



Size: 4.69in x 1.26in x 4.88in (119mm x 32mm x 124mm)

FEATURES

- Universal AC Input Range of 85~264VAC
- Supports 1+1 or N+1 Redundant System (Suggested to use redundancy modules)
- Built-In Active PFC
- Built-In Current Sharing Function
- Built-In Current Limiting Circuit
- Suitable for Critical Applications
- High Efficiency up to 91%
- 150% Peak Load Capacity
- Can be Installed on TS-35/7.5 or TS-35/15
- Over Voltage, Over Load, Short Circuit, and Over Temperature Protection
- Easy Fuse Tripping to High Overload Current
- Excellent Partial Load Efficiency
- Built-In DC OK Relay Contact
- 100% Full Load Burn-In Test
- Meets UL508, UL60950, and EN60950 Safety Approvals

DESCRIPTION

The PSDG-75 series of AC/DC industrial DIN Rail power supplies offers up to 75 watts of output power in a 4.69" x 1.26" x 4.88" ultra-slim package. This series consists of single output models with a universal AC input range of 85~264VAC. Each model in this series has many built-in features including built-in active PFC, current sharing function, limiting circuit, and DC OK relay contact. This series has high efficiency up to 91% as well as over voltage, over load, short circuit, and over temperature protection. PSDG-75 series meets UL508, UL60950, and EN60950 safety approvals and has been 100% burn-in tested. Please call factory for order details.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise		Output Power	Efficiency
			Min Load	Max Load	0~70°C	-25°C		
PSDG-75-12	84~264VAC (127~360VDC)	12V	0A	6.3A	≤100mV	≤200mV	75W	88%
PSDG-75-24		24V	0A	3.2A	≤120mV	≤240mV	75W	91%
PSDG-75-48		48V	0A	1.6A	≤120mV	≤240mV	75W	91%

SPECIFICATIONS

All specifications are based on 25°C Ambient Temperature, Rated Input Voltage, and Rated Load unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
Input Voltage Range		85		264	VAC
		127		360	VDC
Frequency Range		47		63	Hz
Power Factor	@100VAC		0.99		
	@230VAC		0.95		
AC Current	@100VAC			0.95	A
	@230VAC			0.45	A
Inrush Current	@100VAC, Cold Start		<30		A
	@230VAC, Cold Start		<60		A
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy	Single Mode		±1.0		%
Line Regulation			±0.5		%
Load Regulation			±1.0		%
Voltage Adjustability	12V Model	12		14	V
	24V Model	24		28	
	48V Model	48		56	
Output Power		See Table			
Output Current		See Table			
Ripple & Noise ⁽¹⁾		See Table			
Overshoot and Undershoot				5.0	%
Set-Up Time	@100VAC			500	mS
	@230VAC			250	
Hold Up Time	@230VAC Input, Full Load		≥20		mS
Temperature Coefficient			±0.03		%/°C

SPECIFICATIONS

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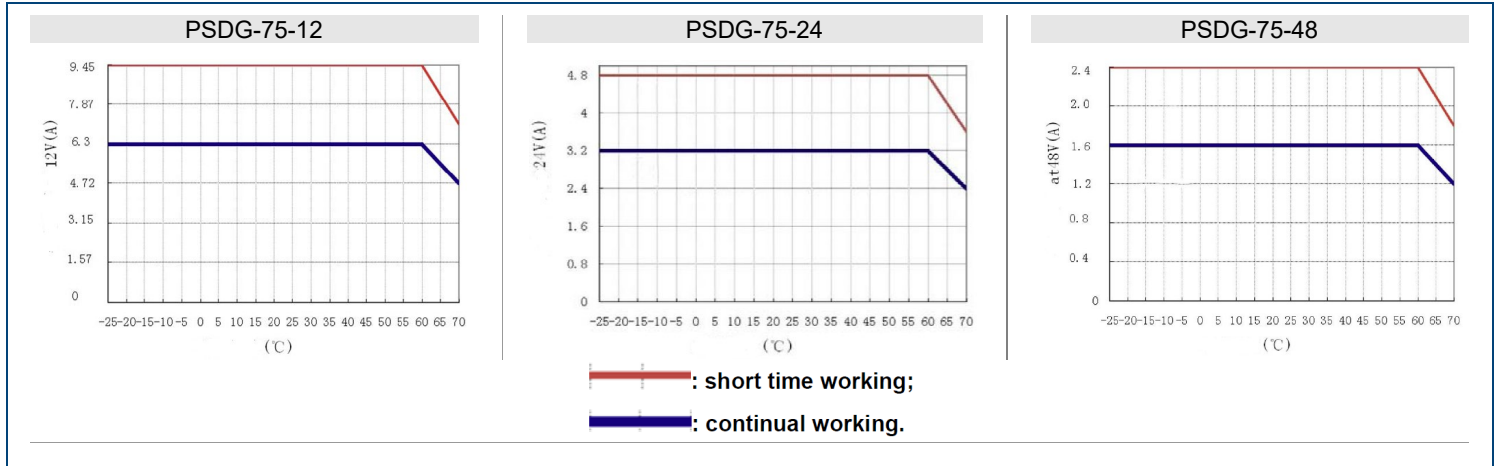
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit	
PROTECTION						
Short Circuit Protection		Long Term Mode, Automatic Recovery				
Over Load Protection	Constant power limiting for some time (150% of rated current, last 3S) then PS stops working for 7S, after 7S, if the load <= rated current, PS will work normally. Automatic recovery.	110		150	% Rated Current	
Over Voltage Protection	Hiccup Mode, Automatic Recovery	12V Model	15	18	V	
		24V Model	29	33		
		48V Model	58	65		
Over Temperature Protection	Detect on heat sink of power transistor, shut down O/P, automatic recovery after temperature goes down		100±5		°C	
ENVIRONMENTAL SPECIFICATIONS						
Operating Ambient Temperature		-25		70	°C	
Storage Temperature		-40		85	°C	
Operating Humidity	Non-Condensing	20		90	%RH	
Storage Humidity	Non-Condensing	5		95	%RH	
MTBF	MIL-HDBK-217F, 25°C, Full Load	300,000			Hours	
GENERAL SPECIFICATIONS						
Efficiency		See Table				
Withstand Voltage	Primary to Secondary	3.0KVAC; ≤10mA				
	Primary to PG	2.5KVAC; ≤10mA				
	Secondary to PG	0.5KVAC; ≤10mA				
Leakage Current	Input to Output	<0.25mA				
	Input to PG	<3.5mA				
Isolation Resistance			≥100		MΩ	
PHYSICAL SPECIFICATIONS						
Weight		26.81oz (760g)				
Dimensions (L x W x H)		4.69in x 1.26in x 4.88in (119mm x 32mm x 124mm)				
Packing		28pcs/CTN, 21.2KG, 0.04cbm				
Cooling Method		Free Air Convection				
Additional Function	Power Boost	150% of Rated Current				
	Parallel Function	Support				
	DC OK	V On: When output voltage is up to 90% of rated output voltage				
		V Off: When output voltage is down to 80% of rated output voltage				
DC OK Relay Contact Rating		Max 30V/1A or 60V/0.3A or 30VAC/0.3A Resistive Load				
SAFETY CHARACTERISTICS						
Safety Approvals ⁽³⁾		UL508, UL60950, EN60950				
EMC Emission		EN55022 EN55024 FCC Part 15 Class B				
EMC Immunity		EN61000-4-2, 3, 4, 5, 6, 8, 11, Heavy Industry Level				
Harmonic Current		EN61000-3-2 Class A				

NOTES

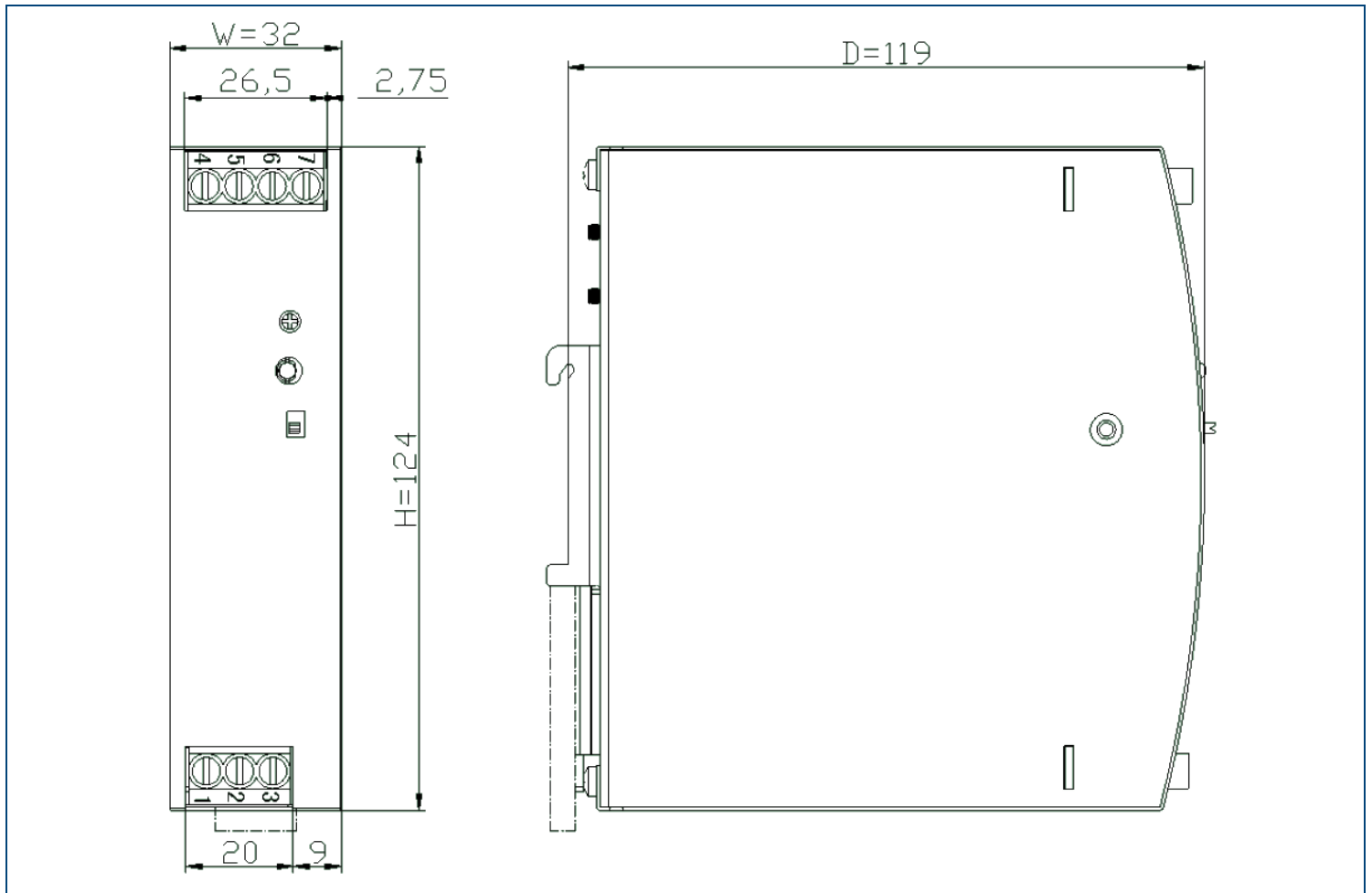
1. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 10uF parallel capacitor.
2. The power supply is considered a component which will be installed into the final equipment. The equipment must be re-confirmed that it still meets EMC directives.
3. This product is listed to applicable standards and requirements by UL.

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

DERATING CURVES



MECHANICAL DRAWINGS



INSTALLATION

1. AC Terminal Blocks Installation Information

Terminal No.	Function	Wire Spec	Recommended Torque
1	L	20~10AWG	1Nm
2	N		
3	PG		

2. DC Terminal Blocks Installation Information

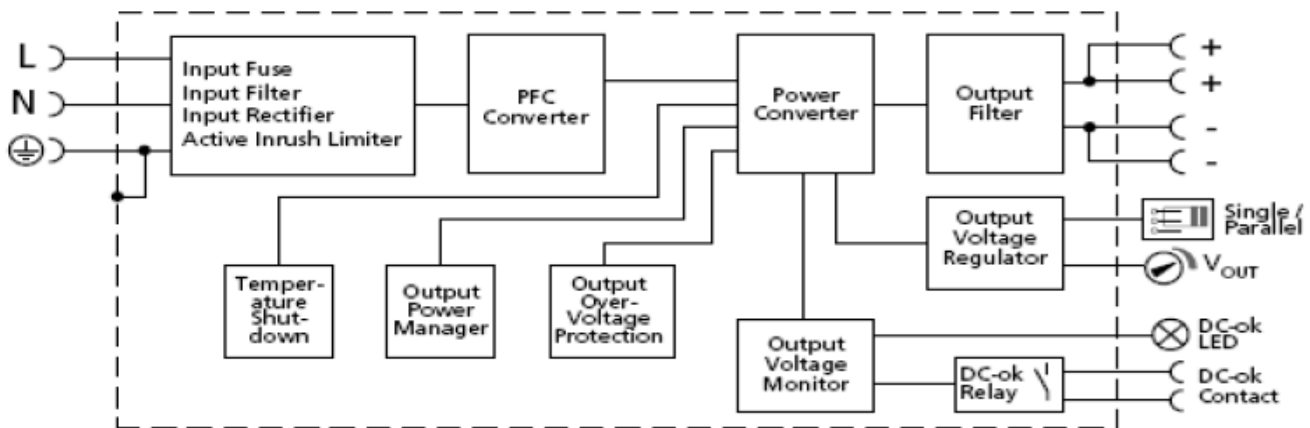
Terminal No.	Function	Wire Spec	Recommended Torque
4 & 5	DC OK Relay Contact	20~10AWG	1Nm
6	-V		
7	+V		

AC/DC Terminal	
Type	Screw Terminal Blocks
Solid Wire	0.5-6mm ²
Strand Wire	0.5-4mm ²
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended Stripping Length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	1NM

BLOCK DIAGRAM

BLOCK DIAGRAM

Fig. 11-1 Functional diagram

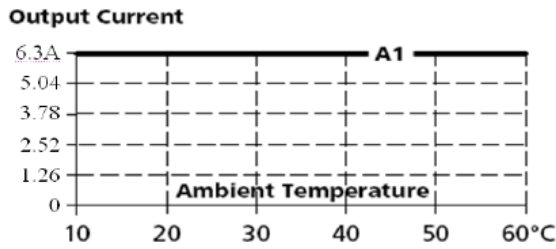
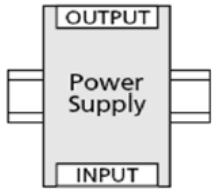


MOUNTING METHOD INSTRUCTION

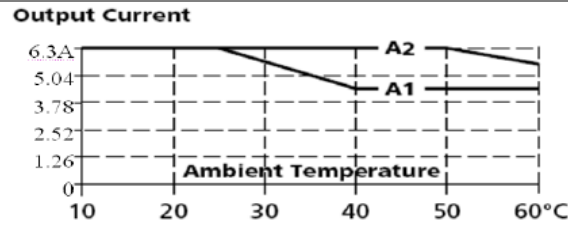
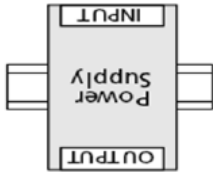
A1 is recommended output current
A2 is the allowed max output current (PSU lifetime is around half of A1)

PSDG-75-12

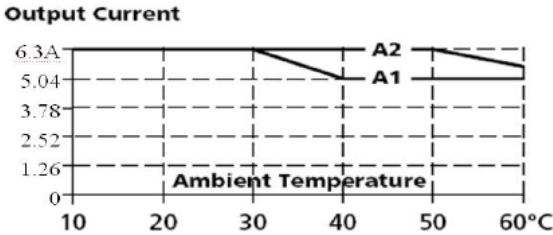
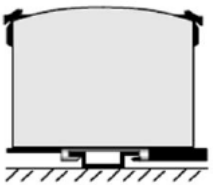
Mounting A



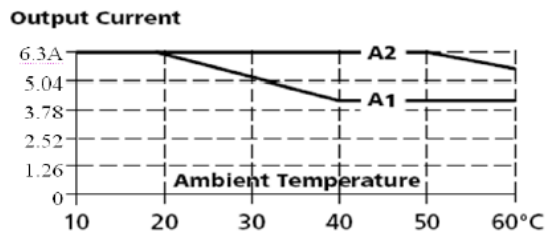
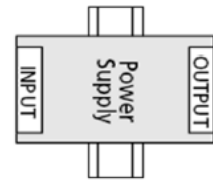
Mounting B



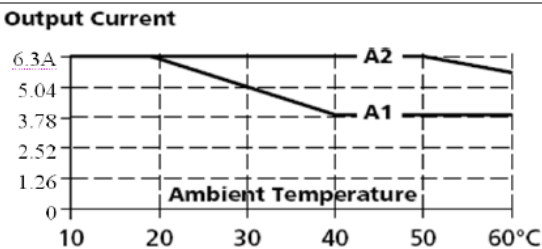
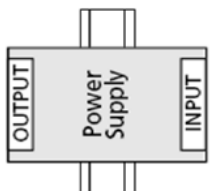
Mounting C



Mounting D

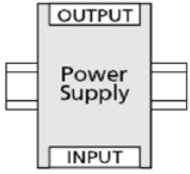


Mounting E

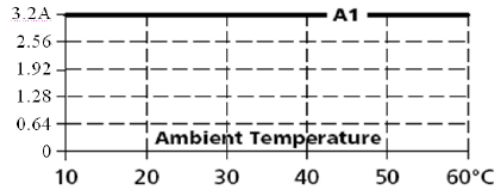


PSDG-75-24

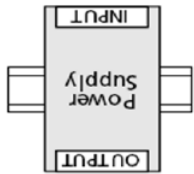
Mounting A



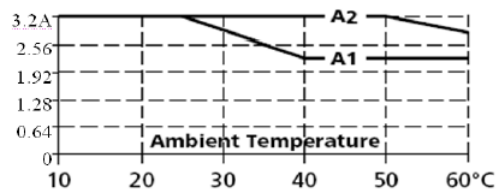
Output Current



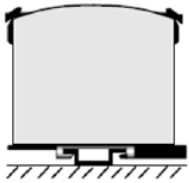
Mounting B



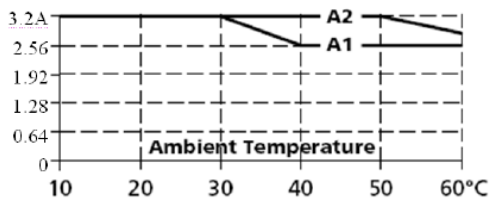
Output Current



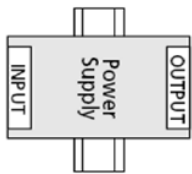
Mounting C



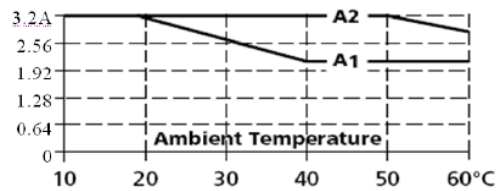
Output Current



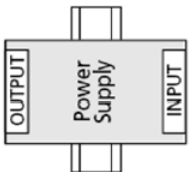
Mounting D



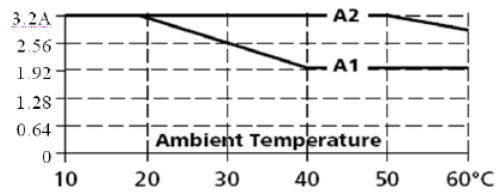
Output Current



Mounting E



Output Current



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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