

Open Frame Model ("O" Suffix)



Size: 3in x 2in x 0.94in (76.2mm x 50.8mm x 24mm)

U-Chassis Model ("U" Suffix)



Size: 3.53in x 2.38in x 1.31in (89.7mm x 60.5mm x 33.3mm)

Enclosed Model ("C" Suffix)



Size: 3.53in x 2.38in x 1.31in (89.7mm x 60.5mm x 33.3mm)

DIN Rail ("DN" Suffix)



Size: 3.53in x 2.37in x 1.31in (89.7mm x 60.4mm x 33.3mm)

OPTIONS

- Package Type
- Protection Type
- Connector Option

FEATURES

- Input Voltage Range 85~264VAC (120~370VDC)
- Adjustable Output Voltage
- Low Leakage Current
- Low Standby Power
- RoHS & REACH Compliant
- High Efficiency
- Over Voltage, Over Load, and Short Circuit Protection
- Protection Class I or Class II
- Open Frame, U-Chassis, Enclosed, or DIN Rail Case Options
- IEC60950-1, EN60950-1, UL60950-1 Safety Approvals

APPLICATIONS

- Automation
- Datacom
- IPC
- Industry
- Measurement
- Telecom

DESCRIPTION

The PSTAD65 series of AC/DC power supplies offers up to 65 watts of output power in either an open frame, u-chassis, enclosed, or DIN Rail case. This series consists of single output models with an input voltage range of 85~264VAC and high efficiency. Several options are available for this series including package type, protection type, and connector option. Each model in this series has over voltage, over load, and short circuit protection, low leakage current, and low standby power. This series has IEC60950-1, EN60950-1, UL60950-1 safety approvals and is RoHS & REACH compliant.

MODEL SELECTION TABLE

Model Number ⁽¹⁾	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise	Output Power	Efficiency
			Min Load	Max Load			
PSTAD65-S05X	85~264VAC	5VDC	0%	10A	75mVp-p	50W	90%
PSTAD65-S75X		7.5VDC	0%	8.67A	75mVp-p	65W	90%
PSTAD65-S09X		9VDC	0%	7.23A	75mVp-p	65W	91%
PSTAD65-S12X		12VDC	0%	5.42A	75mVp-p	65W	92.5%
PSTAD65-S15X		15VDC	0%	4.34A	75mVp-p	65W	93.5%
PSTAD65-S18X		18VDC	0%	3.62A	75mVp-p	65W	93%
PSTAD65-S24X		24VDC	0%	2.71A	75mVp-p	65W	93.5%
PSTAD65-S241X		24VDC	0%	2.71A	75mVp-p	65W	92%
PSTAD65-S28X		28VDC	0%	2.33A	75mVp-p	65W	93.5%
PSTAD65-S281X		28VDC	0%	2.33A	75mVp-p	65W	91.5%
PSTAD65-S36X		36VDC	0%	1.81A	75mVp-p	65W	92.5%
PSTAD65-S48X		48VDC	0%	1.36A	150mVp-p	65W	93%
PSTAD65-S53X		53VDC	0%	1.24A	150mVp-p	65W	92.5%

SPECIFICATIONS

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 Range	AC Input		85		264	VAC
	DC Input		120		370	VDC
Input Frequency	AC Input		47		63	Hz
Input Current	100VAC and Full Load				1.6	A
	240VAC and Full Load				0.9	
Input Inrush Current	230VAC				60	A
No Load Input Power	230VAC			0.11		Watts
Leakage Current	264VAC				75	µA
Input Protection	Internal Fuse		T3.15A/250VAC			
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Initial Set Voltage Accuracy	230VAC and Full Load		-1.0		+1.0	%
Line Regulation	Low Line to High Line at Full Load		-0.2		+0.2	%
Load Regulation	No Load to Full Load	5Vout	-0.7		+0.7	%
		Others	-0.5		+0.5	
	10% Load to 90% Load	5Vout	-0.6		+0.6	
		Others	-0.4		+0.4	
Voltage Adjustability	Single Output	53Vout	-20		+10	%
		Others	-10		+10	
Output Power			See Table			
Output Current	Convection Cooled, 60°C Ta		See Table			
Minimum Load				0		%
Ripple & Noise (20MHz bandwidth)	Measured by 20MHz bandwidth With a 10µF/25V 1206 X7R MLCC	5V, 7.5V, 9V, 12V, 15V, 18V		75		mVp-p
		With a 1µF/50V 1206 X7R MLCC	24V, 28V, 36V	75		
		With a 0.1µF/100V 1206 X7R MLCC	48V, 53V	150		
Transient Response	Load Step from 50~75% Change at 2.5A/µs	Peak Deviation			3	%Vout
		Recovery Time		600		µs
Start-Up Time					1000	mS
Rise Time				20		mS
Hold Up Time	115VAC and Full Load			16		mS
Temperature Coefficient			-0.02		+0.02	%/°C
PROTECTION						
Short Circuit Protection			Continuous, Automatic Recovery			
Over Load Protection	% of Iout rated; Hiccup mode			145		%
Over Voltage Protection	% of Vout (nom); Latch Mode		125		140	%
ENVIRONMENTAL SPECIFICATIONS						
Operating Ambient Temperature	Natural Convection with derating		-40		+85	°C
Storage Temperature			-40		+85	°C
Operating Altitude					5000	M
Relative Humidity	Non-Condensing		5		95	%RH
Shock			IEC60068-2-27			
Vibration			IEC60068-2-6			
MTBF	MIL-HDBK-217F, Full Load		1,494,000 Hours			
GENERAL SPECIFICATIONS						
Efficiency			See Table			
Switching Frequency	230VAC	5V		60		kHz
		7.5V		80		
		9V		70		
		Others		120		
Isolation Voltage	1 minute (Reinforced Insulation)	Input to Output	3000			VAC
		Input (Output) to F.G.	2500			
Isolation Resistance	500VDC		0.1			GΩ

SPECIFICATIONS

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	
PHYSICAL SPECIFICATIONS								
Weight	Open Frame Models			4.13oz (117g)				
	U-Chassis Models			5.54oz (157g)				
	Enclosed Models			6.07oz (172g)				
	DIN Rail Models			6.81oz (193g)				
Dimensions (L x W x H)	Open Frame Models			3in x 2in x 0.94in (76.2mm x 50.8mm x 24mm)				
	U-Chassis & Enclosed Models			3.53in x 2.38in x 1.31in (89.7mm x 60.5mm x 33.3mm)				
	DIN Rail Models			3.53in x 2.37in x 1.31in (89.7mm x 60.4mm x 33.3mm)				
SAFETY CHARACTERISTICS								
Safety Approvals ⁽²⁾	IEC60950-1, EN60950-1, UL60950-1							
EMI	EN55011, EN55022 and FCC Part 15			Conducted			Class B	
				Radiated			Class B	
Harmonic Currents	EN61000-3-2	Full Load						Class A
Voltage Flicker	EN61000-3-3							Perf. Criteria A
EMS	EN55024 and Complies with EN 61850-3							Perf. Criteria A
ESD	EN61000-4-2	Air ±15kV and Contact ±6kV						Perf. Criteria A
Radiated Immunity	EN61000-4-3	20 V/m						Perf. Criteria A
Fast Transient	EN61000-4-4	±4kV						Perf. Criteria A
Surge	EN61000-4-5	DM ±2kV and CM ±4kV						Perf. Criteria A
Conducted Immunity	EN61000-4-6	20 Vr.m.s						Perf. Criteria A
Power Frequency Magnetic Field	EN61000-4-8	100 A/m						Perf. Criteria A
Dip and Interruptions	EN61000-4-11	230VAC 50Hz	30%	20mS				Perf. Criteria A
			30%	500mS				Perf. Criteria A
			60%	1000mS				Perf. Criteria A
			>95%	10mS				Perf. Criteria A
			>95%	5000mS				Perf. Criteria B
Damped Oscillatory Wave	EN61000-4-18	DM ±1kV and CM ±2.5kV						Perf. Criteria A
Protection Class	No Suffix							Class II
	"B" Suffix							Class I

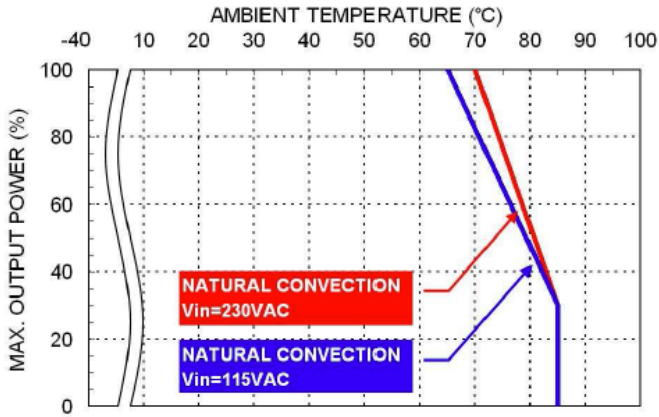
NOTES

- "X" at end of model number represents package type. "X" can either be "O" for Open Frame, "U" for U-Chassis, "C" for Enclosed, or "DN" for DIN Rail.
- This product is Listed to applicable standards and requirements by UL.

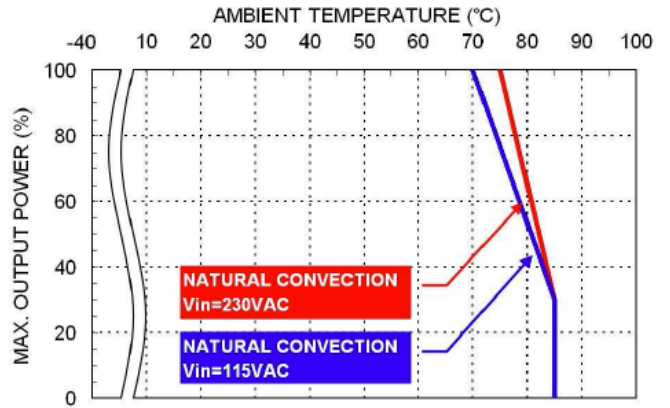
**Due to advances in technology, specifications subject to change without notice.*

CHARACTERISTIC CURVES

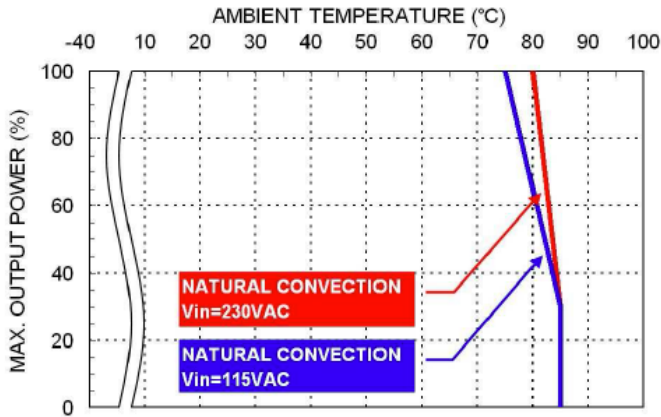
Derating Curve vs. Ambient Temperature
7.5V, 9V, 281 Models



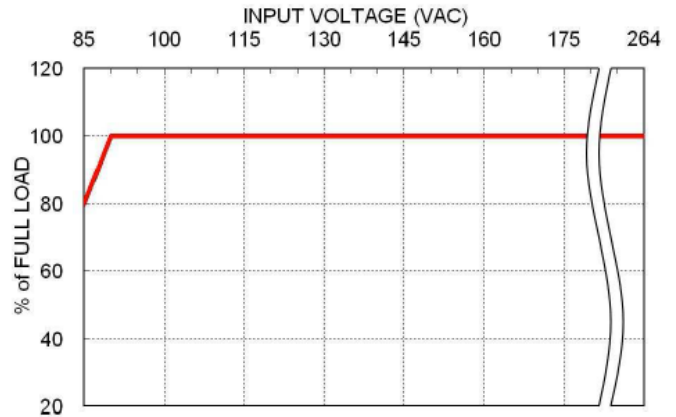
Derating Curve vs. Ambient Temperature
5V, 12V, 24V, 36V, 48V, 53V Models



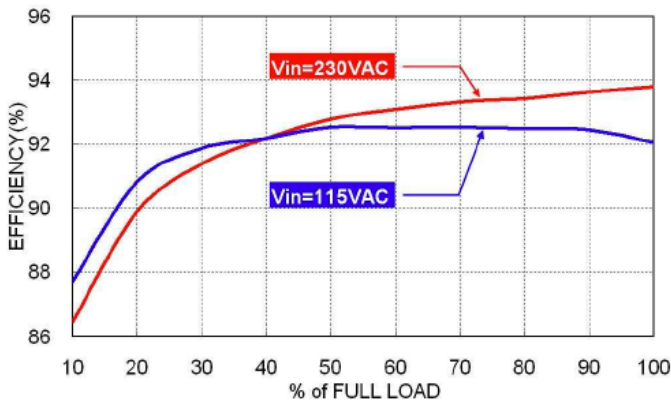
Derating Curve vs. Ambient Temperature
15V, 24V, 28V



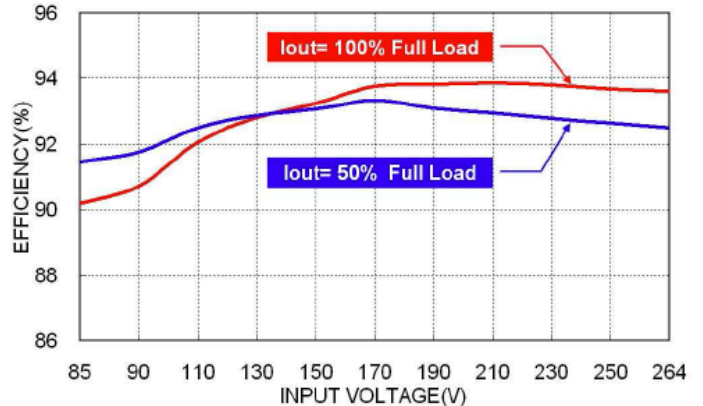
Derating Curve vs. Input Voltage



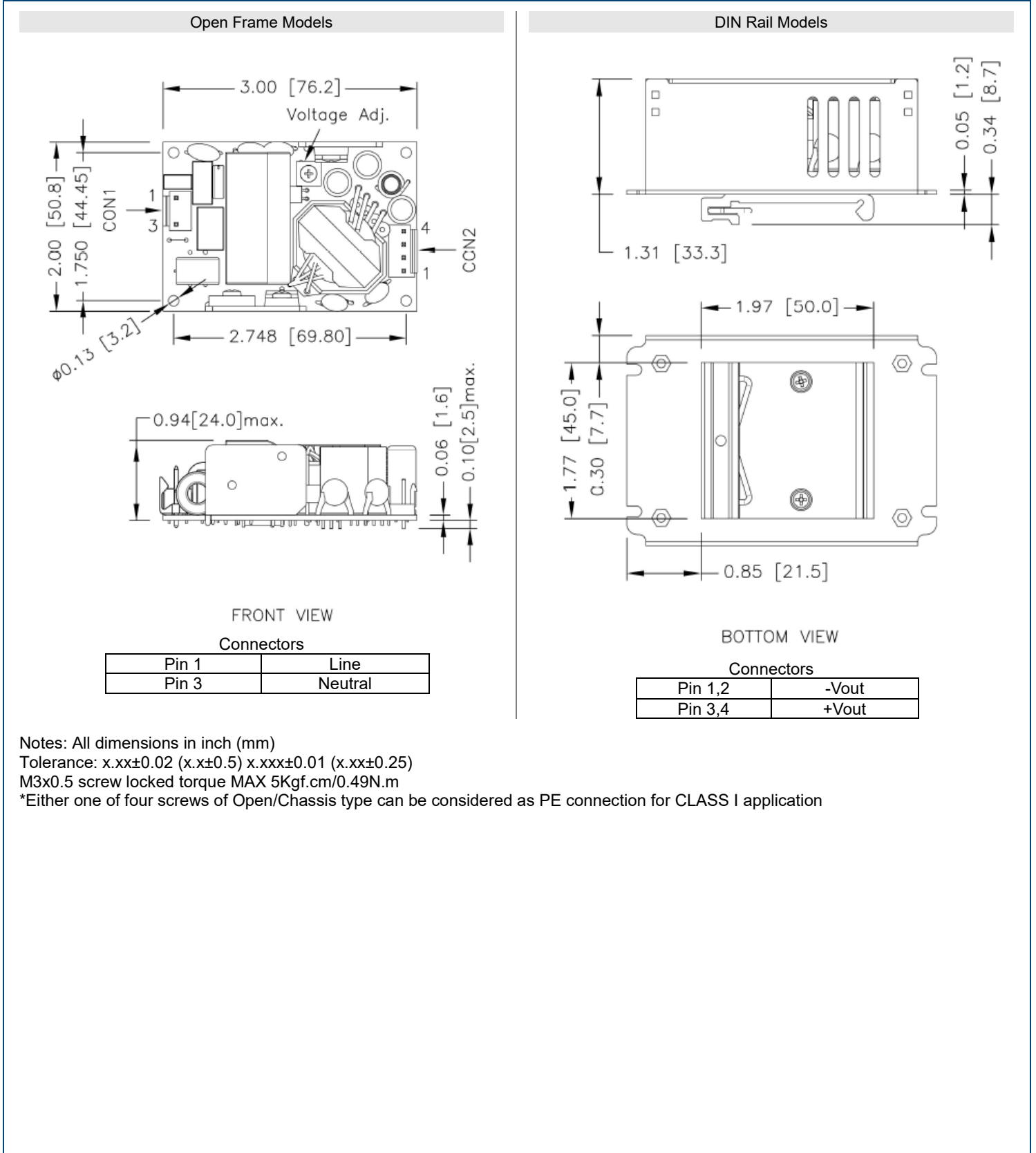
Efficiency vs. Output Load
24V Model



Efficiency vs. Input Voltage
24V Model



MECHANICAL DRAWINGS



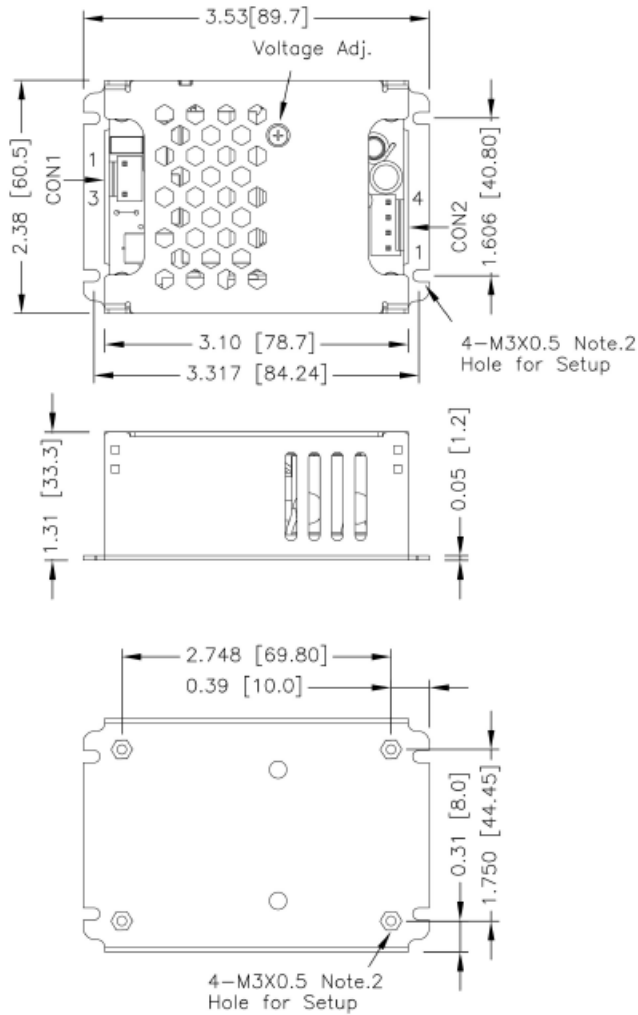
Notes: All dimensions in inch (mm)

Tolerance: x.xx±0.02 (x.x±0.5) x.xxx±0.01 (x.xx±0.25)

M3x0.5 screw locked torque MAX 5Kgf.cm/0.49N.m

*Either one of four screws of Open/Chassis type can be considered as PE connection for CLASS I application

Enclosed Case Models

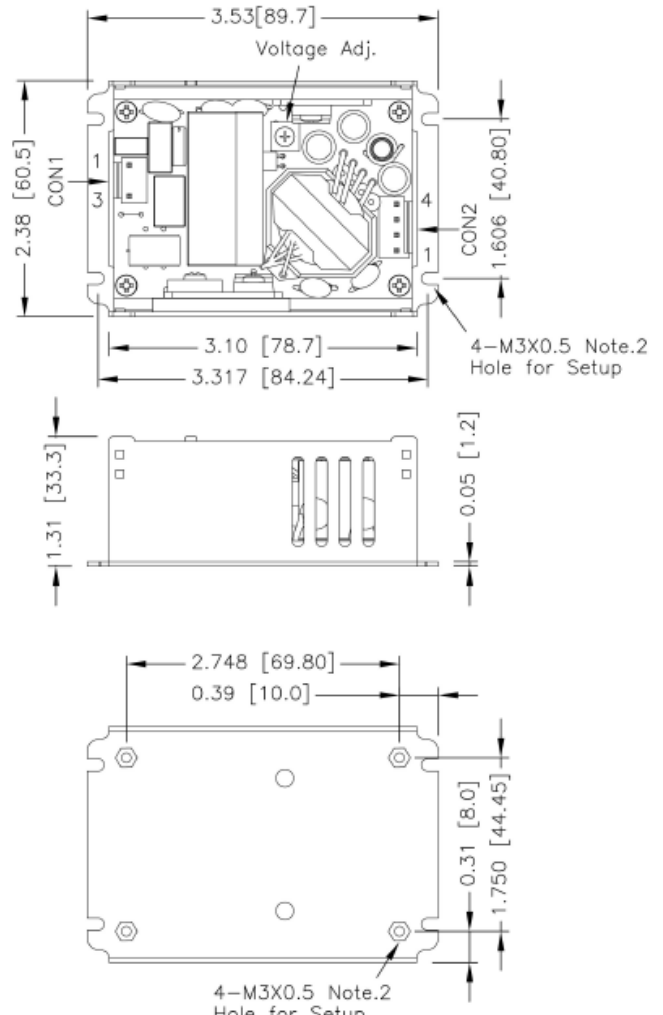


BOTTOM VIEW

Connectors

Pin 1	Line
Pin 3	Neutral

U-Chassis Models



BOTTOM VIEW

Connectors

Pin 1,2	-Vout
Pin 3,4	+Vout




Notes: All dimensions in inch (mm)

Tolerance: x.xx±0.02 (x.x±0.5) x.xxx±0.01 (x.xx±0.25)

M3x0.5 screw locked torque MAX 5Kgf.cm/0.49N.m

*Either one of four screws of Open/Chassis type can be considered as PE connection for CLASS I application

CONNECTOR OPTIONS

BLANK	Molex Type (-M)	Terminal Block (-T)
 <p>Mates with housing CON1: VHR-3N CON2: VHR-4N</p> <p>Crimp terminals CON1: SVH-21T-P1.1 CON2: SVH-21T-P1.1</p>	 <p>Mates with housing CON1: 09-50-8031 CON2: 09-50-8021</p> <p>Crimp terminals CON1: SD-2478 CON2: SD-2478</p>	 <p>Screw locked torque MAX 2.5Kgf.cm/0.25N.m</p> <p>Wire dimension range 18 ~ 14AWG</p>

MODEL NUMBER SETUP

PSTAD	65	-	S	05	X	B	M
Series Name	Output Power		Output Quantity	Output Quantity	Case Type	Protection Class	Connector Option
			S: Single	05: 5VDC 75: 7.5VDC 09: 9VDC 12: 12VDC 15: 15VDC 18: 18VDC 24: 24VDC 241: 24VDC 28: 28VDC 281: 28VDC 36: 36VDC 48: 48VDC 53: 53VDC	O: Open Frame U: U-Chassis C: Enclosed DN: DIN Rail	Blank: Class I B: Class II	Blank: JST M: Molex T: Terminal Block

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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