32 / 0.39" H <sub>2</sub> O |

\* Indicate "TB" for terminal type or "WB" for Wire leads (300mm)

# OA254AN Series High Performance



254 x 89mm  
(10.0" x 3.5")



|                       |                                                |                                                                                                                                                                                                                     |  |
|-----------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                               | <u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br><u>Approvals</u><br>UL/cUL: E170149<br>TUV: R50133700<br>CE<br><br>m0 |  |
| Impeller              | PBT, UL94V-O plastic                           |                                                                                                                                                                                                                     |  |
| Connection            | 2x Lead Wires or Terminals                     |                                                                                                                                                                                                                     |  |
| Motor                 | Capacitor drive, thermally protected           |                                                                                                                                                                                                                     |  |
| Bearing System        | Dual ball                                      |                                                                                                                                                                                                                     |  |
| Insulation Resistance | >100M ohm between lead-wire and frame (500VDC) |                                                                                                                                                                                                                     |  |
| Dielectric Strength   | 1 min at 1500 VAC, 50/60Hz                     |                                                                                                                                                                                                                     |  |

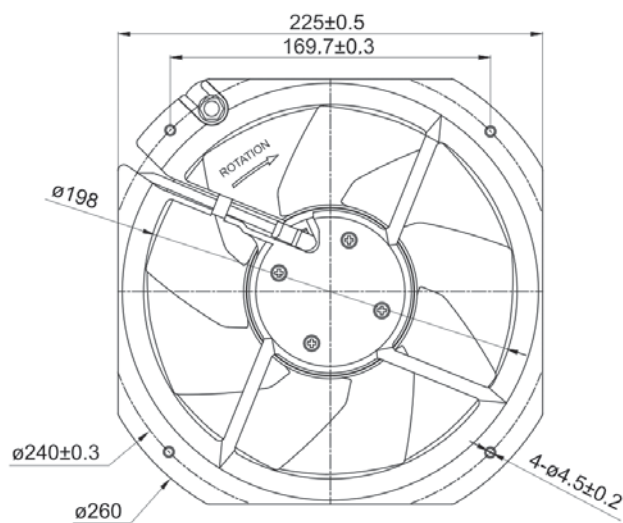
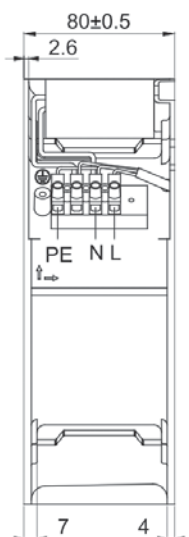
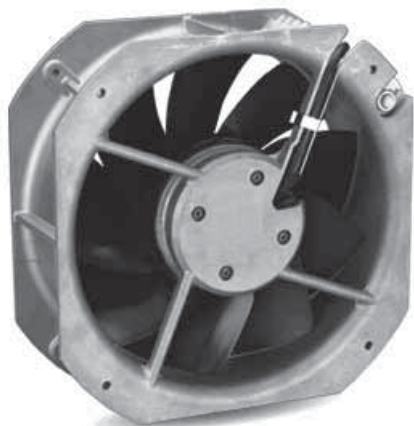
| Model Number      | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts AC | Voltage Range | Watts | Max. Static Pressure (H2O) |
|-------------------|-------------|---------------|------------|----------|---------------|-------|----------------------------|
| OA254AN-11-1 * XC | 2700        | 850           | 69         | 115      | 80~130        | 75    | 1.14                       |
| OA254AN-11-1 *    | 2200        | 700           | 65         | 115      | 80~130        | 70    | 0.80                       |
| OA254AN-11-2 *    | 2000        | 600           | 55         | 115      | 80~130        | 45    | 0.59                       |
| OA254AN-11-3 *    | 1100        | 320           | 48         | 115      | 80~130        | 32    | 0.31                       |
| OA254AN-22-1 * XC | 2700        | 850           | 69         | 230      | 160~260       | 75    | 1.14                       |
| OA254AN-22-1 *    | 2200        | 700           | 65         | 230      | 160~260       | 70    | 0.80                       |
| OA254AN-22-2 *    | 2000        | 600           | 55         | 230      | 160~260       | 45    | 0.59                       |
| OA254AN-22-3 *    | 1100        | 320           | 48         | 230      | 160~260       | 32    | 0.31                       |

\* Indicate "TB" for terminal type or "WB" for Wire leads (300mm)

# OA225 Series



225 x 80mm  
(8.86" x 3.15")

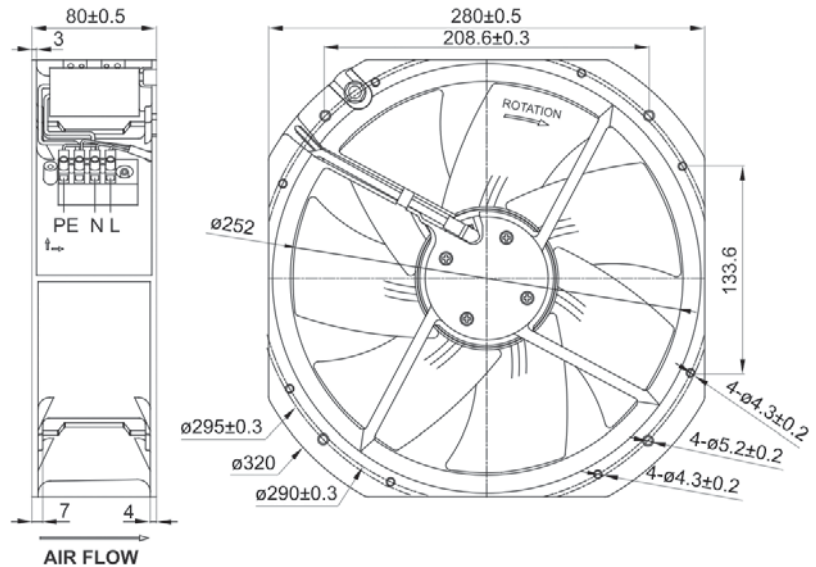


|                     |                                      |                                                                                                                                        |  |
|---------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame               | Diecast Aluminum                     | <u>Operating Temperature</u><br>Ball Bearing<br>-40C ~ +60C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>40,000 hours (L10 at 40C) |  |
| Impeller            | Metal                                |                                                                                                                                        |  |
| Connection          | Terminal Block, 18AWG                |                                                                                                                                        |  |
| Motor               | Capacitor drive, thermally protected |                                                                                                                                        |  |
| Bearing System      | Dual ball                            |                                                                                                                                        |  |
| Insulation          | Class F                              |                                                                                                                                        |  |
| Dielectric Strength | 1 min at 1500 VAC, 50/60Hz           |                                                                                                                                        |  |

|                              |                                |                                |
|------------------------------|--------------------------------|--------------------------------|
| Part Number                  | OA225AN-11-1TB18               | OA225AN-22-1TB18               |
| Nominal Voltage              | 115VAC                         | 230VAC                         |
| Voltage Range                | 100 ~ 125VAC                   | 200 ~ 240VAC                   |
| Rated Power                  | 65 / 72 W                      | 74 / 80 W                      |
| Nominal Current              | 0.58 / 0.70 A                  | 0.29 / 0.35 A                  |
| Rated Speed (RPM) 50/60Hz    | 2550 / 2800                    | 2550 / 2800                    |
| Airflow (CFM) 50/60Hz        | 530 / 600                      | 530 / 600                      |
| Noise Level (dB) 50/60HZ     | 59 / 61                        | 59 / 61                        |
| Max. Static Pressure 50/60Hz | 0.55" / 0.67" H <sub>2</sub> O | 0.55" / 0.67" H <sub>2</sub> O |



280 x 80mm  
(11.0" x 3.15")



|                     |                                      |                                                                                                                                                                                                           |
|---------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame               | Diecast Aluminum                     | <u>Operating Temperature</u><br>Ball Bearing<br>-40C ~ +60C<br><br><u>Life Expectancy</u><br>Ball Bearing<br>40,000 hours (L10 at 40C)<br><br><u>Approvals</u><br>UL/cUL: E170149<br>TUV: R50133561<br>CE |
| Impeller            | Metal                                |                                                                                                                                                                                                           |
| Connection          | Terminal Block, 18AWG                |                                                                                                                                                                                                           |
| Motor               | Capacitor drive, thermally protected |                                                                                                                                                                                                           |
| Bearing System      | Dual ball                            |                                                                                                                                                                                                           |
| Insulation          | Class F                              |                                                                                                                                                                                                           |
| Dielectric Strength | 1 min at 1500 VAC, 50/60Hz           |                                                                                                                                                                                                           |

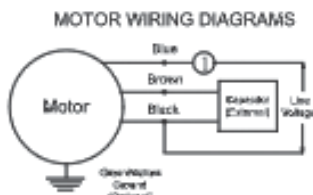
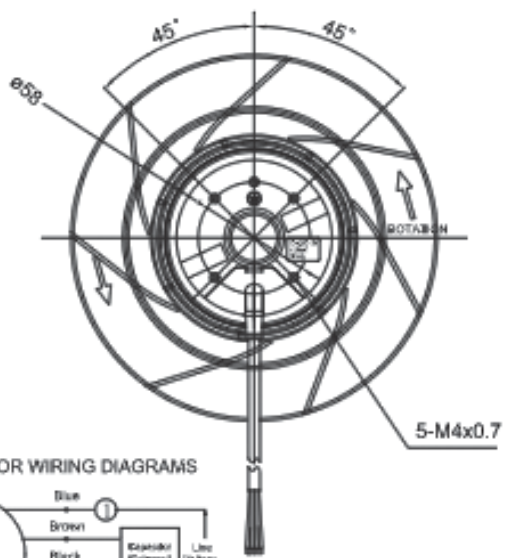
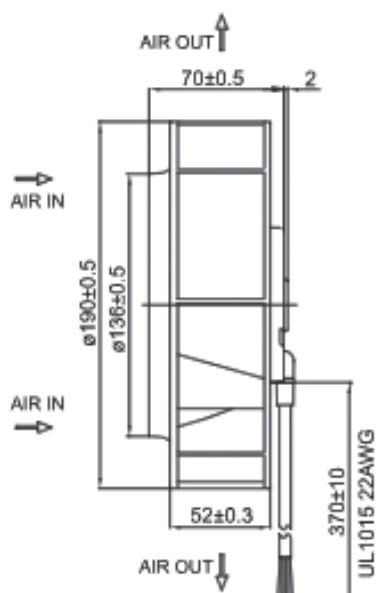
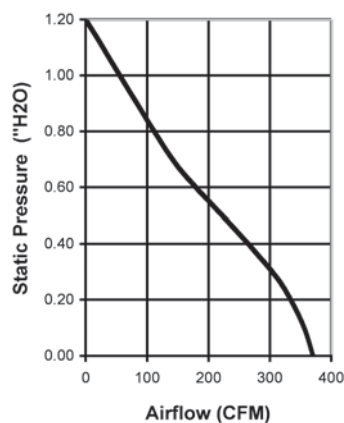
| Airflow (CFM) | Static Pressure (\"H2O) |
|---------------|-------------------------|
| 0             | 0.80                    |
| 300           | 0.55                    |
| 600           | 0.35                    |
| 900           | 0.20                    |
| 1200          | 0.00                    |

|                      |                        |                        |
|----------------------|------------------------|------------------------|
| Part Number          | OA280AN-11-TB18        | OA280AN-22-TB18        |
| Nominal Voltage      | 115VAC                 | 230VAC                 |
| Voltage Range        | 100 ~ 125VAC           | 200 ~ 240VAC           |
| Rated Power          | 148 W                  | 158 W                  |
| Nominal Current      | 1.5 A                  | 0.82 A                 |
| Rated Speed (RPM)    | 2700                   | 2700                   |
| Airflow (CFM)        | 1130                   | 1130                   |
| Noise Level (dB)     | 70                     | 70                     |
| Max. Static Pressure | 0.78" H <sub>2</sub> O | 0.78" H <sub>2</sub> O |

# OAB190 Series



Motorized Impeller  
190 x 70mm (7.5" x 2.8")



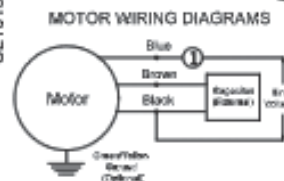
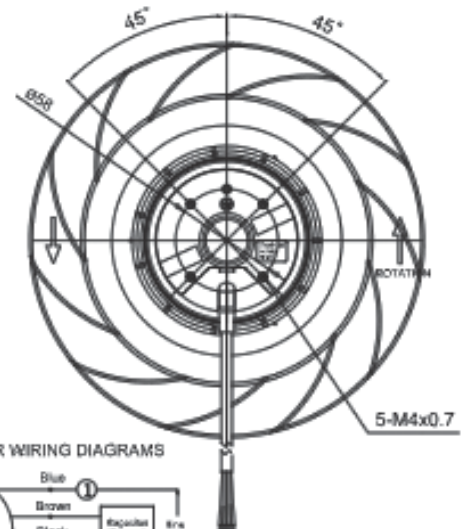
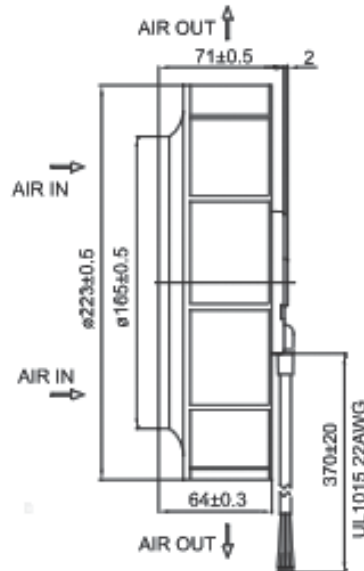
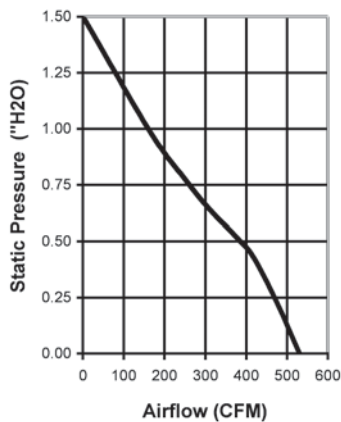
Accessories  
Duct ring DR190A

|                      |                       |                       |                       |                                                          |
|----------------------|-----------------------|-----------------------|-----------------------|----------------------------------------------------------|
| Part Number          | OAB190-11-1           | OAB190-22-1           | Frame                 | Diecast Aluminum                                         |
| Nominal Voltage      | 120VAC                | 230VAC                | Impeller              | UL94V-O Thermoplastic                                    |
| Voltage Range        | 100 ~ 125VAC          | 200 ~ 240VAC          | Connection            | 2x Lead wires                                            |
| Nominal Current      | 0.54A                 | 0.30A                 | Motor                 | AC, Shaded Pole, thermally protected. CAPACITOR INCLUDED |
| Locked Current       | 0.91A                 | 0.45A                 |                       |                                                          |
| Rated Power          | 65W                   | 72W                   | Bearing System        | Dual ball bearing                                        |
| Rated Speed (RPM)    | 2700                  | 2700                  | Insulation Resistance | >100M ohm between leadwire and frame (500VDC)            |
| Airflow (CFM)        | 370                   | 370                   |                       |                                                          |
| Noise Level (dB)     | 63                    | 63                    | Dielectric Strength   | 1500VAC for 1 minute                                     |
| Max. Static Pressure | 1.2" H <sub>2</sub> O | 1.2" H <sub>2</sub> O | Temperature Range     | -40C ~ +60C                                              |
| Bearing System       | Sealed Dual Ball      | Sealed Dual Ball      | Life (L10)            | 40,000 hrs (L10, 40C)                                    |

# OAB220 Series



Motorized Impeller  
220 x 71mm (8.7" x 2.8")



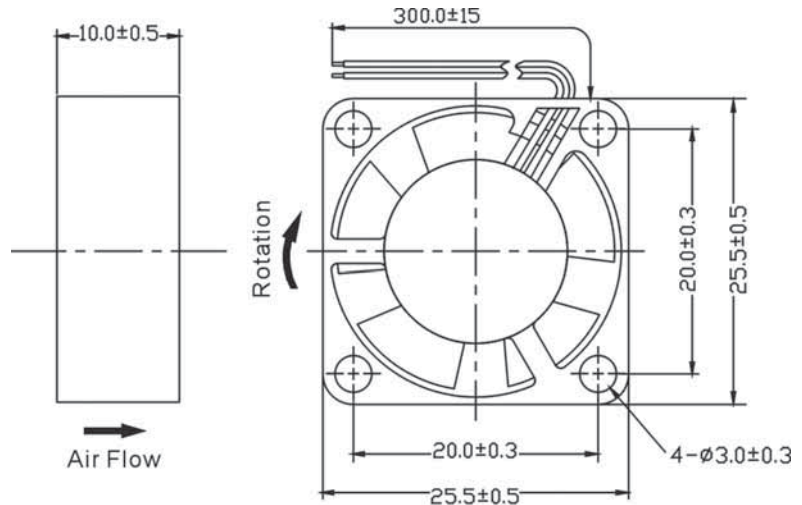
Accessories  
Duct ring DR220A

| Part Number          | OAB220-11-1           | OAB220-22-1           | Frame                 | Diecast Aluminum                                         |
|----------------------|-----------------------|-----------------------|-----------------------|----------------------------------------------------------|
| Nominal Voltage      | 115VAC                | 230VAC                | Impeller              | UL94V-O Thermoplastic                                    |
| Voltage Range        | 100 ~ 125VAC          | 200 ~ 240VAC          | Connection            | 2x Lead wires                                            |
| Nominal Current      | 0.98A                 | 0.50A                 | Motor                 | AC, Shaded Pole, thermally protected. CAPACITOR INCLUDED |
| Locked Current       | 1.22A                 | 0.58A                 | Bearing System        | Dual ball bearing                                        |
| Rated Power          | 117W                  | 117W                  | Insulation Resistance | >100M ohm between leadwire and frame (500VDC)            |
| Rated Speed (RPM)    | 2650                  | 2650                  | Dielectric Strength   | 1500VAC for 1 minute                                     |
| Airflow (CFM)        | 530                   | 530                   | Temperature Range     | -40C ~ +60C                                              |
| Noise Level (dB)     | 70                    | 70                    | Life (L10)            | 40,000 hrs (L10, 40C)                                    |
| Max. Static Pressure | 1.5" H <sub>2</sub> O | 1.5" H <sub>2</sub> O |                       |                                                          |
| Bearing System       | Sealed Dual Ball      | Sealed Dual Ball      |                       |                                                          |

# OD2510 Series



DC Fan - 5, 12V  
25x10mm (1.0"x 0.39")



|                       |                                                              |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br><br>Tachometer (Frequency Generator) White Lead<br><br>Alarm (Rotation Detector) Yellow Lead<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -25 ~ 70C<br>Sleeve: -10 ~ 50C<br><br>m1/ m4 | <p>Graph showing Static Pressure ("H2O") vs Airflow (CFM) for OD2510 Series fans. The y-axis ranges from 0.00 to 0.25 "H2O, and the x-axis ranges from 0 to 3 CFM. Three curves are shown: High (top), Medium (middle), and Low (bottom). The High curve starts at ~0.23 "H2O at 0 CFM and drops to ~0.10 "H2O at 2.7 CFM. The Medium curve starts at ~0.17 "H2O at 0 CFM and drops to ~0.08 "H2O at 2.2 CFM. The Low curve starts at ~0.12 "H2O at 0 CFM and drops to ~0.04 "H2O at 1.8 CFM.</p> |
| Connection            | 2x Lead wires 28AWG                                          |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Bearing System        | Ball bearing or Sleeve                                       |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

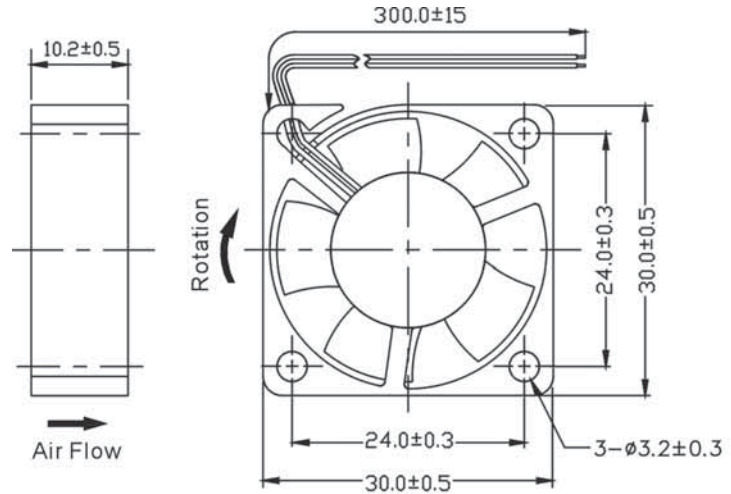
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD2510-05H * | 12000       | 2.7           | 31         | 5        | 3.5 ~ 6             | 0.18 | 0.23                        |
| OD2510-05M * | 10000       | 2.2           | 24         | 5        | 3.5 ~ 6             | 0.12 | 0.17                        |
| OD2510-12H * | 12000       | 2.7           | 31         | 12       | 6.0 ~ 16            | 0.09 | 0.23                        |
| OD2510-12M * | 10000       | 2.2           | 24         | 12       | 6.0 ~ 16            | 0.08 | 0.17                        |
| OD2510-12L * | 8000        | 1.8           | 16         | 12       | 6.0 ~ 16            | 0.04 | 0.12                        |

\* Indicate "B" for ball bearing or "S" for sleeve bearing

# OD3010 Series



DC Fan - 5, 12V  
30x10mm (1.18"x 0.39")



|                       |                                                              |                                                                                                                                                                                                                                                                                                   |  |
|-----------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br><br>Tachometer (Frequency Generator) White Lead<br><br>Alarm (Rotation Detector) Yellow Lead<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -10 ~ 70C<br>Sleeve: -10 ~ 60C |  |
| Connection            | 2x Lead wires 28AWG                                          |                                                                                                                                                                                                                                                                                                   |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                                                   |  |
| Bearing System        | Ball bearing or Sleeve                                       |                                                                                                                                                                                                                                                                                                   |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                                                   |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                                                   |  |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                                                                                   |  |

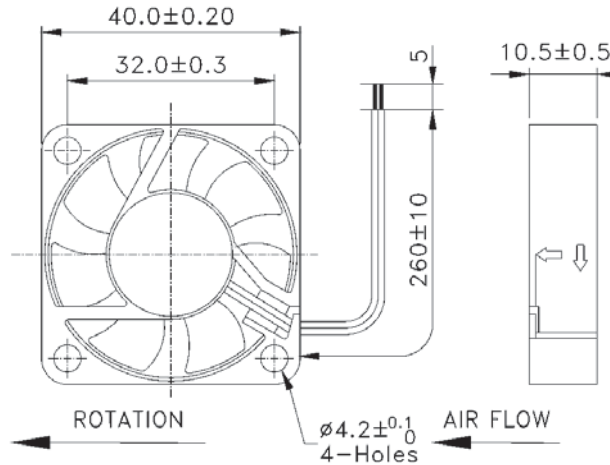
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD3010-05H * | 11000       | 5.0           | 32         | 05       | 3.5~6.0             | .20  | .20                         |
| OD3010-12H * | 11000       | 5.0           | 32         | 12       | 8~17                | .10  | .20                         |
| OD3010-12M * | 9000        | 4.0           | 27         | 12       | 8~17                | .09  | .17                         |
| OD3010-12L * | 7000        | 3.5           | 25         | 12       | 8~17                | .06  | .11                         |

\* Indicate "B" for ball bearing or "S" for sleeve bearing

# OD4010 Series



DC Fan - 5, 12, 24V  
40x10mm (1.58"x 0.39")



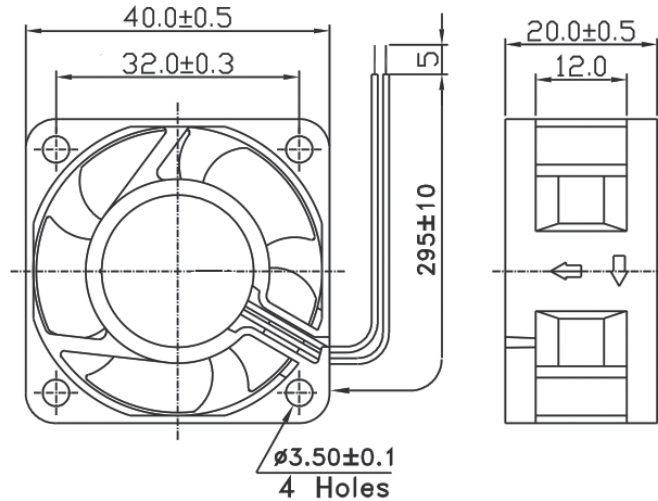
|                       |                                                              |                                                                                                                                                                                                                                |  |
|-----------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br><br>Tachometer<br>Alarm<br>Thermal control<br>Sleeve bearing<br><br>Life Expectancy (L10)<br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br>Operating Temperature<br>Ball: -20 ~ 80C |  |
| Connection            | 2x Lead wires 26AWG                                          |                                                                                                                                                                                                                                |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                |  |
| Bearing System        | Ball bearing                                                 |                                                                                                                                                                                                                                |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                |  |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                |  |

| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD4010-05HB  | 6000        | 7             | 25         | 5        | 4 ~ 7               | 0.16 | 0.10                        |
| OD4010-05MB  | 4800        | 6             | 20         | 5        | 4 ~ 7               | 0.11 | 0.08                        |
| OD4010-05LB  | 4200        | 5             | 14         | 5        | 4 ~ 7               | 0.07 | 0.06                        |
| OD4010-12HB  | 6000        | 7             | 25         | 12       | 7 ~ 14              | 0.09 | 0.10                        |
| OD4010-12MB  | 4800        | 6             | 20         | 12       | 7 ~ 14              | 0.06 | 0.08                        |
| OD4010-12LB  | 4200        | 5             | 14         | 12       | 7 ~ 14              | 0.06 | 0.06                        |
| OD4010-24HB  | 6000        | 7             | 25         | 24       | 10 ~ 27             | 0.06 | 0.10                        |
| OD4010-24MB  | 4800        | 6             | 20         | 24       | 10 ~ 27             | 0.04 | 0.08                        |
| OD4010-24LB  | 4200        | 5             | 14         | 24       | 10 ~ 27             | 0.03 | 0.06                        |

# OD4020 Series



DC Fan - 5, 12, 24V  
40x20mm (1.58"x 0.79")



|                       |                                                              |                                                                                                                                                                                                                                                                   |  |
|-----------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br>Sleeve Bearing<br>Sealed Sleeve Bearing<br>Tachometer<br>Alarm<br>Thermal control<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -20 ~ 80C |  |
| Connection            | 2x Lead wires 26AWG                                          |                                                                                                                                                                                                                                                                   |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                   |  |
| Bearing System        | Ball bearing                                                 |                                                                                                                                                                                                                                                                   |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                   |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                   |  |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                                                   |  |

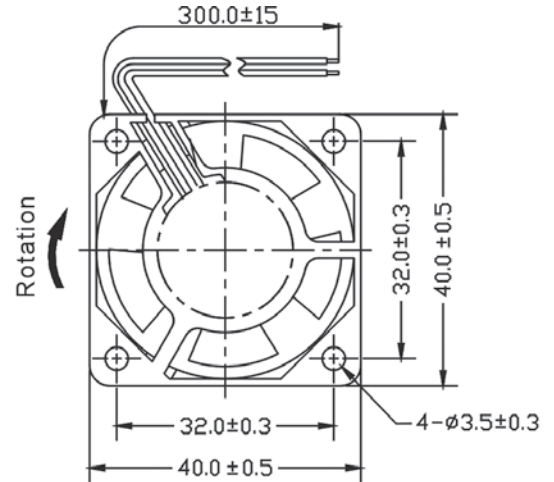
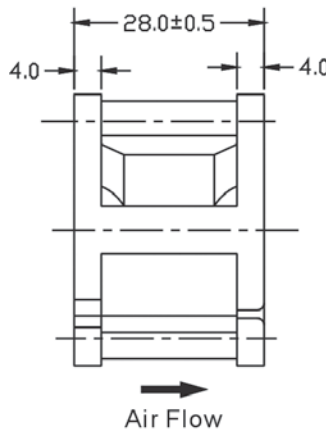
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD4020-05HB  | 7800        | 9             | 32         | 5        | 4 ~ 7               | 0.25 | 0.30                        |
| OD4020-05MB  | 6900        | 8             | 28         | 5        | 4 ~ 7               | 0.16 | 0.24                        |
| OD4020-05LB  | 6200        | 7             | 24         | 5        | 4 ~ 7               | 0.14 | 0.19                        |
| OD4020-12HB  | 7800        | 9             | 32         | 12       | 7 ~ 14              | 0.10 | 0.30                        |
| OD4020-12MB  | 6900        | 8             | 28         | 12       | 7 ~ 14              | 0.08 | 0.24                        |
| OD4020-12LB  | 6200        | 7             | 24         | 12       | 7 ~ 14              | 0.07 | 0.19                        |
| OD4020-24HB  | 7800        | 9             | 32         | 24       | 10 ~ 27             | 0.07 | 0.30                        |
| OD4020-24MB  | 6900        | 8             | 28         | 24       | 10 ~ 27             | 0.06 | 0.24                        |
| OD4020-24LB  | 6200        | 7             | 24         | 24       | 10 ~ 27             | 0.05 | 0.19                        |

To indicate sleeve bearing replace "B" suffix with "S" in part number (25,000 hrs life expectancy)  
 To indicate sealed sleeve bearing replace "B" with "SS" in part number (45,000 hrs life expectancy)

# OD4028 Series



DC Fan - 5, 12, 24V  
40x28mm (1.58"x 1.10")



|                       |                                                              |                                                                                                                                                                                                                                                                                                                    |  |
|-----------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br><br>Tachometer (FG)<br>Alarm (RD)<br>PWM (Pulse Width Modulated speed control)<br>Thermistor (Thermal Speed Control)<br><br>Life Expectancy (L10)<br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -20 ~ 80C<br>Sleeve: -10 ~ 50C |  |
| Connection            | 2x Lead wires 26AWG                                          |                                                                                                                                                                                                                                                                                                                    |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                                                                    |  |
| Bearing System        | Ball bearing or Sleeve                                       |                                                                                                                                                                                                                                                                                                                    |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                                                                    |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                                                                    |  |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                                                                                                    |  |

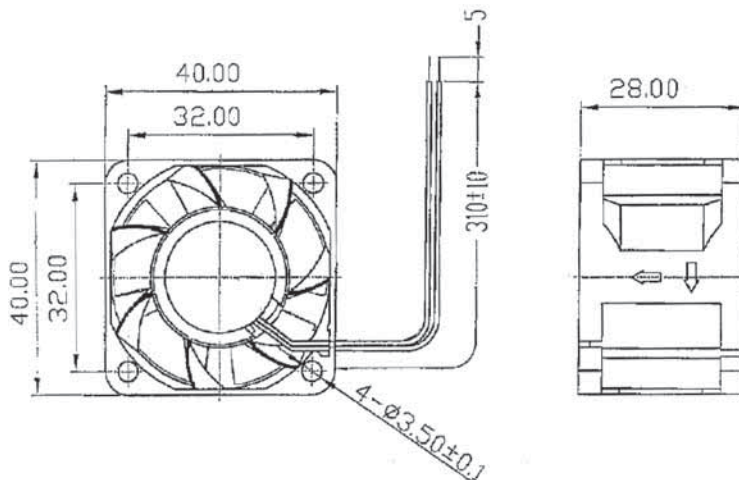
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD4028-05H * | 7500        | 10            | 32         | 5        | 4~7                 | 0.35 | 0.24                        |
| OD4028-05M * | 6500        | 9             | 29         | 5        | 4~7                 | 0.30 | 0.17                        |
| OD4028-05L * | 5000        | 7             | 25         | 5        | 4~7                 | 0.22 | 0.10                        |
| OD4028-12H * | 8800        | 12            | 37         | 12       | 7~14                | 0.20 | 0.32                        |
| OD4028-12M * | 8000        | 11            | 35         | 12       | 7~14                | 0.18 | 0.25                        |
| OD4028-12L * | 5000        | 7             | 25         | 12       | 7~14                | 0.12 | 0.10                        |
| OD4028-24H * | 8800        | 12            | 37         | 24       | 10~27               | 0.16 | 0.32                        |
| OD4028-24M * | 8000        | 11            | 35         | 24       | 10~27               | 0.12 | 0.25                        |
| OD4028-24L * | 5000        | 7             | 25         | 24       | 10~27               | 0.09 | 0.10                        |

\* Indicate "B" for ball bearing or "S" for sleeve bearing

# OD4028 "XC Series"



DC Fan - 12V, High Speed  
40x28mm (1.58" x 1.10")



|                       |                                                         |                                                                                                                                               |  |
|-----------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                    | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br>PWM (Pulse Width Modulated speed control)<br>Thermistor (Thermal Speed Control) |  |
| Connection            | 2x Lead wires                                           |                                                                                                                                               |  |
| Motor                 | Brushless DC, auto restart, polarity protected.         |                                                                                                                                               |  |
| Bearing System        | Dual ball bearing                                       |                                                                                                                                               |  |
| Insulation Resistance | Min. 10M at 500VDC                                      |                                                                                                                                               |  |
| Dielectric Strength   | 1 minute at 500VAC / 1 second, max leakage 500 microamp |                                                                                                                                               |  |
| Temperature Range     | -10C ~ +70C                                             |                                                                                                                                               |  |
| Storage Temperature   | -40C ~ +80C                                             |                                                                                                                                               |  |
| Life (L10)            | 50,000 hours (40C)                                      | m1                                                                                                                                            |  |

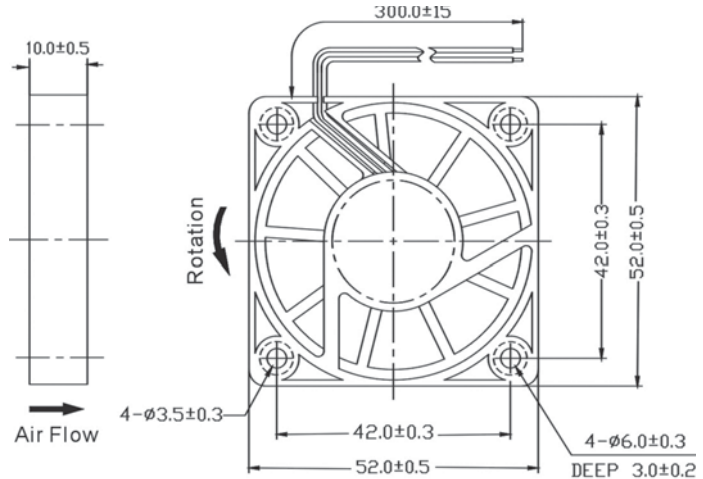
|                      |                        |
|----------------------|------------------------|
| Part Number          | OD4028-12HB-XC         |
| Nominal Voltage      | 12 VDC                 |
| Voltage Range        | 10.8 ~ 13.2 VDC        |
| Nominal Current      | 0.8 A                  |
| Start-up Voltage     | 9.0 VDC                |
| Rated Power          | 9.5 W                  |
| Rated Speed (RPM)    | 16,000                 |
| Airflow (CFM)        | 26.5                   |
| Noise Level (dB)     | 57                     |
| Max. Static Pressure | 1.60" H <sub>2</sub> O |

Frame style: m1

# OD5210 Series



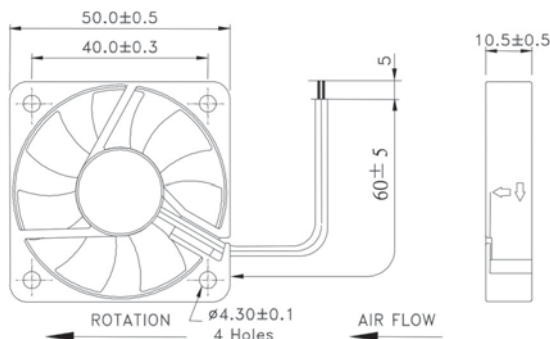
DC Fan - 5, 12V  
52x10mm (2.05"x 0.39")



|                       |                                                              |                                                                                                                                                                                                                            |  |
|-----------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br><br>Tachometer Alarm<br><br>Life Expectancy (L10)<br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br>Operating Temperature<br>Ball: -10 + 80C<br>Sleeve: -10 ~ 50C<br><br>m4 (m1) |  |
| Connection            | 2x Lead wires 26AWG                                          |                                                                                                                                                                                                                            |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                            |  |
| Bearing System        | Ball bearing or Sleeve                                       |                                                                                                                                                                                                                            |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                            |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                            |  |
| Storage Temperature   | -40C+80C                                                     |                                                                                                                                                                                                                            |  |

| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD5210-05H * | 6000        | 12            | 36         | 5        | 4~7                 | .25  | .14                         |
| OD5210-05M * | 5000        | 10            | 32         | 5        | 4~7                 | .21  | .11                         |
| OD5210-12H * | 6000        | 12            | 36         | 12       | 8~17                | .14  | .14                         |
| OD5210-12M * | 5000        | 10            | 32         | 12       | 8~17                | .12  | .11                         |

\* Indicate "B" for ball bearing or "S" for sleeve bearing

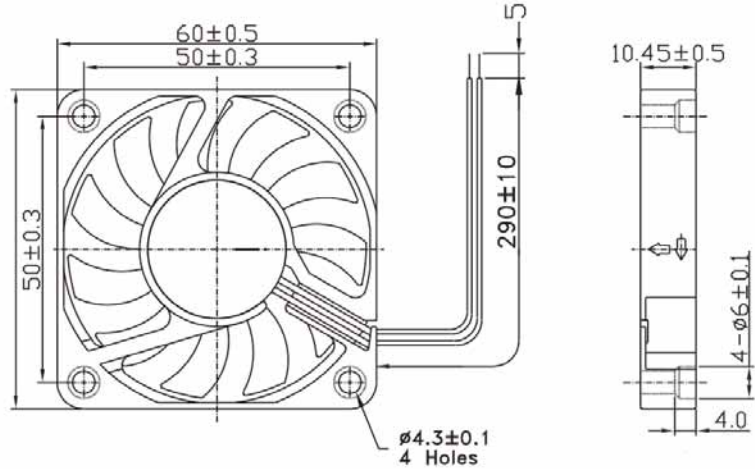


Also available with a 50mm frame. Call for details

# OD6010 Series



DC Fan - 5V, 12V  
60x10mm (2.36"x 0.39")



|                       |                                                              |                                                                                                                                                                                                                                     |  |
|-----------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br><br>Tachometer<br>Alarm<br>24V<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -20 ~ 80C<br>Sleeve: -10 ~ 50C |  |
| Connection            | 2x Lead wires 24AWG                                          |                                                                                                                                                                                                                                     |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                     |  |
| Bearing System        | Ball bearing or Sleeve                                       |                                                                                                                                                                                                                                     |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                     |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                     |  |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                     |  |

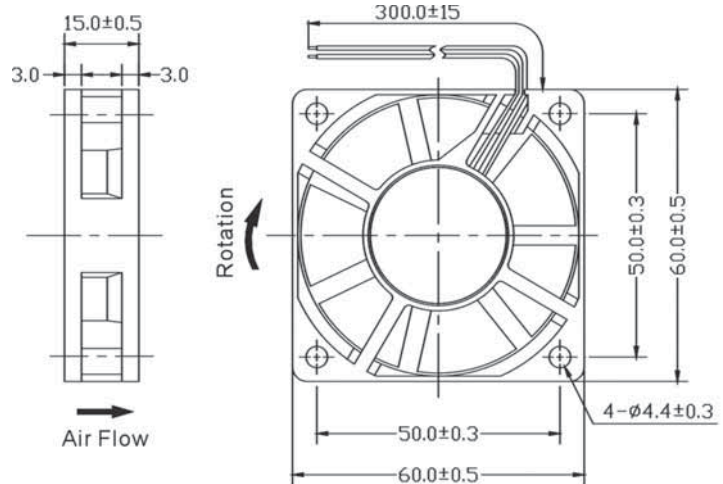
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Input Power (W) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|-----------------|------|-----------------------------|
| OD6010-05M * | 4000        | 17            | 31         | 5        | 1.65            | 0.33 | 0.12                        |
| OD6010-05L * | 3400        | 14            | 26         | 5        | 1.30            | 0.26 | 0.09                        |
| OD6010-12H * | 4600        | 21            | 36         | 12       | 3.00            | 0.25 | 0.16                        |
| OD6010-12M * | 4000        | 17            | 31         | 12       | 1.92            | 0.16 | 0.12                        |
| OD6010-12L * | 3400        | 14            | 26         | 12       | 1.20            | 0.10 | 0.09                        |

\* Indicate "B" for ball bearing or "S" for sleeve bearing

# OD6015 Series



DC Fan - 12V  
60x15mm (2.36"x 0.59")



|                       |                                                              |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br>Other frame styles available<br>5V and 24V available on request<br><br><u>Life Expectancy (L10)</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C)<br><br><u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C | <p>Graph showing Static Pressure (inches of water) versus Airflow (CFM). The y-axis ranges from 0.00 to 0.14, and the x-axis ranges from 0 to 20. Three curves are shown, representing different fan models: OD6015-05H* (top curve), OD6015-12H* (middle curve), and OD6015-12M* (bottom curve). The curves show that static pressure decreases as airflow increases.</p> |
| Connection            | 2x Lead wires                                                |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Bearing System        | Dual Ball or Sleeve                                          |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |

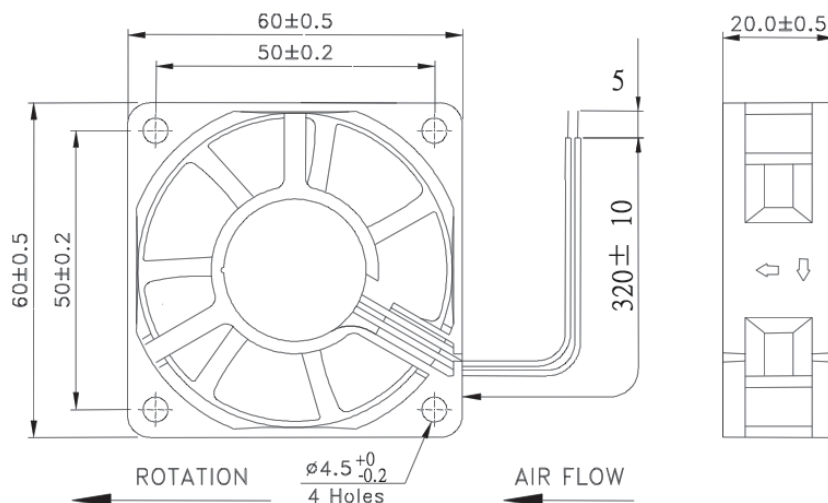
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure (inches H <sub>2</sub> O) |
|--------------|-------------|---------------|------------|----------|---------------|------|------------------------------------------------|
| OD6015-05H*  | 4500        | 19            | 37         | 5        | 3.5~5.75      | .40  | .13                                            |
| OD6015-12H*  | 4500        | 19            | 37         | 12       | 8~17          | .12  | .13                                            |
| OD6015-12M*  | 4000        | 16            | 21         | 12       | 8~17          | .09  | .08                                            |
| OD6015-12L*  | 2500        | 14            | 18         | 12       | 8~17          | .06  | .05                                            |
| OD6015-24H*  | 4500        | 19            | 37         | 24       | 12~28         | .15  | .13                                            |

\* Indicate "B" to specify Ball bearing or "S" to specify Sleeve bearing

# OD6020 Series



DC Fan - 12, 24V  
60x20mm (2.36"x .79")



|                       |                                                              |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br>Tachometer<br>Alarm<br>Other frame styles available<br>5V available on request<br><br><u>Life Expectancy (L10)</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C)<br><br><u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C | <p>Graph showing Static Pressure (H<sub>2</sub>O) vs Airflow (CFM). The y-axis ranges from 0.00 to 0.15 H<sub>2</sub>O, and the x-axis ranges from 0 to 20 CFM. Three curves are shown, representing different fan models: OD6020-12H* (highest pressure), OD6020-12M* (middle pressure), and OD6020-12L* (lowest pressure). All curves show a decrease in static pressure as airflow increases.</p> |
| Connection            | 2x Lead wires                                                |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |
| Bearing System        | Dual Ball or Sleeve                                          |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |

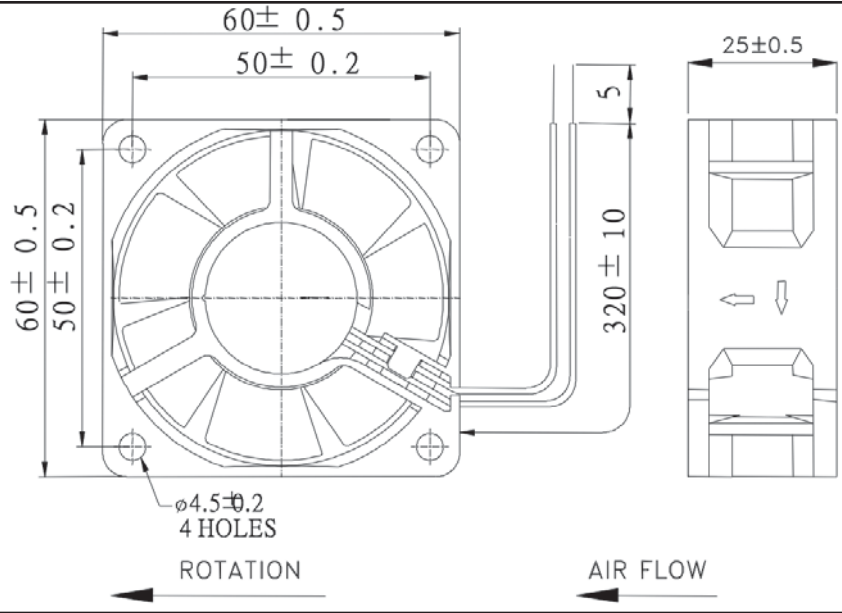
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure (H <sub>2</sub> O) |
|--------------|-------------|---------------|------------|----------|---------------|------|-----------------------------------------|
| OD6020-12H*  | 4500        | 18            | 30         | 12       | 8~16          | .16  | .14                                     |
| OD6020-12M*  | 3900        | 15            | 26         | 12       | 8~16          | .13  | .11                                     |
| OD6020-12L*  | 3500        | 13            | 22         | 12       | 8~16          | .08  | .09                                     |
| OD6020-24H*  | 4500        | 18            | 30         | 24       | 12~32         | .09  | .14                                     |
| OD6020-24M*  | 3900        | 15            | 26         | 24       | 12~32         | .06  | .11                                     |
| OD6020-24L*  | 3500        | 13            | 22         | 24       | 12~32         | .04  | .09                                     |

\* Indicate "B" to specify Ball bearing or "S" to specify Sleeve bearing

# OD6025 Series



DC Fan - 12, 24V  
60x25mm (2.36"x 1.0")



|                       |                                                 |                                                                                                                                                                                                                           |  |
|-----------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br><br>Tachometer Alarm<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -10 ~ 70C<br>Sleeve: -10 ~ 60C |  |
| Connection            | 2x Lead wires 24AWG                             |                                                                                                                                                                                                                           |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                                                           |  |
| Bearing System        | Ball bearing or Sleeve                          |                                                                                                                                                                                                                           |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                                                           |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                                                           |  |

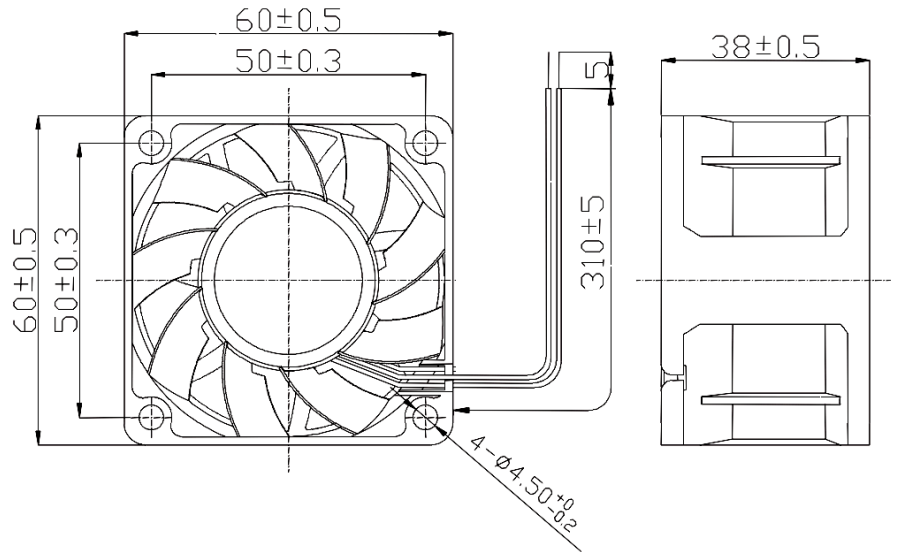
| Model Number  | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Input Power (Watts) | Amps | Max. Static Pressure ("H2O) |
|---------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD6025-05H*   | 4000        | 20            | 30         | 5        | 1.4                 | 0.28 | 0.17                        |
| OD6025-12HH * | 5100        | 28            | 40         | 12       | 3.1                 | 0.25 | 0.24                        |
| OD6025-12H *  | 4500        | 24            | 35         | 12       | 2.8                 | 0.23 | 0.20                        |
| OD6025-12M *  | 3500        | 18            | 27         | 12       | 1.7                 | 0.14 | 0.11                        |
| OD6025-12L *  | 2500        | 13            | 18         | 12       | 1.0                 | 0.08 | 0.07                        |
| OD6025-24HH * | 5100        | 28            | 40         | 24       | 3.9                 | 0.16 | 0.24                        |
| OD6025-24H *  | 4500        | 24            | 35         | 24       | 3.5                 | 0.15 | 0.20                        |
| OD6025-24M *  | 3500        | 18            | 27         | 24       | 1.9                 | 0.08 | 0.11                        |
| OD6025-24L *  | 2500        | 13            | 18         | 24       | 1.0                 | 0.06 | 0.07                        |
| OD6025-48H*   | 4200        | 28            | 30         | 48       | 3.4                 | 0.07 | 0.24                        |

\* Indicate "B" for ball bearing or "S" for sleeve bearing

# OD6038 'VA' Series' Vane Axial High Pressure



DC Vanaxial Fan  
60x38mm (2.36"x 1.5")



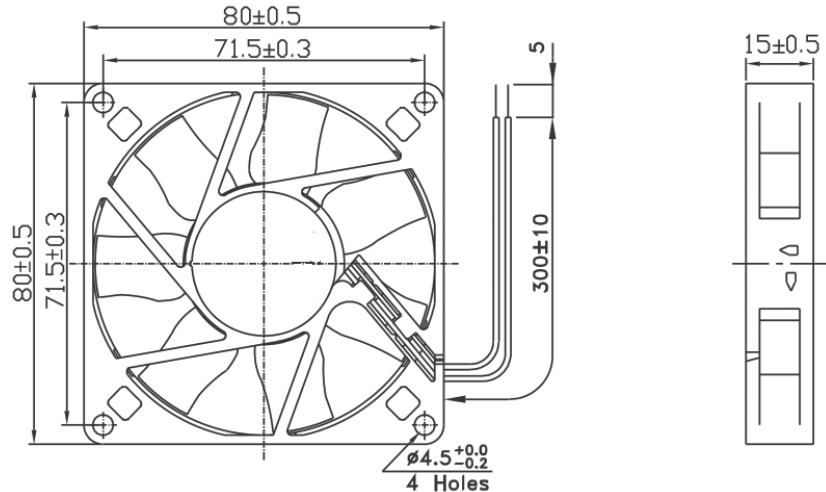
|                       |                                                         |                                                                                                                                                                   |  |
|-----------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                    | <u>Available Options</u><br><br>Tachometer (FG)<br><br>Locked Rotor Alarm (RD)<br><br>Thermal Control<br><br>Other speeds and voltages available by special order |  |
| Connection            | 2x Lead wires, Red(+), Black (-)                        |                                                                                                                                                                   |  |
| Motor                 | Brushless DC, auto restart, polarity protected.         |                                                                                                                                                                   |  |
| Bearing System        | Dual ball bearing                                       |                                                                                                                                                                   |  |
| Insulation Resistance | Min. 10M at 500VDC                                      |                                                                                                                                                                   |  |
| Dielectric Strength   | 1 minute at 500VAC / 1 second, max leakage 500 microamp |                                                                                                                                                                   |  |
| Temperature Range     | -10C ~ +70C                                             |                                                                                                                                                                   |  |
| Storage Temperature   | -40C ~ +80C                                             |                                                                                                                                                                   |  |
| Life (L10)            | 50,000 hours (40C)                                      | m1                                                                                                                                                                |  |

| MODEL NUMBER  | SPEED (RPM) | AIRFLOW (CFM) | NOISE (DB) | VOLTS DC | POWER (WATTS) | AMPS | MAX. STATIC PRESSURE (iH <sub>2</sub> O) |
|---------------|-------------|---------------|------------|----------|---------------|------|------------------------------------------|
| OD6038-HB-VXC | 10000       | 61            | 64         | 12       | 17            | 1.42 | 1.59                                     |
| OD6038-MB-VXC | 8000        | 48            | 58         | 12       | 8             | 0.64 | 0.97                                     |
| OD6038-LB-VXC | 6000        | 38            | 50         | 12       | 3             | 0.28 | 0.58                                     |
| OD6038-HB-VXC | 10000       | 61            | 64         | 24       | 21            | 0.88 | 1.59                                     |
| OD6038-MB-VXC | 8000        | 48            | 58         | 24       | 10            | 0.43 | 0.97                                     |
| OD6038-LB-VXC | 6000        | 38            | 50         | 24       | 4             | 0.20 | 0.58                                     |

# OD8015 Series



DC Fan - 12, 24V  
80x15mm (3.15"x 0.59")



|                       |                                                              |                                                                                                                                                                                                                                    |  |
|-----------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br>Sleeve - 30,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -20 ~ 80C<br>Sleeve: -10 ~ 50C |  |
| Connection            | 2x Lead wires 26AWG                                          |                                                                                                                                                                                                                                    |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                    |  |
| Bearing System        | Ball bearing or Sleeve                                       |                                                                                                                                                                                                                                    |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                    |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                    |  |
| Storage Temperature   | -30C ~ +90C                                                  |                                                                                                                                                                                                                                    |  |

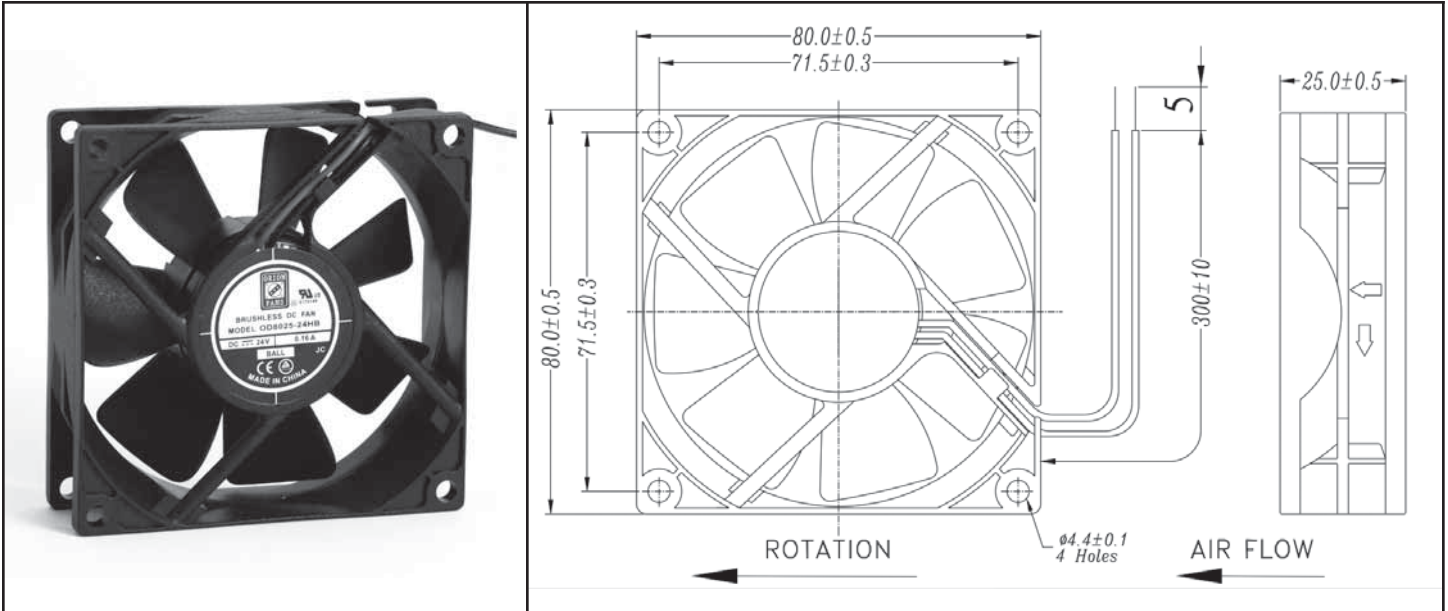
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD8015-12H*  | 3200        | 30            | 33         | 12       | 8~16                | 0.09 | 0.11                        |
| OD8015-12M*  | 2500        | 23            | 26         | 12       | 8~16                | 0.05 | 0.07                        |
| OD8015-12L*  | 2000        | 20            | 20         | 12       | 8~16                | 0.03 | 0.05                        |
| OD8015-24H*  | 3200        | 30            | 33         | 24       | 18~28               | 0.04 | 0.11                        |
| OD8015-24M*  | 2500        | 23            | 26         | 24       | 18~28               | 0.08 | 0.07                        |

\* Indicate "B" for ball bearing or "S" for sleeve bearing

# OD8025 Series



DC Fan  
80x25mm (3.15"x 1.0")



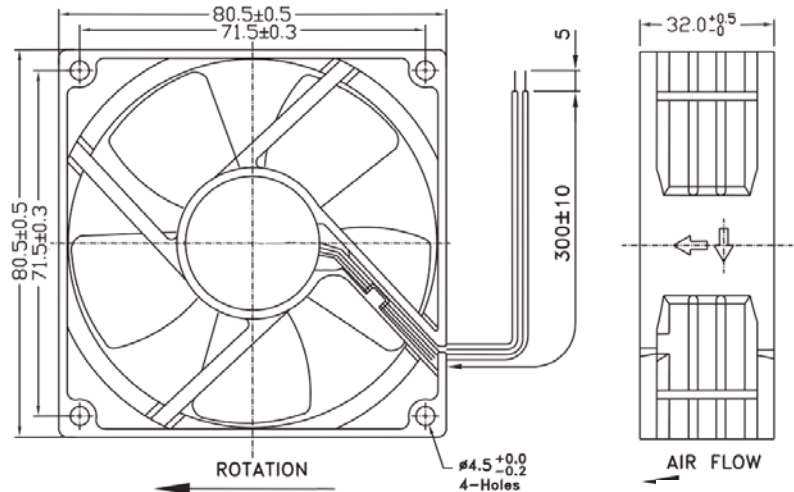
|                       |                                                 |                                                                                                                                                                                         |  |
|-----------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br><br>Thermal Speed Control (Thermistor)<br><br>PWM Input (Manual Speed Control)<br><br>Sleeve bearing<br>IP55<br>48V<br>5V |  |
| Connection            | 2x Lead wires 24AWG                             |                                                                                                                                                                                         |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                         |  |
| Bearing System        | Dual ball bearing                               |                                                                                                                                                                                         |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                         |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                         |  |
| Temperature Range     | -10C ~ +70C                                     |                                                                                                                                                                                         |  |
| Life (L10)            | 65,000 hours (45C)                              | m1                                                                                                                                                                                      |  |

| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Input Power (Watts) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD8025-12HHB | 3400        | 44            | 40         | 12       | 3.11                | 0.26 | 0.19                        |
| OD8025-12HB  | 3100        | 40            | 35         | 12       | 2.90                | 0.25 | 0.15                        |
| OD8025-12MB  | 2500        | 31            | 28         | 12       | 1.45                | 0.15 | 0.10                        |
| OD8025-12LB  | 2100        | 26            | 23         | 12       | 0.96                | 0.08 | 0.07                        |
| OD8025-12LLB | 1600        | 19            | 15         | 12       | 0.49                | 0.04 | 0.04                        |
| OD8025-24HB  | 3100        | 40            | 35         | 24       | 2.41                | 0.11 | 0.16                        |
| OD8025-24MB  | 2500        | 31            | 28         | 24       | 1.67                | 0.08 | 0.10                        |
| OD8025-24LB  | 2100        | 26            | 23         | 24       | 0.96                | 0.05 | 0.07                        |

# OD8032 Series



DC Fan - 12, 24, 48V  
80x32mm (3.15"x 1.25")



|                       |                                                 |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
|-----------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br>Thermal Speed Control (Thermistor)<br>PWM Input<br>Life Expectancy (L10)<br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C)<br><u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C | <p>Graph showing Static Pressure (inches H<sub>2</sub>O) versus Airflow (CFM) for the OD8032 Series fan. The graph shows three curves for different fan models: OD8032-12H* (top curve), OD8032-12M* (middle curve), and OD8032-12L* (bottom curve). The static pressure decreases as airflow increases.</p> |
| Connection            | 2x Lead wires                                   |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| Bearing System        | Dual Ball or Sleeve                             |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| Storage Temperature   | -30C ~ +90C                                     |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                              |

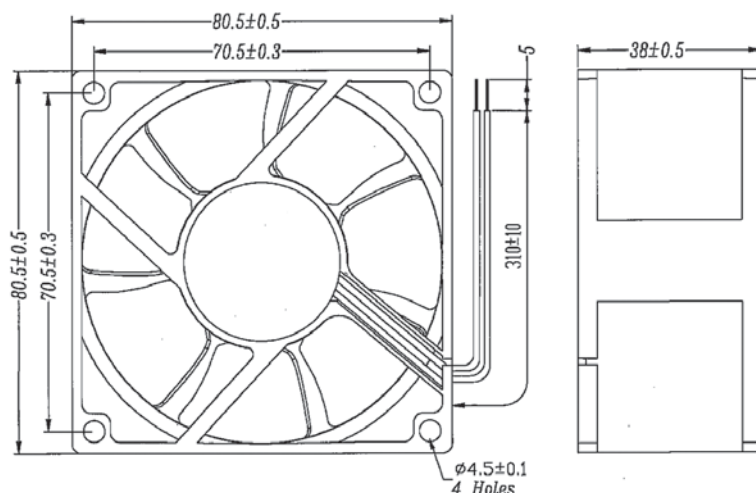
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure (inH <sub>2</sub> O) |
|--------------|-------------|---------------|------------|----------|---------------|------|-------------------------------------------|
| OD8032-12H*  | 3800        | 50            | 40         | 12       | 8~17          | 0.55 | 0.43                                      |
| OD8032-12M*  | 3400        | 44            | 36         | 12       | 8~17          | 0.45 | 0.28                                      |
| OD8032-12L*  | 3000        | 40            | 31         | 12       | 8~17          | 0.35 | 0.20                                      |
| OD8032-24H*  | 3800        | 50            | 40         | 24       | 12~30         | 0.38 | 0.43                                      |
| OD8032-24M*  | 3400        | 44            | 36         | 24       | 12~30         | 0.28 | 0.28                                      |
| OD8032-24L*  | 3000        | 40            | 31         | 24       | 12~30         | 0.23 | 0.20                                      |
| OD8032-48H*  | 3800        | 50            | 40         | 48       | 24~56         | 0.16 | 0.43                                      |
| OD8032-48M*  | 3400        | 44            | 36         | 48       | 24~56         | 0.10 | 0.28                                      |
| OD8032-48L*  | 3000        | 40            | 31         | 48       | 24~56         | 0.08 | 0.20                                      |

\* Indicate "B" to specify Ball bearing or "S" to specify Sleeve bearing

# OD8038 Series



DC Fan  
80x38mm (3.15"x 1.5")



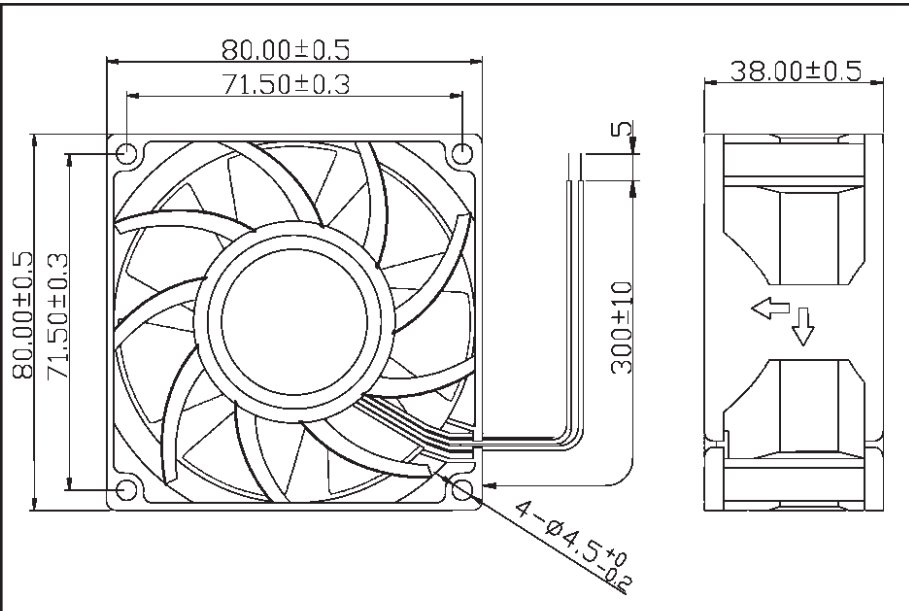
|                       |                                                         |                                                                                                                   |  |
|-----------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                    | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br>Thermal Speed Control (Thermistor)<br>48V available |  |
| Connection            | 2x Lead wires, Red(+), Black (-)                        |                                                                                                                   |  |
| Motor                 | Brushless DC, auto restart, polarity protected.         |                                                                                                                   |  |
| Bearing System        | Dual ball bearing                                       |                                                                                                                   |  |
| Insulation Resistance | Min. 10M at 500VDC                                      |                                                                                                                   |  |
| Dielectric Strength   | 1 minute at 500VAC / 1 second, max leakage 500 microamp |                                                                                                                   |  |
| Temperature Range     | -10C ~ +70C                                             |                                                                                                                   |  |
| Storage Temperature   | -40C ~ +80C                                             |                                                                                                                   |  |
| Life (L10)            | 50,000 hours (40C)                                      | m1                                                                                                                |  |

| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Power (Watts) | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------|------|-----------------------------|
| OD8038-12HHB | 4000        | 61            | 44         | 12       | 6.2           | 0.52 | 0.30                        |
| OD8038-12HB  | 3500        | 54            | 40         | 12       | 3.9           | 0.33 | 0.23                        |
| OD8038-12MB  | 3000        | 46            | 36         | 12       | 2.5           | 0.21 | 0.17                        |
| OD8038-12LB  | 2500        | 38            | 32         | 12       | 1.7           | 0.14 | 0.12                        |
| OD8038-24HB  | 3500        | 54            | 40         | 24       | 5.8           | 0.14 | 0.23                        |
| OD8038-24MB  | 3000        | 46            | 36         | 24       | 4.3           | 0.10 | 0.17                        |
| OD8038-24LB  | 2500        | 38            | 32         | 24       | 3.4           | 0.08 | 0.12                        |

# OD8038 'VA' Series Vane Axial High Pressure



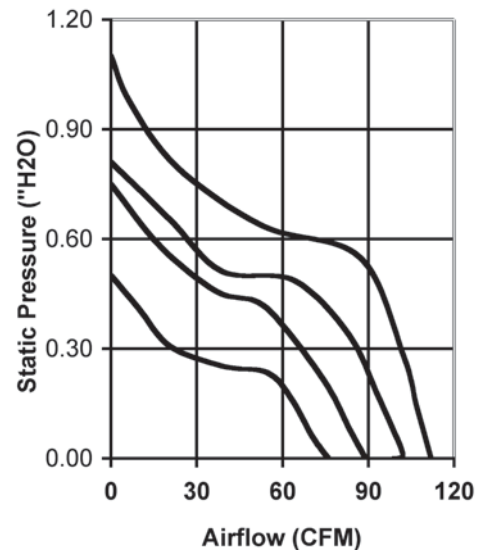
DC Fan  
80x38mm (3.15"x 1.5")



|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Frame & Impeller      | PBT, UL94V-O plastic                                    |
| Connection            | 2x Lead wires, Red(+), Black (-)                        |
| Motor                 | Brushless DC, auto restart, polarity protected.         |
| Bearing System        | Dual ball bearing                                       |
| Insulation Resistance | Min. 10M at 500VDC                                      |
| Dielectric Strength   | 1 minute at 500VAC / 1 second, max leakage 500 microamp |
| Temperature Range     | -10C ~ +70C                                             |
| Storage Temperature   | -40C ~ +80C                                             |
| Life (L10)            | 50,000 hours (40C)                                      |

## Available Options:

Tachometer (FG)  
Locked Rotor Alarm (RD)  
Thermal Control  
PWM

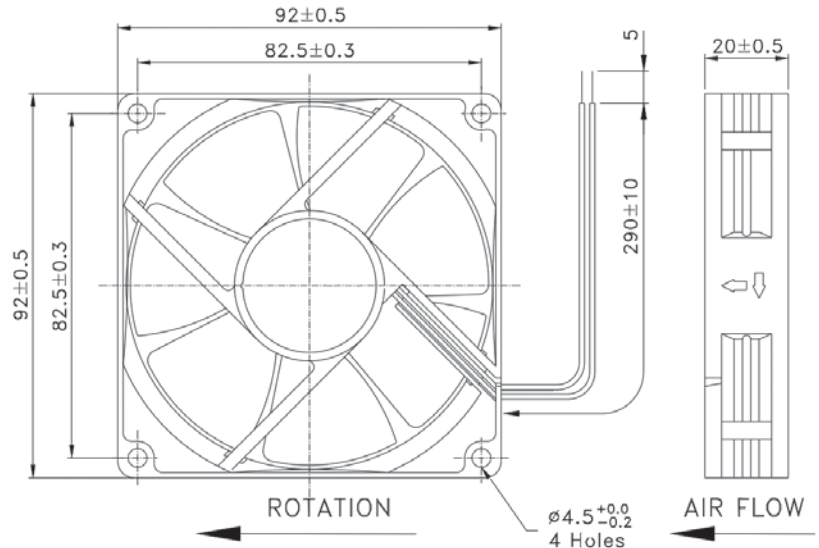


| Model Number     | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Power (Watts) | Amps | Max. Static Pressure (\"H2O) |
|------------------|-------------|---------------|------------|----------|---------------|------|------------------------------|
| OD8038-12HHB-VXC | 7100        | 112           | 60         | 12       | 22            | 1.9  | 1.10                         |
| OD8038-12HB-VXC  | 6300        | 99            | 57         | 12       | 14            | 1.2  | 0.81                         |
| OD8038-12MB-VXC  | 5600        | 89            | 54         | 12       | 10            | 0.8  | 0.75                         |
| OD8038-12LB-VXC  | 4900        | 76            | 51         | 12       | 6             | 0.5  | 0.50                         |
| OD8038-24HB-VXC  | 6300        | 99            | 57         | 24       | 13            | 0.5  | 0.81                         |
| OD8038-24MB-VXC  | 5600        | 89            | 54         | 24       | 10            | 0.4  | 0.75                         |
| OD8038-24LB-VXC  | 4900        | 76            | 51         | 24       | 7             | 0.3  | 0.50                         |
| OD8038-48HB-VXC  | 6300        | 99            | 57         | 48       | 14            | 0.3  | 0.81                         |
| OD8038-48MB-VXC  | 5600        | 89            | 54         | 48       | 10            | 0.2  | 0.75                         |
| OD8038-48LB-VXC  | 4900        | 76            | 51         | 48       | 7             | 0.15 | 0.50                         |

# OD9220 Series



12, 24V DC Fan  
92x20mm (3.6"x 0.79")



|                       |                                                 |                                                                                        |  |
|-----------------------|-------------------------------------------------|----------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br><br>Tachometer - Open Collector<br><br>Locked Rotor Alarm |  |
| Connection            | 2x Lead wires 24AWG                             |                                                                                        |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                        |  |
| Bearing System        | Dual ball bearing                               |                                                                                        |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                        |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                        |  |
| Temperature Range     | -10C ~ +70C                                     |                                                                                        |  |
| Life (L10)            | 65,000 hours (45C)                              | m1                                                                                     |  |

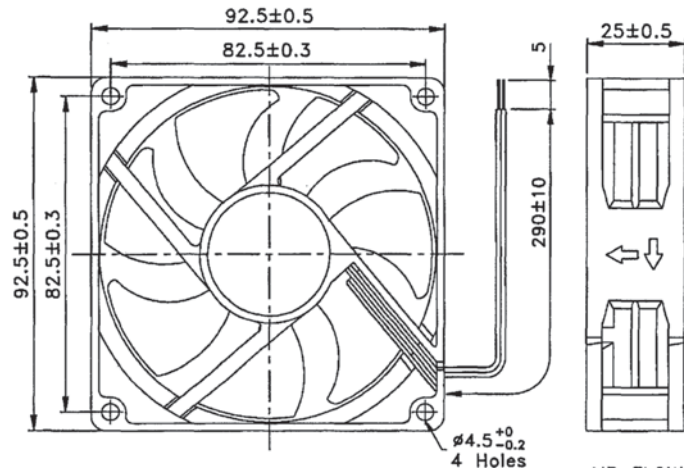
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure (\"H2O) |
|--------------|-------------|---------------|------------|----------|---------------|------|------------------------------|
| OD9220-12H*  | 2700        | 32            | 33         | 12       | 8~16          | 0.25 | 0.13                         |
| OD9220-12M*  | 2400        | 28            | 31         | 12       | 8~16          | 0.16 | 0.11                         |
| OD9220-24H*  | 2700        | 32            | 33         | 24       | 12~28         | 0.14 | 0.125                        |
| OD9220-24M*  | 2400        | 28            | 31         | 24       | 12~28         | 0.12 | 0.11                         |

\* Indicate "B" to specify Ball bearing or "S" to specify Sleeve bearing

# OD9225 Series



DC Fan - 12V & 24V  
92x25 (3.62"x 1.00")



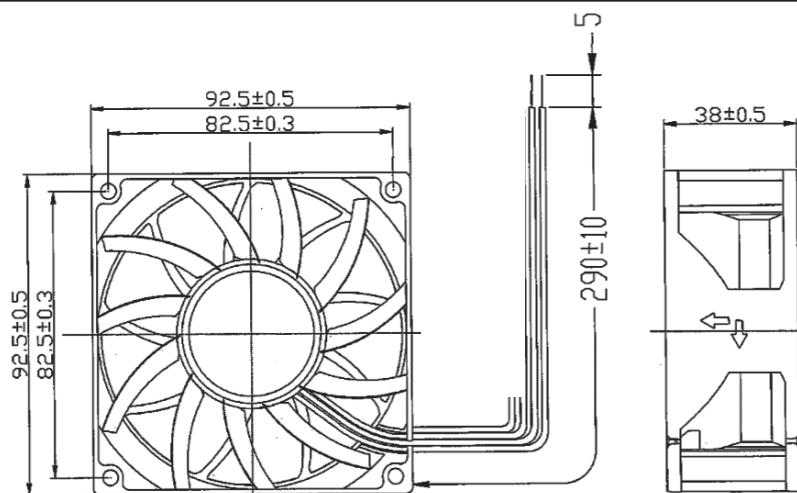
|                       |                                                 |                                                                                                                                                                                                                                                                                    |  |
|-----------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br>Thermal Control<br>Sleeve Bearing<br>05V<br>Extra Low Speed (LL)<br><br><u>Life Expectancy (L10)</u><br>Ball Bearing<br>60,000 hours (L10 at 40C)<br><br><u>Operating Temperature</u><br>Ball Bearing<br>-20C ~ +80C |  |
| Connection            | 2x Lead wires                                   |                                                                                                                                                                                                                                                                                    |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                                                                                                                    |  |
| Bearing System        | Dual Ball                                       |                                                                                                                                                                                                                                                                                    |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                                                                                                                    |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                                                                                                                    |  |
| Storage Temperature   | -30C ~ +90C                                     | m1                                                                                                                                                                                                                                                                                 |  |

| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------|------|-----------------------------|
| OD9225-12HHB | 3300        | 60            | 40         | 12       | 7~17          | 0.29 | 0.17                        |
| OD9225-12HB  | 2900        | 53            | 35         | 12       | 7~17          | 0.25 | 0.13                        |
| OD9225-12MB  | 2400        | 44            | 31         | 12       | 7~17          | 0.17 | 0.09                        |
| OD9225-12LB  | 2100        | 39            | 28         | 12       | 7~17          | 0.13 | 0.07                        |
| OD9225-24HB  | 2900        | 53            | 35         | 24       | 12~28         | 0.15 | 0.13                        |
| OD9225-24MB  | 2400        | 44            | 31         | 24       | 12~28         | 0.12 | 0.09                        |
| OD9225-24LB  | 2100        | 39            | 28         | 24       | 12~28         | 0.08 | 0.07                        |
| OD9225-48HB  | 2800        | 50            | 33         | 48       | 32~56         | 0.09 | 0.24                        |

# OD9238 'VA' Series' Vane Axial High Pressure



DC Fan - 12V, 24V and 48V  
92x38mm (3.62" x 1.5")i

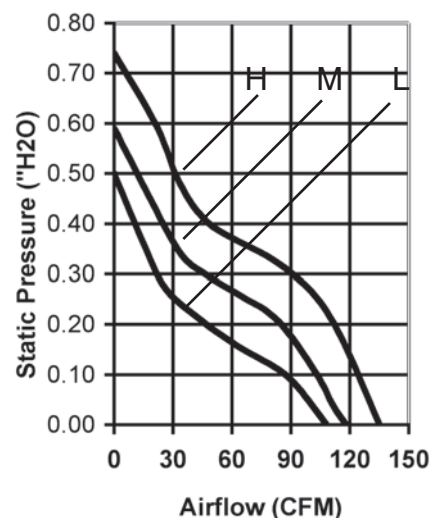


|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Frame & Impeller      | PBT, UL94V-O plastic                                    |
| Connection            | 2x Lead wires, 290mm, UL1007, AWG 24                    |
| Motor                 | Brushless DC, auto restart, polarity protected.         |
| Bearing System        | Dual ball bearing                                       |
| Insulation Resistance | Min. 10M at 500VDC                                      |
| Dielectric Strength   | 1 minute at 500VAC / 1 second, max leakage 500 microamp |
| Temperature Range     | -10C ~ +70C                                             |
| Storage Temperature   | -40C ~ +80C                                             |
| Life Expectancy (L10) | 50,000 hours (40C)                                      |

## Available Options:

Tachometer (FG)  
Alarm  
PWM  
  
Super High Speed (150CFM)

m1

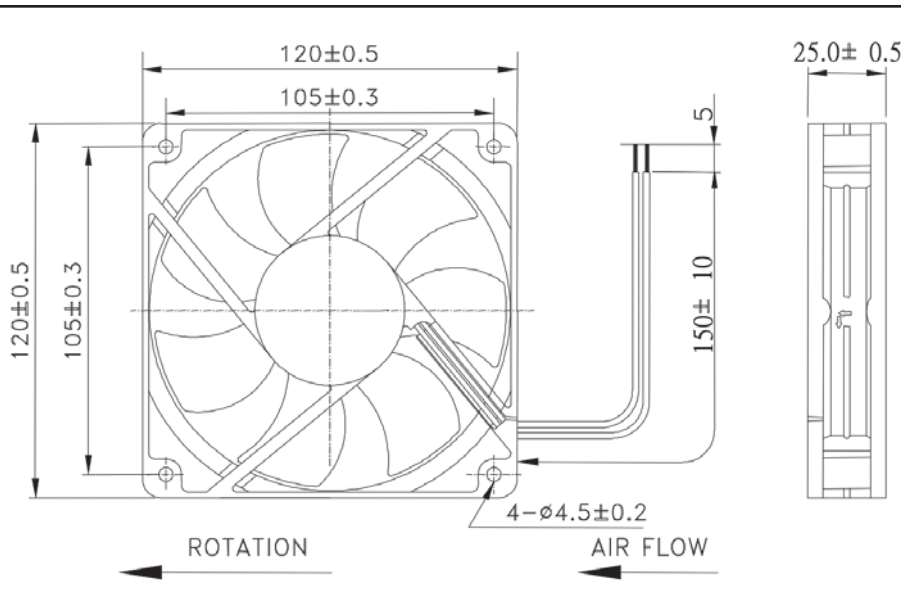


| Model Number   | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Input Power (Watts) | Amps | Max. Static Pressure (H <sub>2</sub> O) |
|----------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------------------|
| OD9238-12HBVXC | 5400        | 135           | 58         | 12       | 16                  | 1.3  | 0.74                                    |
| OD9238-12MBVXC | 4800        | 118           | 55         | 12       | 11                  | 0.9  | 0.59                                    |
| OD9238-12LBVXC | 4400        | 108           | 52         | 12       | 9                   | 0.7  | 0.50                                    |
| OD9238-24HBVXC | 5400        | 135           | 58         | 24       | 16                  | 0.7  | 0.74                                    |
| OD9238-24MBVXC | 4800        | 118           | 55         | 24       | 11                  | 0.5  | 0.59                                    |
| OD9238-24LBVXC | 4400        | 108           | 52         | 24       | 8                   | 0.3  | 0.50                                    |
| OD9238-48HBVXC | 5400        | 135           | 58         | 48       | 17                  | 0.4  | 0.74                                    |
| OD9238-48MBVXC | 4800        | 118           | 55         | 48       | 12                  | 0.3  | 0.59                                    |
| OD9238-48LBVXC | 4400        | 108           | 52         | 48       | 9                   | 0.2  | 0.50                                    |

# OD1225 Series



DC Fan - 12V, 24V  
120x25mm (4.7"x 1.0")



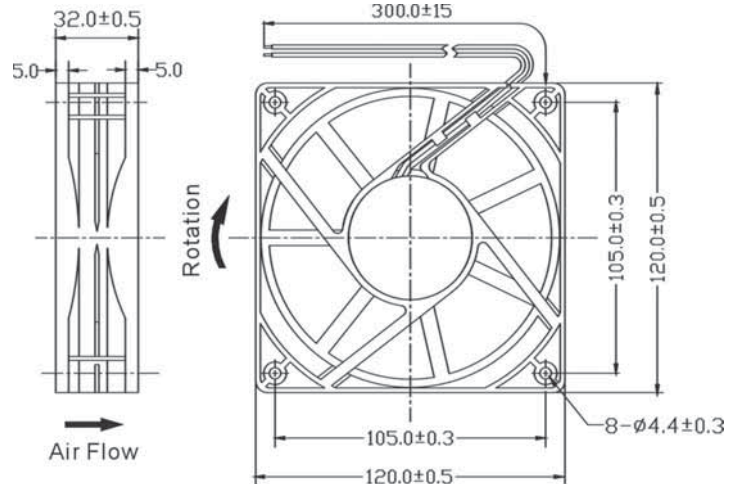
|                       |                                                 |                                                                                                           |  |
|-----------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br><br>Tachometer,<br>Alarm,<br>Thermal control<br>IP55 Water Resistance<br>48V |  |
| Connection            | 2x Lead wires 24AWG                             |                                                                                                           |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                           |  |
| Bearing System        | Dual ball bearing                               |                                                                                                           |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                           |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                           |  |
| Temperature Range     | -10C ~ +70C                                     |                                                                                                           |  |
| Life (L10)            | 65,000 hours (45C)                              | m1                                                                                                        |  |

| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Input Power (Watts) | Amps (max) | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------------|------------|-----------------------------|
| OD1225-12HB  | 2200        | 89            | 39         | 12       | 5                   | 0.37       | 0.14                        |
| OD1225-12MB  | 2050        | 83            | 38         | 12       | 4                   | 0.33       | 0.12                        |
| OD1225-12LB  | 1800        | 72            | 34         | 12       | 3                   | 0.24       | 0.10                        |
| OD1225-24HB  | 2200        | 89            | 39         | 24       | 5                   | 0.19       | 0.14                        |
| OD1225-24MB  | 2050        | 83            | 38         | 24       | 4                   | 0.17       | 0.12                        |
| OD1225-24LB  | 1800        | 72            | 34         | 24       | 3                   | 0.14       | 0.10                        |

# OD1232 Series



DC Fan - 12, 24, 48V  
120x32mm (4.7"x 1.25")



|                       |                                                              |                                                                                                                                                                                                                                                                                                                                                    |  |
|-----------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br>Thermal Speed Control (Thermistor)<br>PWM Input (Manual Speed Control)<br>Life Expectancy (L10)<br>Ball Bearing<br>60,000 hours (L10 at 40C)<br>Sleeve Bearing<br>30,000 hours (L10 at 40C)<br>Operating Temperature<br>Ball Bearing<br>-20C ~ +80C<br>Sleeve Bearing<br>-10C ~ +50C |  |
| Connection            | 2x Lead wires                                                |                                                                                                                                                                                                                                                                                                                                                    |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                                                                                                    |  |
| Bearing System        | Dual Ball or Sleeve                                          |                                                                                                                                                                                                                                                                                                                                                    |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                                                                                                    |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                                                                                                    |  |
| Storage Temperature   | -30C ~ +90C                                                  | m4                                                                                                                                                                                                                                                                                                                                                 |  |

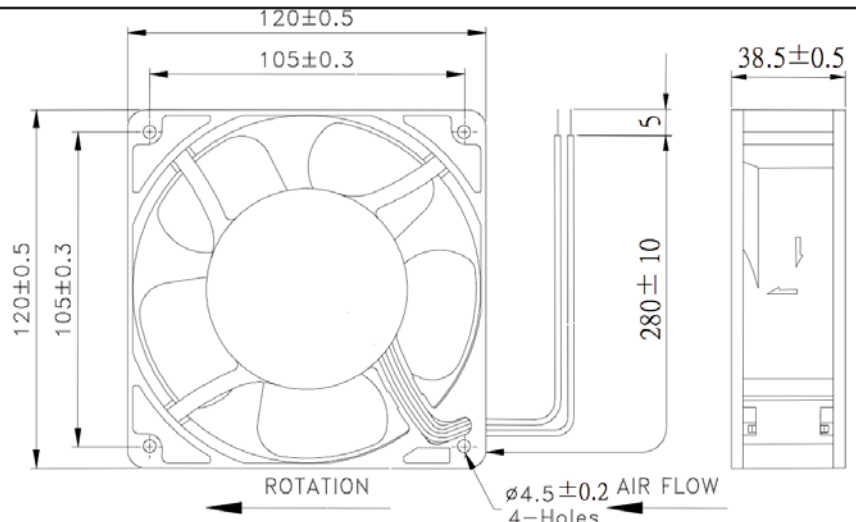
| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------|------|-----------------------------|
| OD1232-12H * | 3750        | 120           | 51         | 12       | 6~13.8        | 0.60 | 0.42                        |
| OD1232-12M * | 3300        | 107           | 48         | 12       | 6~13.8        | 0.50 | 0.33                        |
| OD1232-12L * | 2900        | 93            | 44         | 12       | 6~13.8        | 0.32 | 0.27                        |
| OD1232-24H * | 3750        | 120           | 51         | 24       | 12~27.8       | 0.45 | 0.42                        |
| OD1232-24M * | 3300        | 107           | 48         | 24       | 12~27.8       | 0.28 | 0.33                        |
| OD1232-24L * | 2900        | 93            | 44         | 24       | 12~27.8       | 0.22 | 0.27                        |
| OD1232-48H * | 3750        | 120           | 51         | 48       | 24~55.2       | 0.18 | 0.42                        |
| OD1232-48M * | 3300        | 107           | 48         | 48       | 24~55.2       | 0.15 | 0.33                        |
| OD1232-48L * | 2900        | 93            | 44         | 48       | 24~55.2       | 0.13 | 0.27                        |

\* Indicate "B" to specify Ball bearing or "S" to specify Sleeve bearing

# OD1238 Series



DC Fan - 12, 24, 48V  
120x38mm (4.7"x 1.5")



|                       |                                                              |                                                                                                                                                                                                                                                                                                       |  |
|-----------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                                         | <p>"HH" units are modified for super high air performance. Frame design is designated as m4. Standard units are m0 type.</p> <p>Aluminum frame is available. Use base part number "OD1238AP" to indicate metal frame. See website for full data sheet.</p> <p>* 48V units temp range (-20 ~ +60C)</p> |  |
| Connection            | 2x Lead wires 22AWG                                          |                                                                                                                                                                                                                                                                                                       |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                                                                       |  |
| Bearing System        | Dual ball bearing                                            |                                                                                                                                                                                                                                                                                                       |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                                                                       |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                                                                       |  |
| Temperature Range     | -20C ~ +75C *                                                |                                                                                                                                                                                                                                                                                                       |  |
| Life (L10)            | 65,000 hours (45C)                                           |                                                                                                                                                                                                                                                                                                       |  |

| Model Number    | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Amps | Max. Static Pressure ("H2O) |
|-----------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD1238-12HHB    | 3800        | 154           | 52         | 12       | 6 ~ 13.2            | 1.30 | 0.57                        |
| OD1238-12HB     | 2800        | 105           | 43         | 12       | 6 ~ 13.2            | 0.50 | 0.24                        |
| OD1238-12MB     | 2540        | 95            | 41         | 12       | 6 ~ 13.2            | 0.35 | 0.23                        |
| OD1238-12LB     | 1950        | 73            | 33         | 12       | 6 ~ 13.2            | 0.24 | 0.13                        |
| OD1238-12LLB    | 1500        | 53            | 27         | 12       | 6 ~ 13.2            | 0.16 | 0.09                        |
| OD1238-24HHB    | 3800        | 154           | 52         | 24       | 12 ~ 26.4           | 0.60 | 0.57                        |
| OD1238-24HB     | 2800        | 105           | 43         | 24       | 12 ~ 26.4           | 0.32 | 0.24                        |
| OD1238-24MB     | 2540        | 95            | 41         | 24       | 12 ~ 26.4           | 0.23 | 0.23                        |
| OD1238-24LB     | 1950        | 73            | 33         | 24       | 12 ~ 26.4           | 0.14 | 0.13                        |
| OD1238-24LL * B | 1600        | 45            | 23         | 24       | 18 ~ 27             | 0.15 | 0.09                        |
| OD1238-48HHB    | 3800        | 154           | 52         | 48       | 24 ~ 52             | 0.35 | 0.57                        |
| OD1238-48H * B  | 3000        | 100           | 42         | 48       | 28 ~ 54             | 0.10 | 0.28                        |
| OD1238-48M * B  | 2550        | 79            | 33         | 48       | 28 ~ 54             | 0.08 | 0.21                        |
| OD1238-48L * B  | 2000        | 65            | 26         | 48       | 28 ~ 54             | 0.07 | 0.13                        |
| OD1238-48LL * B | 1600        | 45            | 23         | 48       | 28 ~ 54             | 0.07 | 0.09                        |

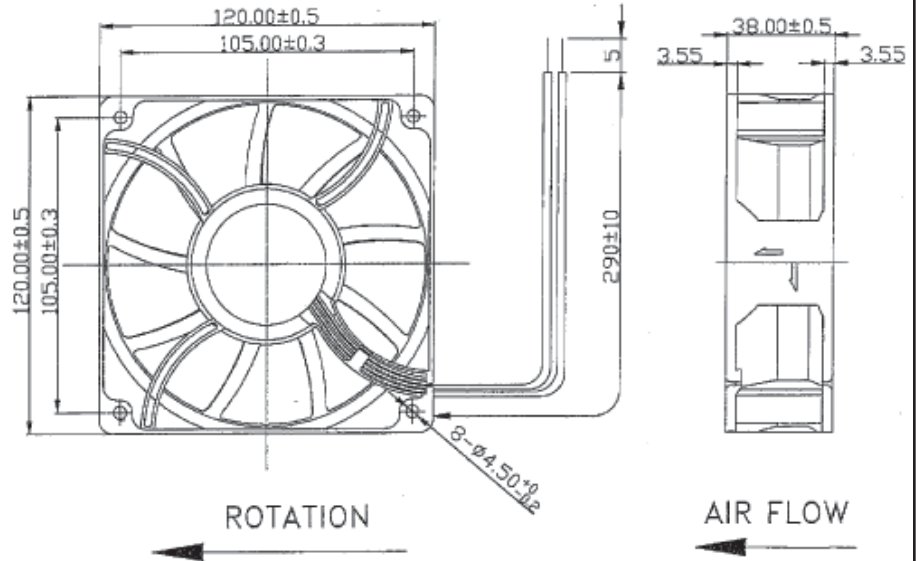
\* Insert letter "T" to specify terminal type. - (Sleeve Bearing - Replace suffix "B" with "S" in part number.)

# OD1238 - 'XC Series'

## High Performance



High Performance DC Fan  
120x38mm (4.7"x 1.5")



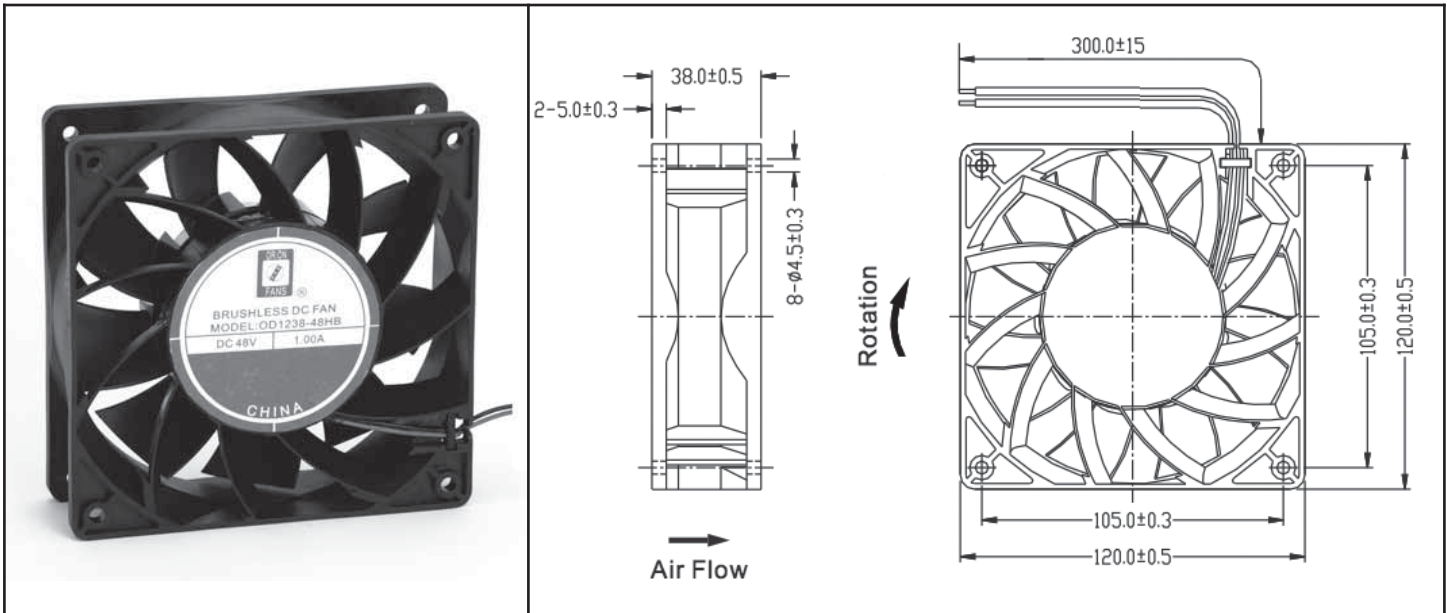
|                       |                                                 |                                                                                                                                                                  |  |
|-----------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br><br>Tachometer (Frequency Generator)<br><br>Alarm (Rotation Detector)<br><br>Thermistor (Thermal Speed Control) Lead or hub mounted |  |
| Connection            | 2x Lead wires 24AWG                             |                                                                                                                                                                  |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                  |  |
| Bearing System        | Dual ball bearing                               |                                                                                                                                                                  |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                  |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                  |  |
| Temperature Range     | -10C ~ +70C                                     |                                                                                                                                                                  |  |
| Life (L10)            | 65,000 hours (45C)                              | m1                                                                                                                                                               |  |

| Model Number    | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Input Power (Watts) | Amps | Max. Static Pressure ("H2O) |
|-----------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD1238-12HB-XC  | 4300        | 200           | 61         | 12       | 23                  | 1.95 | 0.64                        |
| OD1238-12MB-XC  | 3800        | 175           | 57         | 12       | 18                  | 1.50 | 0.51                        |
| OD1238-12LB-XC  | 3200        | 150           | 52         | 12       | 10                  | 0.87 | 0.38                        |
| OD1238-24HB-XC  | 4300        | 200           | 61         | 24       | 19                  | 0.98 | 0.64                        |
| OD1238-24MB-XC  | 3800        | 175           | 57         | 24       | 16                  | 0.68 | 0.51                        |
| OD1238-24LB-XC  | 3200        | 150           | 52         | 24       | 9                   | 0.42 | 0.38                        |
| OD1238-24LLB-XC | 2800        | 130           | 48         | 24       | 7                   | 0.30 | 0.29                        |
| OD1238-48HHB-XC | 4700        | 220           | 63         | 48       | 32                  | 0.68 | 0.75                        |
| OD1238-48HB-XC  | 4300        | 200           | 61         | 48       | 25                  | 0.52 | 0.64                        |
| OD1238-48MB-XC  | 3800        | 175           | 57         | 48       | 17                  | 0.36 | 0.51                        |
| OD1238-48LB-XC  | 3200        | 150           | 52         | 48       | 11                  | 0.22 | 0.38                        |
| OD1238-48LLB-XC | 2800        | 130           | 48         | 48       | 9                   | 0.18 | 0.29                        |

# OD1238 - 'VA Series' Vane Axial High Pressure



High Performance DC Fan  
120x38mm (4.7"x 1.5")



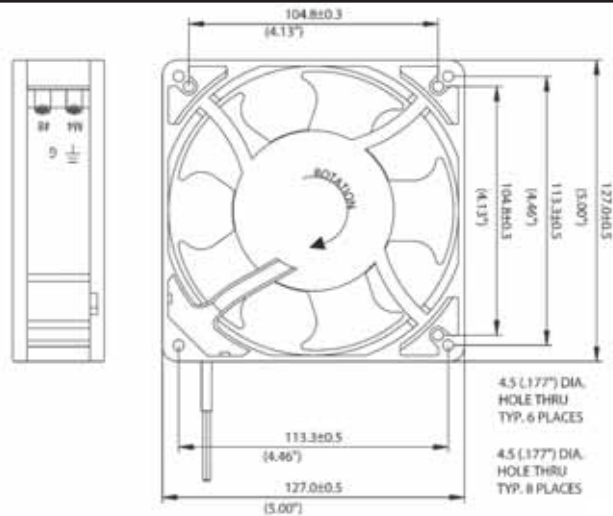
|                       |                                                 |                                                                                                                                                                            |  |
|-----------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br><br>Tachometer (Frequency Generator)<br><br>Alarm (Rotation Detector)<br><br>Thermistor (Thermal Speed Control) Lead or hub mounted<br><br>m4 |  |
| Connection            | 2x Lead wires 22AWG                             |                                                                                                                                                                            |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                            |  |
| Bearing System        | Dual ball bearing                               |                                                                                                                                                                            |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                            |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                            |  |
| Temperature Range     | -10C ~ +70C                                     |                                                                                                                                                                            |  |
| Life (L10)            | 65,000 hours (45C)                              |                                                                                                                                                                            |  |

| Model Number     | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure (\"H2O) |
|------------------|-------------|---------------|------------|----------|---------------|------|------------------------------|
| OD1238-12HB-VXC  | 5000        | 226           | 65         | 12       | 6~14          | 3.6  | 1.35                         |
| OD1238-12MB-VXC  | 4000        | 189           | 59         | 12       | 6~14          | 2.0  | 0.85                         |
| OD1238-12LB-VXC  | 3000        | 140           | 52         | 12       | 6~14          | 1.5  | 0.46                         |
| OD1238-24HB-VXC  | 5000        | 226           | 65         | 24       | 12~28         | 1.7  | 1.35                         |
| OD1238-24MB-VXC  | 4000        | 189           | 59         | 24       | 12~28         | 1.1  | 0.85                         |
| OD1238-24LB-VXC  | 3000        | 140           | 52         | 24       | 12~28         | 0.6  | 0.46                         |
| OD1238-48HHB-VXC | 6000        | 283           | 70         | 48       | 24~55         | 1.3  | 1.85                         |
| OD1238-48HB-VXC  | 5000        | 226           | 65         | 48       | 24~55         | 1.0  | 1.35                         |
| OD1238-48MB-VXC  | 4000        | 189           | 59         | 48       | 24~55         | 0.6  | 0.85                         |
| OD1238-48LB-VXC  | 3000        | 140           | 52         | 48       | 24~55         | 0.4  | 0.46                         |

# OD127AP Series Aluminum Frame



DC Fan - 12, 24, 48V  
127x38.5mm (5.0"x 1.5")



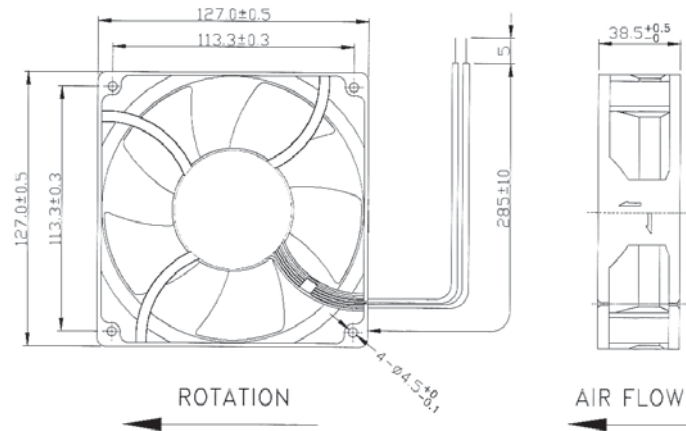
|                       |                                                 |                                                                                                                                                                                                                                                      |  |
|-----------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                                | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br><br>PWM Input (Manual Speed Control)<br>Sleeve bearing<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -20 ~ 75C<br><br>m0 |  |
| Impeller              | PBT, UL94V-O plastic                            |                                                                                                                                                                                                                                                      |  |
| Connection            | 2x Lead wires or terminals                      |                                                                                                                                                                                                                                                      |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                                                                                      |  |
| Bearing System        | Dual Ball bearing                               |                                                                                                                                                                                                                                                      |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                                                                                      |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                                                                                      |  |
| Storage Temperature   | -30C ~ +90C                                     |                                                                                                                                                                                                                                                      |  |

| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure ("H2O) |
|--------------|-------------|---------------|------------|----------|---------------|------|-----------------------------|
| OD127AP-12HB | 3200        | 140           | 46         | 12       | 9~13.8        | 0.88 | 0.41                        |
| OD127AP-12MB | 2600        | 108           | 38         | 12       | 9~13.8        | 0.50 | 0.33                        |
| OD127AP-12LB | 1900        | 86            | 30         | 12       | 9~13.8        | 0.20 | 0.23                        |
| OD127AP-24HB | 3000        | 140           | 46         | 24       | 12~27.6       | 0.43 | 0.41                        |
| OD127AP-24MB | 2600        | 108           | 38         | 24       | 12~27.6       | 0.23 | 0.33                        |
| OD127AP-24LB | 1900        | 86            | 30         | 24       | 12~27.6       | 0.15 | 0.23                        |
| OD127AP-48HB | 3200        | 140           | 46         | 48       | 26~56         | 0.22 | 0.41                        |
| OD127AP-48MB | 2600        | 108           | 38         | 48       | 26~58         | 0.10 | 0.33                        |
| OD127AP-48LB | 1900        | 86            | 30         | 48       | 26~60         | 0.07 | 0.23                        |

# OD127 Series



DC Fan - 12, 24, 48V  
127x38.5mm (5.0"x 1.5")



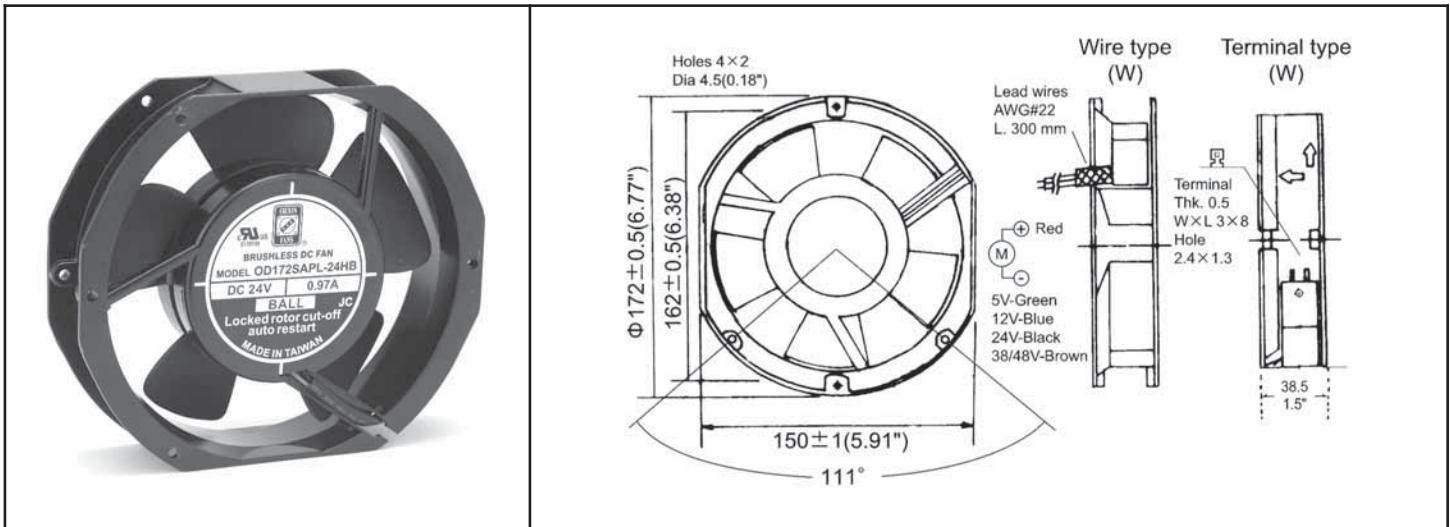
|                       |                                                 |                                                                                                                                                                                                                       |  |
|-----------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame & Impeller      | PBT, UL94V-O plastic                            | <b>Available Options:</b><br>Tachometer (FG)<br>Alarm (RD)<br>Thermal Speed Control (Thermistor)<br>PWM Input<br><br>Life Expectancy (L10)<br>Ball - 60,000 hrs (45C)<br><br>Operating Temperature<br>Ball: -20 ~ 75C |  |
| Connection            | 2x Lead wires                                   |                                                                                                                                                                                                                       |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                                                       |  |
| Bearing System        | Dual Ball bearing                               |                                                                                                                                                                                                                       |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                                                       |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                                                       |  |
| Storage Temperature   | -30C ~ +90C                                     |                                                                                                                                                                                                                       |  |

| Model Number  | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure ("H2O) |
|---------------|-------------|---------------|------------|----------|---------------|------|-----------------------------|
| OD127-12HHB   | 4100        | 226           | 62         | 12       | 8~14          | 2.3  | 0.55                        |
| OD127-12HB    | 3500        | 193           | 56         | 12       | 8~14          | 1.2  | 0.46                        |
| OD127-12MB    | 2950        | 161           | 53         | 12       | 8~14          | 0.78 | 0.35                        |
| OD127-24HB XC | 4500        | 242           | 65         | 24       | 11~28         | 1.3  | 0.63                        |
| OD127-24HHB   | 4100        | 226           | 62         | 24       | 11~28         | 1.1  | 0.55                        |
| OD127-24HB    | 3500        | 193           | 56         | 24       | 11~28         | 0.61 | 0.46                        |
| OD127-24MB    | 2950        | 161           | 53         | 24       | 11~28         | 0.41 | 0.35                        |
| OD127-48HB XC | 4500        | 242           | 65         | 48       | 22~55         | 0.70 | 0.63                        |
| OD127-48HHB   | 4100        | 226           | 62         | 48       | 22~55         | 0.55 | 0.55                        |
| OD127-48HB    | 3500        | 193           | 56         | 48       | 22~55         | 0.34 | 0.46                        |
| OD127-48MB    | 2950        | 161           | 53         | 48       | 22~55         | 0.23 | 0.35                        |
| OD127-48LB    | 2500        | 133           | 30         | 48       | 22~55         | 0.17 | 0.23                        |
| OD127-48LLB   | 2000        | 107           | 41         | 48       | 22~55         | 0.12 | 0.16                        |

# OD172SAPL Series



DC Fan - 12, 24, 48V  
172x150x38mm (6.7"x 5.9"x 1.5")



|                       |                                                 |                                                                                                                                                                                                                                                                      |  |
|-----------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                                | <b>Available Options:</b><br>Tachometer (5VTTL)<br>Alarm (5VTTL)<br>Thermistor Speed Control<br>PWM Speed Control<br>Constant Speed<br><br><u>Life Expectancy (L10)</u><br>Ball - 60,000 hrs (45C)<br><br><u>Operating Temperature</u><br>Ball: -20C ~ 80C<br><br>m0 |  |
| Impeller              | PBT, UL94V-O plastic                            |                                                                                                                                                                                                                                                                      |  |
| Connection            | 2x Lead wires, AWG22 or terminals               |                                                                                                                                                                                                                                                                      |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                                                                                                      |  |
| Bearing System        | Dual ball bearing                               |                                                                                                                                                                                                                                                                      |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                                                                                                      |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                                                                                                      |  |
| Storage Temperature   | -30C ~ +90C                                     |                                                                                                                                                                                                                                                                      |  |

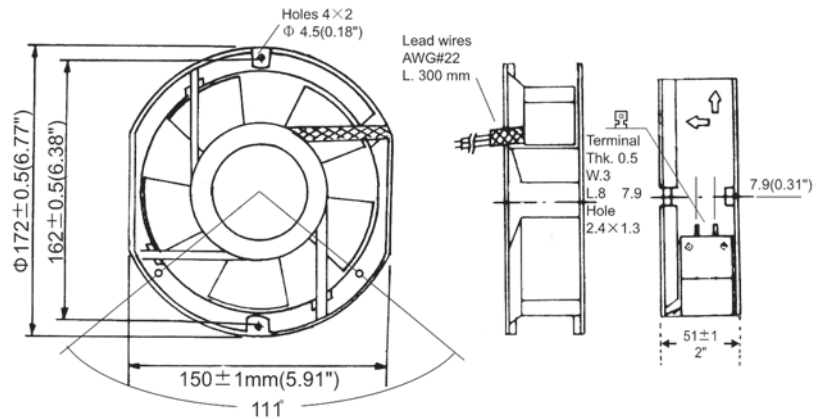
| Model Number    | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure ("H2O) |
|-----------------|-------------|---------------|------------|----------|---------------|------|-----------------------------|
| OD172SAPL-12H * | 4000        | 225           | 55         | 12       | 8~14          | 1.99 | 0.73                        |
| OD172SAPL-12M * | 3300        | 190           | 45         | 12       | 8~14          | 1.10 | 0.51                        |
| OD172SAPL-12L * | 2000        | 120           | 40         | 12       | 8~14          | 0.45 | 0.35                        |
| OD172SAPL-24H * | 4000        | 225           | 55         | 24       | 15~28         | 0.97 | 0.73                        |
| OD172SAPL-24M * | 2800        | 190           | 45         | 24       | 15~28         | 0.52 | 0.51                        |
| OD172SAPL-24L * | 2000        | 120           | 40         | 24       | 15~28         | 0.20 | 0.35                        |
| OD172SAPL-48H * | 4000        | 225           | 55         | 48       | 28~63         | 0.48 | 0.73                        |
| OD172SAPL-48M * | 2800        | 190           | 45         | 48       | 28~63         | 0.30 | 0.51                        |
| OD172SAPL-48L * | 2000        | 120           | 40         | 48       | 28~63         | 0.12 | 0.35                        |

\* Indicate "B" for wire leads or "TB" for Terminals

# OD172S Series



DC Fan - 12, 24, 48V  
172x150x51mm (6.7"x 5.9"x 2.0")



|                       |                                                 |                                                                                                                                                                                                                                                    |  |
|-----------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                                | <b>Available Options:</b><br>Tachometer (5VTTL)<br>Alarm (5VTTL)<br>Thermistor Speed Control<br>PWM Speed Control<br><br><u>Life Expectancy (L10)</u><br>Ball - 40,000 hrs (60C)<br><br><u>Operating Temperature</u><br>Ball: -20C ~ 75C<br><br>m0 |  |
| Impeller              | PBT, UL94V-O plastic                            |                                                                                                                                                                                                                                                    |  |
| Connection            | 2x Lead wires, AWG22 or terminals               |                                                                                                                                                                                                                                                    |  |
| Motor                 | Brushless DC, auto restart, polarity protected  |                                                                                                                                                                                                                                                    |  |
| Bearing System        | Dual ball bearing                               |                                                                                                                                                                                                                                                    |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)     |                                                                                                                                                                                                                                                    |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp |                                                                                                                                                                                                                                                    |  |
| Storage Temperature   | -30C ~ +90C                                     |                                                                                                                                                                                                                                                    |  |

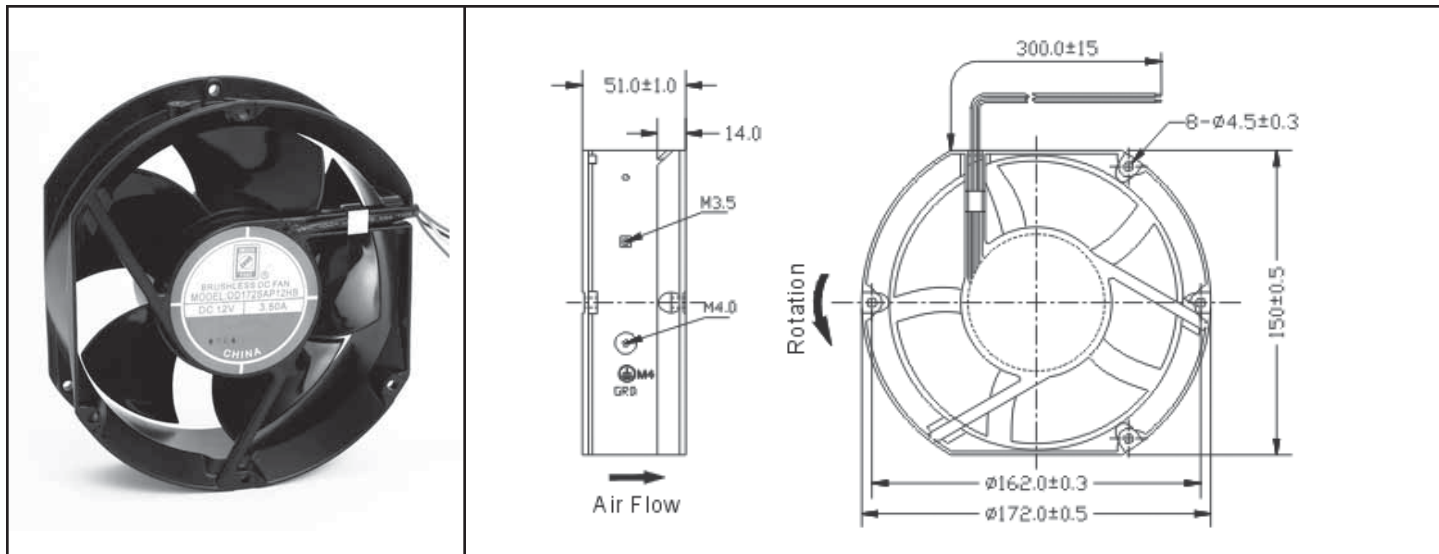
| Model Number    | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure ("H2O) |
|-----------------|-------------|---------------|------------|----------|---------------|------|-----------------------------|
| OD172SAP-12HH * | 3800        | 290           | 56         | 12       | 8~14          | 4.2  | 0.93                        |
| OD172SAP-12H *  | 3200        | 230           | 52         | 12       | 8~14          | 1.90 | 0.75                        |
| OD172SAP-12M *  | 2500        | 180           | 42         | 12       | 8~14          | 1.10 | 0.51                        |
| OD172SAP-12L *  | 1600        | 125           | 32         | 12       | 8~14          | 0.45 | 0.35                        |
| OD172SAP-24HH * | 3900        | 300           | 57         | 24       | 15~28         | 2.65 | 0.98                        |
| OD172SAP-24H *  | 3300        | 235           | 52         | 24       | 15~28         | 0.97 | 0.79                        |
| OD172SAP-24M *  | 2500        | 180           | 42         | 24       | 15~28         | 0.52 | 0.51                        |
| OD172SAP-24L *  | 1600        | 125           | 32         | 24       | 15~28         | 0.20 | 0.35                        |
| OD172SAP-48HH * | 3900        | 300           | 57         | 48       | 22~63         | 1.03 | 0.98                        |
| OD172SAP-48H *  | 3300        | 235           | 52         | 48       | 22~63         | 0.48 | 0.79                        |
| OD172SAP-48M *  | 2500        | 180           | 42         | 48       | 22~63         | 0.30 | 0.51                        |
| OD172SAP-48L *  | 1600        | 125           | 32         | 48       | 22~63         | 0.12 | 0.35                        |

\* Indicate "B" for wire leads or "TB" for Terminals

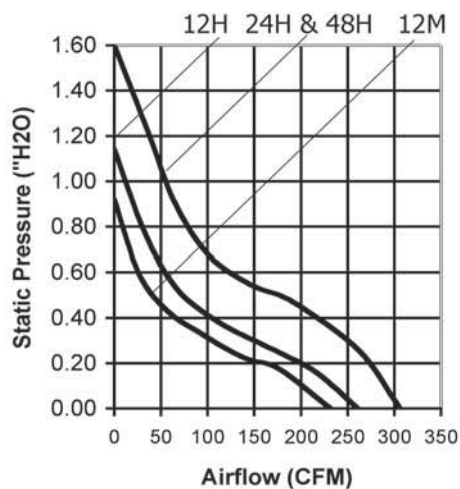
# OD172S XC Series High Performance



DC Fan - 12, 24, 48V  
172x150x51mm (6.7"x 5.9"x 2.0")



|                       |                                                              |
|-----------------------|--------------------------------------------------------------|
| Frame                 | Diecast Aluminum                                             |
| Impeller              | PBT, UL94V-2 plastic                                         |
| Connection            | 2x Lead wires, AWG22                                         |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |
| Bearing System        | Dual ball bearing                                            |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |
| Temperature Range     | -10C ~ +70C                                                  |
| Life (L10)            | 65,000 hours (45C) m4                                        |

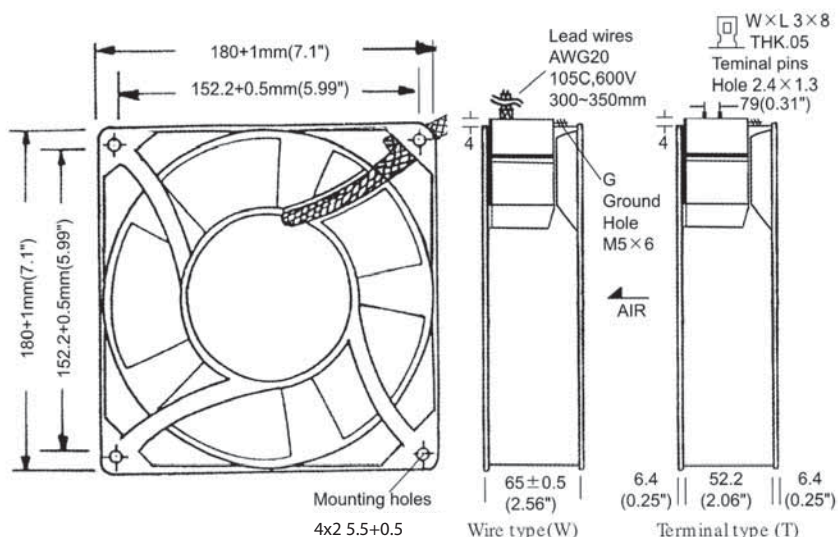


| Model Number    | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure (\"H2O) |
|-----------------|-------------|---------------|------------|----------|---------------|------|------------------------------|
| OD172SAP-12HBXC | 3900        | 277           | 62         | 12       | 9~14          | 3.50 | 1.14                         |
| OD172SAP-12MBXC | 3400        | 232           | 59         | 12       | 9~14          | 2.40 | 0.92                         |
| OD172SAP-24HBXC | 4600        | 307           | 67         | 24       | 15~28         | 2.30 | 1.60                         |
| OD172SAP-48HBXC | 4600        | 307           | 67         | 48       | 24~55         | 1.20 | 1.60                         |

# OD180APL Series



DC Fan - 12, 24, 48V  
180x65mm (7.1"x 2.6")



|                       |                                                             |                                                                             |  |
|-----------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------|--|
| Frame & Impeller      | Diecast Aluminum (Frame)<br>PBT, UL94V-O - (Impeller)       | <b>Available Options:</b><br><br>Alarm<br>Tachometer<br><br>Thermal Control |  |
| Connection            | 2x Lead wires 20AWG or terminals                            |                                                                             |  |
| Motor                 | Brushless DC, auto restart, rotor lock & polarity protected |                                                                             |  |
| Bearing System        | Dual ball bearing                                           |                                                                             |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                 |                                                                             |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp             |                                                                             |  |
| Temperature Range     | -25C ~ +80C                                                 |                                                                             |  |
| Life (L10)            | 60,000 hours (40C)                                          | m0                                                                          |  |

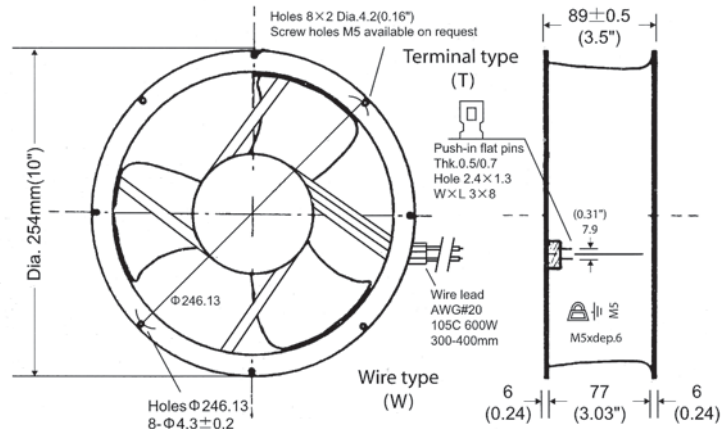
| Model Number   | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Input Power (Watts) | Amps | Max. Static Pressure ("H2O) |
|----------------|-------------|---------------|------------|----------|---------------------|------|-----------------------------|
| OD180APL-12H*B | 2800        | 430           | 61         | 12       | 23                  | 1.90 | 1.1                         |
| OD180APL-12M*B | 2500        | 370           | 49         | 12       | 13                  | 1.10 | 0.79                        |
| OD180APL-12L*B | 1700        | 250           | 38         | 12       | 5.5                 | 0.45 | 0.59                        |
| OD180APL-24H*B | 3300        | 450           | 62         | 24       | 24                  | 0.97 | 1.2                         |
| OD180APL-24M*B | 2700        | 370           | 49         | 24       | 13                  | 0.52 | 0.79                        |
| OD180APL-24L*B | 1700        | 250           | 38         | 24       | 5                   | 0.20 | 0.59                        |
| OD180APL-48H*B | 3400        | 465           | 63         | 48       | 23                  | 0.48 | 1.2                         |
| OD180APL-48M*B | 2700        | 370           | 49         | 48       | 14                  | 0.30 | 0.58                        |
| OD180APL-48L*B | 2200        | 500           | 40         | 48       | 6                   | 0.12 | 0.42                        |

\* Insert letter "T" to indicate terminal-type.

# OD254 Series



DC Fan - 12, 24, 48V  
254x89mm (10.0"x 3.50")



|                       |                                                              |                                                                                                                                                                                                                                                    |  |
|-----------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Frame                 | Diecast Aluminum                                             | <b>Available Options:</b><br>Tachometer (5VTTL)<br>Alarm (5VTTL)<br>Thermistor Speed Control<br>PWM Speed Control<br><br><u>Life Expectancy (L10)</u><br>Ball - 40,000 hrs (60C)<br><br><u>Operating Temperature</u><br>Ball: -20C ~ 75C<br><br>m0 |  |
| Impeller              | PBT, UL94V-O plastic                                         |                                                                                                                                                                                                                                                    |  |
| Connection            | 2x Lead wires 20AWG or terminals                             |                                                                                                                                                                                                                                                    |  |
| Motor                 | Brushless DC, auto restart, impedance and polarity protected |                                                                                                                                                                                                                                                    |  |
| Bearing System        | Ball bearing                                                 |                                                                                                                                                                                                                                                    |  |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                  |                                                                                                                                                                                                                                                    |  |
| Dielectric Strength   | 1 second at 500 VAC, max leakage - 500 MicroAmp              |                                                                                                                                                                                                                                                    |  |
| Storage Temperature   | -40C ~ +90C                                                  |                                                                                                                                                                                                                                                    |  |

| Model Number  | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range (VDC) | Input Power (Watt) | Amps | Max. Static Pressure ("H2O) |
|---------------|-------------|---------------|------------|----------|---------------------|--------------------|------|-----------------------------|
| OD254AP-12H * | 2400        | 830           | 60         | 12       | 9~13                | 65                 | 5.4  | 0.78                        |
| OD254AP-12M * | 2000        | 690           | 47         | 12       | 9~13                | 23                 | 1.9  | 0.58                        |
| OD254AP-12L * | 1650        | 550           | 39         | 12       | 8~14                | 13                 | 1.1  | 0.37                        |
| OD254AP-24H * | 2500        | 850           | 64         | 24       | 16~27               | 64                 | 2.65 | 0.83                        |
| OD254AP-24M * | 2000        | 690           | 47         | 24       | 16~27               | 24                 | 0.97 | 0.58                        |
| OD254AP-24L * | 1500        | 550           | 39         | 24       | 16~27               | 13                 | 0.52 | 0.37                        |
| OD254AP-48H * | 2500        | 850           | 64         | 48       | 24~53               | 62                 | 1.3  | 0.83                        |
| OD254AP-48M * | 2000        | 690           | 47         | 48       | 24~53               | 24                 | 0.48 | 0.58                        |
| OD254AP-48L * | 1500        | 550           | 39         | 48       | 24~56               | 15                 | 0.30 | 0.37                        |

\* Indicate "B" for wire leads or "TB" for Terminals



## Long Life Low Cost

The Challenger series provides a unique patented sealed sleeve bearing system that has a life expectancy in excess of 50,000 hours. It is a very cost effective product for the cost conscious OEM

| Size                 | 120 x 38mm<br>(4.7"x1.5")                                                          |              | 120 X 25mm<br>(4.7"x 1.0")                                                         |              | 92 x 25mm<br>(3.6"x1.0")                                                            |              | 80 x 25mm<br>(3.2" x 1.0")                                                           |              |
|----------------------|------------------------------------------------------------------------------------|--------------|------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------|--------------|
| Part Number          | OD1238-12HSS                                                                       | OD1238-24MSS | OD1225-12HSS                                                                       | OD1225-24HSS | OD9225-12HSS                                                                        | OD9225-24HSS | OD8025-12HSS                                                                         | OD8025-24HSS |
| Nominal Voltage      | 12VDC                                                                              | 24VDC        | 12VDC                                                                              | 24VDC        | 12VDC                                                                               | 24VDC        | 12VDC                                                                                | 24VDC        |
| Nominal Current      | 0.50A                                                                              | 0.23A        | 0.44A                                                                              | 0.24A        | 0.25A                                                                               | 0.15A        | 0.25A                                                                                | 0.16A        |
| Rated Power          | 4.7W                                                                               | 4.8W         | 5.3W                                                                               | 5.8W         | 2.9W                                                                                | 3.4W         | 2.9W                                                                                 | 2.4W         |
| Rated Speed (RPM)    | 2800                                                                               | 2540         | 2200                                                                               | 2200         | 2900                                                                                | 2900         | 3100                                                                                 | 3100         |
| Airflow (CFM)        | 105                                                                                | 96           | 85                                                                                 | 85           | 52                                                                                  | 52           | 40                                                                                   | 40           |
| Noise Level (dB)     | 47                                                                                 | 47           | 39                                                                                 | 39           | 35                                                                                  | 35           | 34                                                                                   | 34           |
| Max. Static Pressure | 0.27" H2O                                                                          | 0.23" H2O    | 0.14" H2O                                                                          | 0.14" H2O    | 0.13" H2O                                                                           | 0.13" H2O    | 0.16" H2O                                                                            | 0.16" H2O    |
| Photo                |  |              |  |              |  |              |  |              |

| Size                 | 60 x 25mm<br>(2.4" x 1.0")                                                          |              | 40 x 20mm<br>(1.6" x 0.8")                                                          |              | 40 x 10mm<br>(1.6" x 0.4")                                                           |              | Frame & Impeller      | PBT, UL94V-2 plastic                           |
|----------------------|-------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------|--------------|-----------------------|------------------------------------------------|
| Part Number          | OD6025-12HSS                                                                        | OD6025-24HSS | OD4020-12HSS                                                                        | OD4020-24HSS | OD4010-12HSS                                                                         | OD4010-24HSS | Connection            | 2x Lead wires                                  |
| Nominal Voltage      | 12VDC                                                                               | 24VDC        | 12VDC                                                                               | 24VDC        | 12VDC                                                                                | 24VDC        | Motor                 | Brushless DC, auto restart, polarity protected |
| Nominal Current      | 0.23A                                                                               | 0.15A        | 0.11A                                                                               | 0.09A        | 0.10A                                                                                | 0.09A        |                       |                                                |
| Rated Power          | 2.8W                                                                                | 3.6W         | 1.2W                                                                                | 1.7W         | 1.2W                                                                                 | 1.4W         |                       |                                                |
| Rated Speed (RPM)    | 4600                                                                                | 4600         | 7800                                                                                | 7800         | 6000                                                                                 | 6000         | Bearing System        | Sealed Sleeve                                  |
| Airflow (CFM)        | 25                                                                                  | 25           | 9.0                                                                                 | 9.0          | 6.7                                                                                  | 6.7          | Insulation Resistance | 10M ohm between lead-wire and frame (500VDC)   |
| Noise Level (dB)     | 35                                                                                  | 35           | 32                                                                                  | 32           | 25                                                                                   | 25           |                       |                                                |
| Max. Static Pressure | 0.20" H2O                                                                           | 0.20" H2O    | 0.30" H2O                                                                           | 0.30" H2O    | 0.10" H2O                                                                            | 0.10" H2O    | Dielectric Strength   | 1500VAC / 1 min.                               |
| Photo                |  |              |  |              |  |              | Operating Temperature | -10C ~ +70C                                    |

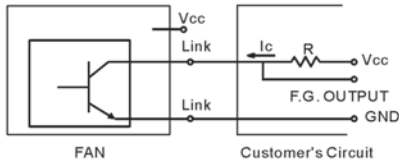


## Function

### ■ Frequency Generator

Generates a square wave out frequency equal to 2 periods per revolution for 4 poles fan and informs the user of the fan's running speed.

#### ● Application 1 - Open Collector

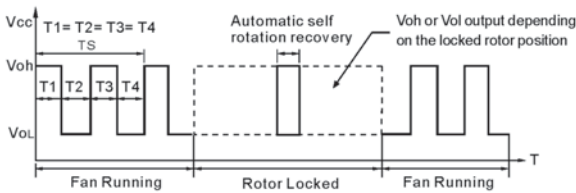


$V_{cc}$  = From + 5 To +28 VDC Do not exceed fan supply voltage

$I_c$  = 5 mA max.

$R = V/I$  (Output "R" value calculation)

#### ● Output Waveform



◆  $N = R.P.M$

◆  $T_s = 60/N$  (Sec)

◆ Output Level

$V_{oh} = V_{cc} \pm 10\%$

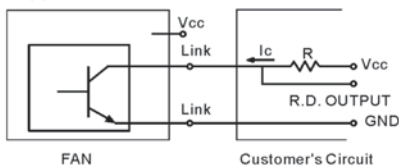
$V_{ol} = 0 \sim 0.6V$

$I_c = 5$  mA max.

### ■ Rotation detector

Detects whether the fan is running or has stopped by generation a high or low output signal.

#### ● Application 1

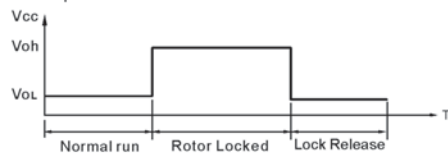


$V_{cc}$  = From + 5 To +28 VDC (Generally using + 12 or + 24VDC)

$I_c$  = 2 mA max.

$R = V/I$  (Output "R" value calculation)

#### ● Output Waveform



◆ Output Level

$V_{oh} = V_{cc} \pm 10\%$

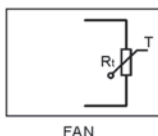
$V_{ol} = 0 \sim 0.6V$

$I_{cc} = 5$  mA max.

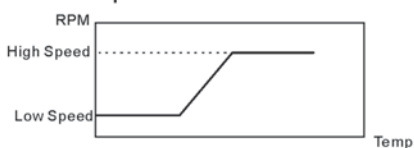
### ■ Temperature Control

Controls the fan speed via an thermistor which changes with the temperature of the task area where the thermistor is located.

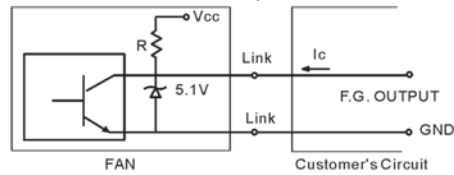
#### ● Application



#### ● RPM Temperature curve

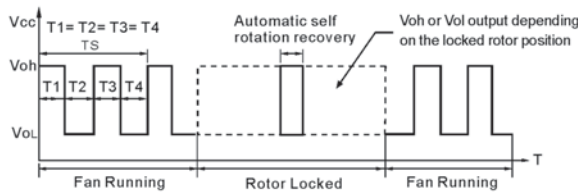


#### ● Application 2 - TTL Compatible



$I_c = 5$  mA max.

#### ● Output Waveform



◆  $N = R.P.M$

◆  $T_s = 60/N$  (Sec)

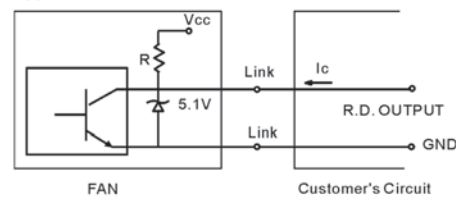
◆ Output Level

$V_{oh} = 5.0V \pm 0.5V$

$V_{ol} = 0 \sim 0.6V$

$I_c = 5$  mA max.

#### ● Application 2

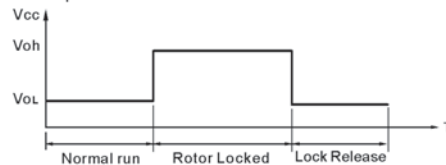


$V_{cc}$  = From + 5 To +28 VDC (Generally using + 12 or + 24VDC)

$I_c$  = 5 mA max.

$R$  (type) = 10K

#### ● Output Waveform



◆ Output Level

$V_{oh} = 5.0V \pm 0.5V$

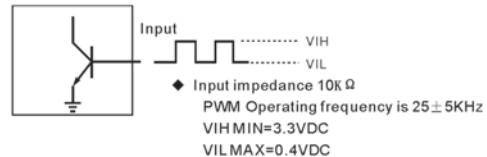
$V_{ol} = 0 \sim 0.6V$

$I_{cc} = 5$  mA max.

### ■ Pulse width modulation

Controls the fan speed automatically via an external input Pulse Width Modulation signal.

#### ● Application



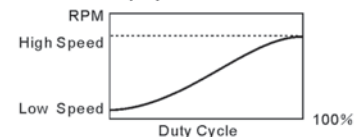
◆ Input impedance 10K  $\Omega$

PWM Operating frequency is 25  $\pm$  5KHz

$V_{IH} \text{ MIN} = 3.3VDC$

$V_{IL} \text{ MAX} = 0.4VDC$

#### ● RPM & Duty Cycle Curve





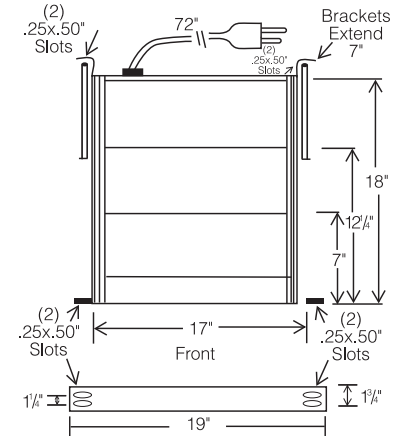
# THERMALCARE FAN TRAYS



## BASIC FAN TRAY SPECIFICATIONS...

### FRAME

Heavy Duty steel construction with extruded aluminum side rails. Black color standard, gray available by special order.



### HARDWARE

EZ-mount clip nuts and fasteners

### CONFIGURATION

Standard trays have 3, 6 or 9 fans installed. Our ADD-a-MODULE feature allows the user to easily increase or decrease the amount of cooling in 3-fan increments.

### OPTIONS

Ultrashort 3-fan Tray available. Lighted on/off rocker switch. Dual voltage selector switch. Fan monitor and alarm. MEDIUM AND LOW SPEED FANS CAN BE SUBSTITUTED FOR LOW-NOISE APPLICATIONS. Ultra high speed fans are available.

We use only top quality, ball bearing ORION FANS in our fan tray assemblies. For DC applications plastic fans are standard however diecast aluminum fans can be substituted on request. (Minimums apply.)

We can customize our fan trays to perform virtually any function required. If you need something which does not appear in this catalog just let us know. Our sales engineers will be happy to discuss your needs and provide a solution.

| MODEL NUMBER                                                                                                                                       | PART NUMBER       | VOLTAGE    | FANS | CFM |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------|------|-----|
| AC FAN TRAYS                                                                                                                                       |                   |            |      |     |
| OA300S                                                                                                                                             | FTA-03115-014(BK) | 115VAC     | 3    | 330 |
| OA600S                                                                                                                                             | FTA-06115-014(BK) |            | 6    | 660 |
| OA300                                                                                                                                              | FTA-03115-018(BK) |            | 3    | 330 |
| OA300-A                                                                                                                                            | expansion module  |            | 3    | 330 |
| OA600                                                                                                                                              | FTA-06115-018(BK) |            | 6    | 660 |
| OA900                                                                                                                                              | FTA-09115-018(BK) |            | 9    | 990 |
| OA302S                                                                                                                                             | FTA-03220-014(BK) | 230VAC     | 3    | 330 |
| OA602S                                                                                                                                             | FTA-06220-014(BK) |            | 6    | 660 |
| OA302                                                                                                                                              | FTA-03220-018(BK) |            | 3    | 330 |
| OA302-A                                                                                                                                            | expansion module  |            | 3    | 330 |
| OA602                                                                                                                                              | FTA-06220-018(BK) |            | 6    | 660 |
| OA902                                                                                                                                              | FTA-09220-018(BK) |            | 9    | 990 |
| DUAL VOLTAGE AC TRAYS                                                                                                                              |                   |            |      |     |
| OA300S-DV                                                                                                                                          | FTA-03DV-014(BK)  | 115/230VAC | 3    | 330 |
| OA600S-DV                                                                                                                                          | FTA-06DV-014(BK)  |            | 6    | 660 |
| OA300-DV                                                                                                                                           | FTA-03DV-018(BK)  |            | 3    | 330 |
| OA300DV-A                                                                                                                                          | expansion module  |            | 3    | 330 |
| OA600-DV                                                                                                                                           | FTA-06DV-018(BK)  |            | 6    | 660 |
| OA900-DV                                                                                                                                           | FTA-09DV-018(BK)  |            | 9    | 990 |
| DC FAN TRAYS                                                                                                                                       |                   |            |      |     |
| OD300S-12                                                                                                                                          | FTD-03012-014(BK) | 12VDC      | 3    | 330 |
| OD600S-12                                                                                                                                          | FTD-06012-014(BK) |            | 6    | 660 |
| OD300-12                                                                                                                                           | FTD-03012-018(BK) |            | 3    | 330 |
| OD300-12-A                                                                                                                                         | expansion module  |            | 3    | 330 |
| OD600-12                                                                                                                                           | FTD-06012-018(BK) |            | 6    | 660 |
| OD900-12                                                                                                                                           | FTD-09012-018(BK) |            | 9    | 990 |
| OD300S-24                                                                                                                                          | FTD-03024-014(BK) | 24VDC      | 3    | 330 |
| OD600S-24                                                                                                                                          | FTD-06024-014(BK) |            | 6    | 660 |
| OD300-24                                                                                                                                           | FTD-03024-018(BK) |            | 3    | 330 |
| OD300-24-A                                                                                                                                         | expansion module  |            | 3    | 330 |
| OD600-24                                                                                                                                           | FTD-06024-018(BK) |            | 6    | 660 |
| OD900-24                                                                                                                                           | FTD-09024-018(BK) |            | 9    | 990 |
| OD300S-48                                                                                                                                          | FTD-03048-014(BK) | 48VDC      | 3    | 330 |
| OD300-48-A                                                                                                                                         | expansion module  |            | 3    | 330 |
| OD600S-48                                                                                                                                          | FTD-06048-014(BK) |            | 6    | 660 |
| OD300-48                                                                                                                                           | FTD-03048-018(BK) |            | 3    | 330 |
| OD600-48                                                                                                                                           | FTD-06048-018(BK) |            | 6    | 660 |
| OD900-48                                                                                                                                           | FTD-09048-018(BK) |            | 9    | 990 |
| Fan trays are UL listed by the part number only. Model numbers are assigned as configuration descriptors only and do not affect UL certifications. |                   |            |      |     |

Fan trays are UL listed by the part number only. Model numbers are assigned as configuration descriptors only and do not affect UL certifications.



## POWER CONNECTION

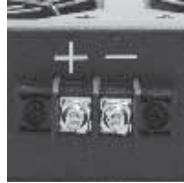
AC trays have standard 115 or 230 VAC power cords. DC trays come with standard DC screw terminals.



115VAC



230VAC

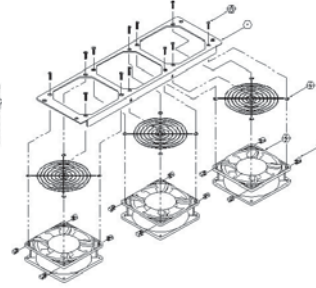
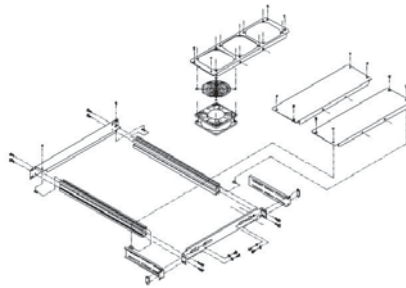
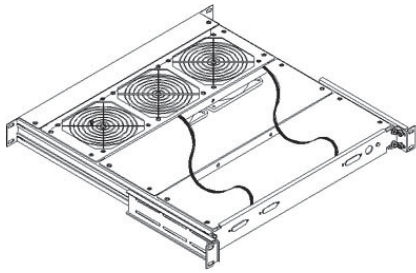


DC Power



## ORION STANDARD TRAY

L=19" W=19" D=1.75" with IEC320, C14-type connector on back. 115/230 voltage selector included with dual voltage tray.



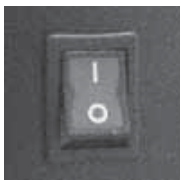
Standard trays are populated with high speed, ball bearing fans. We can substitute virtually any 120mm AC or DC fan for your special project. Just let your sales engineer know what your requirements are and he or she will be happy to provide a solution.

## CUSTOM TRAYS

ORION FANS fan trays are available in dozens of stock configurations. If you cannot find what you are looking for give us a call. We can design and build your trays from scratch or we can help you come up with solutions for your toughest problems.



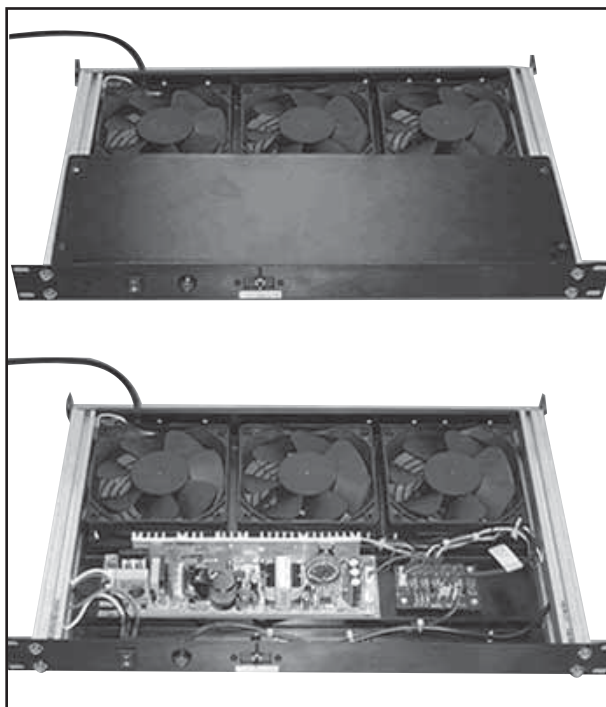
Dual Voltage Selector



Lighted on/off rocker

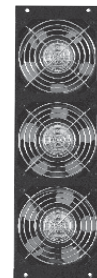


Warning Lights



## ORION SHORT TRAY

L=14" W=19" D=1.75". Optional lighted on/off rocker with IEC320, C14-type connector on back. 115/230 voltage selector included with dual voltage tray.



## EXPANSION MODULE

Maximum flexibility - minimum effort. Add or subtract fan modules quickly and easily as your cooling needs change.

# OMB5200 Series

## 432x348x132.6

(17"x 13.7"x 5.22")



# OA300ST Series

## 432x203x44.5mm

(17"x 8"x 1.75")

|                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>FRONT</b></p>  <p><b>BACK</b></p>  <p>Unit slides in to any standard 19" rack.</p> <p>Tray features 2 high performance sealed ball bearing fans.</p> <p>Power cord configured for standard 115 VAC or 230 VAC connection</p> | <p><b>FRONT</b></p>  <p><b>BACK</b></p>  <p>Lighted rocker switch</p> <p>Resettable circuit breaker.</p> <p>Unit slides in to any standard 19" rack.</p> <p>Tray features 3 high performance sealed ball bearing fans.</p> <p>Black electro deposit finish for long life</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Part Number            | OMB5200-120       | OMB5200-230       | OA300ST-120           | OA300ST-230           |
|------------------------|-------------------|-------------------|-----------------------|-----------------------|
| No. of Fans            | 2                 | 2                 | 3                     | 3                     |
| Bearing System         | Dual Ball Bearing | Dual Ball Bearing | Dual Ball Bearing     | Dual Ball Bearing     |
| Nominal Voltage (60Hz) | 115 VAC           | 230 VAC           | 115 VAC               | 230 VAC               |
| Input Power            | 70 Watts          | 70 Watts          | 45 Watts              | 45 Watts              |
| Rated Speed (RPM)      | 3500              | 3500              | 3000                  | 3000                  |
| Airflow (CFM)          | 340               | 340               | 310                   | 310                   |
| Noise Level (dB)       | 57                | 57                | 53                    | 53                    |
| Life Expectancy        | 60,000 hrs (25C)  | 60,000 hrs (25C)  | 60,000 hrs (25C)      | 60,000 hrs (25C)      |
| Connection             | 1.8M Power Cord   | 1.8M Power Cord   | 2M Modular Power Cord | 2M Modular Power Cord |

# SPOT COOLER



|                       |                                                                                                                                                                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Complete Kit          | <b>OD1232-SPOT / DIN</b><br>Part Number - 124141794<br>Includes: 120x32mm Fan *<br>DIN rail<br>DIN mount fan bracket<br>Mounting screws<br>2 fan guards<br>Power adaptor with 6' cord<br>Automotive grade, double-sided, mount anywhere tape |
| Spot Cooler Only      | <b>OD1232-SPOT</b><br>Part Number - 124141794<br>Includes: 120x32mm Fan *<br>1 fan guard<br>Power adaptor with 6' cord                                                                                                                       |
| Fan ID                | OD1232-12HB-03 *                                                                                                                                                                                                                             |
| VOLTAGE INPUT         | 120VAC / 60Hz                                                                                                                                                                                                                                |
| INPUT POWER           | 19 Watts                                                                                                                                                                                                                                     |
| DC Nominal Current    | 0.60 A                                                                                                                                                                                                                                       |
| DC Locked Current     | 0.05 A                                                                                                                                                                                                                                       |
| Rated Speed (RPM)     | 1600 Max. (40C)                                                                                                                                                                                                                              |
| Airflow               | 65CFM @ 25C / 120CFM @ 40C                                                                                                                                                                                                                   |
| Noise Level (dB)      | 20 ~ 47                                                                                                                                                                                                                                      |
| Max. Static Pressure  | 0.43" H <sub>2</sub> O                                                                                                                                                                                                                       |
| Bearing System        | Dual Ball                                                                                                                                                                                                                                    |
| Frame & Impeller      | PBT, UL94V-O plastic                                                                                                                                                                                                                         |
| Motor                 | Brushless DC, auto restart, polarity protected. Thermal Control.                                                                                                                                                                             |
| Bearing System        | Dual ball bearing                                                                                                                                                                                                                            |
| Insulation Resistance | 10M ohm between leadwire and frame (500VDC)                                                                                                                                                                                                  |
| Dielectric Strength   | 5mA max at 1500VAC for 1 minute between the leadwire and frame                                                                                                                                                                               |
| Operation Temperature | -10C ~ +70C                                                                                                                                                                                                                                  |
| Life (L10)            | 60,000 hours                                                                                                                                                                                                                                 |

Extend the Life  
of Your Equipment

Thermal Speed Control  
Airflow Range

65 CFM at 25C  
120 CFM at 40C

Energy Saving Solution for your  
Green Initiative

*Clips to standard  
DIN rail*



*Plugs into any  
115VAC power  
source*

## OD1232-SPOT / DIN

Part Number - 124141794  
120x32mm  
Thermally controlled Fan \*  
6' Cord with adaptor  
2 guards (1 installed)  
DIN rail  
DIN mount fan bracket  
Mounting screws  
Automotive grade, double-sided,  
mount anywhere tape

## OD1232-SPOT

Part Number - 124141794  
120x32mm  
Thermally controlled Fan \*  
6' Cord with adaptor  
1 guard installed



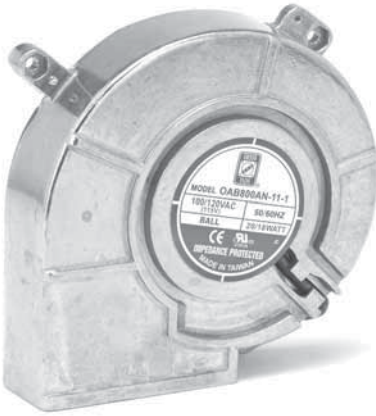
**OD9225-SPOT** - Instant smart cooling  
for small spaces is also available in a  
smaller package

Part Number - 193141791  
92x25mm thermally controlled fan.  
[ 50CFM (3100RPM) at 34C to  
< 30CFM (1600RPM) at 22C ]  
6' cord with adaptor  
1 guard installed



Patent Pending

# AC BLOWERS



OAB800AN

## FRAME

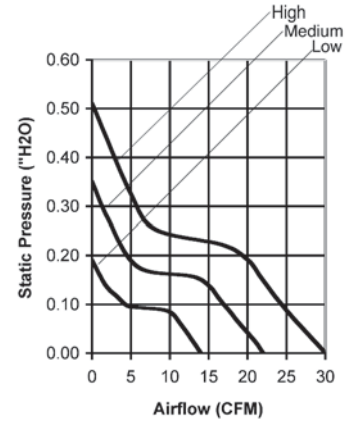
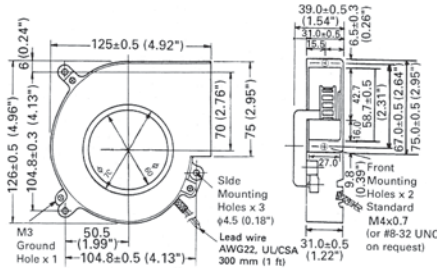
Diecast Aluminum

## IMPELLER

Glass reinforced PBT, UL94V-0

## POWER CONNECTION

Two lead wires 300mm (12")



| MODEL NUMBER   | SPEED (RPM) | AIRFLOW (CFM) | NOISE (DB) | VOLTS AC | VOLTAGE RANGE | WATTS | MAX. STATIC PRESSURE ("H <sub>2</sub> O) |
|----------------|-------------|---------------|------------|----------|---------------|-------|------------------------------------------|
| OAB800AN-11-1B | 2800        | 30            | 48         | 115      | 80~120        | 18    | 0.51                                     |
| OAB800AN-11-2B | 2100        | 22            | 39         | 115      | 80~120        | 12    | 0.35                                     |
| OAB800AN-11-3B | 1400        | 14            | 28         | 115      | 80~120        | 9     | 0.19                                     |
| OAB800AN-22-1B | 2800        | 30            | 48         | 220      | 150~240       | 18    | 0.51                                     |
| OAB800AN-22-2B | 2100        | 22            | 39         | 220      | 150~240       | 12    | 0.35                                     |
| OAB800AN-22-3B | 1400        | 14            | 28         | 220      | 150~240       | 9     | 0.19                                     |

## OAB908 Series Side-inlet blower - Dual Speed 183x190x70mm (7.2"x 7.5"x 2.8")



## FRAME

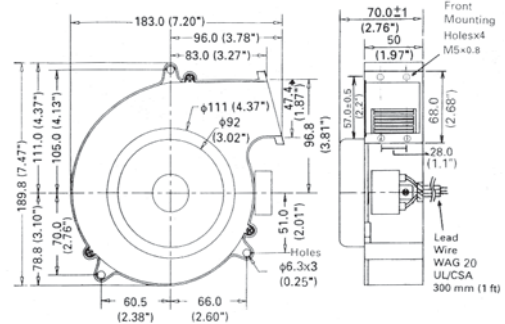
Diecast Aluminum

## IMPELLER

PBT, UL94V-0 Thermoplastic

## POWER CONNECTION

3x lead wires 300mm ( 12").



| PART NUMBER                              | OAB908AN-11-1/2  | OAB908AN-22-1/2  |
|------------------------------------------|------------------|------------------|
| NOMINAL VOLTAGE                          | 120VAC           | 220VAC           |
| VOLTAGE RANGE                            | 100~125VAC       | 200~240VAC       |
| INPUT POWER (WATTS)                      | 65 W / 45 W      | 65 W / 45 W      |
| RATED SPEED (RPM)                        | 3100 / 2400      | 3100 / 2400      |
| AIRFLOW (CFM)                            | 100 / 75         | 100 / 75         |
| NOISE LEVEL (DB)                         | 68 / 55          | 68 / 55          |
| MAX. STATIC PRESSURE (iH <sub>2</sub> O) | 0.9 / 0.7        | 0.9 / 0.7        |
| BEARING SYSTEM                           | Sealed Dual Ball | Sealed Dual Ball |

## MOTOR

High performance capacitor drive, Thermally Protected

## DIELECTRIC STRENGTH

1500VAC / 1 min., 0.5mA

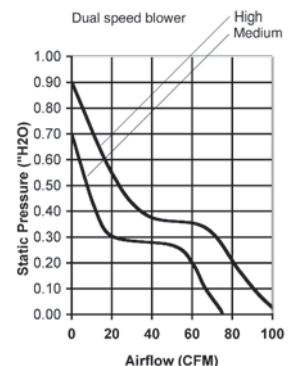
## OPERATING

TEMPERATURE

-30C ~ +85C

## LIFE EXPECTANCY (L10)

60,000 hours





ORION  
FANS

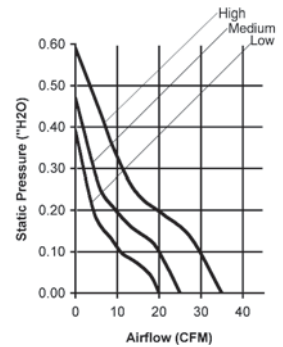
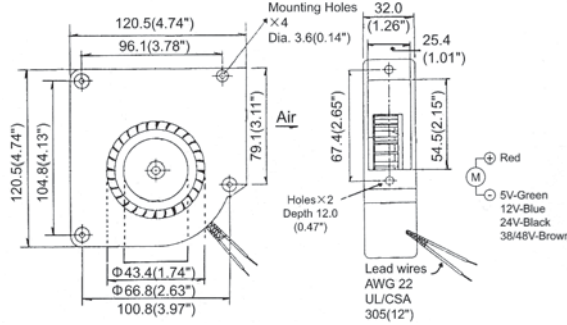
# DC BLOWERS



12, 24, 48V  
120x32mm (4.7" x 1.25")



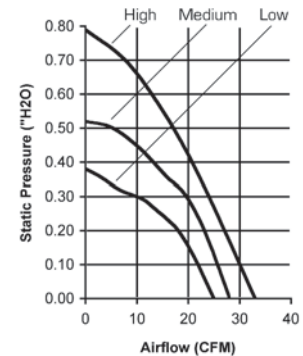
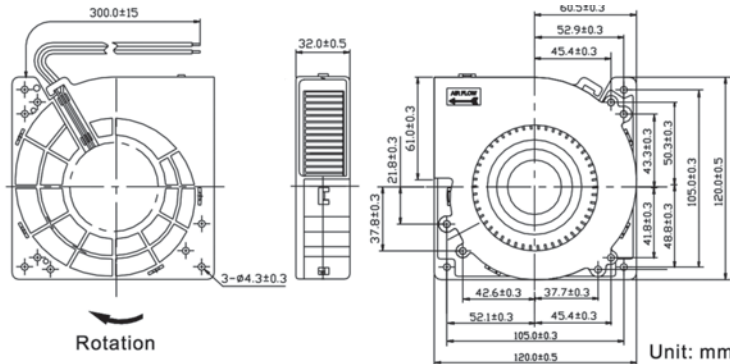
ODB600PT



| MODEL NUMBER  | SPEED (RPM) | AIRFLOW (CFM) | NOISE (dB) | VOLTS DC | VOLTAGE RANGE | AMPS | MAX. STATIC PRESSURE ("H <sub>2</sub> O) |
|---------------|-------------|---------------|------------|----------|---------------|------|------------------------------------------|
| ODB600PT-12HB | 3000        | 35            | 49         | 12       | 8~14          | 0.60 | 0.59                                     |
| ODB600PT-12MB | 2500        | 25            | 42         | 12       | 8~14          | 0.47 | 0.47                                     |
| ODB600PT-12LB | 1800        | 20            | 30         | 12       | 8~14          | 0.20 | 0.39                                     |
| ODB600PT-24HB | 3000        | 35            | 49         | 24       | 10~29         | 0.37 | 0.59                                     |
| ODB600PT-24MB | 2500        | 25            | 42         | 24       | 10~29         | 0.30 | 0.47                                     |
| ODB600PT-24LB | 1800        | 20            | 30         | 24       | 10~29         | 0.20 | 0.39                                     |



ODB1232



| Model Number | Speed (RPM) | Airflow (CFM) | Noise (dB) | Volts DC | Voltage Range | Amps | Max. Static Pressure ("H <sub>2</sub> O) |
|--------------|-------------|---------------|------------|----------|---------------|------|------------------------------------------|
| ODB1232-12HB | 2600        | 33            | 55         | 12       | 6~14          | 0.79 | 0.92                                     |
| ODB1232-12MB | 2300        | 28            | 49         | 12       | 6~14          | 0.53 | 0.83                                     |
| ODB1232-12LB | 2100        | 25            | 48         | 12       | 6~14          | 0.41 | 0.66                                     |
| ODB1232-24HB | 2600        | 33            | 55         | 24       | 12~28         | 0.43 | 0.92                                     |
| ODB1232-24MB | 2300        | 28            | 49         | 24       | 12~28         | 0.36 | 0.83                                     |
| ODB1232-24LB | 2100        | 25            | 48         | 24       | 12~28         | 0.25 | 0.66                                     |
| ODB1232-48HB | 2600        | 33            | 55         | 48       | 24~55         | 0.22 | 0.92                                     |
| ODB1232-48MB | 2300        | 28            | 49         | 48       | 24~55         | 0.18 | 0.83                                     |
| ODB1232-48LB | 2100        | 25            | 48         | 48       | 24~55         | 0.16 | 0.66                                     |

## FRAME & IMPELLER

PBT, UL94V-0 Thermoplastic

## POWER CONNECTION

Two lead wires 300mm (12")

## LIFE EXPECTANCY (L10)

Ball Bearing 60,000 hrs

Sleeve Bearing 30,000 hrs

## MOTOR

Brushless DC, polarity protected, locked rotor protected (current limited), auto restart

## INSULATION RESISTANCE

Min. 10M at 500VDC

## DIELECTRIC STRENGTH

1 minute at 500VAC / 1 second, max leakage 500 microamp

## OPERATING

## TEMPERATURE

Ball Bearing

-20C ~ +70C

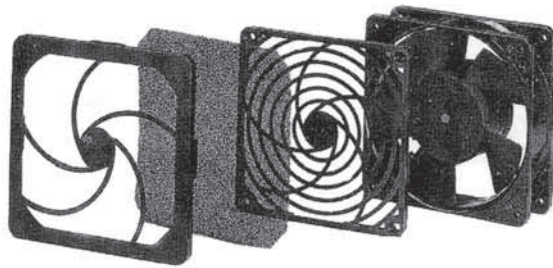
Sleeve Bearing

-10C ~ +50C

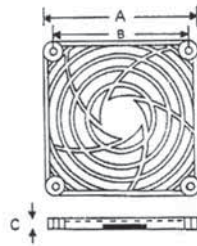
# FILTRATION



## Aluminum Mesh & Plastic Filters

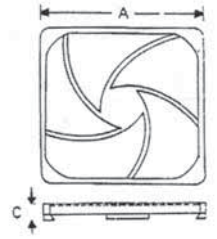


Retainer Media Guard



**Media**  
PU foam, 30 or 45ppi

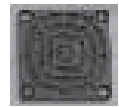
**Retainer and Guard**  
ABS UL94V-0



### FILTER KITS...

Each filter kit is comprised of:  
**Guard** which attaches to the fan,  
**Retainer** which snaps into the guard  
**Media** in either 30ppi (pores per inch) or 45ppi.

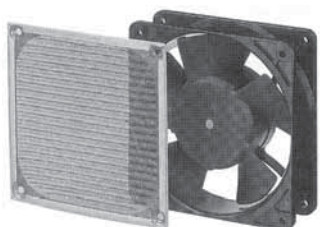
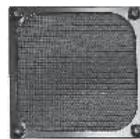
Tools not  
required to  
clean media.



| Size (A)        | Part Number            | Mtg Centers (B)    | Retainer P/N (C - thickness) | Guard P/N (C - thickness) | Media            |
|-----------------|------------------------|--------------------|------------------------------|---------------------------|------------------|
| 40mm<br>(1.57") | GRM40-30<br>GRM40-45   | 32mm<br>(1.26")    | R40P<br>(3.2mm)              | G40P<br>(6.3mm)           | M40-30, M40-45   |
| 60mm<br>(2.36") | GRM60-30<br>GRM60-45   | 50mm<br>(1.97")    | R60P<br>(3.2mm)              | G60P<br>(6.5mm)           | M60-30, M60-45   |
| 80mm<br>(3.15") | GRM80-30<br>GRM80-45   | 71.5mm<br>(2.81")  | R80P<br>(9.8mm)              | G80P<br>(6.5mm)           | M80-30, M80-45   |
| 92mm<br>(3.62") | GRM92-30<br>GRM92-45   | 82.5mm<br>(3.25")  | R92P<br>(9.9mm)              | G92P<br>(6.4mm)           | M92-30, M92-45   |
| 120mm<br>(4.7") | GRM120-30<br>GRM120-45 | 104.8mm<br>(4.13") | R120P<br>(10.8mm)            | G120P<br>(7.2mm)          | M120-30, M120-45 |
| 172mm<br>(6.7") | GRM172-45              | 162mm<br>(6.38")   | R172P<br>(11.8mm)            | G172P<br>(8mm)            | M172-45          |

### WIRE MESH GUARDS

Corrugated Aluminum filters offer high levels of air passage while efficiently filtering contaminants and acting as a EMI/RFI shield. The tightly woven, stainless, corrugated mesh screens offer high performance at low cost. Filters may be mounted directly onto the fan or to any other housing. Anodized black (suffix "B") or natural mill finish (suffix "M")



| Size            | Part Number        | Mounting Centers   | Thickness        | Mounting Hole dia. |
|-----------------|--------------------|--------------------|------------------|--------------------|
| 60mm<br>(2.36") | WMG60M<br>WMG60B   | 50mm<br>(1.97")    | 4.5mm<br>(0.17") | 4.3mm<br>(0.17")   |
| 80mm<br>(3.15") | WMG80M<br>WMG80B   | 71.5mm<br>(2.81")  | 4.5mm<br>(0.17") | 4.3mm<br>(0.17")   |
| 92mm<br>(3.62") | WMG92M<br>WMG92B   | 82.5mm<br>(3.25")  | 4.5mm<br>(0.17") | 4.3mm<br>(0.17")   |
| 120mm<br>(4.7") | WMG120M<br>WMG120B | 104.8mm<br>(4.13") | 4.5mm<br>(0.17") | 4.3mm<br>(0.17")   |
| 172mm<br>(6.7") | WMG172M<br>WMG172B | 162mm<br>(6.38")   | 4.3mm<br>(0.17") | 4.3mm<br>(0.17")   |

### FINGER GUARDS - METAL

Steel wire electroplated in nickel chrome. Black finish available.

Welded joints withstand 220 lbs. separation force to meet UL/cUL standards.

Please add the suffix "B" to the part number to indicate black finish.

|  | Size            | Part No               | Mtg Ctr            | Dia.               | Thickness        |  | Size             | Part No                 | Mtg Ctr            | Dia.               | Thickness        |
|--|-----------------|-----------------------|--------------------|--------------------|------------------|--|------------------|-------------------------|--------------------|--------------------|------------------|
|  | 25mm<br>(1.0")  | G25-2                 | 20mm<br>(0.79")    | 24mm<br>(0.94")    | 4mm<br>(0.16")   |  | 127mm<br>(5.0")  | G119-8                  | 113.3mm<br>(4.46") | 115mm<br>(4.53")   | 5.5mm<br>(0.22") |
|  | 40mm<br>(1.57") | G40-2                 | 31.5mm<br>(1.65")  | 32mm<br>(1.26")    | 4mm<br>(0.16")   |  | 172mm<br>(6.7")  | G172-10H<br>G172-10HB   | 162mm<br>(6.38")   | 156mm<br>(6.14")   | 6.5mm<br>(0.26") |
|  | 52mm<br>(2.0")  | G50-3                 | 42mm<br>(1.65")    | 41.1mm<br>(1.62")  | 4.8mm<br>(0.19") |  | 172mm<br>(6.7")  | G172-10HA<br>G172-10HAB | 162mm<br>(6.38")   | 154mm<br>(6.08")   | 6.5mm<br>(0.26") |
|  | 60mm<br>(2.36") | G60-4                 | 50mm<br>(1.97")    | 53mm<br>(2.09")    | 4.6mm<br>(0.18") |  | 172mm<br>(6.7")  | G172-10LN               | 162mm<br>(6.38")   | 143mm<br>(5.63")   | 6.4mm<br>(0.25") |
|  | 80mm<br>(3.15") | G80-18<br>G80-18B     | 71.5mm<br>(2.81")  | 76.2mm<br>(3.02")  | 5.5mm<br>(0.22") |  | 180mm<br>(7.06") | G180-11                 | 153mm<br>(6.0")    | 190.5mm<br>(7.5")  | 5.5mm<br>(0.21") |
|  | 92mm<br>(3.62") | G92-16<br>G92-16B     | 82.5mm<br>(3.25")  | 89.4mm<br>(3.52")  | 5.5mm<br>(0.22") |  | 254mm<br>(10.0") | G254-10P                | 174mm<br>(6.85")   | 222.3mm<br>(8.75") | 6.4mm<br>(0.25") |
|  | 120mm<br>(4.7") | G109-3A               | 104.8mm<br>(4.13") | 109mm<br>(4.31")   | 4.8mm<br>(0.19") |  | 225mm<br>(8.86") | G225                    | 169.7mm<br>(6.68") | 215mm<br>(8.45")   | 8.7mm<br>(.34")  |
|  | 120mm<br>(4.7") | G109-15A<br>G109-15AB | 104.8mm<br>(4.13") | 115.6mm<br>(4.55") | 5.5mm<br>(0.22") |  | 280mm<br>(11.0") | G280                    | 208.6mm<br>(8.21") | 269.7mm<br>(10.6") | 7.2mm<br>(.28")  |

(Mounting hole diameter: 4.6mm except 172mm guards which are 5mm)

### FINGER GUARDS - PLASTIC

PBT, UL94V-0 Thermoplastic.



6.3mm (0.25") ring spacing. Aerodynamic design helps to reduce fan noise

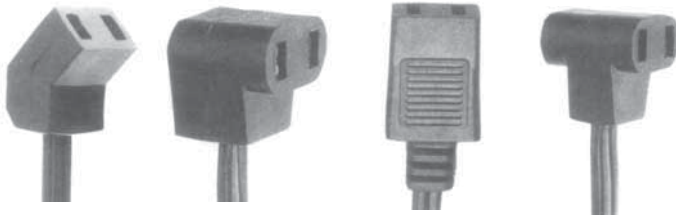


| Size         | Part Number |
|--------------|-------------|
| 40mm (1.57") | G40P        |
| 60mm (2.36") | G60P        |
| 80mm (3.15") | G80P        |
| 92mm (3.62") | G92P        |
| 120mm (4.7") | G120P       |
| 172mm (6.7") | G172P       |

# FAN CORDS



## Power Cords & Daisy Chains



C45

C90

C180

C180T

SPT-1, 2x 18AWG, 105C

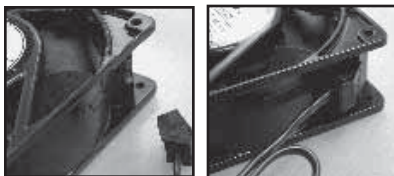
Example: 3-head daisy chain with a 72 inch lead and an AC plug.

| Head Style                                                              | Number of Heads                                                  | Lead Length                                                            | Termination                                                                                          |
|-------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| C45 -                                                                   | 3DC -                                                            | 72                                                                     | P                                                                                                    |
| C45 = 45 deg.<br>C90 = 90 deg.<br>C180 = straight<br>C180T = "T" shaped | blank = 1<br>2DC = 2<br>3DC = 3<br>4DC = 4<br>6DC = 6<br>9DC = 9 | Lead length in inches.<br>12" increment is standard for stock product. | blank = blunt cut<br>ST = Stripped and Tinned<br>P = NEMA 1-15 AC plug added<br>EURO = European plug |

### DAISY CHAINS...



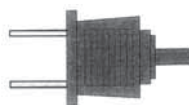
permit multiple connections of fans to a single power source. Product is available from stock in 2, 3, 4, 6 and 9 head configurations with lead lengths ranging from 12"-12'. Each head is separated by 12" of cord. Standard product is blunt cut, but cords are usually available with AC plugs on request for an additional charge.



FANS WITH TERMINALS MAKE CONNECTING AND DISCONNECTING POWER A BREEZE.



European plug



NEMA 1-15 AC plug

### STOCKED CORDS

| PART NUMBER          | FEATURES                           |
|----------------------|------------------------------------|
| <b>12 INCH LEAD</b>  |                                    |
| C45-12               |                                    |
| C90-12               | Standard cord, blunt cut, one head |
| C180-12              |                                    |
| C180T-12             |                                    |
| <b>24 INCH LEAD</b>  |                                    |
| C45-24               | Standard cord, blunt cut, one head |
| C45-24P              | AC plug added                      |
| C45-2DC-24           | 2-head daisy chain                 |
| C45-3DC-24           | 3-head daisy chain                 |
| C45-4DC-24           | 4-head daisy chain                 |
| C45-6DC-24           | 6-head daisy chain                 |
| C45-9DC-24           | 9-head daisy chain                 |
| C90-24               |                                    |
| C180-24              | Standard cord, blunt cut, one head |
| C180T-24             |                                    |
| <b>36 INCH LEAD</b>  |                                    |
| C45-36               |                                    |
| C90-36               | Standard cord, blunt cut, one head |
| C180-36              |                                    |
| C180T-36             |                                    |
| <b>48 INCH LEAD</b>  |                                    |
| C45-48               | Standard cord, blunt cut, one head |
| C45-48P              | AC plug added                      |
| C90-48               |                                    |
| C180-48              | Standard cord, blunt cut, one head |
| C180T-48             |                                    |
| <b>72 INCH LEAD</b>  |                                    |
| C45-72               | Standard cord, blunt cut, one head |
| C45-3DC-72P          | 3-head daisy chain, AC plug added  |
| C90-72               | Standard cord, blunt cut, one head |
| C90-72P              | AC plug added                      |
| C180-72              |                                    |
| C180T-72             | Standard cord, blunt cut, one head |
| <b>144 INCH LEAD</b> |                                    |
| C90-144P             | AC plug added                      |
| C45-2DC-144P         | 2-head daisy chain, AC plug added  |

# POWER CORDS



## ORION PART NUMBER CODE:

|         | 1 | 2 | 3 | 4 | 5 | 6  | 7  |
|---------|---|---|---|---|---|----|----|
| Example | 2 | 4 | 1 | 3 | 1 | 67 | 01 |

3 Conductors Unshielded, 14 Gauge, SJT, 5-15P Straight, C-13 Straight, 6'7", Black

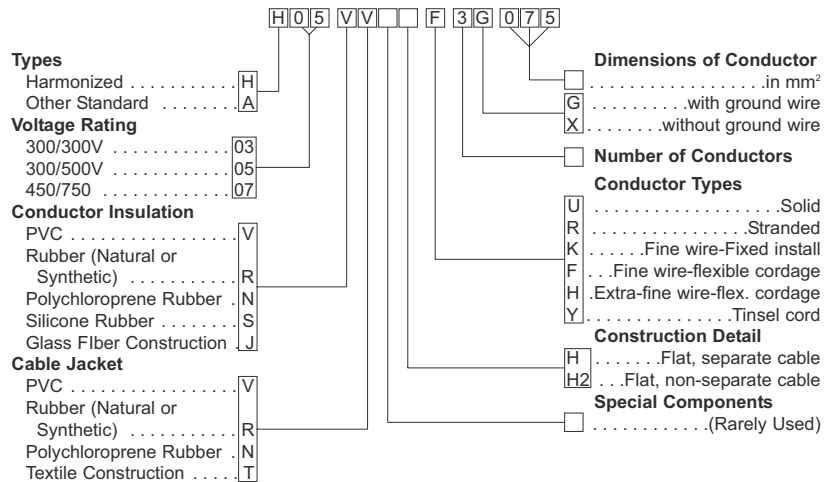
- |                                |                      |
|--------------------------------|----------------------|
| 1: Number of Conductors        | 5: Connector         |
| 1 = 2 Conductors               | 0 = None             |
| 2 = 3 Conductors Unshielded    | 1 = C-13 Straight    |
| 3 = 3 Conductors Shielded      | 2 = C-13 Right Angle |
| 2: AWG                         | 3 = C-14             |
| 2 = 12 Gauge                   | 4 = C-15             |
| 4 = 14 Gauge                   | 5 = C-19             |
| 6 = 16 Gauge                   | 6 = C-17             |
| 8 = 18 Gauge                   | 7 = 022A             |
| A = .75mm                      | 8 = 002-2            |
| B = 1.0mm                      | 6: Length            |
| C = 1.5mm                      | 18 = 1'8"            |
| 3: Cord Type:                  | 33 = 3'3"            |
| 1 = SJT                        | 50 = 5'0"            |
| 2 = SVT                        | 60 = 6'0"            |
| 3 = SPT-1                      | 67 = 6'7"            |
| 4 = SJO                        | 76 = 7'6"            |
| 6 = H03VV-F                    | 80 = 8'0"            |
| 7 = H03VVH2-F                  | 910 = 9'10"          |
| 8 = H05VV-F                    | 100 = 10'0"          |
| 4: Plug                        | 160 = 16'0"          |
| 0 = None                       | 7: Color Code        |
| 1 = 1-15 Standard              | 01 = Black           |
| 2 = 1-15P Polarized            | 02 = Brown           |
| 3 = 5-15P Straight             | 03 = Gray            |
| 4 = 5-15P Right Angle          | 05 = White           |
| 5 = 5-15P Hospital Grade Clear |                      |
| 6 = 5-15P Hospital Grade Gray  |                      |
| 7 = C-14                       |                      |
| 8 = 6-15P                      |                      |
| 9 = 5-20P                      |                      |
| A = 003A Europe                |                      |
| B = 006B Europe                |                      |
| C = 010 Europe                 |                      |
| D = 010A Europe                |                      |
| E = 012A UK                    |                      |
| F = 015 Australia              |                      |
| G = 019 Europe                 |                      |

## INTERNATIONAL CORDAGE TYPES

| Cord Type | AWG/Size | No. of Conductors | Temp. Std. | Rating °C Special | Voltage Rating | Description                                     |
|-----------|----------|-------------------|------------|-------------------|----------------|-------------------------------------------------|
| SJT       | 18 - 14  | 3                 | 60         | 75, 90, 105       | 300            | Service Junior Thermoplastic                    |
| SVT       | 18 - 14  | 3                 | 60         | 75, 90, 105       | 300            | Service Vacuum Thermoplastic                    |
| SPT-1     | 18       | 2 or 3            | 60         | 75, 90, 105       | 300            | Service Parallel Thermoplastic 1/64" Insulation |
| SPT-2     | 18 - 16  | 2 or 3            | 60         | 75, 90, 105       | 300            | Service Parallel Thermoplastic 2/64" Insulation |
| SPT-3     | 18 - 10  | 2 or 3            | 60         | 75, 90, 105       | 300            | Service Parallel Thermoplastic 3/64" Insulation |
| SJTW-A    | 18 - 14  | 3                 | 60         | 75, 90, 105       | 300            | Service Junior Thermoplastic - Outdoor Use      |
| HPN       | 18 - 16  | 2 or 3            | 90         | 105               | 300            | Heater Parallel Neoprene                        |

Note: SJ, SJD, SJTO, SO, SV and SVO cordage is available by special order. Minimums may apply.

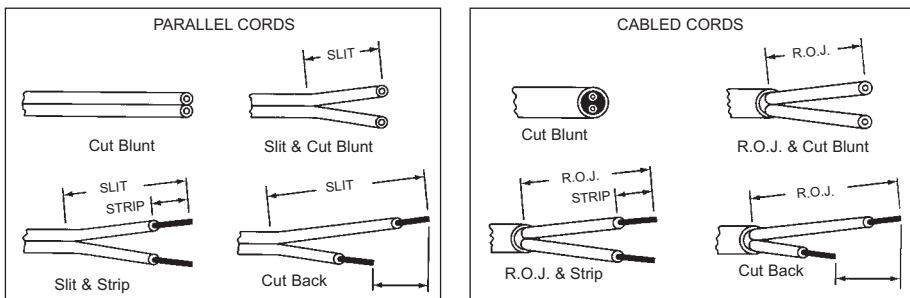
## INTERNATIONAL CORDAGE TYPES



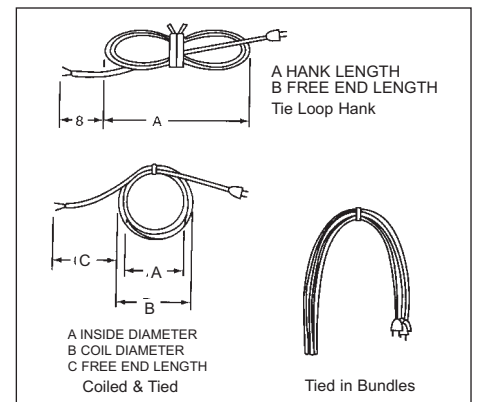
## INTERNATIONAL APPROVALS:



## END CUTS



## STANDARD PUT-UPS





## 2 CONDUCTOR POWER CORDS



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 18320-60-01       | 18  | SPT-1     | 6'0"   | 1-15P     | —              | 10                  |
| 18320-90-01       | 18  | SPT-1     | 9'0"   | 1-15p     | —              | 10                  |

5-15



## 3 CONDUCTOR POWER CORDS UNSHIELDED



5-20



6-15



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 24130-67-01       | 14  | SJT       | 6'7"   | 5-15P     | —              | 15                  |
| 24130-910-01      | 14  | SJT       | 9'10"  | 5-15P     | —              | 15                  |
| 26130-67-01       | 16  | SJT       | 6'7"   | 5-15P     | —              | 13                  |
| 26130-910-01      | 16  | SJT       | 9'10"  | 5-15P     | —              | 13                  |
| 26180-910-01      | 16  | SJT       | 9'10"  | 6-15P     | —              | 13                  |
| 26190-910-01      | 16  | SJT       | 9'10"  | 5-20P     | —              | 13                  |
| 28180-910-01      | 18  | SJT       | 9'10"  | 6-15P     | —              | 13                  |
| 28190-910-01      | 18  | SJT       | 9'10"  | 5-20P     | —              | 13                  |
| 28130-67-01       | 18  | SJT       | 6'7"   | 5-15P     | —              | 10                  |
| 28130-80-01       | 18  | SJT       | 8'0"   | 5-15P     | —              | 10                  |
| 28130-910-01      | 18  | SJT       | 9'10"  | 5-15P     | —              | 10                  |
| 28230-67-01       | 18  | SVT       | 6'7"   | 5-15P     | —              | 10                  |
| 28230-910-01      | 18  | SVT       | 9'10"  | 5-15P     | —              | 10                  |



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 24131-67-01       | 14  | SJT       | 6'7"   | 5-15P     | C-13           | 15                  |
| 24131-910-01      | 14  | SJT       | 9'10"  | 5-15P     | C-13           | 15                  |
| 26131-67-01       | 16  | SJT       | 6'7"   | 5-15P     | C-13           | 13                  |
| 26131-76-01       | 16  | SJT       | 7'6"   | 5-15P     | C-13           | 13                  |
| 26131-910-01      | 16  | SJT       | 9'10"  | 5-15P     | C-13           | 13                  |
| 28131-67-01       | 18  | SJT       | 6'7"   | 5-15P     | C-13           | 10                  |
| 28131-76-01       | 18  | SJT       | 7'6"   | 5-15P     | C-13           | 10                  |
| 28131-910-01      | 18  | SJT       | 9'10"  | 5-15P     | C-13           | 10                  |
| 28231-76-01       | 18  | SVT       | 7'6"   | 5-15P     | C-13           | 10                  |
| 26151-80-03       | 16  | SJT       | 8'0"   | 5-15P     | C-13           | 13                  |
| 26151-100-03      | 16  | SJT       | 10'0"  | 5-15P     | C-13           | 13                  |
| 26161-80-03       | 16  | SJT       | 8'0"   | 5-15P     | C-13           | 13                  |
| 26161-100-03      | 16  | SJT       | 10'0"  | 5-15P     | C-13           | 13                  |
| 26161-140-03      | 16  | SJT       | 14'0"  | 5-15P     | C-13           | 13                  |



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 28232-76-01       | 18  | SVT       | 7'6"   | 5-15P     | C-13           | 10                  |
| 26132-76-01       | 16  | SJT       | 7'6"   | 5-15P     | C-13           | 13                  |
| 28132-76-01       | 18  | SJT       | 7'6"   | 5-15P     | C-13           | 10                  |



## 3 CONDUCTOR POWER CORDS UNSHIELDED



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 26171-33-01       | 16  | SJT       | 3'3"   | C-14      | C-13           | 13                  |
| 28171-33-01       | 18  | SJT       | 3'3"   | C-14      | C-13           | 10                  |
| 28271-33-01       | 18  | SVT       | 3'3"   | C-14      | C-13           | 10                  |



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 26101-67-01       | 16  | SJT       | 6'7"   | —         | C-13           | 13                  |
| 26101-910-01      | 16  | SJT       | 9'10"  | —         | C-13           | 13                  |
| 28101-67-01       | 18  | SJT       | 6'7"   | —         | C-13           | 10                  |
| 28101-910-01      | 18  | SJT       | 9'10"  | —         | C-13           | 10                  |
| 28201-76-01       | 18  | SVT       | 7'6"   | —         | C-13           | 10                  |



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 26102-67-01       | 16  | SJT       | 6'7"   | —         | C-13           | 13                  |
| 26102-910-01      | 16  | SJT       | 9'10"  | —         | C-13           | 13                  |
| 28102-67-01       | 18  | SJT       | 6'7"   | —         | C-13           | 10                  |
| 28102-910-01      | 18  | SJT       | 9'10"  | —         | C-13           | 10                  |

## 3 CONDUCTOR POWER CORDS HOSPITAL GRADE UNSHIELDED NORTH AMERICAN COLOR CODE



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 28150-80-03       | 18  | SJT       | 8'0"   | 5-15P     | —              | 10                  |
| 28150-100-03      | 18  | SJT       | 10'0"  | 5-15P     | —              | 10                  |
| 28160-80-03       | 18  | SJT       | 8'0"   | 5-15P     | —              | 10                  |
| 28160-100-03      | 18  | SJT       | 10'0"  | 5-15P     | —              | 10                  |



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 28151-80-03       | 18  | SJT       | 8'0"   | 5-15P     | C-13           | 10                  |
| 28151-100-03      | 18  | SJT       | 10'0"  | 5-15P     | C-13           | 10                  |
| 28161-80-03       | 18  | SJT       | 8'0"   | 5-15P     | C-13           | 10                  |
| 28161-100-03      | 18  | SJT       | 10'0"  | 5-15P     | C-13           | 10                  |



## 3 CONDUCTOR POWER CORDS SHIELDED



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 34131-67-01       | 14  | SJT       | 6'7"   | 5-15P     | C-13           | 15                  |
| 34131-910-01      | 14  | SJT       | 9'10"  | 5-15P     | C-13           | 15                  |
| 36131-67-01       | 16  | SJT       | 6'7"   | 5-15P     | C-13           | 13                  |
| 36131-910-01      | 16  | SJT       | 9'10"  | 5-15P     | C-13           | 13                  |
| 38131-67-01       | 18  | SJT       | 6'7"   | 5-15P     | C-13           | 10                  |
| 38131-910-01      | 18  | SJT       | 9'10"  | 5-15P     | C-13           | 10                  |
| 38231-67-01       | 18  | SVT       | 6'7"   | 5-15P     | C-13           | 10                  |
| 38231-910-01      | 18  | SVT       | 9'10"  | 5-15P     | C-13           | 10                  |



| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 36132-67-01       | 16  | SJT       | 6'7"   | 5-15P     | C-13           | 13                  |
| 36132-910-01      | 16  | SJT       | 9'10"  | 5-15P     | C-13           | 13                  |
| 38132-67-01       | 18  | SJT       | 6'7"   | 5-15P     | C-13           | 10                  |
| 38132-910-01      | 18  | SJT       | 9'10"  | 5-15P     | C-13           | 10                  |
| 38232-67-01       | 18  | SVT       | 6'7"   | 5-15P     | C-13           | 10                  |
| 38232-910-01      | 18  | SVT       | 9'10"  | 5-15P     | C-13           | 10                  |



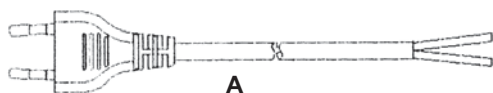
| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 36171-33-01       | 16  | SJT       | 3'3"   | C-14      | C-13           | 13                  |
| 38171-33-01       | 18  | SJT       | 3'3"   | C-14      | C-13           | 10                  |
| 38271-33-01       | 18  | SVT       | 3'3"   | C-14      | C-13           | 10                  |



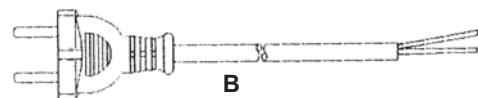
| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 36101-67-01       | 16  | SJT       | 6'7"   | —         | C-13           | 13                  |
| 36101-910-01      | 16  | SJT       | 9'10"  | —         | C-13           | 13                  |
| 38101-67-01       | 18  | SJT       | 6'7"   | —         | C-13           | 10                  |
| 38101-910-01      | 18  | SJT       | 9'10"  | —         | C-13           | 10                  |
| 38201-67-01       | 18  | SVT       | 6'7"   | —         | C-13           | 10                  |
| 38201-910-01      | 18  | SVT       | 9'10"  | —         | C-13           | 10                  |



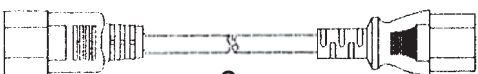
| ORION Part Number | AWG | Cord Type | Length | NEMA Plug | NEMA Connector | Rating Amps @125VAC |
|-------------------|-----|-----------|--------|-----------|----------------|---------------------|
| 36102-67-01       | 16  | SJT       | 6'7"   | —         | C-13           | 13                  |
| 36102-910-01      | 16  | SJT       | 9'10"  | —         | C-13           | 13                  |
| 38102-67-01       | 18  | SJT       | 6'7"   | —         | C-13           | 10                  |
| 38102-910-01      | 18  | SJT       | 9'10"  | —         | C-13           | 10                  |
| 38202-67-01       | 18  | SVT       | 6'7"   | —         | C-13           | 10                  |
| 38202-910-01      | 18  | SVT       | 9'10"  | —         | C-13           | 10                  |



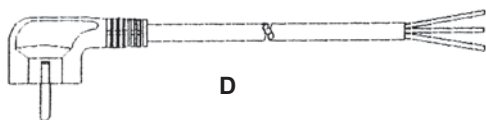
A



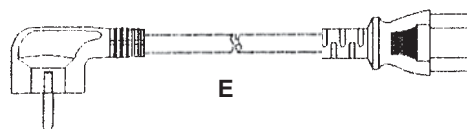
B



C



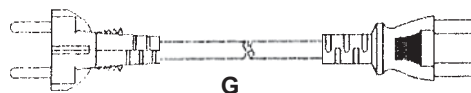
D



E



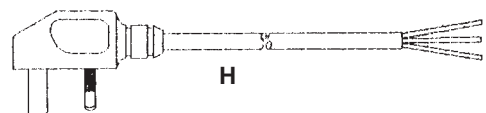
F



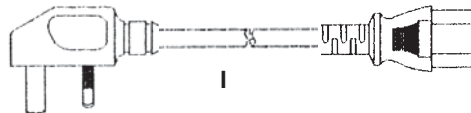
G

## EUROPE

| Fig. | ORION Number | Cond MM | Cord Type | Length | Plug | Conn  | Amps 250VAC |
|------|--------------|---------|-----------|--------|------|-------|-------------|
| A    | 1A6B020-01   | 2X.75   | H03VV-F   | 2.0M   | 006B | —     | 2.5         |
| B    | 1A7G020-01   | 2X.75   | H03VVH2-F | 2.0M   | 019  | —     | 6           |
| C    | 2B8A825-01   | 3X1.0   | H05VV-F   | 2.5M   | 003A | 002-2 | 10          |
| D    | 2B8C025-01   | 3X1.0   | H05VV-F   | 2.5M   | 010  | —     | 10          |
| E    | 2B8C825-01   | 3X1.0   | H05VV-F   | 2.5M   | 010  | 002-2 | 10          |
| F    | 2B8D025-01   | 3X1.0   | H05VV-F   | 2.5M   | 010A | —     | 10          |
| G    | 2B8D825-01   | 3X1.0   | H05VV-F   | 2.5M   | 010A | 002-2 | 10          |



H



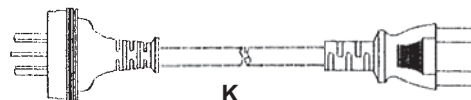
I

## UNITED KINGDOM

| Fig. | ORION Number | Cond MM | Cord Type | Length | Plug | Conn  | Amps 250VAC |
|------|--------------|---------|-----------|--------|------|-------|-------------|
| H    | 2B8E025-01   | 3X1.00  | H05VV-F   | 2.5M   | 012A | —     | 10          |
| I    | 2B8E825-01   | 3X1.00  | H05VV-F   | 2.5M   | 012A | 002-2 | 10          |



J

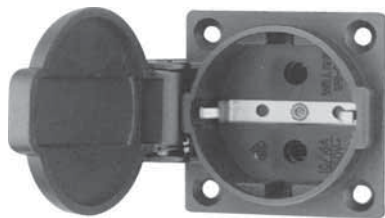


K

## AUSTRALIA

| Fig. | ORION Number | Cond MM | Cord Type | Length | Plug | Conn  | Amps 250VAC |
|------|--------------|---------|-----------|--------|------|-------|-------------|
| J    | 2B8F025-01   | 3X1.00  | H05VV-F   | 2.5M   | 015  | —     | 10          |
| K    | 2B8F825-01   | 3X1.00  | H05VV-F   | 2.5M   | 015  | 002-2 | 10          |

# RECEPTACLES



P/N: 023-C



P/N: 044-0  
C-18



P/N: 023-D



P/N: 044-1  
C-14



P/N: 042  
C-13



P/N: 044-2  
C-14



P/N: 042-1  
C-13



P/N: 044-3  
C-14



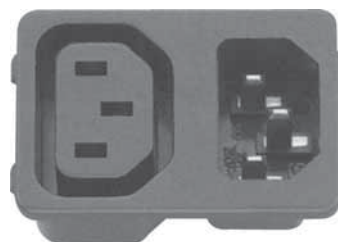
P/N: 043  
C-19



P/N: 044-4  
C-14



P/N: 044  
C-14



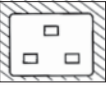
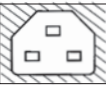
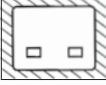
P/N: 044-5  
C-13 & C-14

# PLUG CONFIGURATIONS



# NEMA

| VOLTAGE         | NEMA | 15 AMPERE  |            | 20 AMPERE  |            | 30 AMPERE  |            | 50 AMPERE  |            | 60 AMPERE  |            |
|-----------------|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                 |      | Receptacle | Plug       | Receptacle | Plug       | Receptacle | Plug       | Receptacle | Plug       | Receptacle | Plug       |
| 125V            | 1    | <br>1-15R  | <br>1-15P  |            |            |            |            |            |            |            |            |
| 250V            | 2    |            | <br>2-15P  | <br>2-20R  | <br>2-20P  | <br>2-30R  | <br>2-30P  |            |            |            |            |
| 125V            | 5    | <br>5-15R  | <br>5-15P  | <br>5-20R  | <br>5-20P  | <br>5-30R  | <br>5-30P  | <br>5-50R  | <br>5-50P  |            |            |
| 250V            | 6    | <br>6-15R  | <br>6-15P  | <br>6-20R  | <br>6-20P  | <br>6-30R  | <br>6-30P  | <br>6-50R  | <br>6-50P  |            |            |
| 277V,<br>A.C.   | 7    | <br>7-15R  | <br>7-15P  | <br>7-20R  | <br>7-20P  | <br>7-30R  | <br>7-30P  | <br>7-50R  | <br>7-50P  |            |            |
| 125/<br>250V    | 10   |            |            | <br>10-20R | <br>10-20P | <br>10-30R | <br>10-30P | <br>10-50R | <br>10-50P |            |            |
| 3Ø250V          | 11   | <br>11-15R | <br>11-15P | <br>11-20R | <br>11-20P | <br>11-30R | <br>11-30P | <br>11-50R | <br>11-50P |            |            |
| 125/<br>250V    | 14   | <br>14-15R | <br>14-15P | <br>14-20R | <br>14-20P | <br>14-30R | <br>14-30P | <br>14-50R | <br>14-50P | <br>14-60R | <br>14-60P |
| 3Ø250V          | 15   | <br>15-15R | <br>15-15P | <br>15-20R | <br>15-20P | <br>15-30R | <br>15-30P | <br>15-50R | <br>15-50P | <br>15-60R | <br>15-60P |
| 3ØY<br>120/208V | 18   | <br>18-15R | <br>18-15P | <br>18-20R | <br>18-20P | <br>18-30R | <br>18-30P | <br>18-50P | <br>18-50P | <br>18-60R | <br>18-60P |
| VOLTAGE         | NEMA | 15 AMPERE  |            | 20 AMPERE  |            | 30 AMPERE  |            |            |            |            |            |
|                 |      | Receptacle | Plug       | Receptacle | Plug       | Receptacle | Plug       | Receptacle | Plug       |            |            |
| 125V            | L1   | <br>L1-15R | <br>L1-15P |            |            |            |            |            |            |            |            |
| 250V            | L2   |            |            |            |            | <br>L2-20R | <br>L2-20P |            |            |            |            |
| 125V            | L5   | <br>L5-15R | <br>L5-15P |            |            | <br>L5-20R | <br>L5-20P |            |            | <br>L5-30R | <br>L5-30P |
| 250V            | L6   | <br>L6-15R | <br>L6-15P |            |            | <br>L6-20R | <br>L6-20P |            |            | <br>L6-30R | <br>L6-30P |
| 277V,<br>A.C.   | L7   | <br>L7-15R | <br>L7-15P |            |            | <br>L7-20R | <br>L7-20P |            |            | <br>L7-30R | <br>L7-30P |
| 480V            | L8   |            |            |            |            | <br>L8-20R | <br>L8-20P |            |            | <br>L8-30R | <br>L8-30P |
| 600V            | L9   |            |            |            |            | <br>L9-20R | <br>L9-20P |            |            | <br>L9-30R | <br>L9-30P |

| RATED AMPERAGE | EQUIPMENT CLASS | MAXIMUM TEMPERATURE | Male                                                                                       | Female                                                                                     | RATED AMPERAGE | EQUIPMENT CLASS | MAXIMUM TEMPERATURE | Male                                                                                         | Female                                                                                       |
|----------------|-----------------|---------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------|-----------------|---------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 0.2            | II              | 65°C                | <br>C2    | <br>C1    | 10             | I               | 120°C               | <br>C16   | <br>C15   |
| 2.5            | 0               | 65°C                | <br>C4    | <br>C3    | 10             | II              | 65°C                | <br>C18   | <br>C17   |
| 2.5            | I               | 65°C                | <br>C6    | <br>C5    | 16             | I               | 65°C                | <br>C20   | <br>C19   |
| 2.5            | II              | 65°C                | <br>C8    | <br>C7    |                | I               | 155°C               | <br>C22   | <br>C21   |
| 6              | II              | 65°C                | <br>C10   | <br>C9    |                | II              | 65°C                | <br>C24 | <br>C23 |
| 10             | 0               | 65°C                | <br>C12  | <br>C11  |                |                 |                     |                                                                                              |                                                                                              |
| 10             | I               | 65°C                | <br>C14 | <br>C13 |                |                 |                     |                                                                                              |                                                                                              |

The above illustrations are included to show pin configurations and arrangements. Each configuration is available in several different "styles" of plugs including right angle, hospital-grade, shrouded, etc. Please call us if you need additional information or would like help selecting an appropriate connector for your application.

K515PASSM



Assembled 5-15P

KC13ASSM



Assembled C-13

KC14ASSM



Assembled C-14

## Assembled Rewirable Connectors

Any cord length is now available on the spot with Orion rewirable Assembled plug heads and connectors. If our standard molded cord sets are not the correct length for your application, just purchase one of our longer cords, cut to size and use one of our assembled rewirable plugs or connectors for the perfect fit! The NEMA 5-15P, IEC320 C-13 and IEC320 C-14 configurations are all available. Knight Electronics and ORION can make any type of custom cables or harnesses exactly to your specifications. Please provide detailed information on the form provided in this catalog. Knight Electronics power cords are guaranteed against defects in workmanship and materials for 1 year and are available nationwide from our family of authorized distributors. Please call 800-323-2439 if you would like to speak to a sales representative.



# POWER CORD DESIGN GUIDE

For Custom power cord applications please fill out the following form and fax it to 214-340-5870 and we will issue a quote on your requirements.

Company Name: \_\_\_\_\_

Contact: \_\_\_\_\_

Address: \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

Web Address: \_\_\_\_\_ E-mail: \_\_\_\_\_

Quantity Req.: \_\_\_\_\_

Delivery Req.: \_\_\_\_\_

Cordage: \_\_\_\_\_

North American: XT, HPN, SPT-1, SPT-2, SPT-3, SVT, SJT, SJTW, SJTW-A, SJO, Other (Please Specify)  
Europe & UK: HO3VVH2-F, HO3VV-F, HO5VV-F, Other (Please Specify)  
Japan: VVF, HVVF, VCTFK, HHFF, VCTF, HVCTF  
Australia: LFC-2F, GFC-2F, LFC-2R, GFC-2R, GFC-3R, LFC-3R  
Other: Please Specify

Temperature Rating: \_\_\_\_\_ (60C, 85C, 105C)

No. of Conductors: \_\_\_\_\_ (2 or 3)

Wire Gauge: \_\_\_\_\_

North American: 12, 14, 16, 18, 20, Other (Please Specify)  
Europe: 0.75mm, 1.00mm  
Japan: 1.25mm, 2.00mm

Current Requirement: \_\_\_\_\_ / \_\_\_\_\_ (Amps / Volts)

Jacket Color: \_\_\_\_\_

Color Code: \_\_\_\_\_ (North American or European)

Shielding: \_\_\_\_\_ (None, Foil Aluminum, Braid, Foil and Braid)

Overall Length: \_\_\_\_\_ (Please specify meters or inches)

Plug: \_\_\_\_\_

IEC Connector: \_\_\_\_\_

Unterminated Cords: \_\_\_\_\_ (ROJ to what length?)

\_\_\_\_\_ (RIJ to what length?)

\_\_\_\_\_ (Tinned conductors?)

Terminals Required: \_\_\_\_\_ (Please specify type and associated conductors)



## ABOUT THIS CROSS-REFERENCE

The following cross-reference material is for general information only. It covers the basic fan models for Comair-Rottron, Sunon, NMB, Nidec and Papst. In each case the crossed material is provided in a way that will allow you to find the appropriate ORION FAN equivalent in terms of size and voltage. Specifics such as CFM (airflow), static pressure curves, power draw and dB (noise) vary greatly among manufacturers and crosses are rarely exact. Therefore some thought must be given to choosing a replacement fan.

### Instructions:

1. Find the closest part number match on the table below to the part number that you are crossing and make a note of the ORION recommended replacement.
2. Go to the quick size reference on the index page and find the ORION Series number.
3. Verify that the size (outside dimensions) and voltage (AC vs. DC) are the same as the fan that you are trying to cross.
4. Turn to the appropriate page and compare specifications.
5. If the ORION specifications are not within your tolerances then choose the model that most closely fits your requirements in terms of noise vs. CFM etc.

If you cannot find a suitable replacement for your fan in this catalog then please give us a call. We have several new fan models that are currently under development and many of our existing fans are available with alternate case configurations.

| COMAIR-ROTRON  | ORION          | COMAIR-ROTRON | ORION         | COMAIR-ROTRON | ORION           | COMAIR-ROTRON | ORION          |
|----------------|----------------|---------------|---------------|---------------|-----------------|---------------|----------------|
| BD12B3         | ODB600-12MB    | FE24B3        | OD8025-24HB   | MC48B3        | OD1238PT-48HB   | PQ24C4        | OD172SAP-24HB  |
| BD24B3         | ODB600-24MB    | FE24H3        | OD8025-24MB   | MD12B1        | OD1238PT-12HB   | PQ48B4        | OD172SAP-48HB  |
| BD24C3         | ODB600-24LB    | FN12B3        | OD9225-12HB   | MD12B2        | OD1238PT-12HTB  | PQ48C4        | OD172SAP-48HB  |
| BD48B3         | ODB600-48MB    | FN12C3        | OD9225-12MB   | MD24B1        | OD1238PT-24HB   | WD12B3        | OD1238PT-12MB  |
| BD48C3         | ODB600-48LB    | FN24B3        | OD9225-24HB   | MD24B2        | OD1238PT-24HTB  | WD12C3        | OD1238PT-12MB  |
| BT2A1          | OAB800AN-11-1S | FN24C3        | OD9225-24MB   | MD48B1        | OD1238PT-48HB   | WD12H3        | OD1238PT-12LB  |
| BT3A1          | OAB800AN-22-1S | FS12B3        | OD6025-12MB   | MD48B2        | OD1238PT-48HTB  | WD12M3        | OD1238PT-12LB  |
| CLE2L2         | OA254AP-11-1WB | FS12H3        | OD6025-12LB   | MR2B3         | OA172SAN-11-1WB | WD24B3        | OD1238PT-24MB  |
| CLE2T2         | OA254AP-11-1TB | FS24B3        | OD6025-24HB   | MR2D3         | OA172SAN-11-3TB | WD24C3        | OD1238PT-24MB  |
| CLE3L2         | OA254AP-22-1WB | FS24H3        | OD6025-24LB   | MR77B3        | OA172SAN-22-1WB | WD24H3        | OD1238PT-24LB  |
| CLE3T2         | OA254AP-22-1TB | FT12B3        | OD1225PT-12HB | MR77D3        | OA172SAN-22-3TB | WD24M3        | OD1238PT-24LB  |
| CR0212LB-G70   | OD2510-12HB    | FT12M3        | OD1225PT-12MB | MU2A1         | OA109AP-11-1TS  | WD48B3        | OD1238PT-48MB  |
| CR0412HB-G70   | OD4010-12HB    | FT24B3        | OD1225PT-24HB | MU3A1         | OA109AP-22-1TS  | WR2A1         | OA109AP-11-3TS |
| CR0412HB-C50   | OD4020-12HB    | FT24M3        | OD1225PT-24MB | MU2B1         | OA109AP-11-1TB  | WR2H1         | OA109AP-11-2TS |
| CR0512HB-G90   | OD5210-12HB    | JQ12B4        | OD172AN-12HB  | MU3B1         | OA109AP-22-1TB  | WR2M1         | OA109AP-11-3TS |
| CR0512HB-D71   | NO CROSS       | JQ24B4        | OD172AN-24HB  | MX2A1*        | OA109AP-11-1TS  | WR3H1         | OA109AP-22-2TS |
| CR0612HB-D71GL | OD6015-12HB    | JQ48B4        | OD172AN-48HB  | MX2A3         | OA109AP-11-1TS  | WR3A1         | OA109AP-22-1TS |
| CR0624HB-A70GL | OD6025-24HB    | MC12A3        | OD1238PT-12HS | MX2B3         | OA109AP-11-1TB  | WX2A1         | OA109AP-11-3TS |
| CR0812HB-A70GL | OD8025-12HB    | MC12B3        | OD1238PT-12HB | MX3A1*        | OA109AP-22-1TS  | WX2H1         | OA109AP-22-2TS |
| CR0824HB-A70GL | OD8025-24HB    | MC12E3        | OD1238PT-12LS | MX3A3         | OA109AP-22-1TS  | WX2M1         | OA109AP-11-2TS |
| CR0912HB-A70GL | OD9225-12HB    | MC12G3        | OD1238PT-12MS | MX3B3         | OA109AP-22-1TB  | WX3M1         | OA109AP-22-2TB |
| CR0924HB-A70GL | OD9225-24HB    | MC24A3        | OD1238PT-24HS | PQ12B4        | OD172SAP-12HB   | WX3H1         | OA109AP-11-1TB |
| FE12B3         | OD8025-12HB    | MC24B3        | OD1238PT-24HB | PQ12C4        | OD172SAP-12HB   |               |                |
| FE12H3         | OD8025-12MB    | MC24H3        | OD1238PT-24MB | PQ24B4        | OD172SAP-24HB   |               |                |

| SUNON      | ORION        | SUNON      | ORION         | SUNON         | ORION          | SUNON            | ORION          |
|------------|--------------|------------|---------------|---------------|----------------|------------------|----------------|
| KD0501BFB2 | OD2010-05MB* | KD1206PHB2 | OD6015-12MB*  | KD2405PHS2    | OD5215-24HS    | DP201A2123HBL    | OA109AP-22-1WB |
| KD0502PFS2 | OD2510-05HS  | KD1206PHS1 | OD6015-12HS*  | KD2405PHS3    | OD5215-24MS    | DP201A2123HBT    | OA109AP-11-1TB |
| KD0504PFB2 | OD4010-05HB  | KD1206PHS2 | OD6015-12MS*  | KD2406PTS1    | OD6025-24HS    | DP201A2123HSL    | OA109AP-22-1WS |
| KD0504PFB3 | OD4010-05MB  | KD1206PHS3 | OD6015-12LS*  | KD2406PTS2    | OD6025-24MS    | DP201A2123HST    | OA109AP-22-1TS |
| KD0504PFS2 | OD4010-05HS  | KD1206PTB1 | OD6025-12HB   | KD2406PTS3    | OD6025-24LS    | DP201AT2122HBL   | OA125AP-22-1WB |
| KD0504PFS3 | OD4010-05MS  | KD1206PTB2 | OD6025-12MB   | KD2408PTS1    | OD8025-24HS    | DP201AT2122HBT   | OA125AP-22-1TB |
| KD0504PKS2 | OD4020-05HS  | KD1206PTB3 | OD6025-12LB   | KD2408PTS2    | OD8025-24MS    | DP201AT2122HSL   | OA125AP-22-1WS |
| KD0504PKS3 | OD4020-05MS  | KD1206PTS2 | OD6025-12MS   | KD2408PTS3    | OD8025-24LS    | DP201AT2122HST   | OA125AP-22-1TS |
| KD0505PHS2 | OD5215-05HS  | KD1206PTS3 | OD6025-12LS   | KD2409PTB1    | OD9225-12HB    | SF11508A1083HBL  | OA80AP-11-1WB  |
| KD0505PHS3 | OD5215-05MS  | KD1208PTB1 | OD8025-12HB   | KD2409PTB2    | OD9225-12MB    | SF11508A1083HSL  | OA80AP-11-1WS  |
| KD0506PHS1 | OD6015-05HS* | KD1208PTB2 | OD8025-12MB   | KD2409PTB3    | OD9225-12LB    | SF11580AT1082HBL | OA825AP-11-1WB |
| KD0506PHS2 | OD6015-05MS* | KD1208PTB3 | OD8025-12LB   | KD2409PTS1    | OD9225-24HS    | SF11580AT1082HSL | OA825AP-11-1WS |
| KD0506PHS3 | OD6015-05LS* | KD1208PTS1 | OD8025-12HS   | KD2409PTS2    | OD9225-24MS    | SF11592A1092HBL  | OA92AP-11-1WB  |
| KD1201BFB2 | OD2010-12HB  | KD1208PTS2 | OD8025-12MS   | KD2409PTS3    | OD9225-24LS    | SF11592A1092HBT  | OA92AP-11-1TB  |
| KD1201BFS2 | OD2010-12MS* | KD1208PTS3 | OD8025-12LS   | KD2412PMB1    | OD1238PT-24HB  | SF11592A1092HSL  | OA92AP-11-1WS  |
| KD1202PFB2 | OD2510-12HB  | KD1209PTS1 | OD9225-12HS   | KD2412PMB2    | OD1238PT-24MB  | SF11592A1092HST  | OA92AP-11-1TS  |
| KD1202PFS2 | OD2510-12HS  | KD1209PTS2 | OD9225-12MS   | KD2412PMB3    | OD1238PT-24LB  | SF23080A2083HBL  | OA80AP-22-1WB  |
| KD1204PFB2 | OD4010-12HB  | KD1209PTS3 | OD9225-12LS   | KD2412PMS1    | OD1238PT-24HS  | SF23080A2083HSL  | OA80AP-22-1WS  |
| KD1204PFB3 | OD4010-12MB  | KD1209PTS3 | OD9225-12LS   | KD2412PMS2    | OD1238PT-24MS  | SF23080AT2082HBL | OA825AP-22-1WB |
| KD1204PFS2 | OD4010-12HS  | KD1212PMB1 | OD1238PT-12HB | KD2412PMS3    | OD1238PT-24LS  | SF23080AT2082HSL | OA825AP-22-1WS |
| KD1204PFS3 | OD4010-12MS  | KD1212PMB2 | OD1238PT-12MB | KD2412PTB1    | OD1225-24HB    | SF23092A2092HBL  | OA92AP-22-1WB  |
| KD1204PKB2 | OD4020-12HB  | KD1212PMB3 | OD1238PT-12LB | KD2412PTB2    | OD1225-24MB    | SF23092A2092HSL  | OA92AP-22-1WS  |
| KD1204PKB3 | OD4020-12MB  | KD1212PMS1 | OD1238PT-12HS | KD2412PTB3    | OD1225-24LB    | SF23092A2092HST  | OA92AP-22-1TB  |
| KD1204PKS2 | OD4020-12HS  | KD1212PMS2 | OD1238PT-12MS | KD2412PTS1    | OD1225-24HS    | SF23092A2092HBT  | OA92AP-22-1TS  |
| KD1204PKS3 | OD4020-12MS  | KD1212PMS3 | OD1238PT-12LS | KD2412PTS2    | OD1225-24MS    | SP101AT1122HBL   | OA125AP-11-1WB |
| KD1205PHB2 | OD5210-12HB  | KD1212PTS1 | OD1225-12HS   | KD2412PTS3    | OD1225-24LS    | SP101AT1122HBT   | OA125AP-11-1TB |
| KD1205PHB3 | OD5210-12MB  | KD1212PTS2 | OD1225-12MS   | DP101A1123HBL | OA109AP-11-1WB | SP101AT1122HSL   | OA125AP-11-1WS |
| KD1205PHS2 | OD5215-12HS  | KD1212PTS3 | OD1225-12LS   | DP101A1123HBT | OA109AP-11-1TB | SP101AT1122HST   | OA125AP-11-1TS |
| KD1205PHS3 | OD5215-12MS  | KD2404PKS2 | OD4020-24HS   | DP101A1123HSL | OA109AP-11-1WS |                  |                |
| KD1206PHB1 | OD6015-12HB* | KD2404PKS3 | OD4020-24MS   | DP101A1123HST | OA109AP-11-1TS |                  |                |



| EBM/PAPST | ORION         | EBM/PAPST | ORION          | EBM/PAPST | ORION             | EBM/PAPST      | ORION             |
|-----------|---------------|-----------|----------------|-----------|-------------------|----------------|-------------------|
| 412F      | OD4010-12MS   | 4312L     | OD1232-12L     | 6078S     | OA172AN-22-1      | 8412GMV        | 8025 Rigel Series |
| 412FH     | OD4010-12HS   | 4312M     | OD1232-12M     | 6212M     | OD172SAP-12H      | 8412GLV        | 8025 Rigel Series |
| 414F      | OD4010-24MS   | 4314      | OD1232-24HB    | 6224M     | OD172SAP-24H      | 8412GV         | 8025 Rigel Series |
| 412       | OD4010-12MS   | 4318      | OD1232-48HB    | 6224      | OD172SAP-24H      | 8412L          | OD8025-12LB       |
| 414       | OD4010-24HS   | 4500N     | OA109AP-11-1   | 6248      | OD172SAP-48H      | 8412M          | OD8025-12MB       |
| 612       | OD6025-12HB   | 4530N     | OA109AP-11-2   | 6248M     | OD172SAP-48H      | 8414           | OD8025-24HB       |
| 612L      | OD6025-12LB   | 4600N     | OA109AP-11-1   | 7006      | OA172AN-11-1TB    | 8500N          | OA80AP-11-1       |
| 612M      | OD6025-12M    | 4600X     | OA109AP-11-1TB | 7056      | OA172AN-22-1TB    | 8550N          | OA80AP-22-1       |
| 614       | OD6025-24HB   | 4600XP    | OA109AP-11-1TB | 7112      | OD172SAPL-12H     | 8556N          | OA80AP-22-1WB     |
| 3412      | OD9225-12H    | 4606N     | OA109AP-11-1   | 7114      | OD172SAPL-24H     | 8800N          | OA80AP-11-2       |
| 3412L     | OD9225-12M    | 4606X     | OA109AP-11-1TB | 7118      | OD172SAPL-48H     | 8506N          | OA80AP-11-1WB     |
| 3412M     | OD9225-12H    | 4650N     | OA109AP-22-1   | 7212      | OD172SAP-12H      | 8908           | OA825AP-11-1      |
| 3414      | OD9225-24H    | 4650X     | OA109AP-22-1TB | 7214      | OD172SAP-24H      | 8908L          | OA825AP-11-3      |
| 3906      | OA92AP-11-1TB | 4656N     | OA109AP-22-1TB | 7218      | OD172SAP-48H      | 8958           | OA825AP-22-1      |
| 3906L     | OA92AP-11-2TB | 4658N     | OA109AP-22-1   | 7805S     | OA162-5E-11-1WB   | 9906           | OA125AP-11-1TB    |
| 3908      | OA92AP-11-1   | 4800N     | OA109AP-11-3   | 7806S     | OA162-5E-11-1WB   | 9906L          | OA125AP-11-2TB    |
| 3908L     | OA92AP-11-2   | 4800X     | OA109AP-11-2TB | 7855S     | OA162-5E-22-1WB   | R1G190 Series  | OAB190 Series     |
| 3958      | OA92AP-22-1   | 4840N     | OA109AP-11-1   | 7856S     | OA162-5E-11-1WB   | R2E220-AA40-23 | OAB220-22-1       |
| 4212      | OD1238-12M    | 4850X     | OA09AP-22-3    | 8312      | OD8032-12H        | R2E220-AA44-23 | OAB220-11-1       |
| 4212H     | OD1238-12H    | 4908      | OA125AP-11-1   | 8312MV    | 8032 Rigel Series | RL90-18/14N    | ODB600AN          |
| 4214      | OD1238-24M    | 4908L     | OA125AP-11-2   | 8314      | OD8032-24H        | W2E142 Series  | OA172SAPL Series  |
| 4214H     | OD1238-24H    | 4958      | OA125AP-22-1   | 8318      | OD8032-48H        | W2K121 Series  | OA119 Series      |
| 4218C     | OD1238-48M    | 6008S     | OA172AN-11-1   | 8312L     | OD8032-12L        | W2E200 Series  | OA225 Series      |
| 4218H     | OD1238-48H    | 6028S     | OA172AN-11-1   | 8312M     | OD8032-12M        | W2E250 Series  | OA280 Series      |
| 4312      | OD1232-12H    | 6058S     | OA172AN-22-1   | 8412      | OD8025-12HB       |                |                   |

| NMB*            | ORION          | NMB*           | ORION          | NMB*           | ORION           | NMB*           | ORION            |
|-----------------|----------------|----------------|----------------|----------------|-----------------|----------------|------------------|
| 1004KL-01W-B50* | OD2510-05HB    | 3110PS-23T-B30 | OA825AP-22-1TB | 4712KL-04W-B50 | OD1232-12HB     | 5015KL-04T-B50 | OD127-12HTB      |
| 1004KL-04W-B50  | OD2510-12HB    | 3115PS-12W-B30 | OA80AP-11-1WB  | 4712KL-05W-B50 | OD1232-24HB     | 5015KL-04W-B50 | OD127-12HB       |
| 1204KL-04W-B50  | OD3010-12HB    | 3115PS-23W-B30 | OA80AP-22-1WB  | 4712KL-07W-B50 | OD1232-48HB     | 5915PC-12W-B30 | OA172SAPL-11-1WB |
| 1604KL-01W-B50  | OD4010-05HB    | 3115PS-12T-B30 | OA80AP-11-1TB  | 4715KL-04W-B50 | OD1238-12HB     | 5915PC-23W-B30 | OA172SAPL-22-1WB |
| 1604KL-04W-B50  | OD4010-12HB    | 3115PS-23T-B30 | OA80AP-22-1TB  | 4715KL-05W-B50 | OD1238-24HB     | 5915PC-12T-B30 | OA172SAPL-11-1TB |
| 1608KL-01W-B50  | OD4020-05HB    | 3610KL-04W-B50 | OD9225-12HB    | 4715KL-07W-B30 | OD1238-48HB     | 5915PC-23T-B30 | OA172SAPL-22-1TB |
| 1608KL-04W-B50  | OD4020-12HB    | 3610KL-05W-B50 | OD9225-24HB    | 4715KL-04T-B50 | OD1238-12HTB    | 5920PL-12W-B30 | OD172SAP-11-1WB  |
| 2406KL-04W-B50  | OD6015-12HB    | 3610PS-12W-B30 | OA92AP-11-1WB  | 4715KL-05T-B50 | OD1238-24HTB    | 5920PL-23W-B30 | OD172SAP-22-1WB  |
| 2408NL-04W-B50  | OD6020-12HB    | 3610PS-23W-B30 | OA92AP-22-1WB  | 4715KL-07T-B30 | OD1238-48HTB    | 5920PL-12T-B30 | OD172SAP-11-1TB  |
| 2408NL-05W-B50  | OD6020-24HB    | 3610PS-12T-B30 | OA92AP-11-1TB  | 4715FS-12W-B30 | OA109AP-11-1WBR | 5920PL-12T-B30 | OD172SAP-22-1TB  |
| 2410ML-04W-B50  | OD6025-12HB    | 3610PS-23T-B30 | OA92AP-22-1TB  | 4715FS-23W-B30 | OA109AP-22-1WBR | 6820PL-12W-B30 | OD172AP-11-1WB   |
| 2410ML-05W-B50  | OD6025-24HB    | 4710NL-04W-B50 | OD1225-12HB    | 4715FS-12T-B30 | OA109AP-11-1TBR | 6820PL-23W-B30 | OD172AP-22-1WB   |
| 3110KL-04W-B50  | OD8025-12HB    | 4710NL-05W-B50 | OD1225-24HB    | 4715FS-23T-B30 | OA109AP-22-1TBR | 6820PL-12T-B30 | OD172AP-11-1TB   |
| 3110KL-05W-B50  | OD8025-24HB    | 4710PS-12W-B30 | OA125AP-11-1WB | 4715MS-12W-B30 | OA109AP-11-1WB  | 6820PL-23T-B30 | OD172AP-22-1TB   |
| 3110PS-12W-B30  | OA825AP-11-1WB | 4710PS-23W-B30 | OA125AP-22-1WB | 4715MS-23W-B30 | OA109AP-22-1WB  |                |                  |
| 3110PS-23W-B30  | OA825AP-22-1WB | 4710PS-12T-B30 | OA125AP-11-1TB | 4715MS-12T-B30 | OA109AP-11-1TB  |                |                  |
| 3110PS-12T-B30  | OA825AP-11-1TB | 4710PS-23T-B30 | OA125AP-22-1TB | 4715MS-23T-B30 | OA109AP-22-1TB  |                |                  |

| NIDEC    | ORION         | NIDEC  | ORION         | NIDEC     | ORION        | NIDEC           | ORION            |
|----------|---------------|--------|---------------|-----------|--------------|-----------------|------------------|
| TA100 DC |               | A30479 | OA80AP-22-1TB | A30122    | OA109AP-11-1 | B33050          | OD1238-12MB      |
| C34230   | OD2510-05MB   | A30716 | OA80AP-11-2TS | A30135    | OA1091P-22-1 | B33393          | OD1238-24MB      |
| C34237   | OD2510-12MB   | A32250 | OA80AP-11-1TS | A30390    | OA109AP-11-2 | B34188-16       | OD1238-24MB      |
| C34245   | OD2510-05HB   | A32353 | OA80AP-22-1TS | A30426    | OA109AP-22-2 | TA500           |                  |
| C34240   | OD2510-12HB   | A32354 | OA80AP-11-2TS | A30433    | OA109AP-11-2 | A30700          | OA119AP-11-2TS   |
| TA150DC  |               | M33406 | OD8025-12HB   | A30444    | OA109AP-22-2 | A30704          | OA119AP-22-2TS   |
| C33830   | OD4010-12MB   | M33407 | OD8025-24HB   | A30769    | OA109AP-11-3 | A30200          | OA119AP-11-1TS   |
| C33842   | OD4010-12HB   | M33409 | OD8025-12MB   | A30925    | OA109AP-22-3 | A30324          | OA119AP-22-1TS   |
| C33903   | OD4010-24HB   | M33411 | OD8025-24MB   | A30926    | OA109AP-11-3 | A30330          | OA119AP-11-1TB   |
| C33920   | OD4010-24MB   | M33412 | OD8025-12MB   | A30927    | OA109AP-22-3 | A30332          | OA119AP-22-1TB   |
| C34246   | OD4010-05HB   | M33413 | OD8025-24MB   | A32655    | OD1225-12HB  | TA600 DC SERIES |                  |
| C34247   | OD4010-05MB   | M33414 | OD8025-12LB   | A32670    | OD1225-24HB  | A32550          | OD172SAP-12HB    |
| TA225 DC |               | M33415 | OD8025-24LB   | A32675    | OD1225-12MB  | A32590          | OD172SAP-12HMB   |
| M33394   | OD6025-12LB   | A33245 | OD8015-12HB   | A32680    | OD1225-24MB  | A32600          | OD172SAP-24HMB   |
| M33397   | OD6025-24LB   | A33315 | OD8015-12HMB  | A32685    | OD1225-12LB  | A33115          | OD172SAP-12MB    |
| M33399   | OD6025-12LB   | TA350  |               | A32690    | OD1225-24LB  | A33142          | OD172SAP-24MB    |
| M33401   | OD6025-24LB   | M33416 | OD9225-12LB   | B31256    | OD1238-12HB  | A33230          | OD172SAP-48HMB   |
| M33402   | OD6025-12LB   | M33417 | OD9225-24LB   | B31257    | OD1238-24HB  | A30318          | OA172SAPL-11-1TB |
| M33403   | OD6025-24LB   | M33418 | OD9225-12MB   | B31276    | OD1238-12HB  | A30322          | OA172SAPL-22-1TB |
| M33404   | OD6025-12MB   | M33419 | OD9225-24MB   | B31277    | OD1238-24HB  |                 |                  |
| M33405   | OD6025-24MB   | M33420 | OD9225-12HB   | B31668-16 | OD1238-12LB  | TA1000          |                  |
| M33455   | OD6025-12HB   | M33421 | OD9225-24HB   | B31787-16 | OD1238-24LB  | A30436          | OA254AN-11-2TB   |
| M33497   | OD6025-24HB   | M33422 | OD9225-12HMB  | B31873    | OD1238-12MB  | A30230          | OA254AP-22-1TB   |
| TA300    |               | M33423 | OD9225-24HMB  | B32347-16 | OD1238-12LB  | A30205          | OA254AP-11-1TB   |
| A30473   | OA80AP-11-1TS | TA450  |               | B32832-16 | OD1238-12LB  |                 |                  |
| A30475   | OA80AP-22-1TS | A28678 | OA109AP-22-1  | B32837    | OD1238-24MB  |                 |                  |
| A30477   | OA80AP-11-1TB | A30108 | OA109AP-11-1  | B32861    | OD1238-48HB  |                 |                  |

\*NMB to ORION cross reference covers ONLY high speed models. NMB suffix B50 or B30 is generally high speed and B10 is generally low speed. ORION uses H, M or L (High, Medium, Low) for DC fans and 1,2 or 3 (High, Medium, Low) for AC fans.

For complete cross reference, go to [www.orionfans.com](http://www.orionfans.com).

**OEM PRICE \*****AC & DC Fans, Blowers and Trays****AC Fans**

| Series No         | VAC      | Ball     | Sleeve  |
|-------------------|----------|----------|---------|
| OA60              | 115, 230 | \$16.00  | \$14.50 |
| OA825             | 115, 230 | \$16.00  | \$14.50 |
| OA80              | 115, 230 | \$14.50  | \$13.00 |
| OA92              | 115, 230 | \$16.00  | \$14.50 |
| OA938             | 115, 230 | \$16.00  | \$14.50 |
| OA125             | 115, 230 | \$16.00  | \$14.50 |
| OA109             | 115, 230 | \$15.50  | \$14.00 |
| OA109 all metal   | 115, 230 | \$19.50  | N/A     |
| OA109 XC          | 115, 230 | \$18.00  | N/A     |
| O4715 Challenger  | 115, 230 | \$12.50  | N/A     |
| OA109 (AIOS)      | 115, 230 | \$15.50  | \$14.00 |
| OA119             | 115, 230 | \$26.50  | \$22.00 |
| OA162             | 115, 230 | \$40.00  | N/A     |
| OA5920 Challenger | 115, 230 | \$31.50  | N/A     |
| OA172             | 115, 230 | \$41.00  | N/A     |
| OA172 XC          | 115, 230 | \$45.50  | N/A     |
| OA172SAPL         | 115, 230 | \$40.50  | N/A     |
| OA180             | 115, 230 | \$75.50  | N/A     |
| OA180APL          | 115, 230 | \$75.50  | N/A     |
| OA225             | 115, 230 | \$135.00 | N/A     |
| OA254AP           | 115, 230 | \$66.00  | N/A     |
| OA254AN           | 115, 230 | \$73.50  | N/A     |
| OA254AN XC        | 115, 230 | \$77.00  | N/A     |
| OA280             | 115, 230 | \$150.00 | N/A     |

**AC Fans Dual Voltage 115/230 VAC**

| Series No | VAC            | Ball    | Sleeve  |
|-----------|----------------|---------|---------|
| OA825     | 115 / 230 Dual | \$21.00 | \$18.00 |
| OA80      | 115 / 230 Dual | \$21.00 | \$18.00 |
| OA92      | 115 / 230 Dual | \$21.00 | \$18.00 |
| OA938     | 115 / 230 Dual | \$21.00 | \$18.00 |
| OA125     | 115 / 230 Dual | \$21.00 | \$18.00 |
| OA109     | 115 / 230 Dual | \$21.00 | \$18.00 |
| OA119     | 115 / 230 Dual | \$31.00 | \$27.50 |

**AC Blowers**

| Series No | VAC      | Ball    | Sleeve  |
|-----------|----------|---------|---------|
| OAB190    | 115, 230 | \$87.50 | N/A     |
| OAB220    | 115, 230 | \$91.50 | N/A     |
| OAB800    | 115, 230 | \$27.00 | \$24.50 |
| OAB908    | 115, 230 | \$86.00 | N/A     |
| OAB1231   | 115, 230 | \$30.00 | N/A     |

**AC Fan Trays**

| Model No.         | Part No.          | VAC     | Ball     |
|-------------------|-------------------|---------|----------|
| OA300S (short)    | FTA-03115-014(BK) | 115VAC  | \$175.00 |
| OA600S (short)    | FTA-06115-014(BK) | 115VAC  | \$275.00 |
| OA300             | FTA-03115-018(BK) | 115VAC  | \$175.00 |
| OA600             | FTA-06115-018(BK) | 115VAC  | \$275.00 |
| OA900             | FTA-09115-018(BK) | 115VAC  | \$375.00 |
| OA300ST-120       | FTA-018C311(HF)   | 120VAC  | \$175.00 |
| OMB5200-120       | FTA-520A211(HF)   | 120VAC  | \$330.00 |
| OA302S (short)    | FTA-03220-014(BK) | 230VAC  | \$175.00 |
| OA602S (short)    | FTA-06220-014(BK) | 230VAC  | \$275.00 |
| OA302             | FTA-03220-018(BK) | 230VAC  | \$175.00 |
| OA602             | FTA-06220-018(BK) | 230VAC  | \$275.00 |
| OA902             | FTA-09220-018(BK) | 230VAC  | \$375.00 |
| OA300ST-230       | FTA-018C322(HF)   | 230VAC  | \$175.00 |
| OMB5200-230       | FTA-520A222(HF)   | 230VAC  | \$330.00 |
| OA300S-DV (short) | FTA-03DV-014(BK)  | 115/230 | \$215.00 |
| OA600S-DV (short) | FTA-06DV-014(BK)  | 115/230 | \$345.00 |
| OA300-DV          | FTA-03DV-018(BK)  | 115/230 | \$215.00 |
| OA600-DV          | FTA-06DV-018(BK)  | 115/230 | \$345.00 |
| OA900-DV          | FTA-09DV-018(BK)  | 115/230 | \$465.00 |

**DC Fans\*\***

| Series No | VDC       | Ball    | Sleeve |
|-----------|-----------|---------|--------|
| OD2510    | 5, 12, 24 | \$13.50 | N/A    |
| OD3010    | 5, 12     | \$9.00  | \$8.00 |
| OD4010    | 5, 12, 24 | \$9.00  | \$8.00 |
| OD4010 SS | 12        | N/A     | \$4.65 |
| OD4020    | 5, 12, 24 | \$9.00  | \$8.00 |
| OD4020 SS | 12, 24    | N/A     | \$4.65 |

**DC Fans\*\* (continued)**

| Series No       | VDC        | Ball     | Sleeve  |
|-----------------|------------|----------|---------|
| OD4028          | 5, 12, 24  | \$10.00  | \$9.00  |
| OD4028XC        | 12         | \$13.00  | N/A     |
| OD5210          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD6010          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD6015          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD6020          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD6025          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD6025          | 48         | \$12.00  | \$11.00 |
| OD6025 SS       | 12, 24     | N/A      | \$4.65  |
| OD6038 VA       | 12, 24     | \$17.00  | N/A     |
| OD8025          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD8015          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD8025          | 5, 12, 24  | \$9.00   | \$8.00  |
| OD8025          | 48         | \$12.00  | \$11.00 |
| OD8025 SS       | 12, 24     | N/A      | \$4.65  |
| OD8032          | 12, 24     | \$12.00  | \$11.00 |
| OD8032          | 48         | \$14.00  | \$13.00 |
| OD8038          | 12, 24, 48 | \$16.00  | N/A     |
| OD9220          | 12, 24     | \$10.00  | \$9.00  |
| OD9225          | 12, 24     | \$10.00  | \$9.00  |
| OD9225          | 48         | \$12.00  | \$11.00 |
| OD9238 VA       | 12, 24, 48 | \$17.00  | N/A     |
| OD1225          | 12, 24     | N/A      | \$4.65  |
| OD1225          | 12, 24     | \$15.50  | \$13.50 |
| OD1225          | 48         | \$19.50  | \$17.00 |
| OD1225 SS       | 12, 24     | N/A      | \$10.00 |
| OD1232          | 12, 24     | \$15.00  | \$13.00 |
| OD1232          | 48         | \$20.00  | \$18.00 |
| OD1238          | 12, 24     | \$17.50  | \$15.50 |
| OD1238          | 48         | \$21.00  | \$19.00 |
| OD1238 SS       | 12, 24     | N/A      | \$11.00 |
| OD1238AP(Metal) | 12, 24     | \$19.50  | N/A     |
| OD1238 XC       | 12, 24     | \$21.00  | N/A     |
| OD1238 XC       | 48         | \$23.00  | N/A     |
| OD1238VA        | 12, 24     | \$25.00  | N/A     |
| OD127 XC        | 12, 24     | \$25.00  | \$25.00 |
| N/A             |            |          |         |
| OD127 XC        | 48         | \$27.00  | N/A     |
| OD127AP(Metal)  | 12, 24     | \$31.00  | N/A     |
| OD127AP(Metal)  | 48         | \$34.00  | N/A     |
| OD172SAPL       | 12, 24     | \$72.00  | N/A     |
| OD172SAPL       | 48         | \$74.00  | N/A     |
| OD172           | 12, 24     | \$78.50  | N/A     |
| OD172           | 48         | \$80.00  | N/A     |
| OD180           | 12, 24, 48 | \$110.00 | N/A     |
| OD254           | 12, 24     | \$120.00 | N/A     |
| OD254           | 48         | \$125.00 | N/A     |

\*\*Add \$3.00 to the OEM price for special function DC fans: tachometer, thermal control, alarm and PWM

**DC Blowers**

| Series No | VDC        | Ball    | Sleeve  |
|-----------|------------|---------|---------|
| ODB5009   | 12, 24     | \$22.00 | N/A     |
| ODB7530   | 12, 24     | \$18.50 | N/A     |
| ODB9733   | 12, 24     | \$18.50 | N/A     |
| ODB9733   | 48         | \$20.50 | N/A     |
| ODB600    | 12, 24     | \$23.50 | \$19.50 |
| ODB600    | 48         | \$27.00 | \$23.00 |
| ODB1232   | 12, 24, 48 | \$20.00 | N/A     |

**DC Fan Trays**

| Model No.         | Part No.          | VDC   | Ball     |
|-------------------|-------------------|-------|----------|
| OD300S-12 (short) | FTD-03012-014(BK) | 12VDC | \$200.00 |
| OD600S-12 (short) | FTD-06012-014(BK) | 12VDC | \$300.00 |
| OD300-12          | FTD-03012-018(BK) | 12VDC | \$200.00 |
| OD600-12          | FTD-06012-018(BK) | 12VDC | \$300.00 |
| OD900-12          | FTD-09012-018(BK) | 12VDC | \$375.00 |
| OD300S-24 (short) | FTD-03024-014(BK) | 24VDC | \$200.00 |
| OD600S-24 (short) | FTD-06024-014(BK) | 24VDC | \$300.00 |
| OD300-24          | FTD-03024-018(BK) | 24VDC | \$200.00 |
| OD600-24          | FTD-06024-018(BK) | 24VDC | \$300.00 |
| OD900-24          | FTD-09024-018(BK) | 24VDC | \$375.00 |
| OD300S-48 (short) | FTD-03048-014(BK) | 48VDC | \$220.00 |
| OD600S-48 (short) | FTD-06048-014(BK) | 48VDC | \$330.00 |
| OD300-48          | FTD-03048-018(BK) | 48VDC | \$220.00 |
| OD600-48          | FTD-06048-018(BK) | 48VDC | \$330.00 |
| OD900-48          | FTD-09048-018(BK) | 48VDC | \$435.00 |

**Spot Coolers**

| Model No        | Voltage Input | Ball     |
|-----------------|---------------|----------|
| OD9225-SPOT     | 115           | \$ 32.00 |
| OD1232-SPOT     | 115           | \$ 36.00 |
| OD1232-SPOT/DIN | 115           | \$ 44.00 |

\*Pricing indicated is for OEM's and is for 100 pcs. For larger quantity pricing please check with one of our franchised distributors or with our customer service. Check our website to locate a distributor in your area.

**OEM PRICE \***

# Fan Accessories

## 2-Conductor Fan Cords

| Part Number | OEM Price |
|-------------|-----------|
| C45-12      | \$1.50    |
| C45-24      | \$1.75    |
| C45-36      | \$2.00    |
| C45-48      | \$2.25    |
| C45-72      | \$2.75    |
| C180-12     | \$1.50    |
| C180-24     | \$1.75    |
| C180-36     | \$2.00    |
| C180-48     | \$2.25    |
| C180-72     | \$2.75    |
| C90-12      | \$1.50    |
| C90-24      | \$1.75    |
| C90-36      | \$2.00    |
| C90-48      | \$2.25    |
| C90-72      | \$2.75    |
| C180T-12    | \$1.50    |
| C180T-24    | \$1.75    |
| C180T-36    | \$2.00    |
| C180T-48    | \$2.25    |
| C180T-72    | \$2.75    |
| C45-2DC     | \$2.75    |
| C45-3DC     | \$5.55    |
| C45-4DC     | \$4.75    |
| C45-6DC     | \$5.75    |
| C45-9DC     | \$9.75    |

## Wire Mesh Guards

| Part Number | OEM Price |
|-------------|-----------|
| WMG60M      | \$3.25    |
| WMG60B      | \$4.25    |
| WMG80M      | \$3.50    |
| WMG80B      | \$4.50    |
| WMG92M      | \$3.75    |
| WMG92B      | \$4.75    |
| WMG120M     | \$4.25    |
| WMG120B     | \$5.25    |
| WMG172M     | \$5.50    |
| WMG172B     | \$6.50    |
| WMG127M     | \$5.35    |

## Wire Finger Guards

| Part Number | OEM Price |
|-------------|-----------|
| G25-2       | \$1.00    |
| G40-2       | \$1.10    |
| G60-4       | \$1.20    |
| G80-18      | \$1.20    |
| G80-18B     | \$1.50    |
| G92-16      | \$1.20    |
| G109-15A    | \$1.20    |
| G109-15AB   | \$1.50    |
| G109-3      | \$1.30    |
| G119-8      | \$1.45    |
| G172-10HA   | \$2.20    |
| G172-10H    | \$2.20    |
| G172-10LN   | \$2.50    |
| G180-11     | \$3.50    |
| G254-10P    | \$3.50    |
| G225        | \$3.50    |
| G280        | \$4.80    |

## Filter Kits

| Part Number | OEM Price |
|-------------|-----------|
| GRM40-XX    | \$1.30    |
| GRM60-XX    | \$1.50    |
| GRM80-XX    | \$1.70    |
| GRM92-XX    | \$2.00    |
| GRM120-XX   | \$2.35    |
| GRM172-45   | \$2.85    |

## Plastic Guards

|       |        |
|-------|--------|
| G40P  | \$0.60 |
| G60P  | \$0.75 |
| G80P  | \$0.90 |
| G92P  | \$1.00 |
| G120P | \$1.20 |
| G172P | \$1.50 |

## Louvered Fan Guards

| Part Number | OEM Price |
|-------------|-----------|
| LFG120B     | \$4.75    |
| LFG172B     | \$5.25    |
| LFG254B     | \$15.75   |

Contact us:  
Knight Electronics  
- ORION FANS  
10557 Metric Drive  
Dallas, Texas 75243  
800-323-2439  
214-340-0265  
[www.orionfans.com](http://www.orionfans.com)

Fan power cords are available in any length or configuration by special order.

Please call us for a quote on your custom power cord requirements.

Add \$0.25 per foot for lengths in excess of 72 inches on standard fan cords and lengths in excess of 24 inches on daisy chains.

Add \$0.80 for a NEMA 1-15P AC plug on any cord. (Use suffix "P")

Add \$1.00 each for additional daisy chain cord head.

Prices in U.S. Dollars.  
Subject to change without notice.

\*Pricing indicated is for OEM's and is for 100 pcs. For larger quantity pricing please check with one of our franchised distributors or with our customer service. Check our website to locate a distributor in your area.