



FEATURES

- RoHS Compliant
- Up to 528 Watts Output Power
- 3000VAC I/O Isolation
- High Efficiency up to 90%
- 1U Low Profile, 41mm
- Built-in DC OK Signal
- Built-in Remote Sense Function
- Built-in Fan Speed Control
- Built-in Active PFC Function
- Built-in Constant Current Limiting Circuit (<20A)
- Using ZVS Technology to Reduce Power Dissipation
- Conformal Coating on Both Sides of PCB
- -30°C to +70°C Wide Operating Temperature Range
- Universal Input Voltage Range: 90-264VAC
- Protections: OLP / OTP / OVP / SCP
- 12V, 24V, 27V, 36V, & 48VDC Single Output Models
- UL60950-1 (2nd edition), IEC60950-1:2005 (2nd edition), EN60950-1:2006 Safety Approvals

DESCRIPTION

The PSPDF-480 series of AC/DC switching power supplies provides up to 528 Watts of output power in a 8.58" x 4.59" x 1.61" enclosed case with built-in fan. This series consists of single output models ranging from 12VDC to 48VDC with an input voltage range of 90~264VAC. Standard features include high efficiency up to 90%, 3000VAC I/O isolation, and a -30°C to +70°C operating temperature range. This series also has short circuit, over load, over voltage, and over temperature protection. All models are RoHS compliant and have UL60950-1 (2nd edition), IEC60950-1:2005 (2nd edition), and EN60950-1:2006 safety approvals.



Size:
8.58 x 4.59 x 1.61 inches
218.0 x 116.5 x 41.0 mm

Weight:
3.2 lbs (1450g)

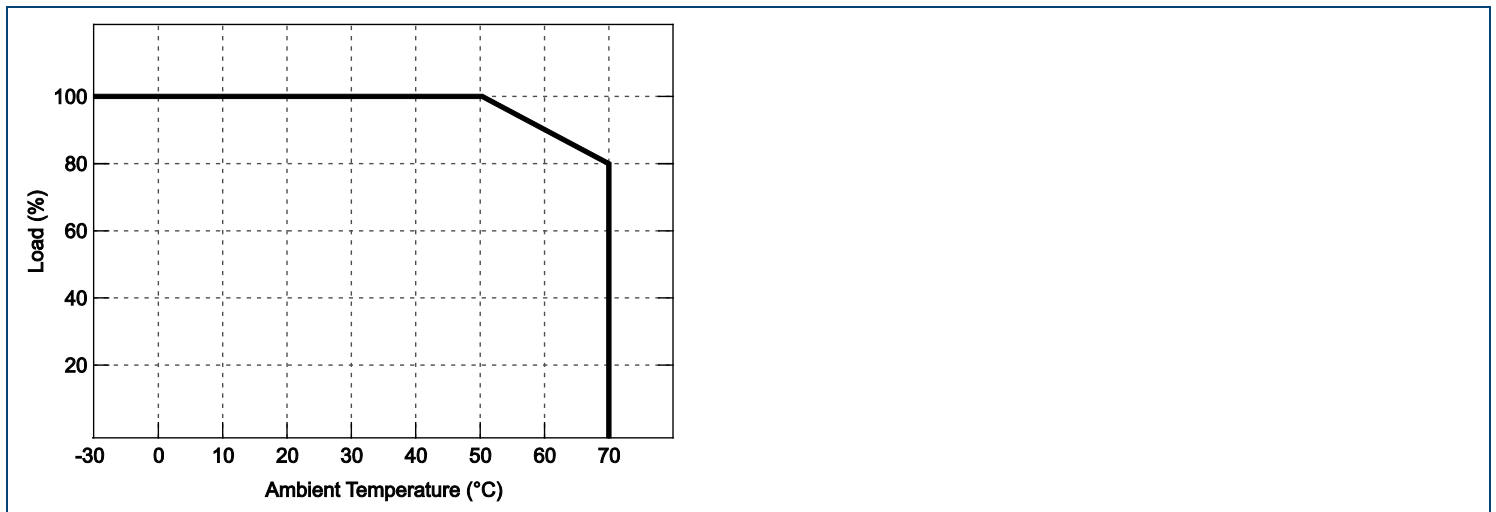
MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise ⁽¹⁾		Output Power	Efficiency
			Min	Max	-30°C ~ 0°C	0°C ~ +70°C		
PSPDF-480-12	90 ~ 264 VAC	12 VDC	0A	34A	180mVp-p	120mVp-p	408W	88%
PSPDF-480-24		24 VDC	0A	22A	150mVp-p	150mVp-p	528W	89%
PSPDF-480-27		27 VDC	0A	18A	150mVp-p	150mVp-p	486W	89%
PSPDF-480-36		36 VDC	0A	14A	150mVp-p	150mVp-p	504W	90%
PSPDF-480-48		48 VDC	0A	11A	200mVp-p	200mVp-p	528W	90%

NOTES

1. Ripple & noise is measured at 20MHz limited bandwidth and using a 12" twisted pair-wire terminated with a 0.1µF & 47µF capacitors in parallel.
 2. The power supply is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
 3. This product is Listed to applicable standards and requirements by UL.
- *Due to advances in technology, specifications subject to change without notice.*

DERATING CURVE

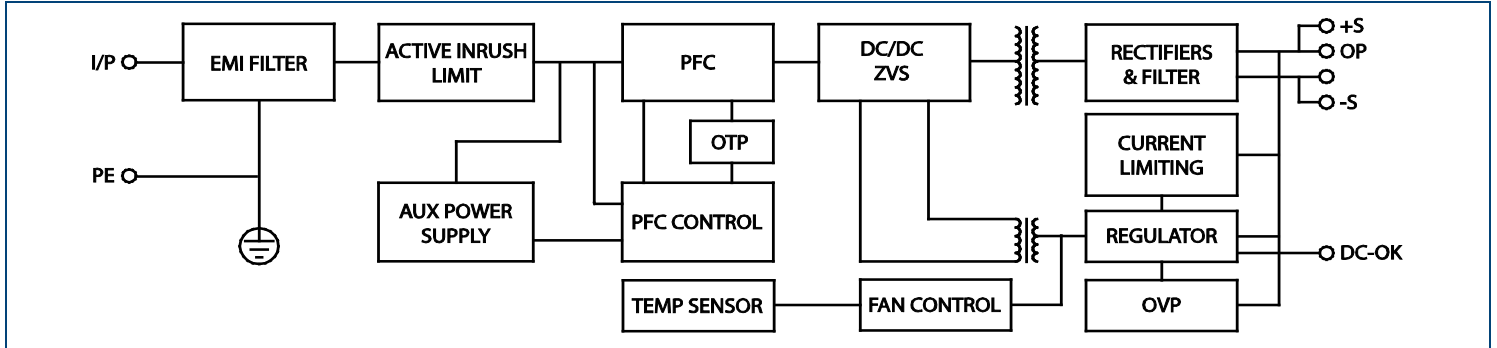


TECHNICAL SPECIFICATIONS: PSPDF-480 SERIES

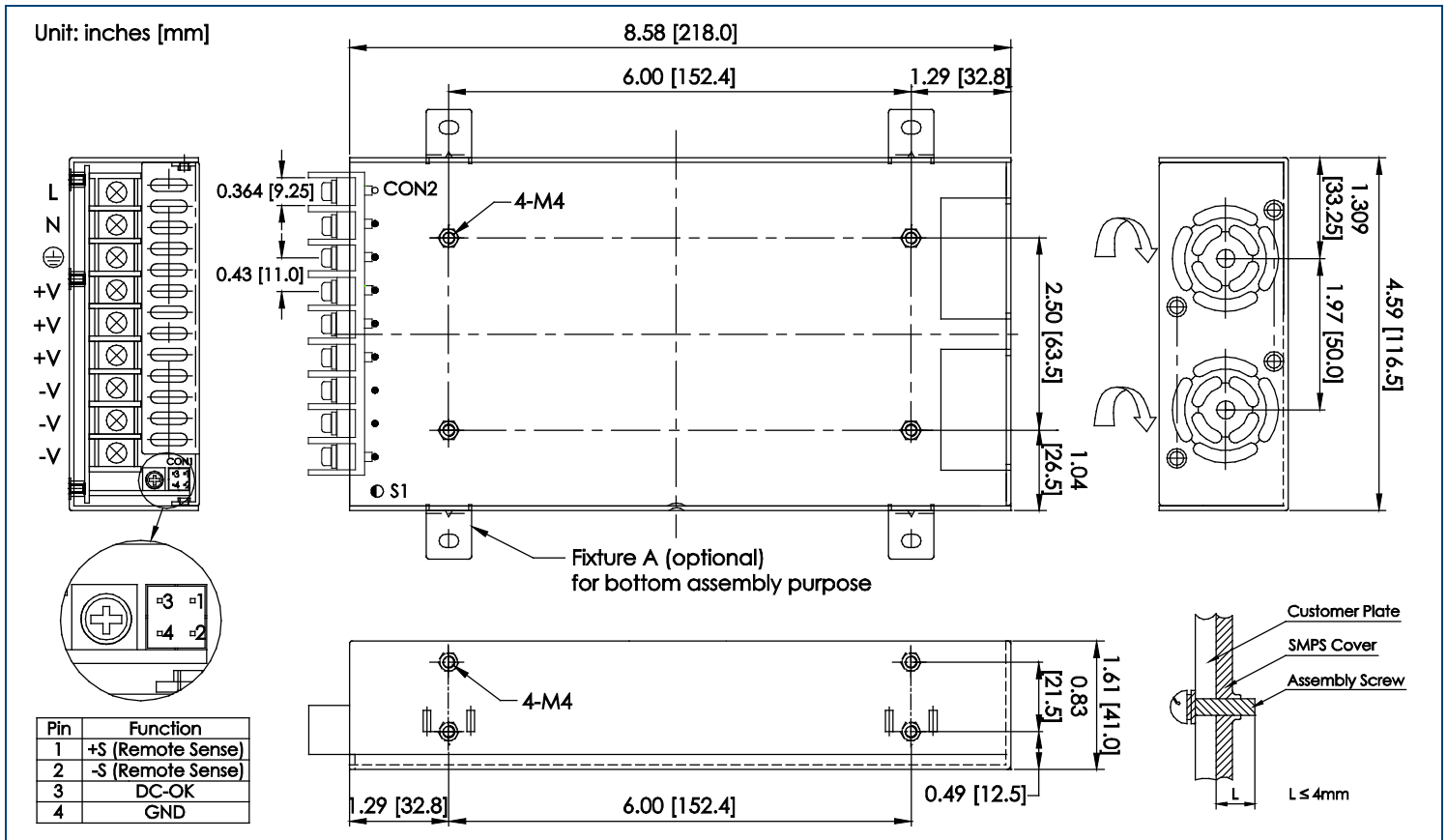
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit
INPUT SPECIFICATIONS						
Input Voltage			90		264	VAC
Input Frequency			47		63	Hz
AC Current					9	A
Inrush Current	At 230VAC and cold start				20	A
Power Factor	At 115VAC			0.98		
	At 230VAC			0.96		
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Voltage Accuracy			-2.0		+2.0	%
Voltage Adjustability			-5		+10	%Vo
Line Regulation	Low Line to High Line	12V, 24V, 27V, 36V output models	-0.5		+0.5	%
		48V output model	-0.2		+0.2	%
Load Regulation	0% to 100% full load		-1.0		+1.0	%
Output Power			See Table			
Output Current			See Table			
Ripple & Noise	Measured at 20MHz BW and with 0.1µF and 10µF capacitors in parallel		See Table			
Hold-up Time	At 230VAC and full load			16		ms
Setup Time	At 115VAC and full load			3		ms
	At 230VAC and full load			1.5		
Temperature Coefficient			-0.05		+0.05	%/°C
Overshoot and Undershoot					5.0	%
PROTECTION						
Short Circuit Protection	Constant current		Long-term mode, auto-recovery			
Over Voltage Protection	Constant voltage		110		150	%Vo
Over Load Protection	Constant power		110		135	%Io
Over Temperature Protection	shutdown, automatic recovery after the temperature goes down to 75°C		105°C+5°C (detect on Mosfet temp.)			
GENERAL SPECIFICATIONS						
Efficiency			See Table			
Withstand Voltage	≤10mA	Primary to Secondary	3000			VAC
	≤10mA	Primary to PG	1500			
	≤10mA	Secondary to PG	500			
Isolation Resistance			100			MΩ
Leakage Current	Input to Output				0.25	mA
	Input to PG				3.5	
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	See derating curve		-30		+70	°C
Storage Temperature			-40		+85	°C
Operating Humidity	Non-condensing		20		90	% RH
Storage Humidity	Non-condensing		10		95	% RH
Cooling	Built-in fan		Forced air cooling			
MTBF	MIL-HDBK-217F; 25°C and full load		200,000			hours
PHYSICAL SPECIFICATIONS						
Weight			3.2 lbs (1450g)			
Dimensions (L x W x H)			8.58 x 4.59 x 1.61 inches (218.0 x 116.5 x 41.0 mm)			
SAFETY & EMC (See Note 2)						
Safety Approvals	UL60950-1 (2nd edition) ⁽³⁾ , IEC60950-1:2005 (2nd edition), EN60950-1:2006					
EMI Conduction & Radiation			EN55022, Class B			
Harmonic Current			EN61000-3-2, Class D			
EMC Immunity			EN61000-4-2,3,4,5,6,8,11; heavy industry level			

BLOCK DIAGRAM



MECHANICAL DRAWING



COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

Contact **Wall Industries** for further information:

Phone: ☎ (603)778-2300
Toll Free: ☎ (888)597-9255
Fax: ☎ (603)778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
Exeter, NH 03833

©2019 Wall Industries, Inc. Specifications subject to change without notice. Wall Industries is not responsible for typographical errors. The information contained herein is for informational purposes only. This information is provided by Wall Industries and we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information contained in this document for any purpose. All product and manufacturer names are trademarks or registered trademarks of their respective companies.