

LCB50

50 Watt Single Output Power Supply

Data Sheet

Total Power: 50 W
of Outputs: Single
Outputs: 3.3 - 48 V

SPECIAL FEATURES

- No-load power consumption 0.5 W
- Low cost
- 3.9" x 3.2" x 1.4"
- 10% output voltage adjust
- -25 °C to 70 °C with derating
- High efficiency: 90% @ 230 Vac
- Power ON with LED indicator
- Withstand 5G vibration test
- Two year warranty

COMPLIANCE

- EMI Class B
- EN61000 EN61204-3

SAFETY

- UL, cUL 60950-1
- TUV 60950-1
- CE



Electrical Specifications

Input	
Input range	88 - 264 Vac 125 - 373 Vdc
Frequency	47 - 63 Hz, Nominal 50/60
Inrush current	40 A, cold start at 25 °C, 230 Vac
Harmonics	EN61000-3-2: 2000 Class A, EN61000-3-3: 1995+A1:2001
Input current	01.3 A / 115 Vac
Hold up time	>32 ms / 230 Vac >10 ms / 115 Vac at full load
Efficiency	90% typical at full Load / 230 Vac nominal
Leakage current	< 2 mA at 264 Vac
Isolation	Isolation: PRI-Chassis 1500 Vac PRI-SEC 3000 Vac SEC-Chassis 500 Vac

Electrical Specifications

Output		
Output rating	See ordering information	90 - 264 Vac
Output tolerance	$\pm 1\%$ to 3%	90 - 264 Vac
Total regulation range	$\pm 0.5\%$ to 2%	Combined line/load/transient when measured at output terminal
Rated load	33 - 52.8 W	Derate linear to 50% from 50 °C to 70 °C
Output noise (PARD)	100 - 200 mV p-p	Main output Measured with a 0.1 μ F Ceramic and 10 μ F Tantalum Capacitor on any output, 20 MHz
Output voltage overshoot		No overshoot/undershoot outside the regulation band during on or off cycle
Short circuit protection	Protected, no damage to occur	Bounce mode
Output isolation		Standard per safety requirements
Overload protection (OCP)	>110% rated output power	Main output
Overvoltage protection (OVP)	115% to 150%	Main output
Output voltage adjust	$\pm 10\%$	Main output

Environmental Specifications

Operating temperature	-25 °C to +70 °C, linear derating to 50% from 50 °C to 70 °C
Storage temperature	-40 °C to +85 °C
Humidity	20 to 90%, non-condensing
Vibration	10 - 500 Hz, 5G 10 min/1 cycle, period for 60 min each along X, Y, Z axes

Ordering Information

Model Number	Output Voltage	Output Current	Vo Adjust	Output Power	Efficiency
LCB50D	3.3 V	10 A	$\pm 10\%$	33 W	78%
LCB50E	5 V	10 A	$\pm 10\%$	50 W	83%
LCB50L	12 V	4.2 A	$\pm 10\%$	50.4 W	88%
LCB50N	15 V	3.4 A	$\pm 10\%$	51 W	89%
LCB50Q	24 V	2.2 A	$\pm 10\%$	52.8 W	90%
LCB50W	48 V	1.1 A	$\pm 10\%$	52.8 W	90%

Miscellaneous Specifications

BURN-IN

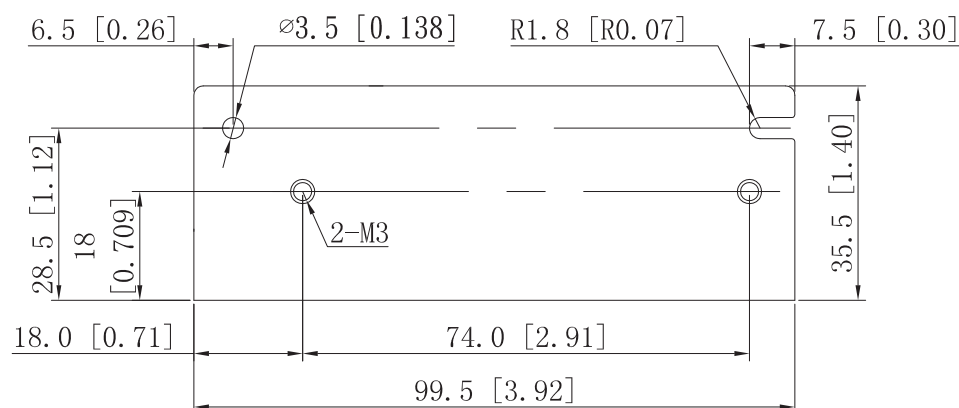
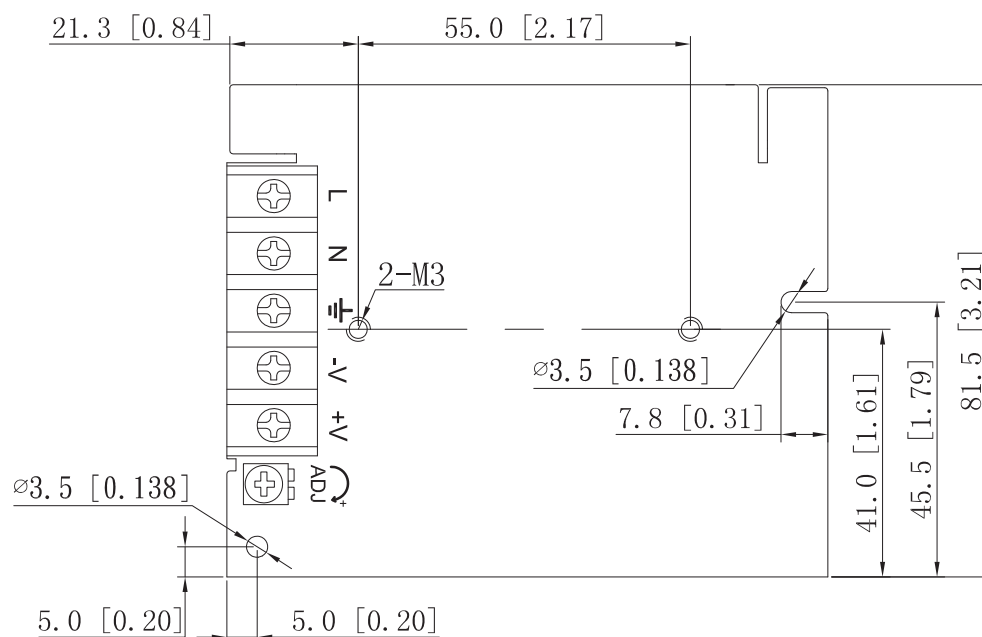
100% Burn-in at 45 °C, at full load. Duration of burn-in determined by Quality Assurance Procedures.

MTBF

The power supply has a minimum MTBF of 420K hours according to MIL-HDBK-217F.

WARRANTY

Artesyn Embedded Power shall warrant the power supply to be free of defects in materials and workmanship for a minimum period of two years from the date of shipment, when operated within specifications. The warranty shall be fully transferable to the end owner of the equipment powered by the supply.

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