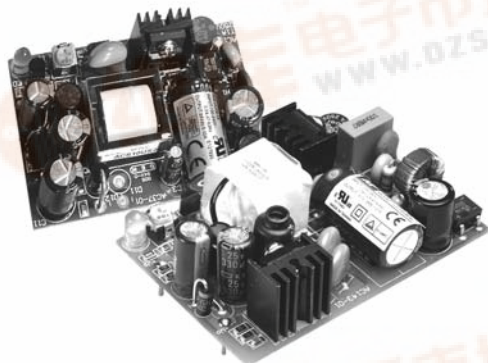


## 10-15 Watts

## CU10-15 Series

查询"CU15-12"供应商



- Low Cost
- Small Size
- PCB Mount
- 15 Watt Medical Version
- Single Output 3.3-24 V
- Peak Load Capability
- Non-standard Outputs Available

## Specification

## Input

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| Input Voltage         | • 85-264 VAC (120-370 VDC)                                       |
| Input Frequency       | • 47-63 Hz                                                       |
| Input Current         | • 0.13 A rms at 230 VAC (CU10)<br>• 0.20 A rms at 230 VAC (CU15) |
| Inrush Current        | • 20 A at 115 VAC, 40 A at 230 VAC,<br>cold start 25 °C          |
| Earth Leakage Current | • Class 2 (no earth)                                             |
| Input Protection      | • 1A fuse (CU10)<br>• 2A fuse (CU15, CU15-M)                     |

## Output

|                          |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|
| Output Voltage           | • See table                                                                         |
| Output Voltage Trim      | • $\pm 5\%$                                                                         |
| Initial Set Accuracy     | • $\pm 1\%$                                                                         |
| Minimum Load             | • No minimum load required                                                          |
| Start Up Delay           | • 1.5 s max                                                                         |
| Start Up Rise Time       | • 14 ms max                                                                         |
| Hold Up Time             | • 16 ms typical at full load and 115 VAC                                            |
| Drift                    | • 0.6%                                                                              |
| Line Regulation          | • 0.5% max                                                                          |
| Load Regulation          | • 1.0% max 10% load to full load                                                    |
| Transient Response       | • 4% max deviation, recovery to within 1%<br>within 500 $\mu$ s for 25% load change |
| Ripple & Noise           | • 1% max pk-pk (see note 1)                                                         |
| Overvoltage Protection   | • 130-150% of Vnom, recycle input to reset                                          |
| Short Circuit Protection | • Trip and restart (Hiccup mode)                                                    |
| Temperature Coefficient  | • 0.05%/°C                                                                          |

## General

|                     |                                                                           |
|---------------------|---------------------------------------------------------------------------|
| Efficiency          | • See tables                                                              |
| Isolation           | • 3000 VAC Input to Output (CU10/15)<br>4000 VAC Input to Output (CU15-M) |
| Switching Frequency | • 100 kHz typical for 10 W models<br>67 kHz typical for 15 W models       |
| Power Density       | • 2.43 W/in <sup>3</sup> (CU10); 3.17 W/in <sup>3</sup> (CU15)            |
| MTBF                | • >500 kHrs per MIL-HDBK-217F<br>(15 & 24 V units >400 kHrs)              |

## Environmental

|                       |                                                                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Temperature | • CU10/15: 0 °C to +65 °C, derate from<br>full load at +45 °C to no load at +65 °C<br>CU15-M: 0 °C to +70 °C, derate from<br>full load at +50 °C to 50% load at +70 °C |
| Cooling               | • Convection-cooled                                                                                                                                                    |
| Operating Humidity    | • 95% RH, non-condensing                                                                                                                                               |
| Storage Temperature   | • -20 °C to +85 °C                                                                                                                                                     |
| Operating Altitude    | • 3000 m                                                                                                                                                               |
| Vibration             | • 10 Hz to 500 Hz, 2 g for 10 mins/cycle<br>60 min each cycle                                                                                                          |

## EMC &amp; Safety

|                      |                                                                                                                  |
|----------------------|------------------------------------------------------------------------------------------------------------------|
| Emissions            | • CU15-M: EN55011 Level B conducted<br>Others: FCC20780 Level B,<br>EN55022 Class B conducted                    |
| ESD Immunity         | • EN61000-4-2, level 3, Perf Criteria A                                                                          |
| Radiated Immunity    | • EN61000-4-3, level 3, Perf Criteria A                                                                          |
| EFT/Burst            | • EN61000-4-4, level 2, Perf Criteria A                                                                          |
| Surge                | • EN61000-4-5, level 3, Perf Criteria A                                                                          |
| Conducted Immunity   | • EN61000-4-6, 10 V, Perf Criteria A                                                                             |
| Dips & interruptions | • EN61000-4-11, 30% 10 ms,<br>60% 1000 ms, 100% 5000 ms,<br>Perf Criteria A, B, B                                |
| Safety Approvals     | • CU15-M: EN60601, UL2601-1, CSA22.2<br>No. 601.1 per cUL<br>Others: EN60950, UL1950, CSA22.2 No.<br>234 per cUL |

## Models and Ratings

CU10-15 **XP**

| Output Power | Output Voltage <sup>(3)</sup> | Output Current |                     | Efficiency (typical) | Model Number |
|--------------|-------------------------------|----------------|---------------------|----------------------|--------------|
|              |                               | Nominal        | Peak <sup>(2)</sup> |                      |              |
| 8.25 W       | 3.3 VDC                       | 2.50 A         | 3.80 A              | 65%                  | CU10-00 †^   |
| 10 W         | 5.0 VDC                       | 2.00 A         | 2.80 A              | 70%                  | CU10-10 †^   |
|              | 9.0 VDC                       | 1.12 A         | 1.50 A              | 72%                  | CU10-09      |
|              | 12.0 VDC                      | 0.84 A         | 1.20 A              | 75%                  | CU10-12 †^   |
|              | 15.0 VDC                      | 0.67 A         | 1.00 A              | 75%                  | CU10-13 †^   |
|              | 24.0 VDC                      | 0.42 A         | 0.65 A              | 78%                  | CU10-14 †^   |

| Output Power | Output Voltage <sup>(3)</sup> | Output Current |                     | Efficiency (typical) | Model Number <sup>(4)</sup> |
|--------------|-------------------------------|----------------|---------------------|----------------------|-----------------------------|
|              |                               | Nominal        | Peak <sup>(2)</sup> |                      |                             |
| 10 W         | 3.3 VDC                       | 3.00 A         | 4.50 A              | 70%                  | CU15-00 †^                  |
| 15 W         | 5.0 VDC                       | 3.00 A         | 4.50 A              | 73%                  | CU15-10 †^                  |
|              | 9.0 VDC                       | 1.67 A         | 3.00 A              | 75%                  | CU15-09                     |
|              | 12.0 VDC                      | 1.25 A         | 1.80 A              | 80%                  | CU15-12 †^                  |
|              | 15.0 VDC                      | 1.00 A         | 1.50 A              | 80%                  | CU15-13 †^                  |
|              | 24.0 VDC                      | 0.63 A         | 0.95 A              | 82%                  | CU15-14 †^                  |

## Notes

1. Measured at 20 MHz bandwidth. 3.3 V models are 50 mV maximum.  
 2. Peak load lasting <30 s with a maximum duty cycle of 10%.

† Available from Farnell.

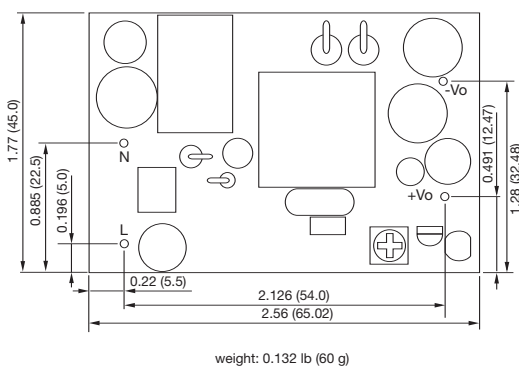
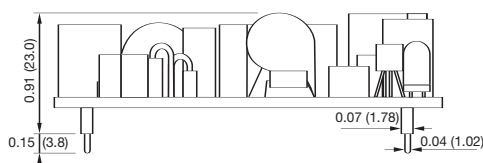
3. Alternative output voltages available. Consult sales.

4. Medical approved 15 W version available. Add suffix '-M' to part number.

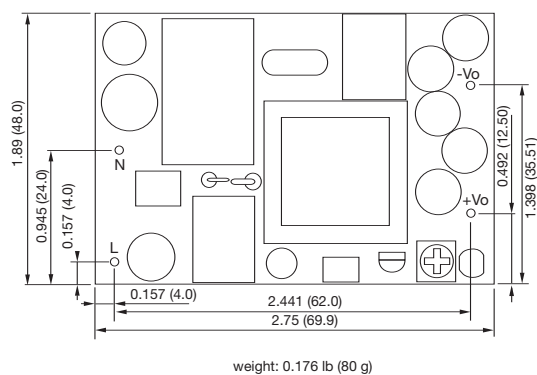
^ Available from Newark.

## Mechanical Details

CU10 models



CU15/CU15-M models



## Notes

1. All dimensions shown in inches (mm).  
 2. For mating connectors only, order part number CU20-60 CONKIT †.