



# 40 WATT SINGLE/DUAL/TRIPLE OUTPUT

Isolated, Wide Input Range  
DC/DC Converters



## FEATURES

- Ideal for Telecom/  
Networking Application
- Miniature  
2.0" x 2.0" x 0.4" Case
- 2:1 Input Range
- Efficiency to 90%
- Six-Sided Shield
- On/Off Control
- Over Current  
Protection
- Safety Approval  
Pending

MWA40-B2ASeries

## Specifications

All specifications are typical at nominal input, full load, and 25°C , unless otherwise noted.

### INPUT

Voltage Range.....See Chart  
Input Filter.....LC Type  
Undervoltage Shutdown .....17 or 34Vdc, typ.  
Remote Off Input Current.....2.5mA, typ.

### OUTPUT

Voltage Accuracy.....Single/Dual/Triple Primary  $\pm 1.0\%$   
.....Triple (Aux.) Output:  $\pm 5.0\%$   
Line Regulation:..... $\pm 0.5\%$   
Load Regulation: Single Output..... $\pm 0.5\%$   
Dual Output..... $\pm 1.0\%$   
Triple Output.....Primary:  $\pm 2\%$ ,  
.....Aux.  $\pm 5.0\%$   
Temperature Coefficient (at FL)..... $\pm 0.02\%/^{\circ}\text{C}$  max.  
Transient Response, 25% load step.....400ms  
Min. Output Current % Iout Rated (Main Output)  
FEC40-XXD3305 (3.3V) .....20%  
Dual and Triple .....10%

### REMOTE ON/OFF CONTROL

Control Voltage Reference to Negative (-) Input  
Compatibility.....CMOS, TTL  
On Control.....4.8V min. or Open  
Off Control.....0.4V max. or Short

### GENERAL

Efficiency.....See Chart  
Isolation Voltage.....1600 Vdc min.  
Isolation Resistance.....1000MOhms  
Switching Frequency.....300KHz typ.  
Protection.....Over Current Protection  
.....Continuous Short Circuit Protection

### ENVIRONMENTAL

Operating Temperature Range.....-25 to +71°C  
Storage Temperature Range.....-55 to +105°C  
Case Temperature.....100°C max.  
Cooling.....Free Air Convection  
EMI/RFI.....Six-Sided Continuous Shield

### PHYSICAL

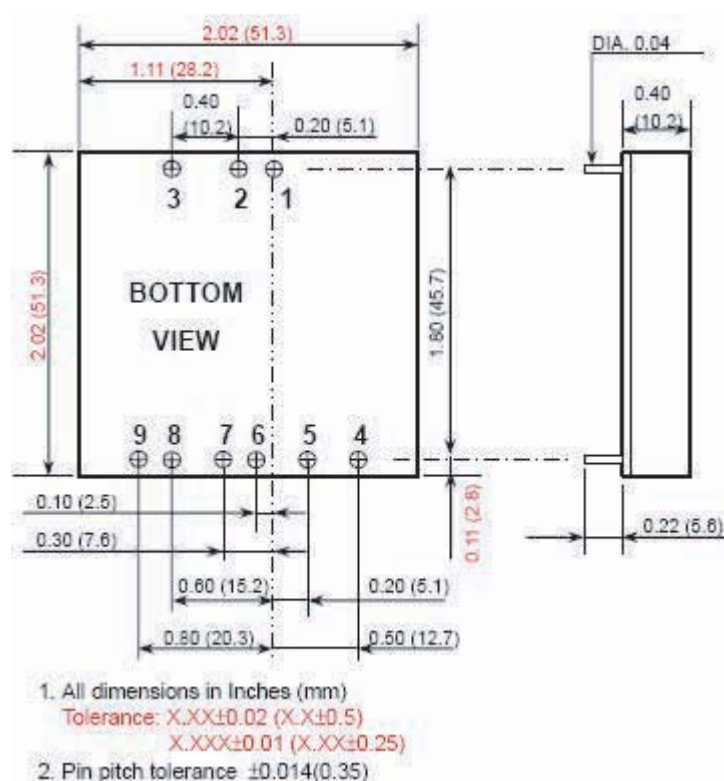
Case Material.....Nickel-coated Copper w/  
Non-Conductive Base  
Dimensions.....2.0" x 2.0" x 0.4"  
(50.8 x 50.8 x 10.2 mm)

## Selection Guide

(Continued)

| OUTPUTS |            | Input Voltage<br>Nominal (Range)<br>(Vdc) | Output<br>Voltage<br>(Vdc) | Output Current<br>(mA) | Efficiency<br>% | Model Number          | Case |
|---------|------------|-------------------------------------------|----------------------------|------------------------|-----------------|-----------------------|------|
|         |            |                                           |                            |                        |                 |                       |      |
| SINGLE  | 24 (18-36) | 3.3                                       | 8000                       | 87                     |                 | MWA40-24S 3.3/B 2A    | B 2A |
|         |            | 5                                         | 8000                       | 89                     |                 | MWA40-24S 5/B 2A      | B 2A |
|         |            | 12                                        | 3333                       | 88                     |                 | MWA40-24S 12/B 2A     | B 2A |
|         |            | 15                                        | 2666                       | 89                     |                 | MWA40-24S 15/B 2A     | B 2A |
|         | 48 (36-75) | 3.3                                       | 8000                       | 88                     |                 | MWA40-48S 3.3/B 2A    | B 2A |
|         |            | 5                                         | 8000                       | 90                     |                 | MWA40-48S 5/B 2A      | B 2A |
|         |            | 12                                        | 3333                       | 89                     |                 | MWA40-48S 12/B 2A     | B 2A |
|         |            | 15                                        | 2666                       | 89                     |                 | MWA40-48S 15/B 2A     | B 2A |
|         | 24 (18-36) | 3.3 / 5                                   | 4000 / 4000                | 84                     |                 | MWA40-24S 3.3S 5/B 2A | B 2A |
|         |            | 3.3 / 5                                   | 4000 / 4000                | 85                     |                 | MWA40-48S 3.3S 5/B 2A | B 2A |
|         | 48 (36-75) | 3.3 / ± 12                                | 6000 / ±400                | 85                     |                 | MWA40-24S 3.3-12/B 2A | B 2A |
|         |            | 3.3 / ± 15                                | 6000 / ±300                | 85                     |                 | MWA40-24S 3.3-15/B 2A | B 2A |
| DUAL    | 24 (18-36) | 5 / ± 12                                  | 6000 / ±400                | 87                     |                 | MWA40-24S 5-12/B 2A   | B 2A |
|         |            | 5 / ± 15                                  | 6000 / ±300                | 87                     |                 | MWA40-24S 5-15/B 2A   | B 2A |
|         |            | 3.3 / ± 12                                | 6000 / ±400                | 86                     |                 | MWA40-48S 3.3-12/B 2A | B 2A |
|         |            | 3.3 / ± 15                                | 6000 / ±300                | 86                     |                 | MWA40-48S 3.3-15/B 2A | B 2A |
|         | 48 (36-75) | 5 / ± 12                                  | 6000 / ±400                | 88                     |                 | MWA40-48S 5-12/B 2A   | B 2A |
|         |            | 5 / ± 15                                  | 6000 / ±300                | 88                     |                 | MWA40-48S 5-15/B 2A   | B 2A |
| TRIPLE  | 24 (18-36) | 3.3 / ± 12                                | 6000 / ±400                | 86                     |                 | MWA40-48S 3.3-12/B 2A | B 2A |
|         |            | 3.3 / ± 15                                | 6000 / ±300                | 86                     |                 | MWA40-48S 3.3-15/B 2A | B 2A |
|         |            | 5 / ± 12                                  | 6000 / ±400                | 88                     |                 | MWA40-48S 5-12/B 2A   | B 2A |
|         |            | 5 / ± 15                                  | 6000 / ±300                | 88                     |                 | MWA40-48S 5-15/B 2A   | B 2A |

## Mechanical Specifications



| PIN Connections |        |          |          |
|-----------------|--------|----------|----------|
| Pin             | SINGLE | DUAL     | TRIPLE   |
| 1               | +Vin   | +Vin     | +Vin     |
| 2               | -Vin   | -Vin     | -Vin     |
| 3               | Ctrl   | Ctrl     | Ctrl     |
| 4               | N/C    | 3.3V     | +Aux Out |
| 5               | -Sense | 3.3V Com | Com      |
| 6               | +Sense | NC       | -Aux Out |
| 7               | +Vout  | NC       | +Vout    |
| 8               | -Vout  | 5V       | -Vout    |
| 9               | Trim   | 5VVRTN   | NC       |

\*Ctrl: Remote on/off control

\*NC: No Connection