

DPS Series 120W (with Rdy) AC-DC DIN Rail Power Supplies

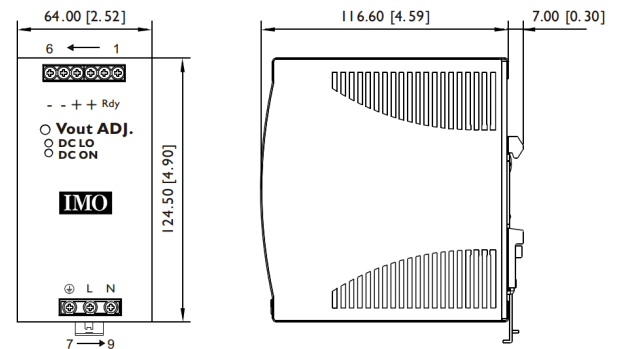
- UL, cUL, UR, cUR, CE
- Universal input 90~264VAC
- With check relay
- High efficiency
- Short circuit protection
- Internal input filter
- 3 Year warranty
- IP20



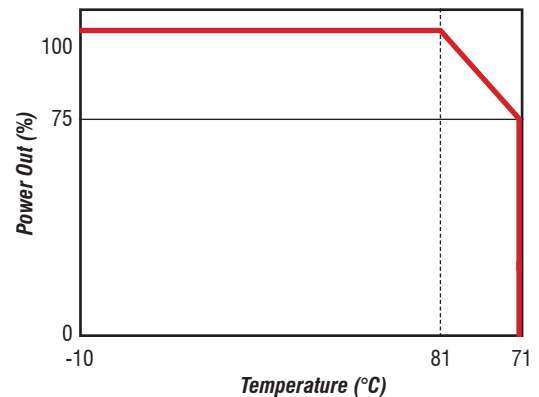
Specification - 120W Output

Model	DPS-1-120-12DCR
Input Specifications	
Rated Input Voltage	115/230VAC (auto select)
Input Voltage Range	90 to 264VAC, 210 to 375VDC
Line Frequency	47 - 63Hz
Inrush Current (115 / 230VAC)	24/48A
Power Dissipation	24W
Power Factor (Passive)	0.7 (Vi:230VAC)
Output Specifications	
Output Power (W)	120W
Output Voltage	13.6VDC (12VDC)
Output Current	8.8A (10A)
Output voltage accuracy	± 1%
Minimum load	0%
Line regulation	±0.5%
Load regulation	± 1%
Turn on time	1000ms after AC applied to input at full resistive load
Voltage fall time	150ms
Voltage rise time	150ms
Hold up time (115/230VAC)	25/30ms
Temperature coefficient	± 0.03%/°C
Ripple & noise	50mV
Voltage trim range	11.4 - 14.5VDC
DC ON indicator (Green LED)	10.4 - 11.4VDC
DC LOW indicator (Red LED)	10.3 - 11.3VDC
General Specifications	
Efficiency (min/typ)	82/84%
MTBF (Bellcore Iss. 6@40C)	481,000
Isolation voltage	3,000VAC/4,242VDC
Isolation resistance	100MΩ @ 500VDC
Ambient temperature	-35 to +71°C
Derating (from 61 to 71°C)	2.5%/°C
Storage temperature	-40 to +85°C
Relative humidity	20 - 95% RH
Cooling	Free air convection
Dimensions (LxWxD)	124.5 x 64 x 123.6mm
Weight	920g
Case material	Metal
Control & Protection	
Rated Overload Protection	105 - 125%
Over Voltage Protection	15 - 16.8VDC
Output Short Circuit	Fold forward
Approvals & Standards	
	CE, TUV, UL, cUL

Dimensions (mm)



Derating



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Pin Connections

Key	Description
Rdy (1,2)	DC ON output for relay
+	(3) Positive output terminal
+	(4) Positive output terminal
-	(5) Negative output terminal
-	(6) Negative output terminal
⊕	(7) Ground terminal to minimise high-frequency emissions
L	(8) Input terminals (phase conductor, no polarity at DC input)
N	(9) Input terminals (neutral conductor, no polarity at DC input)
DC ON	Operation indicator LED
DC LO	DC low voltage indicator LED
Vout Adj.	Trimmer-potentiometer for Vout adjustment

Installation

Ventilation/Cooling

Normal convection
All sides 25mm free space for cooling recommended

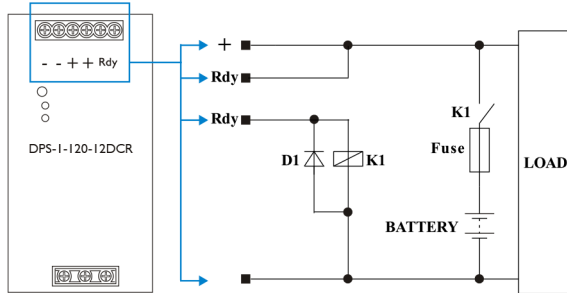
Screw Terminal

10-24AWG flexible/solid cable
Strip cable ends by 8mm

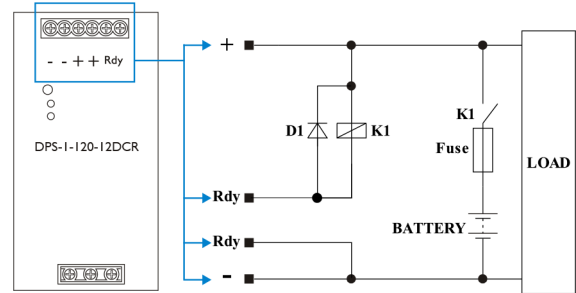
Construction

Easy, safe, and secure snap-on, snap-off DIN-rail mounting (TS35.7.5 or TS35/15)

Back-Up Function



DPS-1-120-12DCR For DC Back-Up System Application



DPS-1-120-12DCR For DC Back-Up System Application

NOTE:

- The suffix "R" of the part number specifies the product is designed and pre-trimmed for low-cost DC back-up power system with external Lead-Acid battery, Relay and Fuse.
- The manufacturer is liable neither for any external components nor damage to the power supply caused by external components.
- The total consumption current including loading and battery charging current should not exceed the maximum rated current of power supply.
- The operation concept of DC back-up power system:
 - When AC power is live: The "Rdy" relay is closed. The power supply feeds the current into the external loads and charges through Relay to the external battery.
 - When AC power is interrupted: The "Rdy" relay remains closed to maintain control. The external battery supplies current to the external loads.
 - When Battery power low: The "Rdy" relay opens and disconnects the battery from external loads.

Connections

