



APS-240-24

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-240-24

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.



CB Report



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 °C to +70 °C
- 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-240-24	240	24 V/10 A	24.0 V-28.0 V	94%	40000 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		

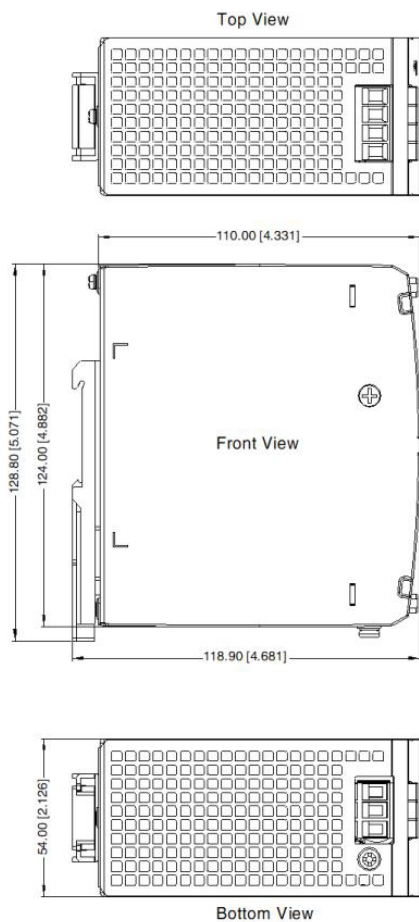
Output Specifications					
Item	Operating condition		Min.	Typ.	Max.
Output Voltage Accuracy	Full load range		-	±1.0%	
Line Regulation	Rated load		-	±0.5%	
Load Regulation	0% - 100% load		-	±1.0%	
Output Ripple & Noise	20MHz bandwidth (peak-to-peak value)		-	75 mV	100 mV
Hold-up Time			-	20 ms	-
Short Circuit Protection	Recovery time < 10 s after the short circuit disappear.		Constant current, continuous, self-recovery		
Over-voltage Protection	24 V		≤35 V (Hiccup, self-recovery)		
Over-current Protection	230VAC, rated load	Normal temperature high temperature	110% - 200% I _o , self-recovery		
		Low temperature	≥105% I _o , self-recovery		
Over-temperature	230VAC, rated load		-	80 °C	-

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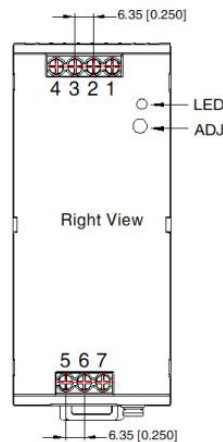
Specifications


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 °C	-	+70 °C
Storage Temperature				-40 °C	-	+85 °C
Operating Humidity		Non-condensing		-	-	90%RH
Storage Humidity				-	-	95%RH
Switching Frequency				-	100 kHz	-
Power Derating	Operating temperature derating	-40 °C to -25 °C		3.34%/°C	-	-
		+40 °C to +70°C	115 VAC	1.67%/°C	-	-
		+50 °C to +70°C	230 VAC	2.5%/°C	-	-
	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°C		> 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	AC(N)
6	AC(L)
7	

Note:

Unit: mm[inch]

ADJ: Output adjustable resistor

Wire range: 26-10 AWG

Tightening torque: Max 0.4 N·m

Mounting rail: TS35, rail needs to connect safety ground

General tolerances: $\pm 1.00 [\pm 0.039]$