



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

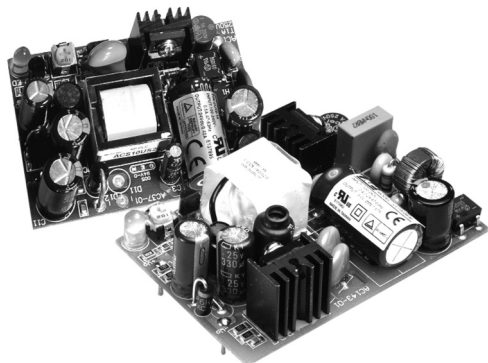
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## CU10-15 Series



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

## Specification

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### Input

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

### Output

Output Voltage	• See table
Output Voltage Trim	• ±5%
Initial Set Accuracy	• ±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% within 500 µs 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) 4000 VAC Input to Output (CU15-M)
Switching Frequency	• 100 kHz typical for 10 W models 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 (15 & 24 V units >400 kHrs)

### Environmental

Operating Temperature	• CU10/15: 0 ° C to +65 ° C, derate from full load at +45 ° C to no load at +65 ° C CU15-M: 0 ° C to +70 ° C, derate from 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 60 min each cycle

### EMC & Safety

Emissions	• CU15-M: EN55011 Level B conducted Others: FCC20780 Level B, 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, 60% 1000 ms, 100% 5000 ms, Perf Criteria A, B, B
Safety Approvals	• CU15-M: EN60601, UL2601-1, CSA22.2 No. 601.1 per cUL Others: EN60950, UL1950, CSA22.2 No. 234 per cUL

**Models and Ratings**

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

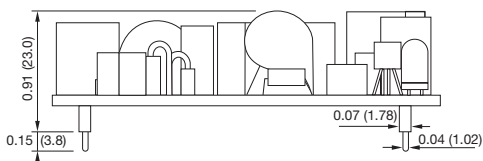
Output Power	Output Voltage <sup>(3)</sup>	Output Current		Efficiency (typical)	Model Number <sup>(4)</sup>
		Nominal	Peak <sup>(2)</sup>		
10 W	3.3 VDC	3.00 A	4.50 A	70%	CU15-00
15 W	5.0 VDC	3.00 A	4.50 A	73%	CU15-10
	9.0 VDC	1.67 A	3.00 A	75%	CU15-09
	12.0 VDC	1.25 A	1.80 A	80%	CU15-12
	15.0 VDC	1.00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

**Notes**

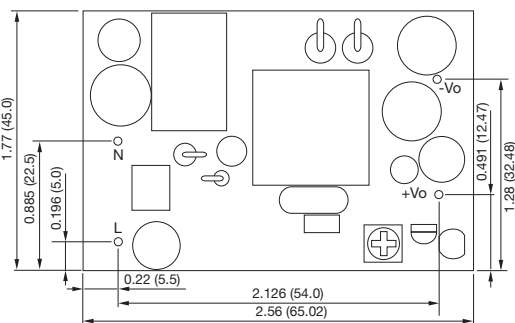
1. Measured at 20 MHz bandwidth. 3.3 V models are 50 mV maximum.
2. Peak load lasting <30 s with a maximum duty cycle of 10%.
3. Alternative output voltages available. Consult sales.
4. Medical approved 15 W version available. Add suffix ' -M' to part number.

**Mechanical Details**

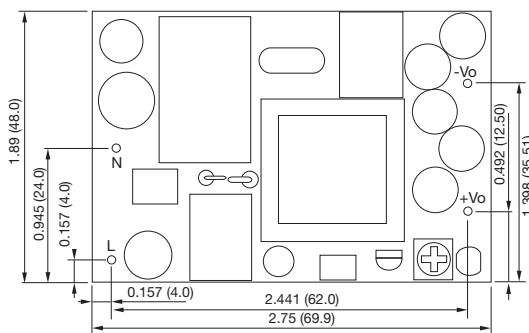
CU10 models



CU15/CU15-M models



weight: 0.132 lb (60 g)



weight: 0.176 lb (80 g)

**Notes**

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