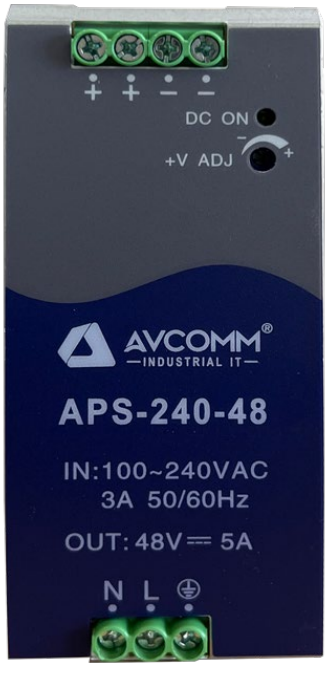
APS-240-48 Datasheet

Aiming to create better and safer working environments and life experiences through the products we deliver.



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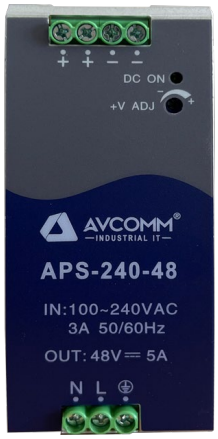
240W DIN-Rail Switching Power Supply

APS-240-48

is an environment friendly power supply for standard DIN-rail mounting with feature of cost-effective and energy efficient. The products offer a high level of stability and immunity to noise, it also has an extremely compact design for space saving and are ideal for applications such as industrial control equipment machinery and all kinds of applications in harsh environment. With good EMC performance, the products compliant with international standards for EMC and safety specifications meet IEC/EN/UL62368, UL61010, UL508.



c UL us LISTED CE EN62368-1 **CB Report** RoHS

Features & Benefits

- Wide input voltage range: 85 ~ 264 VAC /120 ~ 370 VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40 ℃ to +70 ℃
- High efficiency, high reliability
- Active PFC
- 150% peak load output for 3 seconds
- DC ON output status indicator LED
- Output short circuit, over-current, over-voltage, over-temperature protection
- Safety according to IEC/EN/UL62368, UL61010

Ordering Information

Part No.	Output power (W)	Nominal Output Voltage & Current (Vo/Io)	Output Voltage Adjustable Range ADJ*	Efficiency @230VAC (Typ.)	Max. Capacitive Load	Certification
APS-240-48	240	48 V/5 A	48.0 V-53.0 V	94%	10000 μF	EN/BIS

* The actual adjustment may exceed the listed values, care shall be taken to ensure the output voltage and power within the maximum value that listed above.

Specifications

Input Specifications

Item	Operating condition		Min.	Typ.	Max.
Input Voltage Range	Rated input (Certified voltage)		100 V	-	240 V
	AC input		85 V	-	264 V
	DC input		120 V	-	370 V
Input Frequency			47 Hz	-	63 Hz
Input Current	115 VAC		-	-	3 A
	230 VAC		-	-	1.5 A
Inrush Current	115 VAC	Cold start	-	15 A	--
	230 VAC		-	30 A	--
Leakage Current	264 VAC	Input - output	<0.5 mA		
		Output - Ground	<1 mA		
Power Factor	115 VAC		-	0.98	-
	230 VAC		-	0.95	-
Hot Plug			Unavailable		

Output Specifications

Item	Operating condition		Min.	Typ.	Max.
Output Voltage Accuracy	Full load range		-	±1.0%	
Line Regulation	Rated load		-	±0.5%	
Load Regulation	0% - 100% load		-	±1.0%	
Output Ripple & Noise	20MHz bandwidth (peak-to-peak value)		-	75 mV	100 mV
Hold-up Time			-	20 ms	-
Short Circuit Protection	Recovery time < 10 s after the short circuit disappear.		Constant current, continuous, self-recovery		
Over-voltage Protection	48 V		≤60 V (Hiccup, self-recovery)		
Over-current Protection	230VAC, rated load	Normal temperature high temperature	110% - 200% Io, self-recovery		
		Low temperature	≥105% Io, self-recovery		
Over-temperature	230VAC, rated load		-	80 ℃	-

Specifications

General Specifications

Item		Operating condition			Min.	Typ.	Max.
Isolation	Input - Ground	Electric strength test for 1min., leakage current <10 mA			2000 VAC	-	-
	Input - output				3000 VAC	-	-
	Output - Ground				500 VAC	-	-
Insulation Resistance	Input - Ground	@ 500VDC			50 MΩ	-	-
	Input - output				50 MΩ	-	-
	Output - Ground				50 MΩ	-	-
Operating Temperature					-40 ℃	-	+70 ℃
Storage Temperature					-40 ℃	-	+85 ℃
Operating Humidity		Non-condensing			-	-	90%RH
Storage Humidity					-	-	95%RH
Switching Frequency					-	100 kHz	-
Power Derating		Operating temperature derating	-40 ℃ to -25 ℃		3.34%/℃	-	-
			+40 ℃ to +70℃	115 VAC	1.67%/℃	-	-
			+50 ℃ to +70℃	230 VAC	2.5%/℃	-	-
		Input voltage derating		85 VAC–100 VAC	1.33%/VAC	-	-
Safety Standard		IS13252 (Part1) safety approved & EN62368-1 (Report) Design refer to IEC/UL62368-1, UL508, UL61010-1					
Safety Class					CLASS I		
MTBF		MIL-HDBK-217F@25℃			> 300,000 h		

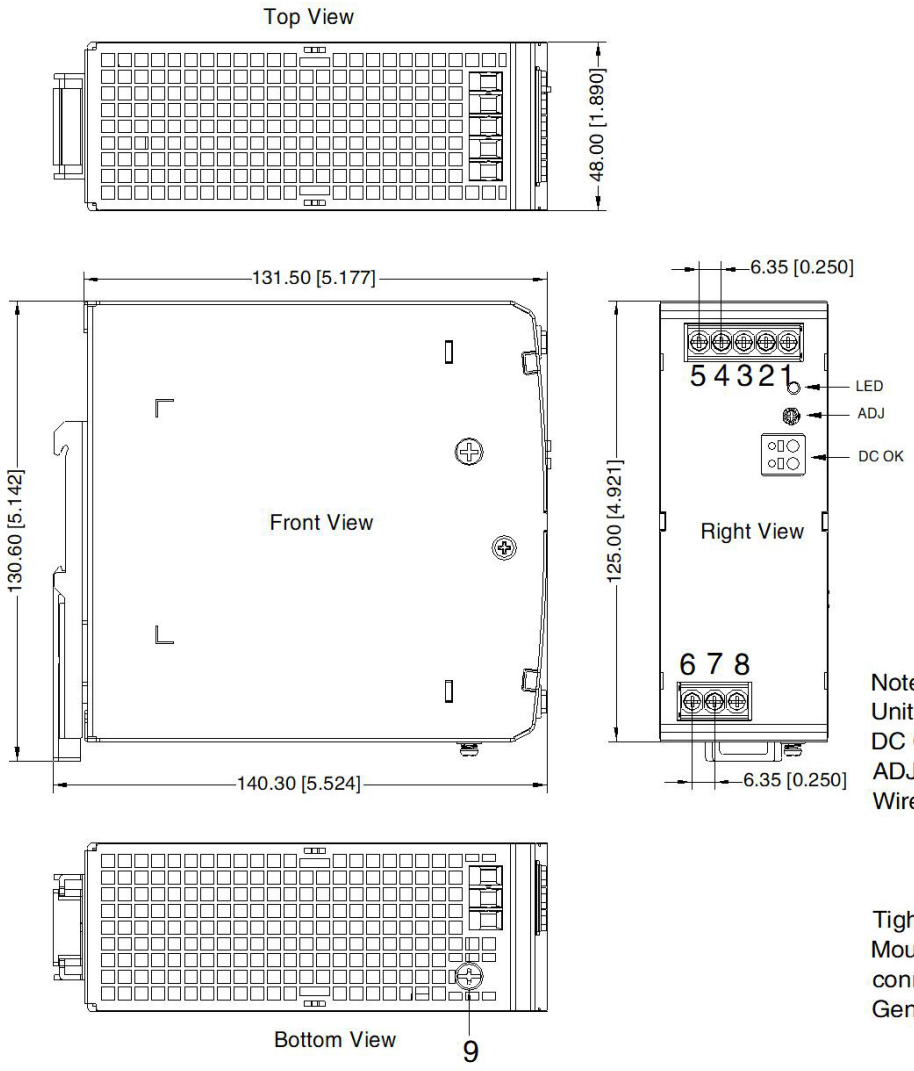
Mechanical Specifications

Case Material	Metal (AL1100, SPCC) and Plastic (PC945)
Dimensions	124.00 mm x 54.00 mm x 110.00 mm
Weight	600 g (Typ.)
Cooling method	Free air convection

Electromagnetic Compatibility (EMC)

Emissions	CE	CISPR32/EN55032	CLASS B	
	RE	CISPR32/EN55032	CLASS B	
	Harmonic current	IEC/EN 61000-3-2	CLASS A and CLASS D	
Immunity	ESD	IEC/EN 61000-4-2	Contact ±6KV/ Air ±8KV	Perf. Criteria A
	RS	IEC/EN 61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN 61000-4-4	±2KV	perf. Criteria A
	Surge	IEC/EN 61000-4-5	line to line ±2KV/line to ground ±4KV	perf. Criteria A
	CS	IEC/EN 61000-4-6	10Vr.m.s	perf. Criteria A
	Voltage dips, short interruptions and voltage variations immunity	IEC/EN 61000-4-11	0%, 70%	perf. Criteria B

Installation dimensions



THIRD ANGLE PROJECTION

Pin–Out	
Pin	Mark
1	–Vo
2	–Vo
3	–Vo
4	+Vo
5	+Vo
6	AC(N)
7	AC(L)
8	⏚

8、9 any position must be connected to the earth(⏚)

Note:
Unit: mm[inch]
DC ON：Output status indicator LED
ADJ: Output adjustable resistor
Wire range: Input: 20–10 AWG
Output: 24V: 14–10AWG
48V: 18–10AWG
DC OK: 24–16AWG
Tightening torque: Max 0.5 N·m
Mounting rail: TS35, rail needs to connect safety ground
General tolerances: ± 1.00[± 0.039]