



# NEC Class 2 Switching 1-phase Power Supplies PSA Series

## Overview

The AchieVe PSA series offers 15-, 30-, 60-, and 100-watt AC/DC power supplies with an extended input range of 85–264 VAC. The power supplies are suitable for industrial and building technology applications and are in a compact encapsulated plastic case.

## Features

- Wide input voltage range 85–264 VAC
- High efficiency up to 91%
- Compact chassis
- Class II, Double Isolation
- NEC Class 2
- Plastic housing
- 35mm DIN rail mount
- 3-year warranty



**PSA-24-100**



NEC Class 2 Switching 1-phase Power Supplies PSA Series										
Part Number	Price	Output	Output Voltage Adjustment Range	Input Voltage	Nominal Input Voltage	Efficiency (Typical)	Operating Temperature	Weight kg [lb]	Dimensions H x W x D mm [in]	Drawing Link
<a href="#">PSA-05-15</a>	\$18.00	5 VDC @ 2.4A/12W (adjustable)	4.5–5.5 VDC	85–264 VAC	120 VAC 240 VAC	80.5% @ 115 VAC, 81% @ 230 VAC	-40 to +70 °C [-40 to +158 °F]	0.06 [0.13]	87.5 x 18.0 x 55.0 [3.44 x 0.7 x 2.17]	<a href="#">PDF</a>
<a href="#">PSA-12-15</a>	\$18.00	12 VDC @ 1.25A/15W (adjustable)	10.8–13.2 VDC			86.5% @ 115 VAC, 86% @ 230 VAC				<a href="#">PDF</a>
<a href="#">PSA-24-15</a>	\$18.00	24 VDC @ 0.63A/15W (adjustable)	21.6–26.4 VDC			87.5% @ 115 VAC, 87.5% @ 230 VAC				<a href="#">PDF</a>
<a href="#">PSA-12-30</a>	\$21.00	12 VDC @ 2A/24W (adjustable)	10.8–13.2 VDC			86.5% @ 115 VAC, 87% @ 230 VAC	-30 to +70 °C [-22 to +158 °F]	0.13 [0.29]	87.5 x 35.0 x 55.0 [3.44 x 1.38 x 2.17]	<a href="#">PDF</a>
<a href="#">PSA-24-30</a>	\$21.00	24 VDC @ 1.5A/36W (adjustable)	21.6–26.4 VDC			87.5% @ 115 VAC, 89% @ 230 VAC				<a href="#">PDF</a>
<a href="#">PSA-12-60</a>	\$28.00	12 VDC @ 4.5A/54W (adjustable)	10.8–13.2 VDC			87% @ 115 VAC, 88% @ 230 VAC	-30 to +70 °C [-22 to +158 °F]	0.17 [0.37]	87.5 x 52.5 x 55.0 [3.44 x 2.07 x 2.17]	<a href="#">PDF</a>
<a href="#">PSA-24-60</a>	\$28.00	24 VDC @ 2.5A/60W (adjustable)	21.6–26.4 VDC			89% @ 115 VAC, 90.5% @ 230 VAC				<a href="#">PDF</a>
<a href="#">PSA-12-100</a>	\$42.50	12 VDC @ 7.1A/85.2W (adjustable)	10.8–13.2 VDC			88% @ 115 VAC, 89.5% @ 230 VAC	-30 to +70 °C [-22 to +158 °F]	0.23 [0.51]	87.5 x 70.0 x 55.0 [3.44 x 2.76 x 2.17]	<a href="#">PDF</a>
<a href="#">PSA-24-100</a>	\$42.50	24 VDC @ 3.83A/91.92W (adjustable)	21.6–26.4 VDC			88.5% @ 115 VAC, 91% @ 230 VAC				<a href="#">PDF</a>



# NEC Class 2 Switching 1-phase Power Supplies PSA Series

Input Specifications							
Part Number	Input Frequency Range	Nominal Input Frequency Range	DC Input Voltage Range <sup>1</sup>	Input Current	No Load Power Consumption	Max Inrush Current (Cold Start)	Leakage Current
<a href="#">PSA-05-15</a>	47-63 Hz	50-60 Hz	120-375 VDC	<0.5A @ 115 VAC, <0.3A @ 230 VAC	0.1W typ. @ 115 VAC and 230 VAC	40A typ. @ 230 VAC	<0.25 mA @ 240 VAC
<a href="#">PSA-12-15</a>							
<a href="#">PSA-24-15</a>							
<a href="#">PSA-12-30</a>			-	<0.7A @ 115 VAC, <0.5A @ 230 VAC	0.15W typ. @ 115 VAC and 230 VAC	70A typ. @ 230 VAC	
<a href="#">PSA-24-30</a>				<0.9A @ 115 VAC, <0.5A @ 230 VAC			
<a href="#">PSA-12-60</a>				<1.2A @ 115 VAC, <0.8A @ 230 VAC			
<a href="#">PSA-24-60</a>				<1.3A @ 115 VAC, <0.9A @ 230 VAC			
<a href="#">PSA-12-100</a>				<1.7A @ 115 VAC, <1.1A @ 230 VAC			
<a href="#">PSA-24-100</a>				<1.8A @ 115 VAC, <1.2A @ 230 VAC			

<sup>1</sup> Power supply can operate at DC input voltage. Please connect +pole to L, -pole to N and PE terminal to an earth wire or to the machine ground.

Output Specifications							
Part Number	Line Regulation	Load Regulation	Ripple and Noise	Rise Time	Start-up Time	Hold-up Time (100% Load)	Start-up With Capacitive Loads
<a href="#">PSA-05-15</a>	± 0.5% @ 115 VAC and 230 VAC	± 1.0%	<100 mVpp @ 0 to 70 °C <150 mVpp @ -30 to 0 °C	30 ms typ. @ 115 VAC and 230 VAC	1500 ms typ. @ 115 VAC and 230 VAC	21 ms typ. @ 115 VAC 95 ms typ. @ 230 VAC	8,000 µF max.
<a href="#">PSA-12-15</a>		± 1.0%				18 ms typ. @ 115 VAC 80 ms typ. @ 230 VAC	
<a href="#">PSA-24-15</a>		± 0.5%				18 ms typ. @ 115 VAC 79 ms typ. @ 230 VAC	3,000 µF max.
<a href="#">PSA-12-30</a>		± 1.0%	<120 mVpp @ 0 to 70 °C <360 mVpp @ -30 to 0 °C		14 ms typ. @ 115 VAC 70 ms typ. @ 230 VAC		
<a href="#">PSA-24-30</a>		± 0.5%	<150 mVpp @ 0 to 70 °C <450 mVpp @ -30 to 0 °C		16 ms typ. @ 115 VAC 80 ms typ. @ 230 VAC		
<a href="#">PSA-12-60</a>		± 1.0%	< 120 mVpp @ 0 to 70 °C < 360 mVpp @ -30 to 0 °C				
<a href="#">PSA-24-60</a>		± 0.5%	<150 mVpp @ 0 to 70 °C <450 mVpp @ -30 to 0 °C				
<a href="#">PSA-12-100</a>		± 1.0%	<120 mVpp @ 0 to 70 °C <360 mVpp @ -30 to 0 °C		12 ms typ. @ 115 VAC 60 ms typ. @ 230 VAC		
<a href="#">PSA-24-100</a>		± 0.5%	<150 mVpp @ 0 to 70 °C <450 mVpp @ -30 to 0 °C				



# NEC Class 2 Switching 1-phase Power Supplies PSA Series

General Specifications				
Models	15W	30W	60W	100W
<b>Storage Temperature</b>	-40 to +85 °C [-40 to +185 °F]			
<b>Humidity</b>	5 to 95% RH (Non-condensing)			
<b>Power Derating</b>	<b>Temperature</b>	>50 °C de-rate power by 2%/°C		
	<b>Input Voltage</b>	<100 VAC de-rate power by 1%/VAC <142 VDC de-rate power by 1%/VDC	<100 VAC de-rate power by 1%/VAC	
<b>Cooling System</b>	Convection			
<b>Altitude During Operation</b>	5,000m [16,400 ft]			
<b>Short Circuit Protection</b>	Hiccup Mode, Non-Latching (Auto-Recovery when the fault is removed)			
<b>Parallel Connection</b>	The parallel connection to increase the power is not recommended. For redundant operation, parallel connection must be using an external ORing diode or a redundancy module.			
<b>Indicator</b>	Green LED - DC Ok			
<b>MTBF</b>	>700,000h I/P 115 VAC and 230 VAC O/P 100% load, Ta 25 °C			
<b>Housing Material</b>	Plastic			
<b>Terminal</b>	<b>Input</b>	M2.5 x 2 Pins (Rated 300V/16A)		M2.5 x 2 Pins (Rated 300V/16A)
	<b>Output</b>			M2.5 x 4 Pins (Rated 300V/16A)
<b>Wire</b>	<b>Input</b>	26-12 AWG [0.14-3.31 mm <sup>2</sup> ]	24-12 AWG [0.25-3.31 mm <sup>2</sup> ]	
	<b>Output</b>	26-12 AWG [0.14-3.31 mm <sup>2</sup> ]	24-12 AWG [0.20-3.31 mm <sup>2</sup> ]	20-12 AWG [0.52-3.31 mm <sup>2</sup> ]
<b>Screw Terminal Torque</b>	3.5 lbf-in [4 kgfcm]			
<b>Shock</b>	IEC 60068-2-27, Half Sine Wave: 50g for duration of 11 ms; 3 times per direction			
<b>Vibration</b>	IEC 60068-2-6, Sine Wave: 10-500 Hz, 2g; 10 min per cycle, 60 min for X, Y, Z direction			
<b>Protection Rating</b>	IP20			
<b>Agency Approval</b>	CE, cULus File E197592, cURus File E508040, UKCA *			

To obtain the most current agency approval information, see the Agency Approval Compliance & Certifications Checklist section on the specific part number's web page.

\*The UL rating does not include DC input approval.