100 Watt Industrial



Features

- 100 W convection-cooled rating
- Small 5 x 3 x 1.07 inches form factor
- 6.7 W/in³ power density
- High efficiency > 85%
- Low conducted and radiated noise
- Power good and power fail signal
- Cover kit accessory available

Electrical Specifications				
Input Frequency	47-63 Hz			
Input Current	120 VAC: 2.0 A max.	230 VAC: 1.0 A max.		
Inrush Current	120 VAC: 18 A max.	230 VAC: 35 A max.		
Leakage Current	120 VAC: < 500 μA	230 VAC: < 1000 μA		
Efficiency	120 VAC: 83% typical	230 VAC: 85% typical		
Hold-up Time	120 VAC: 10 ms	230 VAC: 16 ms		
Output Power	100 W			
Line Regulation	+/-0.3%			
Load Regulation ¹	V1: +/-1%; V2, V3 and V4: +/-5%			
Transient Response	10%, 50% to 100% load change,	10%, 50% to 100% load change, 50/60 Hz, 50% duty cycle, 0.1 A/μs,		
	recovery time < 5 ms			
Rise Time	< 50 ms			
Set Point Tolerance	V1: +/-2%; V2, V3, V4: +/-5%	V1: +/-2%; V2, V3, V4: +/-5%		
Over Current Protection	110 to 170%	110 to 170%		
Over Voltage Protection	6.2 V +/-0.4 V for 5 V	6.2 V +/-0.4 V for 5 V		
Short Circuit Protection	Short term, autorecovery			
Switching Frequency	Boost converter: 45 kHz typical	Boost converter: 45 kHz typical		
	Resonant converter: 45 kHz typica	ıl		
Operating Temperature	0 to 70°C, refer derating curve	0 to 70°C, refer derating curve		
Storage Temperature	−40 to +85°C			
Relative Humidity	95% Rh, noncondensing			
Altitude	Operating: 10,000 ft.; Nonoperating: 40,000 ft.			
MTBF	1.02m Hours, Telcordia SR332 Issue-3			
Isolation Voltage	Min. 4242 VDC between input to output			
Cooling	Convection			

Model Number	Voltage	Max. Load ²	Min. Load	Ripple ³
LFVLT100-1001	V1=12 V	7.5 A	1.0 A	3%
LFVLT100-1002	V1=15 V	6.67 A	0.5 A	3%
LFVLT100-1003	V1=24 V	4.2 A	0.1 A	1.5%
LFVLT100-1004	V1=48 V	2.1 A	0.2 A	1.04%
LFVLT100-4000	V1=5.1 V, V2=12.25 V,	V1=12.0 A, V2=4.0 A,	V1=3.0 A, V2=0.1 A,	V1, V2=1.5%
	V3=-5 V, V4=-12 V	V3=0.8 A, V4=0.8 A	V3=0.0 A, V4=0.0 A	V3=2%, V4=1.25%
LFVLT100-4001	V1=5.1 V, V2=24.5 V,	V1=12.0 A, V2=2.0 A,	V1=3.0 A, V2=0.1 A,	1%
	V3=12 V, V4=-12 V	V3=0.8 A, V4=0.8 A	V3=0.0 A, V4=0.0 A	1 /0
LFVLT100-4002	V1=5.1 V, V2=16 V,	V1=12.0 A, V2=3.0 A,	V1=3.0 A, V2=0.1 A,	V1, V2, V4=1%
	V3=-4.8 V, V4=-15.5 V	V3=0.8 A, V4=0.8 A	V3=0.0 A, V4=0.0 A	V3=2%
LFVLT100-4003	V1=5.1 V, V2=12 V,	V1=12.0 A, V2=4.0 A,	V1=3.0 A, V2=0.1 A,	10/
	V3=24 V, V4=-12 V	V3=0.8 A, V4=0.8 A	V3=0.0 A, V4=0.0 A	1%
LFVLT80-CK metal cover kit accessory				

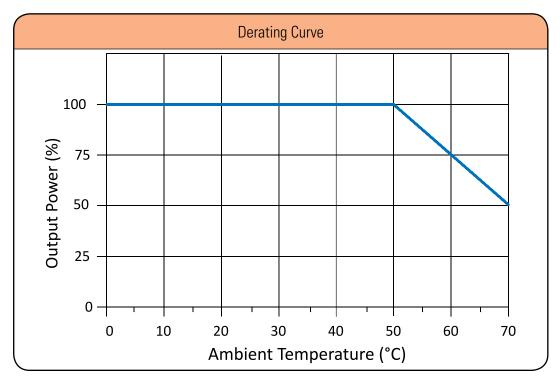
Connectors				
J1	Pin 1	AC NEUTRAL		
	Pin 2	AC LINE		
Spade Connector		EARTH		
J2	Pin 1, 2, 3, 4	V1		
	Pin 5, 6, 7, 8	RTN		
	Pin 9, 10	V2		
	Pin 11	V3		
	Pin 12	V4		
J3	Pin 1	RTN		
	Pin 2	POWER FAIL/GOOD		

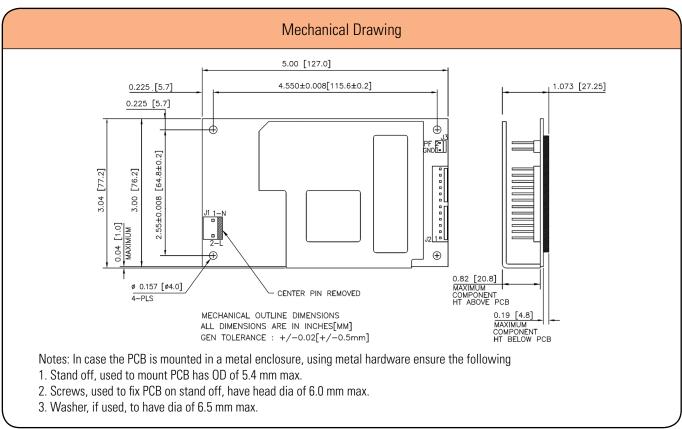
Notes

- 1. Single output models: +/-2.5% for 12 V, +/-3% for 15 and 24 V, +/-2% for 48 V. Quad output models: +/-1% for V1; +/-5% for V2, V3, V4.
- 2. Maximum current per output channel. Do not exceed total output power rating.
- 3. Ripple is peak to peak with 20 MHz bandwidth and 10 µF (Electrolytic capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
- 4. Power fail and power good signal on quad output models only.
- 5. Specifications are for nominal input voltage, 25°C and max. load unless otherwise stated.
- 6. Derate output power linearly to 80% from 90 VAC to 80 VAC input.



Mechanical Specifications		
AC Input Connector (J1)	Molex: 26–60–4030 or equivalent Mating: 09–50–3031; Pins: 08–50–0106	
EARTH	Molex: 19705-4301	
	Mating: 190030001	
DC Output Connector (J2)	Tyco: 1-640445-2 or equivalent	
	Mating: 1-647402-2; Pins: 3-647409-1	
Signal Connector (J3)	Molex: 22-23-2021 or equivalent	
	Mating: 22-01-2021	
Dimensions	5.0 x 3.04 x 1.07 inches	
	(127.0 x 77.22 x 27.18 mm)	
Weight	250 g	
	EMC	
CE Mark	Complies with LVD Directive	
Conducted Emissions	EN55022-B, CISPR22-B, FCC PART15-B, EN50082-1	
Static Discharge	EN61000-4-2, Level-3	
RF Field Susceptibility	EN61000-4-3, Level-3	
Fast Transients/Bursts	EN61000-4-4, Level-3	
Radiated Emissions	EN55022-B, CISPR22-B, FCC PART15-B	
	To be controlled in end system	
Surge Susceptibility	EN61000-4-5, Level-3	
Harmonic current	EN61000-3-2, Class A	
	Safety	
Safety Standard(s)	IEC60950-1 (ed.2), EN60950-1, UL60950-1 (2nd Edition),	
	CSA C22.2 No. 60950-1 (2nd Edition), Class 1 SELV	
Approval Agency	Nemko, UL, C-UL	
Safety File Number(s)	Nemko: P09210934	
	UL: E150565	
Signal		
Power Fail/Good Signal ⁴	Signal goes high after a delay of 100 ms once main output is within regulation band.	
	Signal goes low 1.5 ms advance before output goes out of regulation due to mains failure	







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