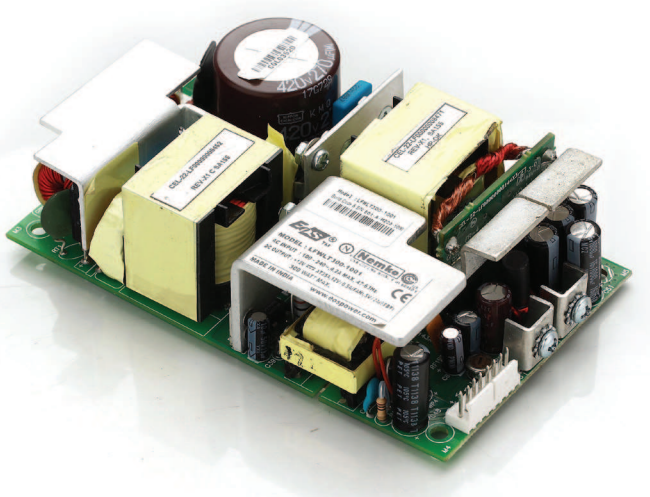
300 Watt Industrial



Features

- 3 x 5 x 1.5 inches
- Wide range AC input
- EMI class B
- CE marked to LVD
- Class 1 & class 2 options

Electrical Specifications

Input Voltage	90–264 VAC/120–390 VDC, Universal	
Input Frequency	47–63 Hz	
Input Current	120 VAC: 3.2 A max.	230 VAC: 1.65 A max.
Inrush Current	120 VAC: 35 A max.	230 VAC: 65 A max.
Leakage Current	120 VAC: < 150 µA	230 VAC: < 300 µA
Efficiency	120 VAC: 88% typical	230 VAC: 92% typical
Hold–up Time	120 VAC: 10 ms	230 VAC: 10 ms
Power Factor	120 VAC: 0.98	230 VAC: 0.95
Output Power	200 to 325 W	
Line Regulation	+/–0.5%	
Load Regulation	+/–2%	
Transient Response	< 10%, 50% to 100% load change, 50 Hz, 50% duty cycle, 0.1 A/µs, recovery time < 5 ms	
Rise Time	< 100 ms	
Set Point Tolerance	+/–1%	
Output Adjustability	+/–3%	
Over Current Protection	110 to 150%	
Over Voltage Protection	110 to 150%, auto recovery	
Short Circuit Protection	Short term, auto recovery	
Over Temperature Protection	110°C primary heat sink, auto recovery	
Switching Frequency	PFC converter: Fixed, 80 kHz typical Resonant converter: Variable, 35-250 kHz; 90 kHz typical	
Operating Temperature	–20 to +70°C, refer derating curve; –20 to 0°C, start–up is guaranteed	
Storage Temperature	–40 to +70°C	
Relative Humidity	95% Rh, non condensing	
Altitude	Operating: 10,000 ft.; Non-operating: 40,000 ft.	
MTBF	> 250 kh; Bellcore TR332	
Isolation Voltage	Min. 4242 VDC between input to output	
Cooling	Convection: 140 W; 300 LFM: 200 W (5 V model) Convection: 180 W; 300 LFM: 300 W (12 V & 15 V model) Convection: 180 W; 300 LFM: 325 W (24 V, 30 V & 48 V model)	

Model Number	Voltage	Max. Load (Convection)	Max. Load (300 LFM)	Min. Load	Ripple[2]
LFWLT300–1000	5 V	28.0 A	40.0 A	0.0 A	2%
LFWLT300–1001	12 V	15.0 A	25.0 A	0.0 A	2%
LFWLT300–1002	15 V	12.0 A	20.0 A	0.0 A	2%
LFWLT300–1003	24 V	7.5 A	13.54 A	0.0 A	2%
LFWLT300–1004	48 V	3.75 A	6.77 A	0.0 A	2%
LFWLT300–1005	30 V	6.0 A	10.83 A	0.0 A	2%
LFWLT300–CK metal cover kit accessory					

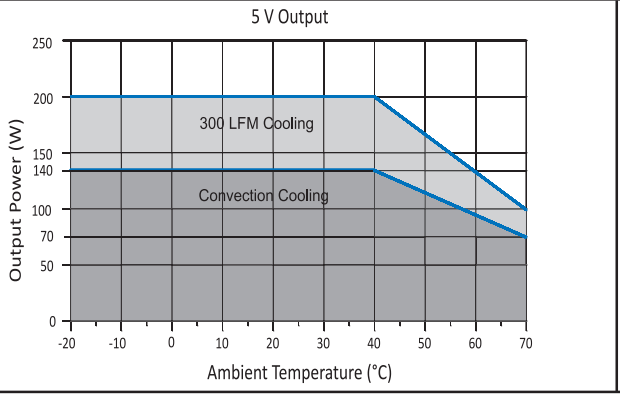
Connectors		
J1	Pin 1	AC LINE
	Pin 2	AC NEUTRAL
Spade Connector (J4) (Class 1 product only)		EARTH
J2	Pin 1	RTN
	Pin 2	V1
J3	Pin 1	REMOTE ON/OFF
	Pin 2	RTN
	Pin 3	VFAN (+12 V/0.5 A)
	Pin 4	–VE REMOTE SENSE
	Pin 5	VSTBY (+5 V/2 A, +/-5%)
	Pin 6	+VE REMOTE SENSE
	Pin 7	RTN
	Pin 8	POWER GOOD

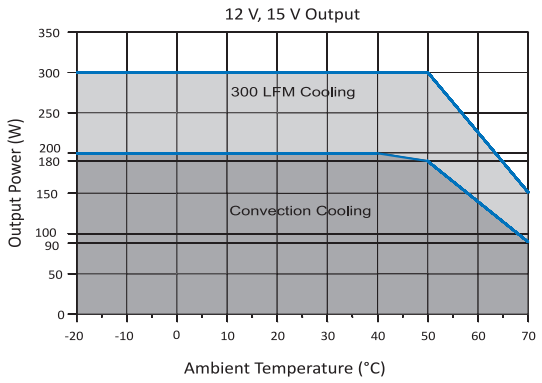
Notes

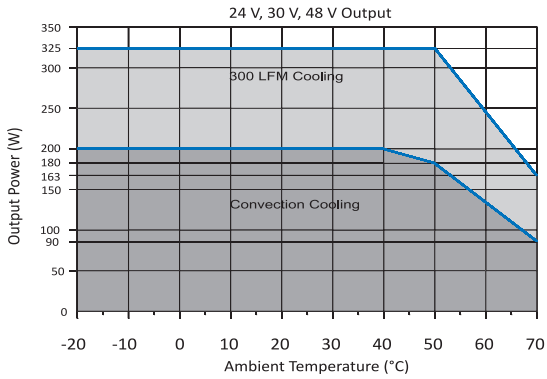
1. Peak current rating on main output is 120% of max., lasting < 30 s with a maximum 10% duty cycle.
2. Ripple is peak to peak with 20 MHz bandwidth and 10 µF (Tantalum capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
3. Class 2 means without input Earth pin. Add –2 suffix to order class 2 product.
4. Combined output power of main output, fan supply and standby supply shall not exceed max. power rating.
5. Standby output voltage tolerance including set point accuracy, line and load regulation is +/–10%. Ripple and noise is less than 5%.
6. Fan supply output voltage tolerance including set point accuracy, line and load regulation is +/–30% and needs min. 1% load on main output to be within regulation band. Ripple and noise is less than 10%.
7. Class 2 product meets class A limit line for conducted emission.
8. Specifications are for nominal input voltage, 25°C unless otherwise stated.
9. PSU is supplied with J3 housing, pin–1 and pin–2 shorted to enable main output without remote on–off feature.
10. Derate output power linearly to 80% from 90 VAC to 80 VAC input.

Mechanical Specifications	
AC Input Connector (J1)	Molex: 26–60–4030 Mating: 09–50–3031; Pins: 08–50–0106
EARTH (J4)	Molex: 19705–4301 Mating: 190030001
DC Output Connector (J2)	6-32 inches Screw Pan HD Mating: 16 AWG wire crimped to Ring Tongue Terminal AMP: 8–31886–1
Signal Connector (J3)	Molex: 22–23–2081 Mating: 22–01–2087; Pins: 08–50–0113
Dimensions	3 x 5 x 1.5 inches (76.2 x 127 x 38 mm)
Weight	450 g
EMC	
CE Mark	Complies with LVD Directive
Conducted Emissions	EN55022–B, CISPR22–B, FCC PART15–B
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 D
Safety	
Safety Standard(s)	EN60950–1, IEC60950–1 (ed. 2), UL 60950 (ed.2), CSA C22.2
Approval Agency	Nemko, Nemko–CCL, INC.
Safety File Number(s)	Nemko: P12215320/60, NA 201210176
Signal	
Power Good Signal	TTL signal goes high after main output is within regulation band, delay is 0.1 to 0.3 s
Remote Sense	Compensates for 200 mV drop
Remote on/off	To turn–on PSU short remote pin to ground

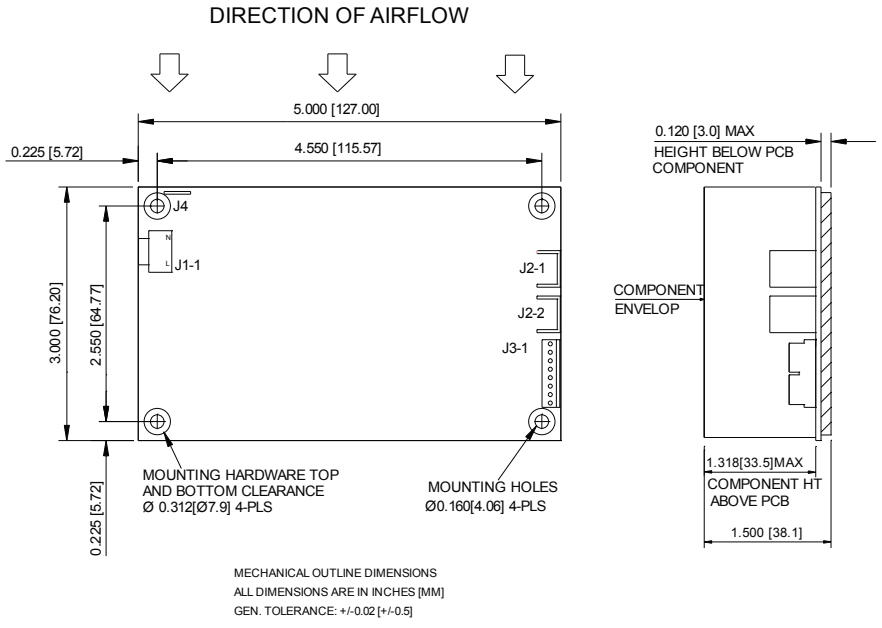
Derating Curve







Mechanical Drawing



MECHANICAL OUTLINE DIMENSIONS
ALL DIMENSIONS ARE IN INCHES [MM]
GEN. TOLERANCE: +/-0.02 [+/-0.5]