



Size: 4.92in x 5.12in x 2.76in
(125mm x 130mm x 70mm)

FEATURES

- Input Voltage Range of 85-277VAC or 120-390VDC
- High Efficiency, High Reliability
- Continuous Static Power Margin Up to 125% (PN)
- Transient Peak Current Function: 6 Times Rated Current for 15ms
- Up to 150% (PN) Dynamic Power for 5s
- Supports DC OK, AC OK, Remote Control Function
- Supports ModBus Communication Protocol
- Double-Sided Conformal Coating, Salt-Spray Proof, Explosion Proof
- Pollution Degree 2
- Active PFC, PF >0.98
- Supports 5+1 Bus High Precision Parallel Current Sharing
- Output Short Circuit, Over Current, Over Voltage, and Over Temperature Protection, Input Under-Voltage Protection
- OVC III (Design Refers to EN62477, 2000m)
- RoHS Compliant
- Safety According to ATEX, IECEx Increased Safety Type Explosion-Proof Certification
- Meets ANSI/ISA 71.01-2013 G3
- Safety According to IEC/EN/UL62368, IEC/EN61010, GB4943, EN61558, EN62477, IEC60079, GB3836, and NB/T31017

DESCRIPTION

The PSHDN480 series of AC/DC converters offers 480 watts of power in a 4.92" x 5.12" x 2.76" DIN Rail package. This series consists of single output models with a wide input voltage range of either 85-277VAC or 120-390VDC. Features of this series include high efficiency and high reliability, DC OK, AC OK, and remote control. This series is protected against output short circuit, over current, over voltage, over temperature conditions, as well as input under voltage protection. It also has safety according to IEC/EN/UL62368, IEC/EN61010, GB4943, EN61558, EN62477, IEC60079, GB3836, and NB/T31017.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Voltage Adjustable Range	Output Current	Output Power ⁽¹⁾	Maximum Capacitive Load	Efficiency
PSHDN480-24S	85~277VAC	24V	24-28V	20A	480W	50000µF	94.5%
PSHDN480-48S	(120~390VDC)	48V	48-55V	10A	480W	25000µF	95%

SPECIFICATIONS

All specifications are based on Ta=25°C, Humidity <75%, Nominal Input Voltage, and Rated Output Load 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 Range	Rated Input (Certified Voltage)	100		240	VAC
	AC Input	85		277	
	DC Input	120		390	
Maximum Input Voltage	Lasts for 2h without damage			305	VAC
Input Voltage Frequency		47		63	Hz
Input Switching Voltage		65		80	VAC
Input Turn-Off Voltage		55		70	VAC
Input Current	115VAC			6	A
	230VAC			3	
Inrush Current	Cold Start	115VAC		10	A
		230VAC		15	
Power Factor	115VAC	0.98			
	230VAC	0.95			
THD	115VAC, Rated Load		3.5		%
Input Fuse	Built-In Fuse		10		A
Hot Plug		Unavailable			

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SPECIFICATION		TEST CONDITIONS	Min	Typ	Max	Unit
OUTPUT SPECIFICATIONS						
Output Voltage				See Table		
Voltage Accuracy	Full Load Range			±1.0		%
Line Regulation	Rated Load			±0.25		%
Load Regulation	0%-100% Load			±0.5		%
Output Power				See Table		
Output Current				See Table		
Maximum Capacitive Load				See Table		
Ripple & Noise ⁽²⁾	20MHz bandwidth (Peak-Peak Value)	24V			80	mV
		48V			180	
Power Consumption ⁽³⁾	230VAC, Rated Load	24V		27.8		W
		48V		25.2		
Hold-Up Time	115VAC/230VAC		22			ms
DC OK Signal	Resistive Load			30VDC/1A Max.		
Start-Up Delay Time	115VAC/230VAC, Rated Load				2000	ms
Static Power	115VAC/230VAC, Works for a long time at room temperature			125		%Io
Dynamic Power	115VAC/230VAC, The off time adapts with different load conditions, long-term protection, self-recovery			150%Io Working 5s (min.)		
Transient Peak Current Function	115VAC/230VAC, Long-term short-circuit protection, self-recovery			600% Io working 15ms 3 times (typ.)		
PROTECTION						
Short Circuit Protection	Long term short-circuit protection, self-recovery			Hiccup mode, constant current operation, (constant current time adapts to different load conditions), output off for 5s		
Over Current Protection				Yes		
Over Voltage Protection	Output-Off or Clamping, Self-Recovery	24V 48V		≤35 ≤60		VDC
OVC				III		
Over Temperature Protection ⁽⁴⁾	230VAC, Rated Load, Self-Recovery	Over Temperature Protection Start Over Temperature Protection Release	60		100	°C
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature			-40		+85	°C
Storage Temperature			-40		+85	°C
Operating Humidity	Non-Condensing		10		95	%RH
Storage Humidity	Non-Condensing		20		90	%RH
Power Derating	Operating Temperature Derating @AC Input	+40°C to -30°C		2		% / °C
		+60°C to +75°C		2.5		
		+75°C to +85°C	25CFM	2.25		
	Operating Temperature Derating @DC Input	-40°C to -30°C		2		
		+60°C to 75°C		2.5		
		+75°C to +85°C	25CFM	2.25		
Input Voltage Derating	85VAC-100VAC		1		%/VAC	
	120VDC-140VDC		1		%/VDC	
MTBF	MIL-HDBK-217F @25°C		702,000			H
	MIL-HDBK-217F @40°C		524,000			
ENVIRONMENTAL CHARACTERISTICS						
High and Low Temperature Working	+85°C, -40°C			GB2423.1, IEC60068-2-1		
Sinusoidal Vibration	10-500Hz, 2g, three directions of X, Y, Z axis			GB2423.10, IEC60068-2-6		
Salt Mist	+35°C, 5%NaCl, 48h			GB2423.17, IEC60068-2-11		
Alternating Hot and Humid	+25°C, 95%RH - +60°C, 95%RH			GB2423.4, IEC60068-2-30		
Low Temperature Storage	-40°C			GB2423.1, IEC60068-2-1		
High Temperature Storage	85°C			GB2423.2 IEC60068-2-2		
High Temperature Aging	60°C			GB2423.2, IEC60068-2-2		
Normal Temperature Aging	25°C			GB2423.1, IEC60068-2-1		
Temperature Shock	-40°C to 85°C			GB2423.22, IEC60068-2-14		
Temperature Cycle	-25°C to 60°C			GB2423.22, IEC60068-2-14		
Hot and Humid	+85°C, 85%/RH			GB2423.50, IEC60068-2-67		
High Temperature Elevation	60°C, 54KPa			GB2423.26, IEC60068-2-41		
Low Temperature Elevation	-25°C, 54KPa			GB2423.25, IEC60068-2-40		
Constant Humid and Hot	40°C, 95%RH			GB2423.3, IEC60068-2-78		
Random Vibration	5-10Hz, ASD 0.3-10g ² /Hz, three directions of X, Y, Z axis			GB/T 4798.2-2008, IEC60721-3-2		
Sinusoidal Vibration Response	10-150Hz, 1g, three directions of X, Y, Z axis			GB/T 11287-2000, IEC60255-21-1		
Sinusoidal Vibration Endurance Test	15g, pulse duration 11ms, three times in each direction of X, Y, Z axis			GB/T 114537-1993, IEC60255-21-2		
Sinusoidal Impulse Response						
Sinusoidal Impact Endurance Test						
Packaging Drop	1m, one corner, three edges and six sides			GB2423.8, IEC68-2-32		

SPECIFICATIONS

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SPECIFICATION		TEST CONDITIONS		Min	Typ	Max	Unit	
GENERAL SPECIFICATIONS								
Typ. Efficiency	230VAC		See Table					
Isolation Test ⁽⁵⁾	Electric strength test for 1min. Leakage Current <5mA (Isolation Test for ⚡ need to remove the screw at the mark ⚡)		Input-⚡	2500			VAC	
			Input-Output	4000				
			Output-⚡	500				
Insulation Resistance	Environment Temperature: 25±5°C Relative Humidity: <95%, Non-Condensing Test Voltage: 500VDC		Input-⚡	500			MΩ	
			Input-Output	500				
			Output-⚡	500				
Switching Frequency ⁽⁶⁾	PFC		60		70	kHz		
	DC-DC		40		130			
Leakage Current	240VAC	Touch Current			0.5	mA		
High and Low Voltage Crossing	Contact factory for testing suggested		NB/T 31111-2017					
FUNCTIONAL SPECIFICATIONS								
Remote Control	Voltage Between ON/OFF and SGND		Power On	0		0.8	VDC	
			Power Off	4		20		
DC OK Relay	Operating Voltage		24V		21.6	V		
			48V		43.2			
	Release Voltage		24V		19.2			
			48V		38.4			
AC OK Signal	Input Voltage 85-305VAC		3		5	VDC		
Current Sharing Accuracy	When multiple units are connected in parallel, the sub-modules shunt more than 50% of the rated load of a single power supply			±5		%		
LED Signal	Main Output Status Indicator		Normal Output	LED ON				
			200%Io > Load > 125%Io	Green Light Flashing				
			Power Off (No AC Power), Under-Voltage Protection, Remote Off, Short Circuit/Over-Current Protection, Over Voltage Backflow	LED OFF				
RS485-A, RS485-B	Based on ModBus Communication Protocol		RS485 Communication					
PHYSICAL SPECIFICATIONS								
Weight			2.91lbs (1.32kg)					
Dimensions (LxWxH)			4.92 x 5.12 x 2.76in (125 x 130 x 70mm)					
Case Material			Metal (AL5052, SUS304)					
Cooling			Free Air Convection					
Warranty	Ambient Temperature: <40°C		5 Years					
SAFETY CHARACTERISTICS								
Safety Standards			UL61010-1 safety approved & EN62368-1, BS EN62368-1(Report) Design refer to IEC/UL62368-1, IEC/EN61010-1, GB4943.1, EN61558-1, EN62477-1, IEC60079-0, IEC60079-7, IEC60079-15, GB3836.1, NB/T31017, ANSI/ISA 71.04-2013					
Safety Class			Class I					
EMI	CE	General Standard	CISPR32 EN55032		Class B			
		Industry/Light Industry	IEC61000-6-3	AC Port	Class B			
				DC Port	Class A			
			IEC61000-6-4	AC Port	Class A			
		Classification Society	GD22-2015		10kHz-30MHz, EMC1			
		Power Station/Substation	IEC61850-3		Class A			
		Railway	IEC62236-3-2 (EN50121-3-2)		Output Port	Class A +20dB		
			IEC62236-4 (EN50121-4)		Output Port	Class A +20dB		
			IEC62236-5 (EN50121-5)		AC Port	Class A		
	RE	General Standard	CISPR32 EN55032		Class B			
		Industry/Light Industry	IEC61000-6-3		Class B			
			IEC61000-6-4		Class A			
		Classification Society	GD22-2015		150KHz-2GHz, EMC1			
		Power Station/Substation	IEC61850-3		Class A			
		Railway	IEC62236-3-2 (EN50121-3-2)		Class B			
IEC62236-4 (EN50121-4)			Class B					
IEC62236-5 (EN50121-5)			Class B					
Harmonic Current	General Standard	IEC/EN6100-3-2		Class A and Class D				
	Railway	IEC62236-3-2 (EN50121-3-2)		50Hz-2KHz				
		IEC62236-4 (EN50121-4)		50Hz-2KHz				

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SPECIFICATION		TEST CONDITIONS		Min	Typ	Max	Unit
SAFETY CHARACTERISTICS (Cont.)							
EMS	ESD	General Standard	IEC/EN61000-4-2	Output Port		Contact ±8kV/Air ±15kV	Perf. Criteria A
		Industry/Light Industry	IEC61000-6-1		Contact ±4kV/Air ±8kV		Perf. Criteria A
		Industry	IEC61000-6-2		Contact ±4kV/Air ±8kV		Perf. Criteria A
		Wind Power	NB/T 31017-2011		Contact ±6kV/Air ±8kV		Perf. Criteria A
		Classification Society	GD22-2015		Contact ±6kV/Air ±8kV		Perf. Criteria A
		Power Station/Substation	IEC61850-3		Contact ±6kV/Air ±8kV		Perf. Criteria A
			IEC61000-6-5		Contact ±6kV/Air ±8kV		Perf. Criteria A
	RS	Railway	IEC62236-3-2 (EN50121-3-2)		Contact ±6kV/Air ±8kV		Perf. Criteria A
			IEC62236-4 (EN50121-4)		Contact ±6kV/Air ±8kV		Perf. Criteria A
			IEC62236-5 (EN50121-5)		Contact ±6kV/Air ±8kV		Perf. Criteria A
		General Standard	IEC/EN 61000-4-3	10V/m			Perf. Criteria A
		Industry/Light Industry	IEC61000-6-1	80M-1GHz, 3V/m; 1.4G-6GHz, 3V/m			Perf. Criteria A
		Industry	IEC61000-6-2	80M-1GHz, 10V/m; 1.4G-2GHz, 3V/m; 2-2.7GHz, 1V/m			Perf. Criteria A
		Wind Power	NB/T 31017-2011	80M-1GHz, 10V/m			Perf. Criteria A
	EFT	Classification Society	GD22-2015	80M-2GHz, 10V/m			Perf. Criteria A
		Power Station/Substation	IEC61850-3	80M-3GHz, 10V/m			Perf. Criteria A
			IEC61000-6-5	80M-1GHz, 10V/m; 1G-2.7GHz, 3V/m; 2.7G-6GHz, 1V/m			Perf. Criteria A
		Railway	IEC62236-3-2 (EN50121-3-2)	80M-1GHz, 20V/m; 1.4GHz-2GHz, 10V/m; 2G - 2.7GHz, 5V/m; 2.7G-6GHz, 3V/m			Perf. Criteria A
			IEC62236-4 (EN50121-4)	80M-800MHz, 10V/m; 800MHz-1GHz, 20V/m; 1.4G - 2GHz, 10V/m; 2G-2.7GHz, 5V/m; 5.1G-6GHz, 3V/m			Perf. Criteria A
			IEC62236-5 (EN50121-5)	80M-800MHz, 10V/m; 800MHz-1GHz, 20V/m; 1.4G - 2GHz, 10V/m; 2G-2.7GHz, 5V/m; 5.1G-6GHz, 3V/m			Perf. Criteria A
		General Standard	IEC/EN 61000-4-4	±4kV			Perf. Criteria A
	Surge	Industry/Light Industry	IEC61000-6-1	DC input, output and signal control port: ±0.5kV, 5/100KHz, AC input and output port: ±1KV, 5V/100KHz			Perf. Criteria A
		Industry	IEC61000-6-2	DC input, output and signal control port: ±0.5kV, 5/100KHz, AC input and output port: ±1KV, 5/100KHz			Perf. Criteria A
		Wind Power	NB/T 31017-2011	Power source and PE: ±4KV, 5/100KHz, signal and control port: ±2KV, 5/100KHz (Capacitive coupling clamp)			Perf. Criteria A
Classification Society		GD22-2015	±1KV, 5KHz; ±2KV, 2.5KHz			Perf. Criteria A	
Power Station/Substation		IEC61850-3	AC, DC input output port, signal port, ground port: ±2KV			Perf. Criteria A	
		IEC61000-6-5	AC, DC input output port: ±2KV; signal port: cable <3m: ±2KV, cable >3m: ±4KV			Perf. Criteria A	
Railway		IEC62236-3-2 (EN50121-3-2)	Signal, control port: ±2KV, 5KHz (Capacitive coupling clamp), AC, DC input output port: ±2KV, 5KHz			Perf. Criteria A	
Surge		IEC62236-4 (EN50121-4)	Signal, control port: ±2KV, 5KHz (Capacitive coupling clamp), AC, DC input output port: ±2KV, 5KHz, PE ground/shell: ±1KV, 5KHz			Perf. Criteria A	
		IEC62236-5 (EN50121-5)	Signal, control port: ±2KV, 5KHz (Capacitive coupling clamp), AC, DC input output port: ±4KV, 5KHz, PE ground/shell: ±1KV, 5KHz			Perf. Criteria A	
	General Standard	IEC/EN 61000-4-5	AC Input Port: ±4KV/±6KV			Perf. Criteria A	
	Industry/Light Industry	IEC61000-6-1	DC input and output port: ±0.5KV/±1KV, AC input and output port: ±1KV/±2KV, signal and control port: ±1KV common mode			Perf. Criteria A	
	Industry	IEC61000-6-2	DC input and output port: ±0.5KV/±0.5KV, AC input and output port: ±1KV/±2KV, signal and control port: ±1KV common mode			Perf. Criteria A	
	Wind Power	NB/T 31017-2011	AC, DC power source port: ±1KV/±2KV			Perf. Criteria A	
	Classification Society	GD22-2015	AC, DC power source: ±0.5KV/±1KV			Perf. Criteria A	
Surge	Power Station/Substation	IEC61850-3	AC, DC power source, signal port: ±1KV/±2KV, power carrier communication port: ±2kV/4kV			Perf. Criteria A	
		IEC61000-6-5	Signal, control port: ±1KV common mode (if the cable <10m, no test is required), DC input and output port: ±1KV/±2KV, AC input and output port: ±2KV/4KV			Perf. Criteria A	
	Railway	IEC62236-3-2 (EN50121-3-2)	Battery port, AC input port: ±1KV/±2KV (42Ω output impedance)			Perf. Criteria A	
		IEC62236-4 (EN50121-4)	DC power source, signal, control port: ±1KV/±2KV (42Ω output impedance), AC power source port: ±1KV/±2KV			Perf. Criteria A	
		IEC62236-5 (EN50121-5)	DC input and output, signal, control port: ±1KV/±2KV, AC input and output port: ±2KV/±4KV			Perf. Criteria A	

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SPECIFICATION		TEST CONDITIONS			Min	Typ	Max	Unit	
SAFETY CHARACTERISTICS (Cont.)									
EMS	CS	General Standard	IEC/EN61000-4-6	10Vr.m.s				Perf. Criteria A	
		Industry/Light Industry	IEC61000-6-1	AC input and output, signal, control port: 0.15M-80MHz, 3V				Perf. Criteria A	
			IEC61000-6-2	AC input and output, signal, control port: 0.15M-80MHz, 10Vr.m.s				Perf. Criteria A	
		Wind Power	NB/T 31017-2011	0.15M-80MHz, 10Vr.m.s				Perf. Criteria A	
		Classification Society	GD22-2015	0.15M-80MHz, 10Vr.m.s, Low frequency conduction immunity: AC input port, harmonic <15 times 10%Un, harmonic = 15-100 times, from 10%Un to 1%Un, harmonic = 100-200 times, 1%Un; DC input port, 10%Un, 50-10kHz, apply power ≤2W (Can reduce the applied voltage)				Perf. Criteria A	
		Power Station/Substation	IEC61850-3	AC DC input, output signal, control port, PE port: 0.15M-80MHz, 10Vr.m.s					Perf. Criteria A
			IEC61000-6-5	AC, DC input, output, signal, control port: 0.15M-80MHz, 10Vr.m.s					Perf. Criteria A
		Railway	IEC62236-3-2 (EN50121-3-2)	AC/Battery input, signal, control port: 0.15M-80MHz 10Vr.m.s					Perf. Criteria A
			IEC62236-4 (EN50121-4)	AC, DC input, output, signal, control port: 0.15M-80MHz, 10Vr.m.s					Perf. Criteria A
			IEC62236-5 (EN50121-5)	AC, DC input, output, signal, control port, PE port: 0.15M-80MHz, 10Vr.m.s					Perf. Criteria A
	Voltage dips, short interruptions and voltage variations immunity	General Standard	IEC/EN61000-4-11	0%, 70%				Perf. Criteria B	
		Industry/Light Industry	IEC61000-6-1	0%, 0.5/1 period, 70%, 25/30 period @50/60Hz, 0%, 250/300 period @50/60Hz				Perf. Criteria B and C	
			IEC61000-6-2	0%, 1 period, 0%, 250/300 period @50/60Hz, 40%, 10/12 period @50/60Hz				Perf. Criteria B and C	
		Power Station/Substation	IEC61850-3	AC Input and output port: 100%, 5/50 period, DC input and output port: 100%, 0.05s					Perf. Criteria B
	IEC61000-6-5		AC input and output port: 70%, 1 period, 40%, 50 period, 0%, 5 period, 0%, 50 period					Perf. Criteria B	
	Power Frequency Magnetic Field	General Standard	IEC/EN61000-4-8	100A/m continuous, 1KA/m 1s				Perf. Criteria A	
		Industry/Light Industry	IEC61000-6-1	50/60Hz, 30A/m				Perf. Criteria A	
			IEC61000-6-2	50/60Hz. 30A/m				Perf. Criteria A	
		Power Station/Substation	IEC61850-3	100A/m continuous, 1KA/m 1s				Perf. Criteria A	
			IEC61000-6-5	100A/m continuous, 1KA/m 1s				Perf. Criteria A	
		Railway	IEC62236-4 (EN50121-4)	50Hz, 100A/m, DC 300A/m				Perf. Criteria A	
	IEC62236-5 (EN50121-5)	50Hz, 100A/m, DC 300A/m					Perf. Criteria A		
	Intercom Interference Test		MS-SOP-DQC-007					Perf. Criteria B	


NOTES

1. When the output voltage rises, the total power of the product should not exceed the rated power.
2. Tip and barrel method is used for ripple and noise test, output parallel 47uF electrolytic capacitor and 0.1uF ceramic capacitor, contact factory for more information.
3. Power consumption curve, over-current protection mode and short circuit protection mode, see characteristic curve.
4. Over temperature protection: put the product into a high temperature box. After the ambient temperature stabilizes. Increase the temperature slightly (3°C to 5°C) and the load remains unchanged. After the product reaches thermal equilibrium. Increase the temperature until the product triggers over-temperature protection.
5. ① Remove screw at the  when the product is subjected to withstand voltage test. ② The gas discharge tube built into the device effectively protects the power supply against damage by asymmetric disturbance variables (eg EN 61000-4-5). Each power supply continuous withstand voltage test will cause extremely high load to the power supply. Therefore, unnecessary loading or damage to the power supply due to excessive test voltage should be avoided. If necessary, disconnect the gas discharge tube built into the device to use a higher test voltage. After successful completion of the test, reconnect the gas discharge tube. Contact factory for specific operation methods.
6. The power supply has two converters with two different switching frequencies. Intermittent operation mode will be entered in light load or no load.
7. Contact factory for related function control logic and usage instructions
8. When multiple units work with current sharing, the output voltage deviation of each power supply working along shall not exceed 100mV.
9. Perf Criteria
A: The equipment shall continue to operate as intended without operator intervention
B: After the test, the equipment shall continue to operate as intended without operator intervention.
C: Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions.
10. Room temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m.
11. In order to improve the efficiency at high input voltage, there will be audible noise generated, but it does not affect product performance and reliability.
12. Customization is available, please contact factory.
13. Product customization is available. Please contact factory.
14. The out case needs to be connected to PE (\perp) of system when the terminal equipment is operating.
15. Key to adjust Δ key for voltage increase, ∇ key for voltage decrease.
16. Products classified to ISO14001 and related environmental laws and regulations and should be handled by qualified units.

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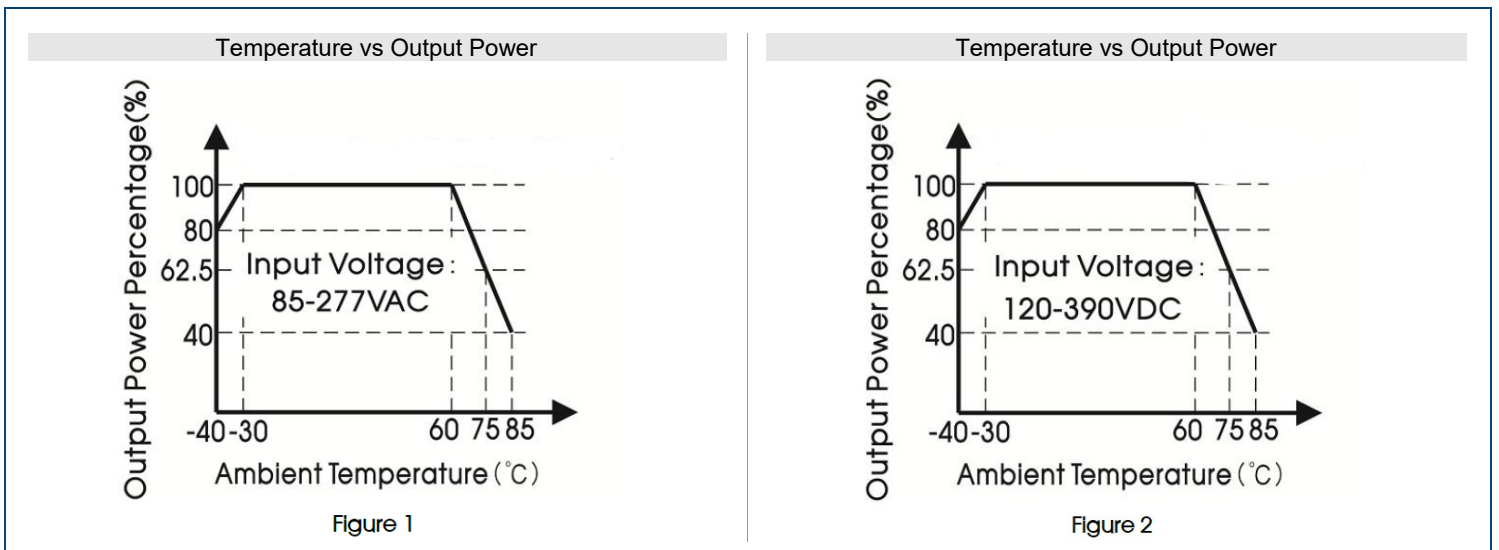
WARNINGS

WARNING: Risk of electrical shock, fire, personal injury or death:

1. Do not use the power supply without proper grounding (Protective Earth). Use the terminal on the input block for earth connection and not one of the screws on the housing.
2. Turn power off before working on the device, protect against inadvertent re-powering.
3. Make sure that the wiring is correct by following all local and national codes
4. Do not modify or repair the unit.
5. Do not open the unit as high voltages are present inside.
6. Use caution to prevent any foreign objects from entering the housing.
7. Do not use in wet locations or in areas where moisture or condensation can be expected
8. Do not touch during power-on or immediately after power-off, hot surfaces may cause burns 
9. For ambient temperature $\leq 60^{\circ}\text{C}$, use $\geq 90^{\circ}\text{C}$ – copper wire only; for ambient temperature $> 60^{\circ}\text{C}$ to 85°C , use $\geq 105^{\circ}\text{C}$ – copper wire only; use only wires with a minimum dielectric strength of 300V (input) and 60V (output)

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CHARACTERISTIC CURVES



Input Voltage vs Output Power

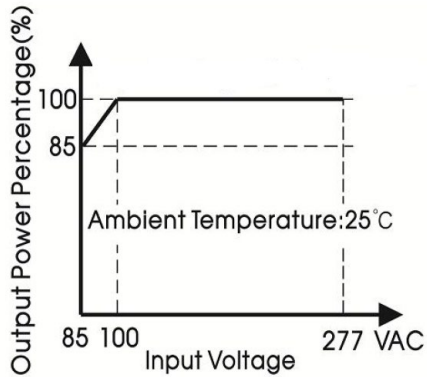


Figure 3

Input Voltage vs Output Power

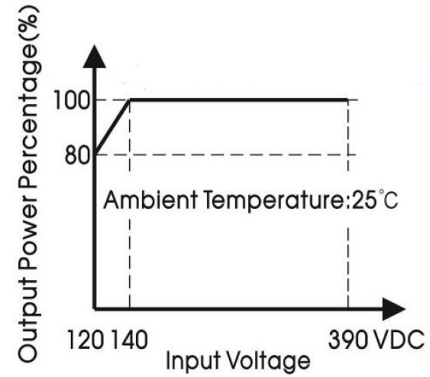


Figure 4

Over-Current/Short-Circuit Protection Curve (Typ.)

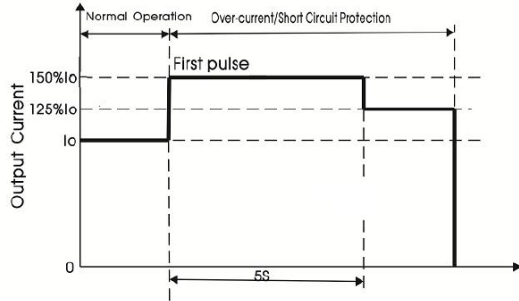


Figure 5

Transient Peak Current Function (Typ.)

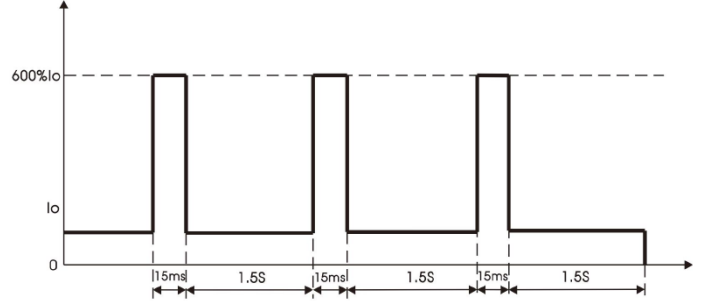


Figure 6

AC OK

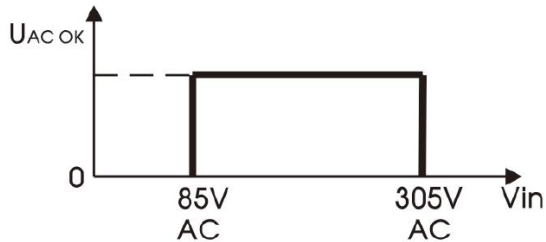


Figure 7

DC OK Behavior Curve (Typ.)

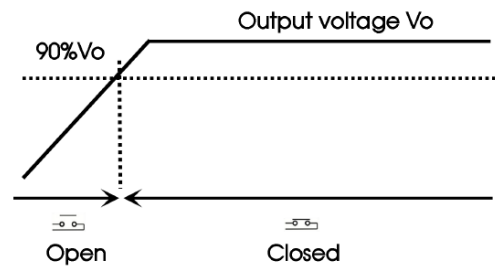


Figure 8

AC vs AC-OK vs Uo

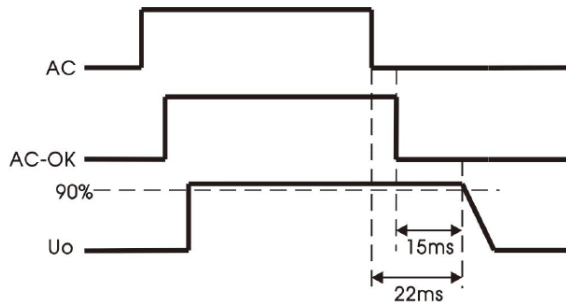


Figure 9

ON/OFF

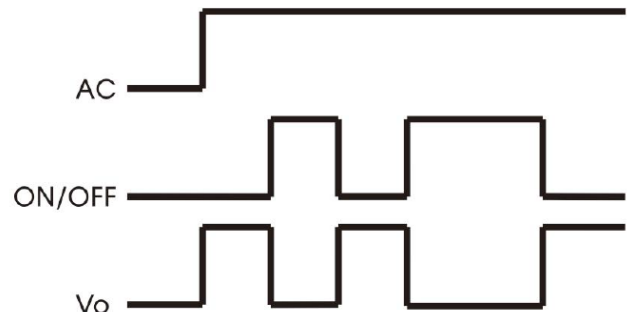


Figure 10

PF vs Input Voltage (Full Load)

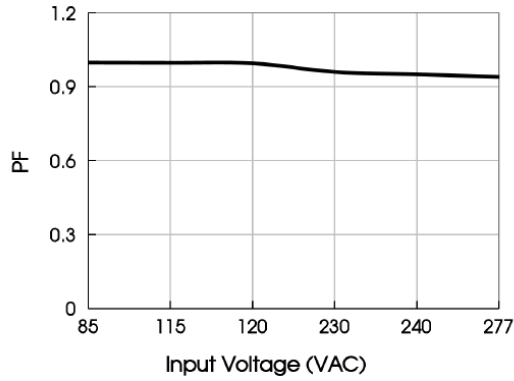


Figure 11

PF vs Output Load (Vin=230VAC)

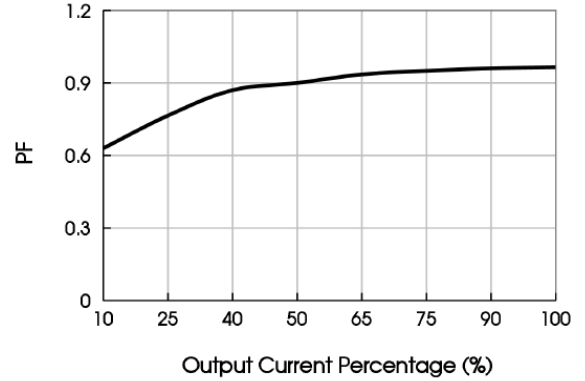


Figure 12

THD vs Input Voltage (Full Load)

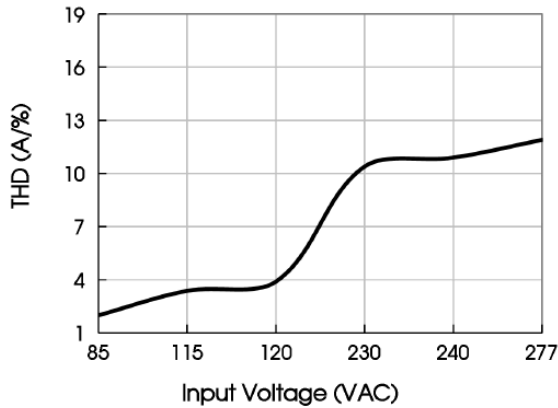


Figure 13

THD vs Output Load (Vin=230VAC)

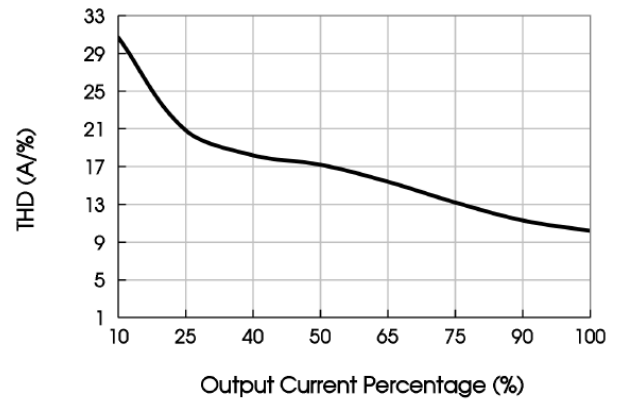


Figure 14

Loss vs Input Voltage (Full Load)

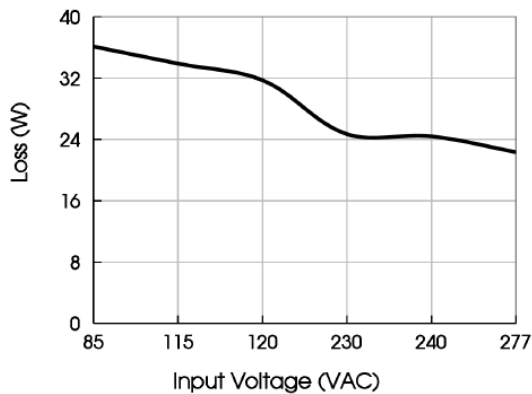


Figure 15

Loss vs Output Load (Vin=230VAC)

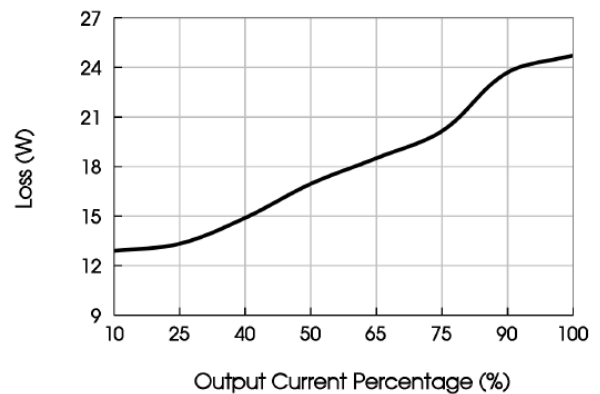
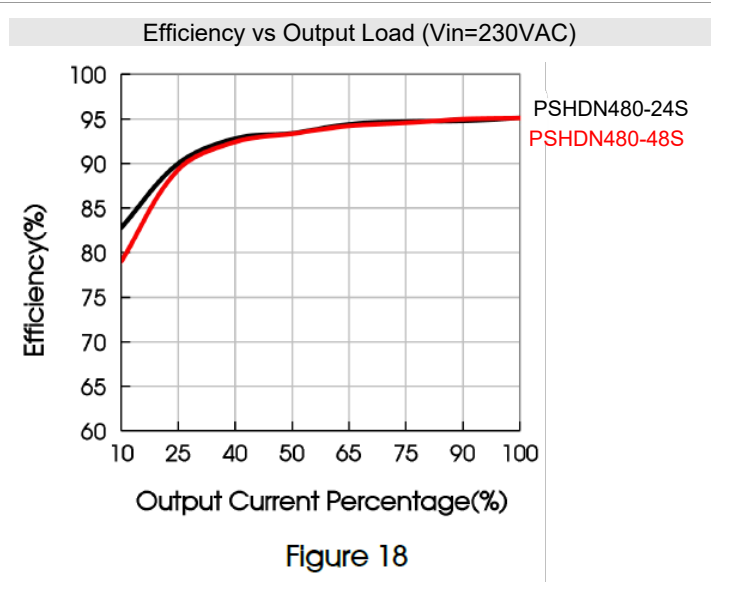
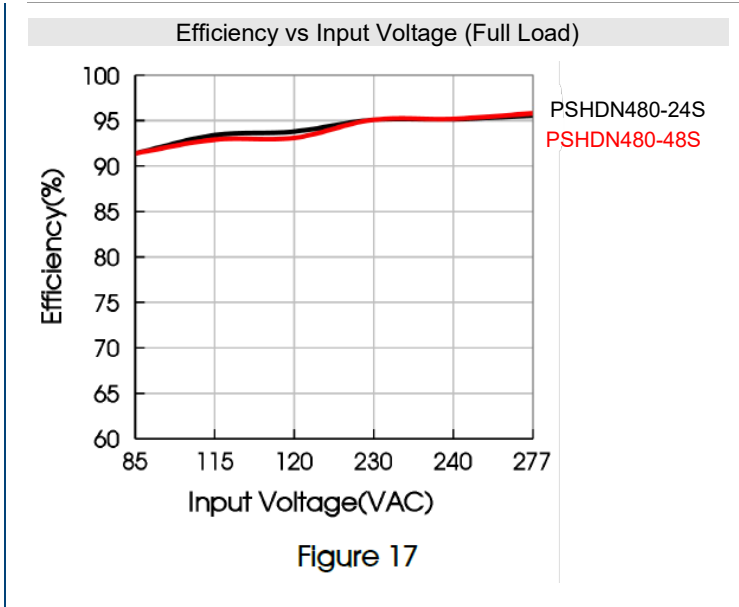


Figure 16

- Note:
1. All curves are for 24V output, measured at input 230VAC, 50Hz output to ambient temperature 25°C, unless otherwise stated.
 2. With AC input voltage between 85-100VAC and DC input between 120-140VDC, output power must be derated per the temperature derating curve.
 3. Fig. 1, 2, 4, and 5 are carried out under the condition of 25CFM at a high temperature of 75°C to 85°C
 4. This product is suitable for applications using natural air cooling. For applications in closed environments, contact factory or more details.



MECHANICAL DRAWINGS

THIRD ANGLE PROJECTION

Top View

Left View

Front View

Bottom View

Pin Out	
Pin	Mark
1	-Vo
2	-Vo
3	-Vo
4	+Vo
5	+Vo
6	⊥
7	AC(N)
8	AC(L)

Signal	Pin-Out	
	Pin	Mark
S-1	S-1	DC
S-2	S-2	OK
S-3	S-3	RS485-A
S-4	S-4	RS485-B
S-5	S-5	ON/OFF
S-6	S-6	SGND
S-7	S-7	AC OK
S-8	S-8	PCS
S-9	S-9	PCS

Note:
Unit: mm [inch]
Wire Range: Input: 18-10AWG (12-10AWG for pin6)
Output: 24V: 10AWG
48V: 14-10AWG
Signal: 24-16AWG
Tightening Torque: Max 0.5N·m
Mounting Torque: TS35, Rail needs to connect safety ground
General Tolerances: ±1.00 [±0.039]

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.

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