

# Type PSU AC Motor Start Capacitors

## Non-polarized, Aluminum Electrolytic AC Motor Start Capacitors



### Optional Enhancements

End Caps



Mounting Bracket



Motor Start Resistor



The Type PSU is a compact non-polar, dual voltage rated, AC motor start capacitor constructed in a round rugged bakelite case. To extend the life of relay contact switches, the PSU can be purchased with optional bleeder resistors assembled with 1/4" quick-connect terminals. An optional mounting system consisting of a bracket that is attached to the capacitor case with one end cap is available. The PL end caps are for use with wiring through the bracket to the motor and the PLA end caps are for off motor mounting.

### Highlights

- Dual quick-connect terminals
- Rugged bakelite case
- Compact Size
- Resistor options
- Mounting options
- Non-polar
- Meets EIA RS-463 Type 2 (Normal Performance)
- Listed under UL file no. E128034

### Specifications

|                       |                                 |
|-----------------------|---------------------------------|
| Capacitance Range     | 21 $\mu$ F to 1280 $\mu$ F      |
| Capacitance Tolerance | See ratings table               |
| Rated Voltage         | 110 Vac to 330 Vac              |
| Operating Temperature | -40 °C to 65 °C                 |
| Storage Temperature   | -55 °C to 85 °C                 |
| Operating Frequency   | 50 Hz to 60 Hz                  |
| Power Factor          | 10% max (12% $\leq$ 30 $\mu$ F) |
| RoHS Compliant        |                                 |

### Ratings

| Cap<br>( $\mu$ F) | Catalog<br>Part Number | Voltage<br>(Vac) | Case<br>Code | Diameter<br>$\pm$ .015<br>(Inches) | Length<br>$\pm$ .06<br>(Inches) |
|-------------------|------------------------|------------------|--------------|------------------------------------|---------------------------------|
| 21-25             | PSU2115                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 25-30             | PSU2515                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 30-36             | PSU3015                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 36-43             | PSU3615                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 43-52             | PSU4315                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 47-56             | PSU4715                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 53-64             | PSU5315                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 64-77             | PSU6415                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 72-86             | PSU7215                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 88-106            | PSU8815                | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 108-130           | PSU10815               | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 124-149           | PSU12415               | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 130-156           | PSU13015               | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 145-174           | PSU14515               | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 161-193           | PSU16115               | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 189-227           | PSU18915A              | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 200-240           | PSU20015               | 110/125          | 2            | 1 7/16                             | 3 3/8                           |

| Cap<br>( $\mu$ F) | Catalog<br>Part Number | Voltage<br>(Vac) | Case<br>Code | Diameter<br>$\pm$ .015<br>(Inches) | Length<br>$\pm$ .06<br>(Inches) |
|-------------------|------------------------|------------------|--------------|------------------------------------|---------------------------------|
| 216-259           | PSU21615               | 110/125          | 2            | 1 7/16                             | 3 3/8                           |
| 216-259           | PSU21615A              | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 233-280           | PSU23315A              | 110/125          | 2            | 1 7/16                             | 3 3/8                           |
| 233-280           | PSU23315B              | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 243-292           | PSU24315A              | 110/125          | 2            | 1 7/16                             | 3 3/8                           |
| 243-292           | PSU24315B              | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 270-324           | PSU27015A              | 110/125          | 2            | 1 7/16                             | 3 3/8                           |
| 270-324           | PSU27015B              | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 300-360           | PSU30015               | 110/125          | 4            | 1 13/16                            | 3 3/8                           |
| 324-389           | PSU32415A              | 110/125          | 3            | 1 7/16                             | 4 3/8                           |
| 324-389           | PSU32415B              | 110/125          | 1            | 1 7/16                             | 2 3/4                           |
| 340-408           | PSU34015               | 110/125          | 4            | 1 13/16                            | 3 3/8                           |
| 340-408           | PSU34015A              | 110/125          | 2            | 1 7/16                             | 3 3/8                           |
| 378-454           | PSU37815               | 110/125          | 4            | 1 13/16                            | 3 3/8                           |
| 378-454           | PSU37815A              | 110/125          | 2            | 1 7/16                             | 3 3/8                           |
| 400-480           | PSU40015               | 110/125          | 4            | 1 13/16                            | 3 3/8                           |
| 400-480           | PSU40015A              | 110/125          | 2            | 1 7/16                             | 3 3/8                           |

See page 5.00 for capacitor hardware and resistor options.

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## Ratings

| Cap<br>( $\mu$ F) | Catalog<br>Part Number | Voltage<br>(Vac) | Case<br>Code | Diameter<br>$\pm 0.015$<br>(Inches) | Length<br>$\pm 0.06$<br>(Inches) |
|-------------------|------------------------|------------------|--------------|-------------------------------------|----------------------------------|
| 430-516           | PSU43015A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 430-516           | PSU43015B              | 110/125          | 2            | 1 7/16                              | 3 3/8                            |
| 460-552           | PSU46015A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 460-552           | PSU46015B              | 110/125          | 2            | 1 7/16                              | 3 3/8                            |
| 540-648           | PSU54015A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 540-648           | PSU54015B              | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 590-708           | PSU59015A              | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 590-708           | PSU59015B              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 645-774           | PSU64515               | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 645-774           | PSU64515A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 708-850           | PSU70815               | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 708-850           | PSU70815A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 720-864           | PSU72015               | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 720-864           | PSU72015A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 800-960           | PSU80015               | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 800-960           | PSU80015A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 815-978           | PSU81515               | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 815-978           | PSU81515A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 829-995           | PSU82915A              | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 829-995           | PSU82915B              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 850-1020          | PSU85015               | 110/125          | 5            | 1 13/16                             | 4 3/8                            |
| 850-1020          | PSU85015A              | 110/125          | 4            | 1 13/16                             | 3 3/8                            |
| 1000-1200         | PSU100015A             | 110/125          | 7            | 2 1/16                              | 4 3/8                            |
| 1020-1224         | PSU102015              | 110/125          | 7            | 2 1/16                              | 4 3/8                            |
| 1175-1410         | PSU117515              | 110/125          | 7            | 2 1/16                              | 4 3/8                            |
| 1280-1536         | PSU128015              | 110/125          | 7            | 2 1/16                              | 4 3/8                            |
| 21-25             | PSU2165A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 25-30             | PSU2565A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 30-36             | PSU3065A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 36-43             | PSU3665A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 43-52             | PSU4365A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 47-56             | PSU4765A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 53-64             | PSU5365A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 64-77             | PSU6465A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 72-86             | PSU7265A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 88-106            | PSU8865                | 165              | 2            | 1 7/16                              | 3 3/8                            |
| 88-106            | PSU8865A               | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 108-130           | PSU10865               | 165              | 2            | 1 7/16                              | 3 3/8                            |
| 108-130           | PSU10865A              | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 124-149           | PSU12465               | 165              | 2            | 1 7/16                              | 3 3/8                            |
| 124-149           | PSU12465A              | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 130-156           | PSU13065               | 165              | 2            | 1 7/16                              | 3 3/8                            |
| 130-156           | PSU13065A              | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 145-174           | PSU14565               | 165              | 2            | 1 7/16                              | 3 3/8                            |
| 145-174           | PSU14565A              | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 161-193           | PSU16165               | 165              | 2            | 1 7/16                              | 3 3/8                            |
| 161-193           | PSU16165A              | 165              | 1            | 1 7/16                              | 2 3/4                            |

| Cap<br>( $\mu$ F) | Catalog<br>Part Number | Voltage<br>(Vac) | Case<br>Code | Diameter<br>$\pm 0.015$<br>(Inches) | Length<br>$\pm 0.06$<br>(Inches) |
|-------------------|------------------------|------------------|--------------|-------------------------------------|----------------------------------|
| 189-227           | PSU18965B              | 165              | 2            | 1 7/16                              | 3 3/8                            |
| 189-227           | PSU18965C              | 165              | 1            | 1 7/16                              | 2 3/4                            |
| 216-259           | PSU21665A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 233-280           | PSU23365               | 165              | 3            | 1 7/16                              | 4 3/8                            |
| 233-280           | PSU23365A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 243-292           | PSU24365               | 165              | 3            | 1 7/16                              | 4 3/8                            |
| 243-292           | PSU24365A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 270-324           | PSU27065A              | 165              | 3            | 1 7/16                              | 4 3/8                            |
| 270-324           | PSU27065B              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 324-389           | PSU32465               | 165              | 5            | 1 13/16                             | 4 3/8                            |
| 324-389           | PSU32465A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 340-408           | PSU34065               | 165              | 5            | 1 13/16                             | 4 3/8                            |
| 340-408           | PSU34065A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 378-454           | PSU37865               | 165              | 5            | 1 13/16                             | 4 3/8                            |
| 378-454           | PSU37865A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 400-480           | PSU40065               | 165              | 5            | 1 13/16                             | 4 3/8                            |
| 400-480           | PSU40065A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 430-516           | PSU43065               | 165              | 5            | 1 13/16                             | 4 3/8                            |
| 430-516           | PSU43065A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 460-552           | PSU46065               | 165              | 5            | 1 13/16                             | 4 3/8                            |
| 460-552           | PSU46065A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 540-648           | PSU54065               | 165              | 7            | 2 1/16                              | 4 3/8                            |
| 540-648           | PSU54065A              | 165              | 4            | 1 13/16                             | 3 3/8                            |
| 21-25             | PSU2135                | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 25-30             | PSU2535                | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 30-36             | PSU3035                | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 36-43             | PSU3635                | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 43-52             | PSU4335B               | 220/250          | 2            | 1 7/16                              | 3 3/8                            |
| 43-52             | PSU4335C               | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 47-56             | PSU4735                | 220/250          | 2            | 1 7/16                              | 3 3/8                            |
| 47-56             | PSU4735A               | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 53-64             | PSU5335                | 220/250          | 2            | 1 7/16                              | 3 3/8                            |
| 53-64             | PSU5335A               | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 64-77             | PSU6435                | 220/250          | 2            | 1 7/16                              | 3 3/8                            |
| 64-77             | PSU6435A               | 220/250          | 1            | 1 7/16                              | 2 3/4                            |
| 72-86             | PSU7235                | 220/250          | 4            | 1 13/16                             | 3 3/8                            |
| 88-106            | PSU8835                | 220/250          | 4            | 1 13/16                             | 3 3/8                            |
| 108-130           | PSU10835A              | 220/250          | 4            | 1 13/16                             | 3 3/8                            |
| 124-149           | PSU12435               | 220/250          | 5            | 1 13/16                             | 4 3/8                            |
| 124-149           | PSU12435A              | 220/250          | 4            | 1 13/16                             | 3 3/8                            |
| 130-156           | PSU13035               | 220/250          | 5            | 1 13/16                             | 4 3/8                            |
| 130-156           | PSU13035A              | 220/250          | 4            | 1 13/16                             | 3 3/8                            |
| 145-174           | PSU14535               | 220/250          | 5            | 1 13/16                             | 4 3/8                            |
| 145-174           | PSU14535A              | 220/250          | 4            | 1 13/16                             | 3 3/8                            |
| 161-193           | PSU16135A              | 220/250          | 7            | 2 1/16                              | 4 3/8                            |
| 189-227           | PSU18935A              | 220/250          | 7            | 2 1/16                              | 4 3/8                            |
| 189-227           | PSU18935B              | 220/250          | 6            | 2 1/16                              | 3 3/8                            |

See page 5.000 for capacitor hardware and resistor options.

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## Ratings

| Cap<br>( $\mu$ F) | Catalog<br>Part Number | Voltage<br>(Vac) | Case<br>Code | Diameter<br>$\pm.015$<br>(Inches) | Length<br>$\pm.06$<br>(Inches) |
|-------------------|------------------------|------------------|--------------|-----------------------------------|--------------------------------|
| 216-259           | PSU21635A              | 220/250          | 7            | 2 1/16                            | 4 3/8                          |
| 216-259           | PSU21635B              | 220/250          | 6            | 2 1/16                            | 3 3/8                          |
| 233-280           | PSU23335A              | 220/250          | 7            | 2 1/16                            | 4 3/8                          |
| 233-280           | PSU23335B              | 220/250          | 6            | 2 1/16                            | 3 3/8                          |
| 243-292           | PSU24335               | 220/250          | 7            | 2 1/16                            | 4 3/8                          |
| 243-292           | PSU24335A              | 220/250          | 6            | 2 1/16                            | 3 3/8                          |
| 270-324           | PSU27035A              | 220/250          | 7            | 2 1/16                            | 4 3/8                          |
| 270-324           | PSU27035B              | 220/250          | 6            | 2 1/16                            | 3 3/8                          |
| 16-20             | PSU1630                | 330              | 2            | 1 7/16                            | 3 3/8                          |
| 18-22             | PSU1830                | 330              | 4            | 1 13/16                           | 3 3/8                          |
| 21-25             | PSU2130                | 330              | 1            | 1 7/16                            | 2 3/4                          |
| 21-25             | PSU2130A               | 330              | 2            | 1 7/16                            | 3 3/8                          |
| 25-30             | PSU2530                | 330              | 2            | 1 7/16                            | 3 3/8                          |
| 30-36             | PSU3030                | 330              | 2            | 1 7/16                            | 3 3/8                          |
| 36-43             | PSU3630                | 330              | 2            | 1 7/16                            | 3 3/8                          |
| 43-52             | PSU4330                | 330              | 2            | 1 7/16                            | 3 3/8                          |
| 43-52             | PSU4330A               | 330              | 4            | 1 13/16                           | 3 3/8                          |
| 47-56             | PSU4730                | 330              | 4            | 1 13/16                           | 3 3/8                          |
| 53-64             | PSU5330B               | 330              | 4            | 1 13/16                           | 3 3/8                          |
| 64-77             | PSU6430                | 330              | 4            | 1 13/16                           | 3 3/8                          |

| Cap<br>( $\mu$ F) | Catalog<br>Part Number | Voltage<br>(Vac) | Case<br>Code | Diameter<br>$\pm.015$<br>(Inches) | Length<br>$\pm.06$<br>(Inches) |
|-------------------|------------------------|------------------|--------------|-----------------------------------|--------------------------------|
| 72-86             | PSU7230B               | 330              | 5            | 1 13/16                           | 4 3/8                          |
| 72-86             | PSU7230C               | 330              | 4            | 1 13/16                           | 3 3/8                          |
| 88-106            | PSU8830A               | 330              | 5            | 1 13/16                           | 4 3/8                          |
| 88-106            | PSU8830B               | 330              | 4            | 1 13/16                           | 3 3/8                          |
| 108-130           | PSU10830B              | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 124-149           | PSU12430               | 330              | 8            | 2 9/16                            | 4 3/8                          |
| 124-149           | PSU12430A              | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 130-156           | PSU13030               | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 145-174           | PSU14530A              | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 161-193           | PSU16130               | 330              | 8            | 2 9/16                            | 4 3/8                          |
| 161-193           | PSU16130A              | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 189-227           | PSU18930               | 330              | 8            | 2 9/16                            | 4 3/8                          |
| 189-227           | PSU18930A              | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 216-259           | PSU21630               | 330              | 8            | 2 9/16                            | 4 3/8                          |
| 216-259           | PSU21630A              | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 270-324           | PSU27030               | 330              | 8            | 2 9/16                            | 4 3/8                          |
| 270-324           | PSU27030A              | 330              | 7            | 2 1/16                            | 4 3/8                          |
| 378-454           | PSU37830               | 330              | 8            | 2 9/16                            | 4 3/8                          |
| 460-552           | PSU46030               | 330              | 8            | 2 9/16                            | 4 3/8                          |

See page 5.000 for capacitor hardware and resistor options.

| Case<br>Code | Inches               |                       |             |
|--------------|----------------------|-----------------------|-------------|
|              | D<br>( $\pm 0.015$ ) | L<br>(+0.020, -0.030) | C<br>(Ref.) |
| 1            | 1-7/16 (1.4375)      | 2-3/4 (2.750)         | 1/2 (.500)  |
| 2            | 1-7/16 (1.4375)      | 3-3/8 (3.375)         | 1/2 (.500)  |
| 3            | 1-7/16 (1.4375)      | 4-3/8 (4.375)         | 1/2 (.500)  |
| 4            | 1-13/16 (1.8125)     | 3-3/8 (3.375)         | 5/8 (.625)  |
| 5            | 1-13/16 (1.8125)     | 4-3/8 (4.375)         | 5/8 (.625)  |
| 6            | 2-1/16 (2.0625)      | 3-3/8 (3.375)         | 7/8 (.875)  |
| 7            | 2-1/16 (2.0625)      | 4-3/8 (4.375)         | 7/8 (.875)  |
| 8            | 2-9/16 (2.5625)      | 4-3/8 (4.375)         | 7/8 (.875)  |

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