

- Single / Dual / Triple Outputs
- Universal 85VAC to 265VAC Input
- 3.3VDC to 24VDC Outputs
- 3,000VAC Input to Output Isolation
- PCB and Chassis Mount Packages
- Full Safety Approvals

## MCA-15 Series



Fully Approved  
IEC-950, EN60950, UL1950  
CSA22.2-950

UL File# E167432, TUV File# B 95 08 22749 003

As Small As 2.75"L x 1.89"W x 0.93"H

### MODEL SELECTIONS

| Output Voltage | Output Amps/Watts | Size, (inches)<br>(PCB, CHASSIS) | Model Number | Price 1 | Price 25 |
|----------------|-------------------|----------------------------------|--------------|---------|----------|
|----------------|-------------------|----------------------------------|--------------|---------|----------|

#### SINGLE OUTPUT

|         |          |                          |           |      |      |
|---------|----------|--------------------------|-----------|------|------|
| 3.3 VDC | 3.5/12W  | (PCB) 2.75 x 1.89 x 0.93 | MSCA-1500 | \$83 | \$79 |
|         |          | (CHA) 3.96 x 2.16 x 1    | MSCC-1500 | \$93 | \$89 |
| 5 VDC   | 3/15W    | (PCB) 2.75 x 1.89 x 0.93 | MSCA-1501 | \$83 | \$79 |
|         |          | (CHA) 3.96 x 2.16 x 1    | MSCC-1501 | \$93 | \$89 |
| 12 VDC  | 1.25/15W | (PCB) 2.75 x 1.89 x 0.93 | MSCA-1502 | \$83 | \$79 |
|         |          | (CHA) 3.96 x 2.16 x 1    | MSCC-1502 | \$93 | \$89 |
| 15 VDC  | 1/15W    | (PCB) 2.75 x 1.89 x 0.93 | MSCA-1503 | \$83 | \$79 |
|         |          | (CHA) 3.96 x 2.16 x 1    | MSCC-1503 | \$93 | \$89 |
| 24 VDC  | 0.63/15W | (PCB) 2.75 x 1.89 x 0.93 | MSCA-1505 | \$83 | \$79 |
|         |          | (CHA) 3.96 x 2.16 x 1    | MSCC-1505 | \$93 | \$89 |

#### DUAL OUTPUT

|           |              |                          |           |      |      |
|-----------|--------------|--------------------------|-----------|------|------|
| +/-12 VDC | +/-0.63/15W  | (PCB) 2.75 x 1.89 x 0.93 | MDCA-1506 | \$88 | \$84 |
|           |              | (CHA) 3.96 x 2.16 x 1    | MDCC-1506 | \$99 | \$93 |
| +/-15 VDC | +/-0.5/15W   | (PCB) 2.75 x 1.89 x 0.93 | MDCA-1507 | \$88 | \$84 |
|           |              | (CHA) 3.96 x 2.16 x 1    | MDCC-1507 | \$99 | \$93 |
| +5/12 VDC | 1.5/0.63/15W | (PCB) 2.75 x 1.89 x 0.93 | MDCA-1508 | \$88 | \$84 |
|           |              | (CHA) 3.96 x 2.16 x 1    | MDCC-1508 | \$99 | \$93 |

#### TRIPLE OUTPUT

|              |                 |                          |           |       |      |
|--------------|-----------------|--------------------------|-----------|-------|------|
| +5,+/-12 VDC | 2.5,0.1/0.1/15W | (PCB) 2.75 x 1.89 x 0.93 | MTCA-1509 | \$93  | \$89 |
|              |                 | (CHA) 3.96 x 2.16 x 1    | MTCC-1509 | \$104 | \$99 |
| +5,+/-15 VDC | 2.5,0.1/0.1/15W | (PCB) 2.75 x 1.89 x 0.93 | MTCA-1511 | \$93  | \$89 |
|              |                 | (CHA) 3.96 x 2.16 x 1    | MTCC-1511 | \$104 | \$99 |

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High Volume  
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All specifications are typical at nominal input, full load, and 25DegC unless otherwise noted

## 15 WATT Ultraminiature Modular Switching Power Supplies MCA-15 Series

### INPUT SPECIFICATIONS

|                        |                                        |
|------------------------|----------------------------------------|
| Input Voltage, Nominal | 85-265VAC<br>Nominal: 100-240VAC       |
| Input Frequency        | 47-440 Hz, 50-60Hz Nom.                |
| Inrush Current         | 20A @ 100VAC, typ<br>40A @ 200VAC, typ |

### OUTPUT SPECIFICATIONS

|                          |                               |
|--------------------------|-------------------------------|
| Output Voltage/Current   | See Specific Model            |
| Initial Accuracy         | +/-1%, adjustable             |
| Voltage Adjust           | +/-6%, typ                    |
| Load Regulation          | +/-3%, typ                    |
| Line Regulation          | +/- 3%, typ                   |
| Temperature Coefficient  | +/-0.03%/DegC                 |
| Ripple/Noise(20Mhz BW)   | 150mV Pk-Pk, typ              |
| Overvoltage Protection   | Clamp, 130-150% *             |
| Hold Up Time             | 30mS, typ                     |
| Short Circuit Protection | Continuous, self-recovering*  |
| Current Limit            | 130% typ, Self-Reset Foldback |

\* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted or implied.

### GENERAL SPECIFICATIONS

|                          |                                                          |
|--------------------------|----------------------------------------------------------|
| On/Off Control           | Open Collector<br>Logic "1"/Open=ON<br>Logic "0"/GND=OFF |
| Input-Out Isolation      | 3000VAC                                                  |
| Output-Ground Isolation  | 1000VAC                                                  |
| Input-Ground Isolation   | 2500VAC                                                  |
| Operating Frequency      | 140 Khz, fixed                                           |
| Efficiency (@ Full Load) | 75 - 80%, typ                                            |

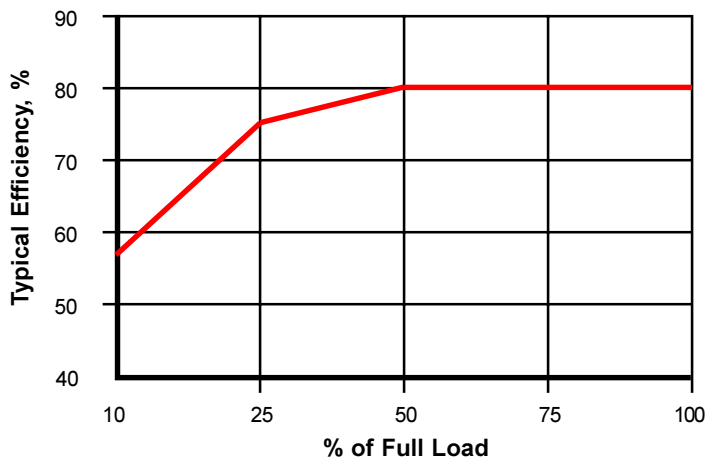
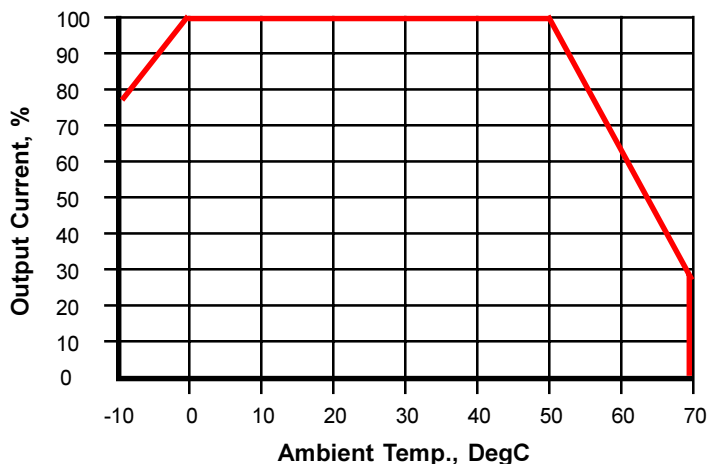
### ENVIRONMENTAL SPECIFICATIONS

|                     |                                         |
|---------------------|-----------------------------------------|
| Oper. Temperature   | 0 to +50 Deg C<br>(Free-air Convection) |
| Relative Humidity   | 0-95%, Non-Condensing                   |
| Storage Temperature | -25 to +71 DegC *                       |
| MTBF                | 110,000 Hrs<br>Mil Std 217, 25C         |

### PHYSICAL SPECIFICATIONS

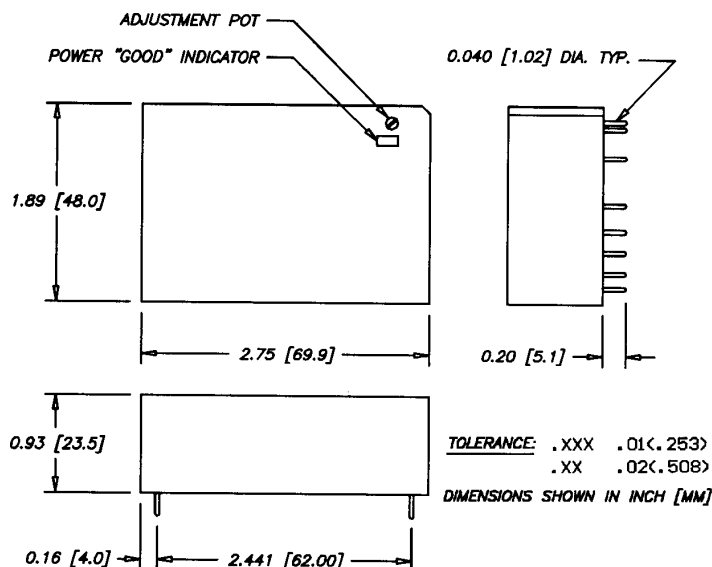
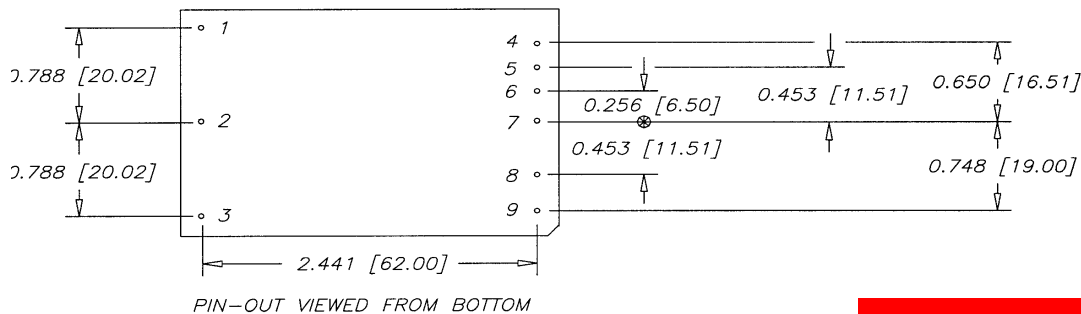
|                  |                           |
|------------------|---------------------------|
| Case Material    | Rynite, 94V-0 Rated       |
| Construction     | Encapsulated, Soft Pot    |
| Weight PCB / CHA | 5.6oz(158g) / 8.9oz(250g) |

### PERFORMANCE CURVES



## MECHANICAL DIMENSIONS

## PCB MOUNT



| Model Type / Pin# | Single | Dual Matched | Dual 5/12V | Triple  |
|-------------------|--------|--------------|------------|---------|
| 1                 | AC HI  | AC HI        | AC HI      | AC HI   |
| 2                 | AC LO  | AC LO        | AC LO      | AC LO   |
| 3                 | GND    | GND          | GND        | GND     |
| 4                 | No Pin | No Pin       | No Pin     | +Vout   |
| 5                 | +Vout  | +Vout        | 12Vout     | +/-Com  |
| 6                 | No Pin | No Pin       | No Pin     | -Vout   |
| 7                 | No Pin | Out Com      | +5Vout     | +5Vout  |
| 8                 | -Vout  | -Vout        | Out Com    | +5V Ret |
| 9                 | Ctrl   | Ctrl         | Ctrl       | Ctrl    |

## CHASSIS MOUNT

