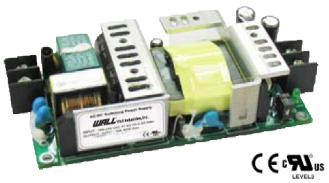
Open Frame (O Type)



Size: 4.1in x 2.05in x 1.0in

U-Chassis (U Type)

Size: 4.13in x 2.28in x 1.5in

Enclosed (C Type)

Size: 4.13in x 2.28in x 1.5in

DIN Rail (DN Type)

Size: 4.13in x 2.28in x 1.5in

OPTIONS

- Mechanical Options
  -Open Frame
  -U-Chassis
  -Enclosed
  -DIN Rail

FEATURES

- Universal Input Voltage Range: 90~264VAC (120~370VDC)
- High Efficiency
- Open Frame, U-Chassis, Enclosed Case, or DIN Rail Mechanical Options Available
- Over Power, Over Voltage, and Short Circuit Protection
- Single Outputs
- -40ºC to +70ºC Operating Temperature Range
- Cooling by Free Air Convection
- CE and UL60950 Safety Approvals

DESCRIPTION

The PSAES60 series of AC/DC switching power supplies offers up to 60W of output power. All models have a single output and a universal input voltage range of 90~264VAC (120~370VDC). Some features include high efficiency, -40°C to +70°C operating temperature range, and protection against short circuit, over power, and over voltage conditions. These supplies also have UL/cUL 60950 and CE safety approvals. Models are available in open frame (Type O), U-Chassis (Type U), enclosed case (Type C), and DIN rail (Type DN) designs.

MODEL SELECTION TABLE
Open Frame Models

Model Number	Input Voltage Range	Output Voltage	Min Output Current	Max Output Current	Ripple	Noise	Output Power	Efficiency
PSAES60O-5S	90~264VAC (120~370VDC)	5VDC	1%	10A	<0.2% Vout +40mV max (Vp-p)	<0.5% Vout +50mV max (Vp-p)	50W	82%
PSAES60O-9S		9VDC	1%	6.66A			60W	84%
PSAES60O-12S		12VDC	1%	5A			60W	86%
PSAES60O-15S		15VDC	1%	4A			60W	86%
PSAES60O-24S		24VDC	1%	2.5A			60W	86%
PSAES60O-48S		48VDC	1%	1.25A			60W	86%

MODEL SELECTION TABLE
U-Chassis Models

Model Number	Input Voltage Range	Output Voltage	Min Output Current	Max Output Current	Ripple	Noise	Output Power	Efficiency
PSAES60U-5S	90~264VAC (120~370VDC)	5VDC	1%	10A	<0.2% Vout +40mV max (Vp-p)	<0.5% Vout +50mV max (Vp-p)	50W	82%
PSAES60U-9S		9VDC	1%	6.66A			60W	84%
PSAES60U-12S		12VDC	1%	5A			60W	86%
PSAES60U-15S		15VDC	1%	4A			60W	86%
PSAES60U-24S		24VDC	1%	2.5A			60W	86%
PSAES60U-48S		48VDC	1%	1.25A			60W	86%

MODEL SELECTION TABLE
Enclosed Case Models

Model Number	Input Voltage Range	Output Voltage	Min Output Current	Max Output Current	Ripple	Noise	Output Power	Efficiency
PSAES60C-5S	90~264VAC (120~370VDC)	5VDC	1%	10A	<0.2% Vout +40mV max (Vp-p)	<0.5% Vout +50mV max (Vp-p)	50W	82%
PSAES60C-9S		9VDC	1%	6.66A			60W	84%
PSAES60C-12S		12VDC	1%	5A			60W	86%
PSAES60C-15S		15VDC	1%	4A			60W	86%
PSAES60C-24S		24VDC	1%	2.5A			60W	86%
PSAES60C-48S		48VDC	1%	1.25A			60W	86%

MODEL SELECTION TABLE
DIN Rail Models

Model Number	Input Voltage Range	Output Voltage	Min Output Current	Max Output Current	Ripple	Noise	Output Power	Efficiency
PSAES60DN-5S	90~264VAC (120~370VDC)	5VDC	1%	10A	<0.2% Vout +40mV max (Vp-p)	<0.5% Vout +50mV max (Vp-p)	50W	82%
PSAES60DN-9S		9VDC	1%	6.66A			60W	84%
PSAES60DN-12S		12VDC	1%	5A			60W	86%
PSAES60DN-15S		15VDC	1%	4A			60W	86%
PSAES60DN-24S		24VDC	1%	2.5A			60W	86%
PSAES60DN-48S		48VDC	1%	1.25A			60W	86%

SPECIFICATIONS

All specifications are based on 25°C After Warm-Up Time, Normal Input Voltage, and Full 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		90		264	VAC
		120		370	VDC
Frequency		47		63	Hz
Input Current	115VAC, Full Load			2	A
	230VAC, Full Load			1	
Inrush Current (<2mS)	115VAC			30	A
	230VAC			50	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy			±2		%
Line Regulation	LL-HL		±1		%
Load Regulation	5-100%		±1		%
Trim			±10		%
Output Power		See Table			
Output Current		See Table			
Minimum Load		1			%
Maximum Capacitive Load	@230VAC, Depends on Model	470		23,000	µF
Ripple & Noise	Ripple	<0.2% Vout + 40mV Max (Vp-p)			
	Noise	<0.5% Vout + 50mV Max (Vp-p)			
Hold-Up Time		10			mS
Temperature Coefficient		-0.02		+0.02	%/ºC
PROTECTION					
Short Circuit Protection		Automatic Recovery			
Over Power Protection		Automatic Recovery			
Over Voltage Protection		Zener Diode Clamp			
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	With Derating	-40		+70	ºC
Storage Temperature		-50		+85	ºC
Humidity			95		%RH
Cooling		Free Air Convection			
Vibration	10~500Hz, 2G, 10min./1cycle, 60min. each along X, Y, Z axes				
MTBF	@25ºC, MIL-HDBK-217F	130,000			Hours
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Isolation	Input to Output	3000VAC or 4242VDC			
	Input to FG	1500VAC			
	Output to FG	500VAC			
Leakage Current				0.5	mA
PHYSICAL SPECIFICATIONS					
Weight	Open Frame Models (O Type)	5.29oz (150g)			
	U-Chassis Models (U Type)	8.47oz (240g)			
	Enclosed Case Models (C Type)	9.17oz (260g)			
	DIN Rail Models (DN Type)	9.35oz (265g)			
Dimensions (L x W x H)	Tolerance ±0.5mm, Open Frame Models (O Type)	4.1in x 2.05in x 1.0in (103.9mm x 52.1mm x 25.4mm)			
	Tolerance ±0.5mm, U-Chassis (U Type), Enclosed Case (C Type), & DIN Rail Models (DN Type)	4.13in x 2.28in x 1.5in (105.0mm x 58.0mm x 38.1mm)			
SAFETY CHARACTERISTICS					
Safety Approvals	CE, UL60950[3]				
EMI	Conducted & Radiated Emission, EN55022	Class B			
EMS	Noise Immunity, EN55024				

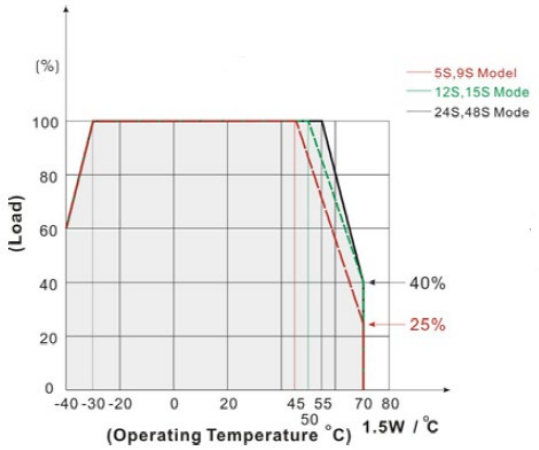
NOTES

1. Ripple & Noise measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Strongly recommended to conduct this test with DC voltage. If customer wishes to test with AC voltage, disconnect all Y-Capacitors in supply.
3. This product is Listed to applicable standards and requirements by UL

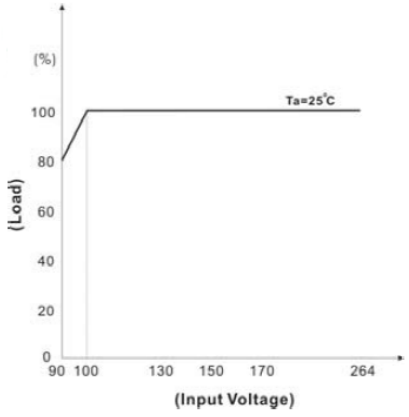
**Due to advances in technology, specifications subject to change without notice.*

CHARACTERISTIC CURVES

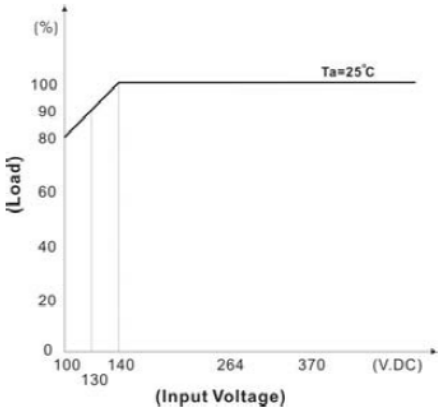
Power Derating Curve



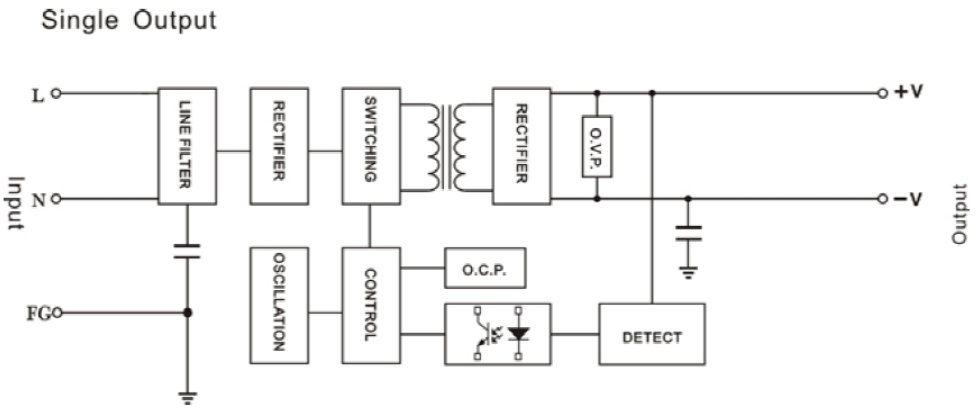
Input Voltage vs. Load



Input Voltage vs. Load

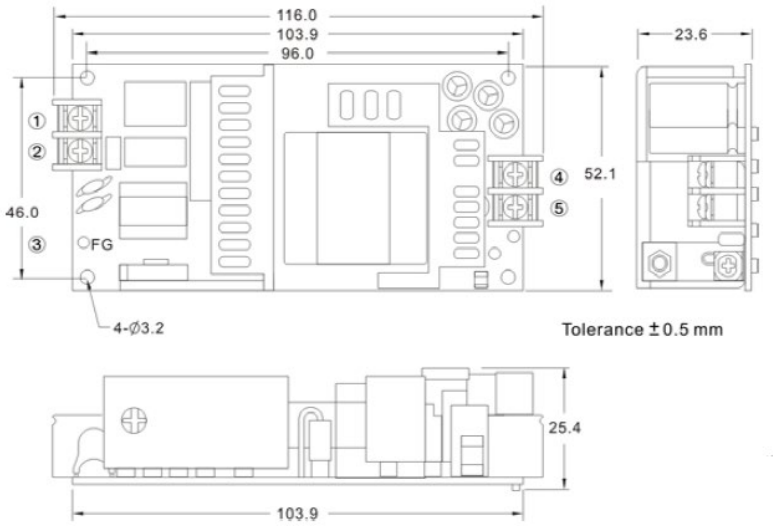


BLOCK DIAGRAM



MECHANICAL DRAWINGS

Open Frame Models (O Type)

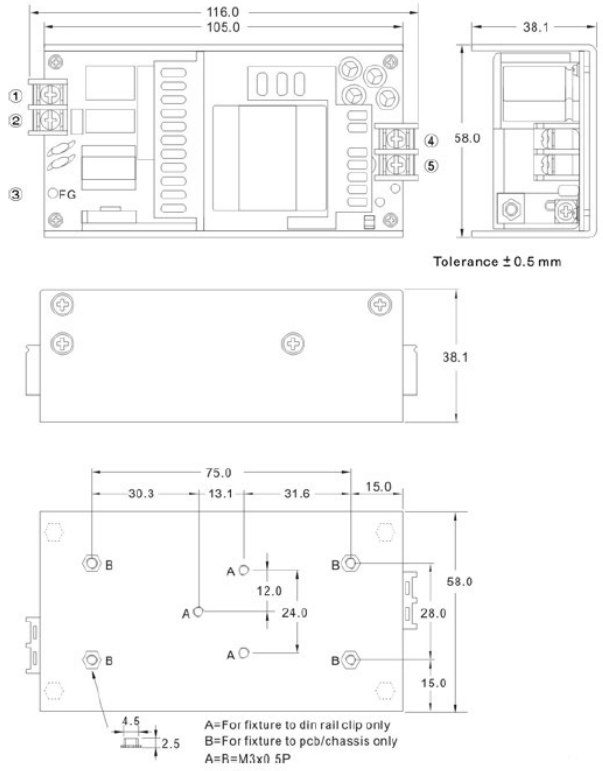


PIN Connections

PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	FG
4	+DC OUT
5	-DC OUT

Assembly Instructions
*U Case T=2.5mm
It is advised not to screw into the threads more than 2.5mm

U-Chassis Models (U Type)

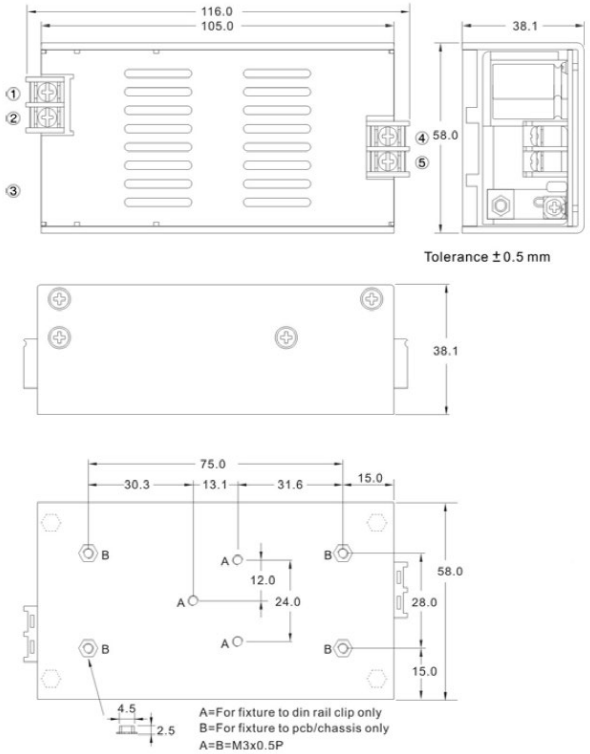


PIN Connections

PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	FG
4	+DC OUT
5	-DC OUT

Assembly Instructions
*U Case T=2.5mm
It is advised not to screw into the threads more than 2.5mm

Enclosed Case Models (C Type)

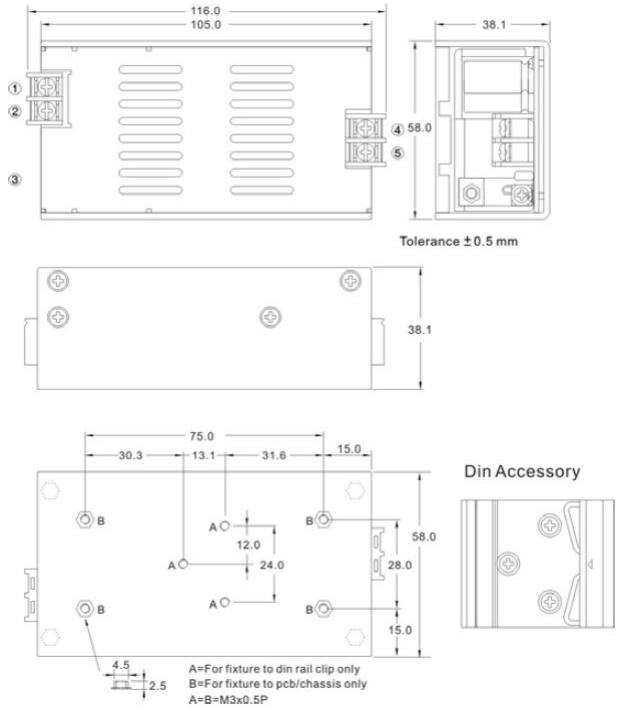


PIN Connection

PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	FG
4	+DC OUT
5	-DC OUT

Assembly Instructions
*U Case T=2.5mm
It is advised not to screw into the threads more than 2.5mm

DIN Rail Models (DN Type)



PIN Connection

PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	FG
4	+DC OUT
5	-DC OUT

MODEL NUMBER SETUP

PSAES	60	O	-	5	S
Series Name	Output Power	Case Type		Ouptut Voltage	Output Quantity
		O: Open Frame **U:** U-Chassis **C:** Enclosed Case **DN:** DIN Rail		**5:** 5VDC **9:** 9VDC **12:** 12VDC **15:** 15VDC **24:** 24VDC **48:** 48VDC	**S:** Single Output

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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