

BLOCK Power Supplies - Switching Mini Series 12VDC 1-Phase



PM-0112-020-0

Overview

These all-round power supply units can be utilized for various applications in the area of solar, measurement and control technology, especially plant and mechanical engineering. They are robust and adaptable in a range of applications, yet feature a light and compact design, which provides an outstanding protection against transients and high-energy interference pulses at the power input. The output voltage can be set by using the rotary potentiometer on the front panel of the device.

Features

- Compact footprint
- Push-in terminals
- 35mm DIN rail mount
- IP20
- 2A and 4A models are NEC class 2.



Power Supplies - Switching Mini Series 1-Phase Selection Chart

Part Number	Price	Output Voltage	Output Current	Output Power	Input Voltage	Dimensions [W x H x D]	Drawing Link
PM-0112-020-0	\$85.00	12 VDC	2A	24W	100-240 VAC	22.5 x 90 x 97.5 mm [0.89 x 3.54 x 3.84 in]	PDF
PM-0112-040-0	\$85.00		4A	48W		45 x 90 x 97.5 mm [1.77 x 3.54 x 3.84 in]	PDF
PM-0112-070-0	\$102.00		7A	84W		52 x 90 x 109.5 mm [2.05 x 3.54 x 4.31 in]	PDF

Power Supplies - Switching Mini Series 1-Phase Input Specifications

Part Number	PM-0112-020-0	PM-0112-040-0	PM-0112-070-0
Operation Voltage Range	85-264 VAC 120-372 VDC*		
Frequency Range	47-63Hz		
Input Voltage Derating	-2.5 % / VAC < 95 VAC		
Rated Current	0.50 A @ 100VAC 0.29 A @ 240VAC	0.86 A @ 100VAC 0.46 A @ 240VAC	1.66 A @ 100VAC 0.90 A @ 240VAC
Inrush Current	≤ 30A, NTC		
Power Up Delay	1.5 s @ 100VAC 0.4 s @ 230VAC	1.5 s @ 100VAC 0.7 s @ 230VAC	0.5 s @ 100VAC 0.3 s @ 230VAC
Mains Buffering (nominal load)	15ms @ 100VAC 120ms @ 230VAC		15ms @ 100VAC 80ms @ 230VAC
Internal Fuse	2AT		4AT
Recommended Circuit Breaker	C-curve 6A		C-curve 10A C-curve 16A

* DC input voltage requires an external fuse.

Power Supplies - Switching Mini Series 1-Phase Output Specifications

Part Number	PM-0112-020-0	PM-0112-040-0	PM-0112-070-0
Nominal Output Voltage	12 VDC +/- 1%		
Output Voltage Range	11.5-14.5 VDC		
Nominal Output Current	2A 2.1 A @ max. 40°C	4A 4.2 A @ max. 40°C	7A 7.5 A @ max. 40°C
Output Current Limitation Constant Current	typ. 2.2 - 2.4 A	typ. 4.4 - 4.8 A	typ. 7.7 - 8.0 A
Class 2 Output	(EN 60950-1)		-
Power Loss (Stand-by / Nominal Load)	< 0.7 W / 5.3 W (230VAC)	< 1W / 8W (230VAC)	< 1W / 16.2 W (230VAC)
Maximum Power Loss	5.7 W (100VAC / 12V / 2A)	9.1 W (100 VAC / 12V / 4A)	19.8 W (100 VAC / 12V / 7A)
Efficiency	82% typ.	86% typ.	
Ripple and Noise	20mVss		
Reverse Feed Max. Resistance (Nominal Load)	25VDC max.		
Internal Surge Voltage Protection (OVP)	35VDC max		



Power Supplies - Switching Mini Series 24VDC 1-Phase



PM-0124-020-0

Overview

These all-round power supply units can be utilized for various applications in the area of solar, measurement and control technology, especially plant and mechanical engineering. They are robust and adaptable in a range of applications, yet feature a light and compact design, which provides an outstanding protection against transients and high-energy interference pulses at the power input. The output voltage can be set by using the rotary potentiometer on the front panel of the device.

Features

- Compact footprint
- Push-in terminals
- 35mm DIN rail mount
- IP20
- 1A, 2A and 3.8A models are NEC class 2.



Power Supplies - Switching Mini Series 1-Phase Selection Chart

Part Number	Price	Output Voltage	Output Current	Output Power	Input Voltage	Dimensions [W x H x D]	Drawing Link
PM-0124-010-0	\$49.50	24 VDC	1A	24W	100-240 VAC	22.5 x 90 x 97.5mm [0.89 x 3.54 x 3.84 in]	PDF
PM-0124-020-0	\$67.00		2A	48W		45 x 90 x 97.5mm [1.77 x 3.54 x 3.84 in]	PDF
PM-0124-038-0	\$102.00		3.8A	91.2W		52 x 90 x 111 mm [2.05 x 3.54 x 4.37 in]	PDF
PM-0124-040-0	\$93.00		4A	96W			PDF

Power Supplies - Switching Mini Series 1-Phase Input Specifications

Part Number	PM-0124-010-0	PM-0124-020-0	PM-0124-038-0	PM-0124-040-0
Operation Voltage Range	85-264 VAC 120-372 VDC*			
Frequency Range	47-63Hz			
Input Voltage Derating	-2.5 % / VAC < 95VAC			
Rated Current	0.49 A @ 100VAC 0.28 A @ 240VAC	0.82 A @ 100VAC 0.48 A @ 240VAC	1.73 A @ 100VAC 0.95 A @ 240VAC	1.82 A @ 100VAC 0.98 A @ 240VAC
Inrush Current	≤ 30A, NTC			
Power Up Delay	2.3 s @ 100VAC 0.74 s @ 230VAC	0.5 s @ 100VAC 0.27 s @ 230VAC	0.5 s @ 100VAC 0.2 s @ 230VAC	0.24 s @ 100VAC 0.14 s @ 230VAC
Mains Buffering (nominal load)	20ms @ 100VAC 120ms @ 230VAC		15ms @ 100VAC 80ms @ 230VAC	
Recommended Circuit Breaker	C-curve 6A		C-curve 10A	

* DC input voltage requires an external fuse.

Power Supplies - Switching Mini Series 1-Phase Output Specifications

Part Number	PM-0124-010-0	PM-0124-020-0	PM-0124-038-0	PM-0124-040-0
Nominal Output Voltage	24 VDC +/- 1%			
Output Voltage Range	23-28.5 VDC			
Nominal Output Current	1A 1.2 A @ max. 40°C	2A 2.2 A @ max. 40°C	3.8A	4A 4.2 A @ max. 40°C
Output Current Limitation Constant Current	typ. 1.25 - 1.4 A	typ. 2.25 - 2.4 A	typ. 3.8 - 3.2 A	typ. 4.4 A
Class 2 Output	(EN 60950-1)		(EN 60950-1, UL1310)	-
Power Loss (Stand-by / Nominal Load)	< 1W / 4W (230 VAC)	< 1W / 6W (230 VAC)	< 2.8 W / 14W (230 VAC)	< 1W / 12W (230 VAC)
Maximum Power Loss	5W (100VAC / 24V / 1A)	7W (100VAC / 24V / 2A)	20W (100 VAC / 91W)	15W (100 VAC / 24V / 4A)
Efficiency	86% typ.	89% typ.	87% typ.	89% typ.
Ripple and Noise	20mVss			
Reverse Feed Max. Resistance (Nominal Load)	35VDC max.			
Internal Surge Voltage Protection (OVP)	39VDC max	37VDC max	40VDC max	

BLOCK Power Supplies - Switching Mini Series 1-Phase

Power Supplies - Switching Mini Series 1-Phase General Specifications							
Part Number	PM-0112-020-0	PM-0112-040-0	PM-0112-070-0	PM-0124-010-0	PM-0124-020-0	PM-0124-038-0	PM-0124-040-0
Signaling							
Signaling "DC OK"	Green LED ON, Uout>10V			Green LED ON, Uout>21.5 V			
Signal Contact "DC OK"	Active High, Uout>10V max. 40mA @ 12VDC			Active High, Uout>21.5 V max. 20mA @ 24VDC			
Environmental							
Derating	-3% / K > 50°C						
Cooling Type	Natural air convection						
Current Rating at any Mounting Position	1.4 A max	2.6 A max	4.2 A max	0.7 A max.	1.3 A max	2.4 A max	
Humidity	5 to 96%, non-condensing						
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted						
Minimum Spacing	0mm side, 50mm above, 50mm below						
General Data							
Degree of Protection	IEC 60529, IP20						
Protection Class	EN 61140, Class II						
Housing Material	Plastic						
Safety Standards							
Safety	EN 61010-1, EN 61010-2-201, EN 61558-2-16, EN 60335-1						
EMC	EN 61204-3						
Safety Extra-low Voltage (SELV/PELV)	EN 61140						
CE	Conforms to 2014/30/EU						
Agency Approvals	UL 508: E219022 listed UL-Note: Output disconnecting means shall be provided during installation. UL 60950-1: E213214 recognized DNV GL classified: Temperature class B; Humidity class B Vibration class A; EMC class A*, B; Enclosure class A			UL 508: E219022 listed UL60950-1: E213214 recognized DNV GL classified: Temperature class B; Humidity class B Vibration class A; EMC class A,B**; Enclosure class A			

* EMCA only in conjunction with the filter HFE 156-230/10.

** EMCB only in conjunction with the filter HFE 156-230/10 No ECOM for PM-0124-040-0.

Additional Data							
Part Number	Weight g [oz]	Operating Temperature	Storage Temperature	Terminal Type	Wire Size*		
					Bare Wire	With Ferrule	Strip Length
PM-0112-020-0	128 [4.52]	-25 to 70°C [-13 to 158°F]	-25 to 85°C [-13 to 185°F]	Push-in	0.08 – 2.5 mm ² [AWG 28-12]	0.25 – 2.5 mm ² [AWG 24-12]	8 – 9mm [0.31 - 0.35 in]
PM-0112-040-0	210 [7.41]						
PM-0112-070-0	384 [13.55]						
PM-0124-010-0	128 [0.99]						
PM-0124-020-0	210 [7.41]						
PM-0124-038-0	390 [13.76]						
PM-0124-040-0							

* Use 75°C rated copper conductors only..