





Size:

11.02 x 5.00 x 2.50 inches (280.0 x 127.0 x 63.5 mm)

Weight:

5.73 lbs (2.6kg)

FEATURES

- RoHS Compliant
- PFC > 0.95 at 230VAC
- Up to 1502 Watts Output Power
- · High Efficiency up to 93%
- 3000VAC (4242VDC) I/O Isolation
- Constant Current Limiting
- Global Control via RS232
- Power OK Signal
- Protection: OLP, OVP, OTP, Fan Failure Forced Current Sharing at Parallel Operation

- Remote Setting Multiple PSU via RS232, RS485 & I²C
- Programmable Output Voltage (0~105%)
- Programmable Output Current (0~105%)
- Remote ON/OFF, Remote Sense Functions
- Universal Input Voltage Range: 90~264VAC (127~370VDC)
- Single Outputs Ranging from 12VDC to 60VDC
- Selectable +5V/0.5A or +9V/0.3A Auxiliary Output
- UL 60950-1 and EN60950-1 Safety Approvals

DESCRIPTION

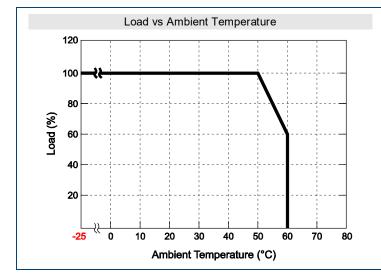
The PSAE1500 series of AC/DC switching power supplies provides up to 1502 Watts of output power in a 11.02" x 5.00" x 2.50" enclosed case. This series consists of single output models ranging from 12VDC to 60VDC with a universal input voltage range of 90~264VAC (127~370VDC). Standard features include high efficiency up to 93%, PFC > 0.95 at 230VAC, programmable output voltage and output current, remote on/off, remote sense, and power OK signal. This series also has over temperature, over voltage, and over load protection. All models are RoHS compliant and have UL 60950-1 and EN60950-1 safety approvals.

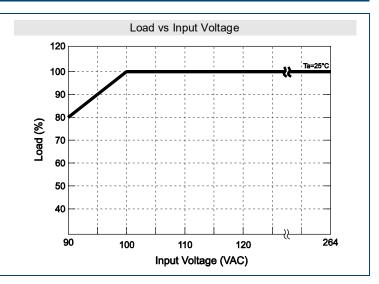
MODEL SELECTION TABLE								
Model Number	Input Voltage	Output Voltage	Output Current	Line Regulation	Load Regulation	Output Power	Ripple & Noise	Efficiency
PSAE-1500-12		12 VDC	125A	±1.0%	±1.0	1500W	120mVp-p	89%
PSAE-1500-15		15 VDC	100A	±1.0%	±1.0	1500W	150mVp-p	90%
PSAE-1500-24	90~264 VAC (127~370 VDC)	24 VDC	62.5A	±1.0%	±1.0	1500W	240mVp-p	92%
PSAE-1500-30		30 VDC	50A	±1.0%	±1.0	1500W	300mVp-p	92%
PSAE-1500-36		36 VDC	41.7A	±1.0%	±1.0	1501W	360mVp-p	92%
PSAE-1500-48		48 VDC	31.3A	±1.0%	±1.0	1502W	480mVp-p	92%
PSAE-1500-60		60 VDC	25A	±1.0%	±1.0	1500W	600mVp-p	93%

NOTES

- $1. Ripple \& noise is measured at 20 MHz limited bandwidth and using a 12" twisted pair-wire terminated with a <math>0.1 \mu F \& 47 \mu F$ capacitors in parallel.
- 2. For voltages near the low end of the input voltage range, see the derating curve for the power supply output rating.
- 3. When in parallel operation only one unit might operate if the total output load is less than 5% of the rated load condition.
- 4. 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.

DERATING CURVES







SPECIFICATIONS: PSAE1500 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.

Input Voltage (See Note 2)	INPUT SPECIFICATIONS Input Voltage (See Note 2) Input Frequency AC Current	AC input voltage range	90	Тур		Unit
Input Voltage (See Note 2)	Input Voltage (See Note 2) Input Frequency AC Current				264	1/40
Input Prequency	Input Frequency AC Current					
Input Frequency	AC Current	Do input voltage range				VDC
AC Current	AC Current					Hz
A 230VAC and full load		At 115VAC and full load		18		
Infruent At 230VAC and full load 0.99 0.95	Inrush Current	At 230VAC and full load		9		Α
Art 230VAC and full load						Α
At 230VAC and full load				_		
Output Voltage	Power Factor			1		
Voltage Tolerance Includes set-up tolerance, line regulation, and load regulation -2.0	OUTPUT SPECIFICATIONS					
Voltage Adjustability	Output Voltage			See	Table	
Line Regulation	Voltage Tolerance	Includes set-up tolerance, line regulation, and load regulation	-2.0		+2.0	%
Load Regulation	Voltage Adjustability	Typical adjustment by potentiometer (VR1)	-5.0		+5.0	%
Load Regulation	Line Regulation	Low Line to High Line	-1.0		+1.0	%
Output Power See Table Output Current See Table Ripple & Noise (20MHz BW) Measured with 0.1μF and 47μF capacitors in parallel -1 +1 Hold-up Time At 230VAC and full load 90 14 800 Rise Time full load 800 100 90 Rise Time full load 100 90 90 PROTECTION -0.02 +0.02 9 9 PROTECTION Protection (see page 4) Protection type: latch-style. Recovery after reset AC power ON or inhibit Variable OVP, 120%±7% Vout Over Load Protection (see page 4) Variable OVP, 120%±7% Vout Over Load Protection (see page 4) Note Voltage Protection (see page 4) Protection type: constant current limiting 105% rated output power Over Temperature Protection Protection type: auto-recovery after temp. goes down 85°C±5°C detect on heatsink of sec GENERAL SPECIFICATIONS See Table Efficiency Input to Output 4242VDC (3000VAC) See Table Isolation Voltage Input to Output (apperature) 100 2121VDC (1500VAC) Isolation Resistance Input to output, input to FG, output to FG, 500VDC 100 2.5 FUNICTI			-1.0		+1.0	%
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Rise Time	•					ms
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Storage Humidity 10 95 %	• •	Non condensing				% RH
		Non-condensing				
Loag and temperature control ta				and tame -		% RH
	<u> </u>	10. F00Hz 20. 10 min /1 avalo ====== 4 f== 00 ===== ==== 1 V V 7				
Vibration 10~500Hz, 2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes. Compliance to IEC 68-2-6, IEC 6		10~500Hz, 26 10 min./1 cycle, period for 60 min. each along X, Y, Z	axes. Comp	nance to IE	∪ 08-2-6, IE	:C 08-2-64
PHYSICAL SPECIFICATIONS Weight				F 70 "	(0.01)	
Weight 5.73 lbs (2.6kg) 11.02 x 5.00 x 2.50 in (280.0 x 127.0			11.02 x 5.			27.0 x 63.5
mm)	,					
SAFETY & EMC (See Note 4)					\ 	
Safety Approvals UL 60950-1 ⁽¹⁾ ; EN60950-1						
EMI (Conduction & Radiation) EN55022; EN61204-3; EN61000-	· · · · · · · · · · · · · · · · · · ·		1			
Harmonic Current EN61000-3-2; EN61000-3-3						
EMS Immunity EN55024; EN61204-3; EN61000-6-1; IEC61000-4-2,3,4,5		EN55024; EN61204	I-3; EN6100	00-6-1; IEC6	51000-4-2,3	,4,5,6,8,11

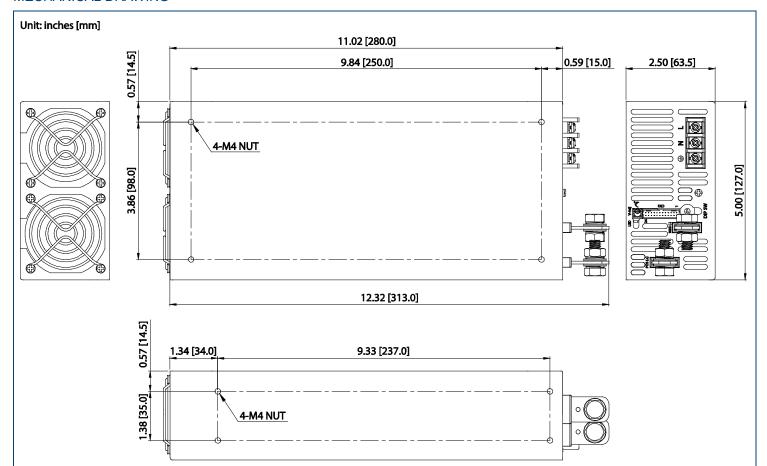


NOTES

1. This product is Listed to applicable standards and requirements by UL.

*Due to advances in technology, specifications subject to change without notice.

MECHANICAL DRAWING



AC Input Terminal					
Pin	Function				
1	ACL				
2	ACN				
3	丰				

Control Pin Number Assignment (CN2): JST S24B-PHDSS or Equivalent					
Pin	Function	Description	Pin	Function	Description
1	NC	For RS232 Receiver Function	13	EN+	Inhibit ON/OFF (+)
2	NC	For RS232 Transmission Function	14	AUX	+5V/0.5A or +9V/0.3A Auxiliary Power
3	AUX	+5V/0.5A or +9V/0.3A Auxiliary Power	15	EN-	Inhibit ON/OFF (-)
4	GND	Ground	16	GND	Ground
5	SCL	Serial Clock used in the I ² C Interface	17	PAR	Parallel Operation Current Sharing
6	SDA	Serial Data used in the I ² C Interface	18	VSET	AUX Output Set
7	AUX	+5V/0.5A or +9V/0.3A Auxiliary Power	19	POK	Power OK
8	GND	Ground	20	GND	Ground
9	VCI	V Program	21	VS-	Remote Sense (-)
10	GND	Ground	22	VO-	Negative Output Voltage
11	ACI	I Program	23	VS+	Remote Sense (+)
12	GND	Ground	24	VO+	Positive Output Voltage

CN2 Connector Housing				
Mating Housing	Contact			
JST PHDR-24VS or equivalent	JST SPHD-002T-P0.5 or equivalent			

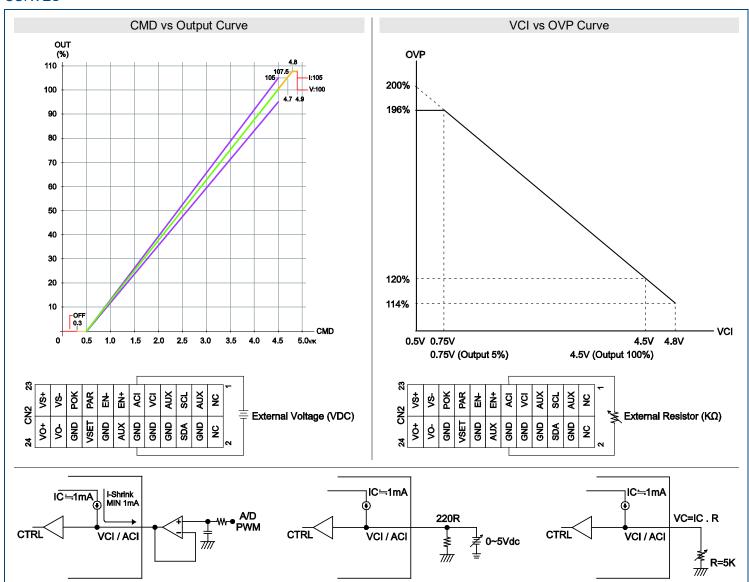


LED STATUS

LED	LED Signal	Status
Solid (Green)		Power OK (Local Mode)
Solid (Orange)		Power OK (Remote Mode)
Slow Blink (Green)		Power Standby
Fast Blink (Red)		Over Voltage Protection (OVP)
Solid (Red)		Over Load Protection (OLP)
Slow Blink (Red)		Over Temperature Protection (OTP)
Intermittent Blink (Red)		Fan Failure
Interlace Blink (Red)		Power Failure

^{*} Local mode: Use ACI/VCI to control output current and voltage

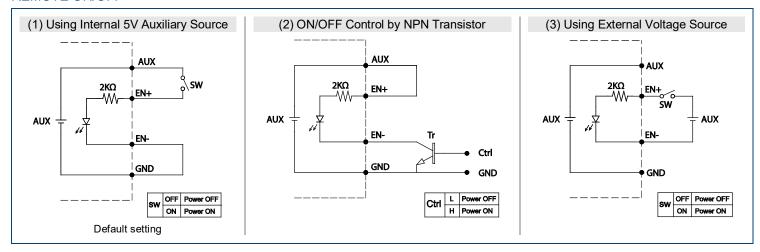
CURVES-



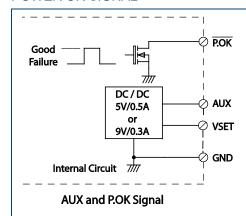
^{*} Remote Mode: Use RS232 or I²C command to control output current and voltage



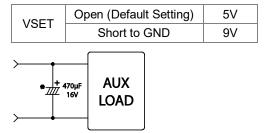
REMOTE ON/OFF



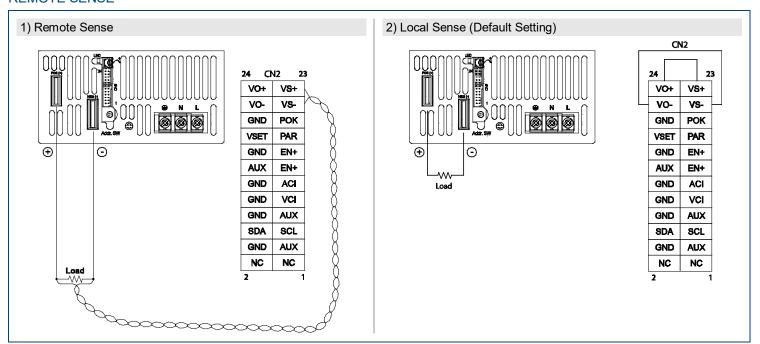
POWER OK SIGNAL



- * Place an additional capacitor to have a better performance of auxiliary power operation.
- * The grounding of "AUX" power should be connected to "GND" port. If "V-" is connected as Grounding make sure to short the "GND" and "V-" ports.

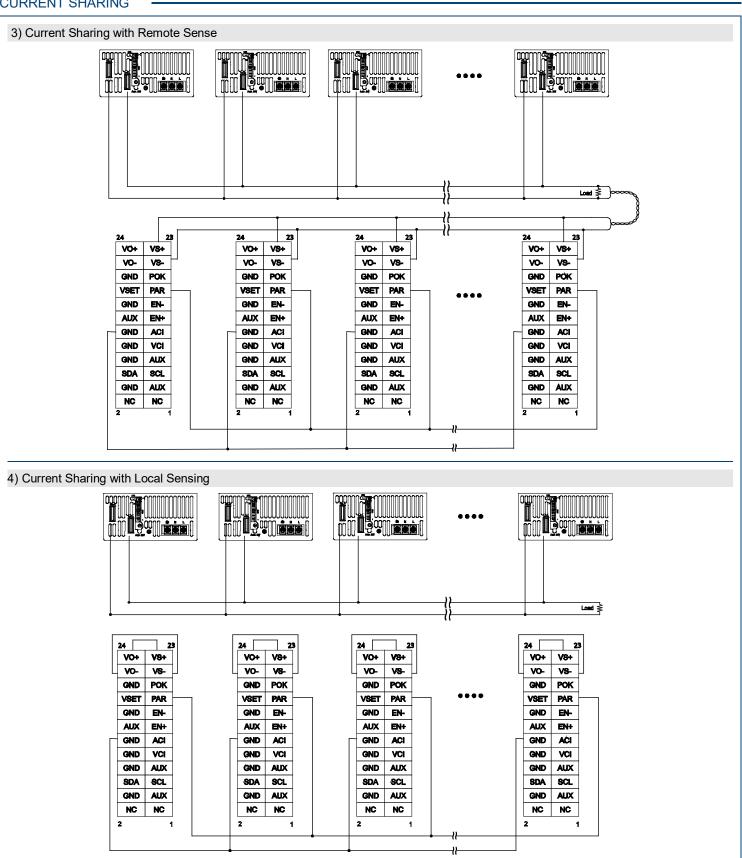


REMOTE SENSE



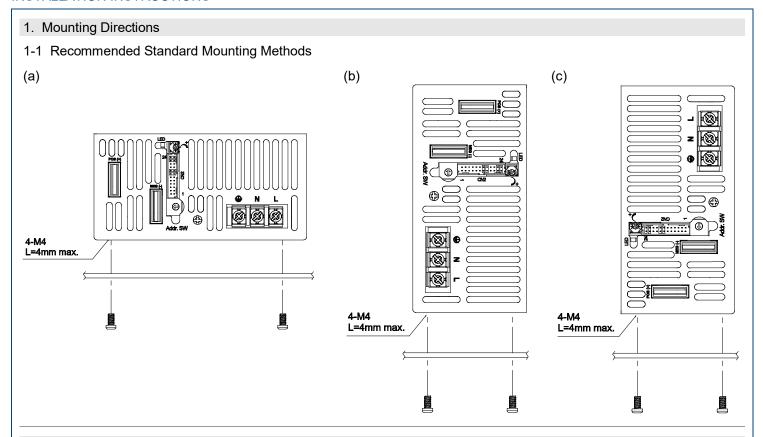


CURRENT SHARING



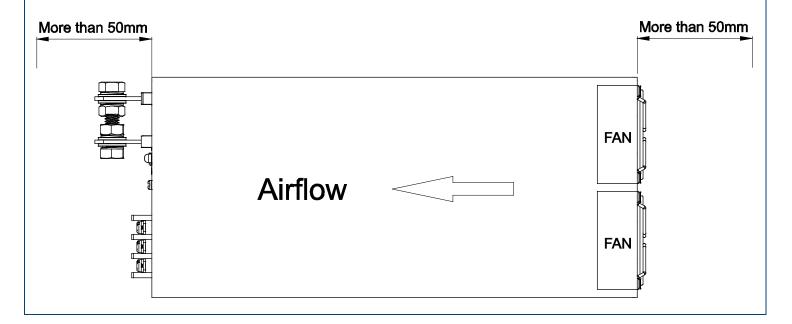


INSTALLATION INSTRUCTIONS



2. Mounting Method

- 2-1 There are ventilating holes on the front and back side panels. Do not obstruct; allow at least 50mm for airflow
- 2-2 The maximum allowable penetration for the screw is 4mm. Incomplete threading should not be penetrated.
- 2-3 Recommended torque of mounting screw: M4 screw: 1.27N m (13.0kgf cm)





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

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