

## LFMWLP350 SERIES

350 Watt Open Frame Power Supply

Measures: 5.00 x 3.00 x 1.00"



## Features

- 5 x 3 x 1 Inches Form factor
- 350 Watts with Forced Air Cooling & 200 Watts Convection Cooling
- Efficiencies upto 94%
- -40 to 70 degree operating temperature\*
- 12V / 0.5A Fan Output, Thermal Shut-Down feature
- 2.56m Hours, Telcordia -SR332-issue 3 MTBF
- Standby Power < 0.5W
- Approved to EN60601-1 3rd Edition
- Medical (BF) Safety Approvals

	Electrical Specifications			
Input Voltage	90-264 VAC/390 VDC, Universal (Derate from 100% at 100V AC to 90% at 90V AC)			
Input Frequency	47-63 Hz			
Input Current	115 VAC: 3.6 A max. 230 VAC: 1.8 A max.			
No Load Power	less than 0.5W typical			
Inrush Current	115 VAC – 25 A, 230 VAC – 45 A, 264 VAC – 75 A			
Leakage Current	300 uA Typical Touch current <100uA			
Efficiency	94%(48V,58V), 93%(24V,30V), 92%(12V,15V)			
Hold-up Time	Full Load : 8 ms typical Convection Load : 14 ms typical			
Power Factor	exceeds 0.95 with Full Load			
Output Power	upto 350W with 375 LFM, upto 200W Convection			
Output Voltage Adjustability	+/-3%			
Line Regulation	+/-0.5%			
Load Regulation	+/-1%			
Transient Response	50-100% step load change, at 0.1A/uS slew rate, 50% duty cycle, 50Hz=5% ,			
	recovery time < 5 ms			
Rise Time	55 ms typical			
Set Point Tolerance	+/-1%			
Over Current Protection	>110%, Hiccup mode / Auto Recovery			
Over Voltage Protection	110 to 140%, Hiccup mode / Auto Recovery			
Short Circuit Protection	Hiccup mode / Auto Recovery			
Switching Frequency	PFC – 70 to 130 KHz ,PWM – 50-80 KHz			
Operating Temperature	-40 to +70°C, $*$ -40 to 0°C startup is guaranteed with spec deviation ( ref note 6)			
Storage Temperature	-40 to +85°C			
Relative Humidity	5% to 95%, noncondensing			
Altitude	Operating: 16,000 ft.; Nonoperating: 40,000 ft.			
MTBF	2.56m Hours, Telcordia -SR332-issue 3			
Isolation Voltage	Input to Output – 4000 VAC medical applications.			
	Input to GND - 1500 VAC , Output to GND- 1500VAC for type BF , 500 VAC $$ for type B			
Cooling	350W with 375 LFM forced air cooling at 100 to 264VAC			
	200W with natural convection cooling at 100 to 264VAC.			



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Model Number	Description	Voltage	Max. Load (Convection)	Max. Load (375 LFM)	Min. Load	Ripple <sup>1</sup>
LFMWLP350-1001	with Screw Terminal	12V	15A	25A	0.0A	1%
LFMWLP350-1002	with Screw Terminal	15V	12A	21.67A	0.0A	1%
LFMWLP350-1003	with Screw Terminal	24V	8.33A	14.60A	0.0A	1%
LFMWLP350-1303	with Molex Connector	241				
LFMWLP350-1004	with Screw Terminal	48V	4.17A	7.30A	0.0A	1%
LFMWLP350-1304	with Molex Connector	40 V				
LFMWLP350-1005	with Screw Terminal	30V	6.67A	11.67A	0.0A	1%
LFMWLP350-1305	with Molex Connector	504				
LFMWLP350-1006	with Screw Terminal	58V	3.45A	6.04A	0.0A	1%
LFMWLP350-1306	with Molex Connector	301	J.+JA	0.04A	0.04	I /U
LFWLP350-CK metal cove	r kit accessory					

	Connectors	3
J1	Pin 1	AC LINE
	Pin 2	NOT FITTED
	Pin 3	AC NEUTRAL
J2 Option 1	Pin 1	V1 +VE
(Screw Terminal)	Pin 2	V1 -VE
J2 Option 2	Pin 1,2,3,4	V1 +VE
(Molex Connector)	Pin 5,6,7,8	V1 -VE
J3	Pin 1	FAN +VE
	Pin 2	FAN -VE

## Notes

- 1. 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.
- 2. Combined output power of main output, fan supply shall not exceed max. Power rating.
- 3. Fan supply output voltage tolerance including set point accuracy, line and load regulation is +/-10% and Ripple and noise is less than 10%.
- 4. Specifications are for nominal input voltage, 25°C unless otherwise stated.
- 5. Thermal shutdown feature : The power supply goes in hiccup mode when the temperature of PCB exceeds 110 °C (+/-10 °C).
- 6. Output ripple can be more than 10% of the output voltage.



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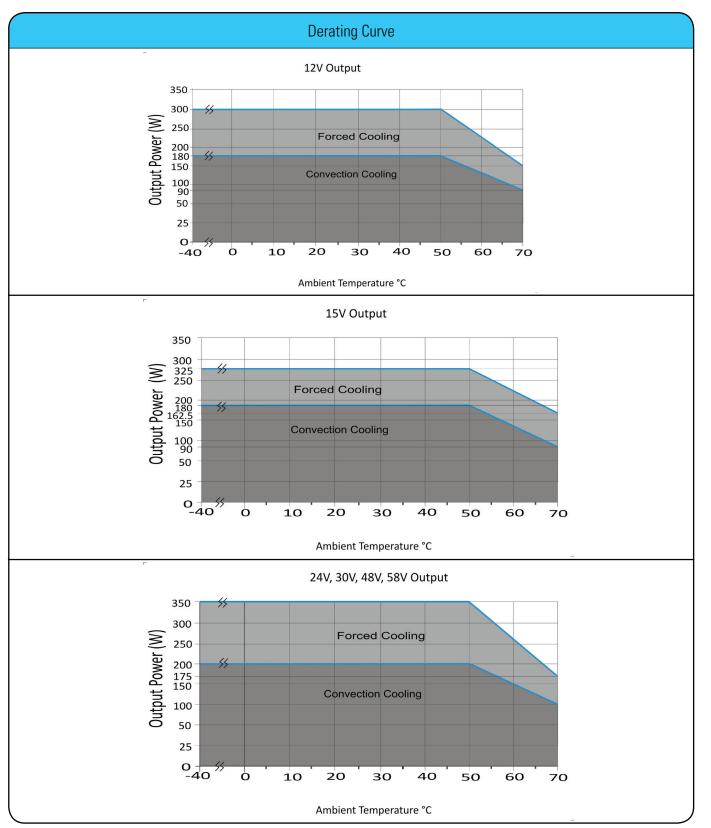
Mechanical Specifications						
C Input Connector (J1) Molex: 26–60–4030						
	Mating: 09-50-3031; Pins: 08-50-0106					
Earth (J4)	Molex: 19705-4301					
	Mating: 19003-0001					
DC Output Connector (J2) Option 1	6-32 inches Screw Pan HD					
(Screw Terminal)	Mating: 16 AWG wire crimped to Ring Tongue Terminal AMP: 8-31886-1					
DC Output Connector (J2) Option 2	Molex: 26-60-4080					
(Molex Connector)	or) Mating: 09-50-3081; Pins: 08-50-0106					
Aux (Fan) Output(J3)	AMP :640456-2					
	Mating: 640440-2					
Dimensions	5 x 3 x 1 inches					
	(127 x 76.2x 25.4 mm)					
Weight	300 gm approx					
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	Level A radiated,					
	Level B radiated with external core (King core K5B RC 25x12x15-M in input cable)					
Surge Susceptibility	EN61000-4-5, Level-3					
Harmonic Current	EN61000-3-2, Class D					
Safety						
Safety Standard(s)	EN60601-1, IEC 60601-1 (ed.3), ANSI / AAMI ES 60601 - 1, CSA C22.2 No. 60601-1					
Approval Agency	Nemko, UL, C-UL					
Safety File Number(s)	UL: Certificate Number 20150302-E173812					
	Nemko: Certificate No.P15219413					
	IEC Ref. Certif. No.: NO85143					





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Derating Curve Note : Between -40 to 0°C startup is guaranteed with spec deviation (ref note 6)



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