3000Watts Single Output with Active PFC PDF-3000-48-1.5U

■ Features:

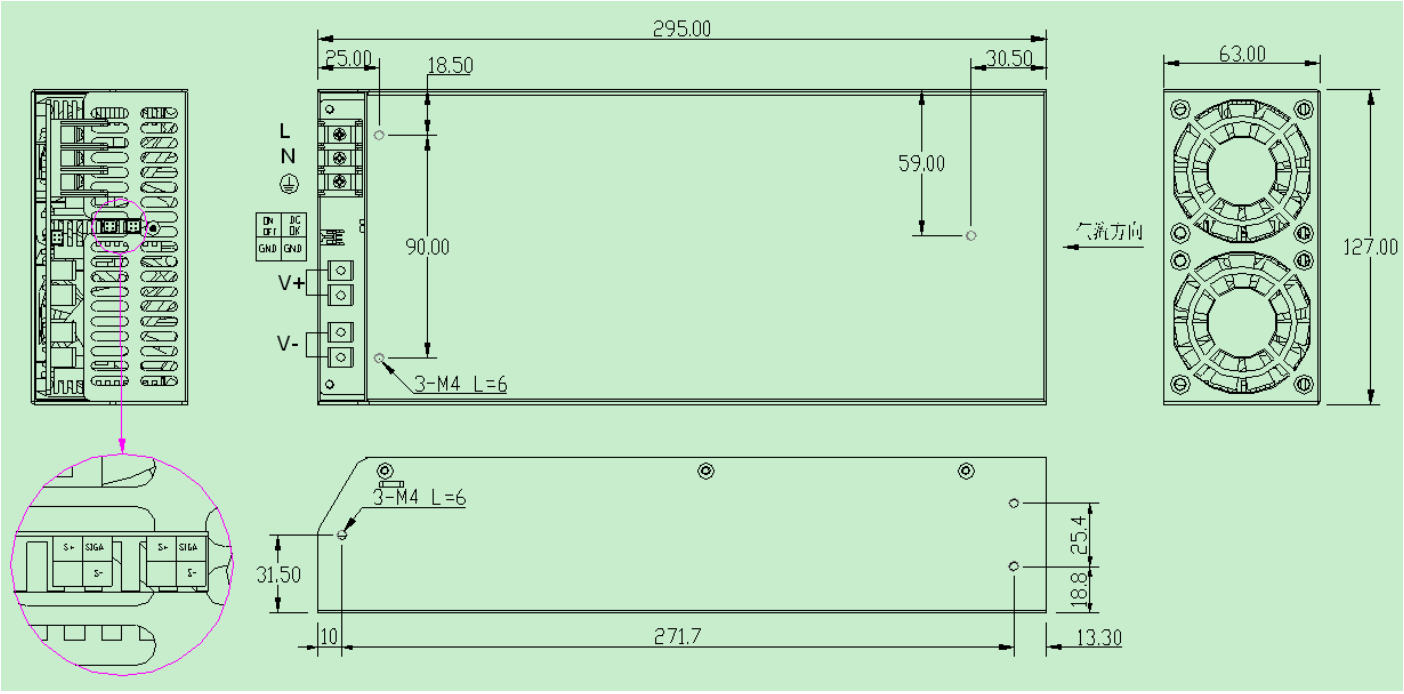
- Universal AC input/ Full range(90~264Vac)
- Built-in active PFC function, PF>0.98
- Using ZVS technology to reduce power dissipation
- Output protection: OVP/OLP/SCP/OPP/OTP
- Built in Fan speed control
- Built in AC inrush current limiting circuit(<30A)
- Build in constant current limiting circuit
- Built in Remote Sense Function, power good signal
- N+1 redundancy function
- Wide operating ambient temperature (-20℃~55℃), full load
- Altitude up to 5000m
- All using 105℃ long life electrolytic capacitors
- 1.5 U low profile
- PCB soldering side with conformal coating
- 3 years warranty

MODEL		PDF-3000-48-1.5U
OUTPUT	DC Output	48V
	Rated Current (90~174Vac)	31.25A
	Rated Current (175~264Vac)	62.5A
	Ripple and Noise Note 2 -20~55℃	≤400mV
	Voltage ADJ. Range	42~56V
	Voltage Accuracy	±2%
	Line Regulation	±0.5%
	Load Regulation	±2%
	Set-up Time	≤8S (220Vac input, Full load)
	Hold up Time	≥5mS (220Vac input, Full load)
	Temperature Coefficient	±0.03%/℃
	Overshoot and Undershoot	≤±2400mV
INPUT	Voltage Range	90Vac~264Vac
	Input limit voltage	310Vac for long time, no damage PS
	Frequency Range	47Hz--63Hz
	Power Factor(Typical)	>0.98/220VAC Full Load
	Efficiency (Typical) @ 220Vac	≥91%
	AC Current (max.)	≤20A
	Inrush Current (Typical)	≤30A @220Vac Cold start
	Leakage Current	Input—output: ≤0.25mA Input—PG: ≤3.5mA
PROTECTION Input	Low voltage protection point	≤85 Vac, shut down output
	Low voltage recovery point	≤88Vac, when input voltage raise up to recovery point, auto recovery, return difference≥5V
	Over voltage protection point	≥295Vac, shut down output
	Over voltage recovery point	≥286Vac, when input voltage decline to recovery point, auto recovery, return difference≥5V
PROTECTION Output	Over Load	66~70A, hiccup mode, auto recovery
	Over Power	3168~3360W
	Over Temperature	115℃±5℃(detect on Mosfet temperature);shut down,auto recovery after the temperature goes down to 75℃
	Over Voltage	58~62V, constant voltage, auto recovery
	Short Circuit	Long-term mode, constant current, auto recovery
ENVIRONMENT	Operating amb. Temp. & Hum.	-20℃~55℃; 5%~90%RH No condensing full load
	Storage Temp. & Hum.	-40℃~70℃; 5%~95%RH No condensing
SAFETY &EMC (Note 3)	Safety Standards	Meet IEC60950/UL60950/TUV EN60950-1
	Withstand Voltage	Primary-Secondary: 4242Vdc/10mA .Primary-PG:2121KVdc/10mA. Secondary-PG: 500KVdc/10mA.
	Isolation Resistance	10M ohms
	EMI Conduction & Radiation	Compliance to EN55022, CLASS A, FCC PART 15 CLASS A
	Harmonic Current	Compliance to EN61000-3-2,Class D

	EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; heavy industry level
OTHERS	MTBF (MIL-HDBK-217F)	More than 200,000Hrs (25℃, Full load)
	Dimension (L*W*H)	295*127*63mm
	Packing	TBD
	Cooling method	Fored air cooling (Built-in fan,the fan speed is controlled by load and internal temp.)
NOTE	1. All parameters NOT specially mentioned are measured at rated input, rated load and 25℃ of ambient temperature. 2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 47uF parallel capacitor. 3. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies" on http://www.powerld.com.cn	

Mechanical Specification

Unit:mm



1.AC terminal blocks definition	
No.	Wire Specs
L	14-12AWG
N	
PE	

2.DC terminal blocks definition			
No.	Function	Terminal	Wire specs
V+	Output 48V+	ACTB019 terminal	10-8AWG
V-	Output 48V1		
SIG2	ON/OFF control	A2006WR-2X2PIN	22-24AWG
DC / OK	PS working signal		
SIGA	Current share bus		
S+	Remote compensation +		
S-	Remote compensation -		

Block Diagram