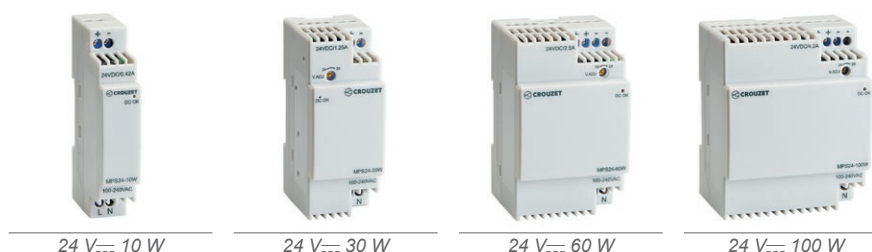


# › Modular Power Supply MPS24

- › Compact 24 V<sub>DC</sub> Power Supplies range from 10 to 100 W
- › High Efficiency, up to 90% @ 230 V<sub>AC</sub>
- › DIN Rail Mount and Low No-Load Power Consumption
- › UL1310 Class 2 & CE Compliant
- › Ideally suited for use with all Crouzet 24 V<sub>DC</sub> products



Selection Guide			
Nominal Output Voltage	Maximum Output Power	Maximum Output Current	Part Number
24 V <sub>DC</sub>	10 W	0.42 A	<b>89 451 001</b>
24 V <sub>DC</sub>	30 W	1.25 A	<b>89 451 003</b>
24 V <sub>DC</sub>	60 W	2.5 A	<b>89 451 006</b>
24 V <sub>DC</sub>	100 W	4.2 A	<b>89 451 010</b>

	24 V <sub>DC</sub> 10 W	24 V <sub>DC</sub> 30 W	24 V <sub>DC</sub> 60 W	24 V <sub>DC</sub> 100 W
<b>General Characteristics</b>				
<b>Part Number</b>	<b>89 451 001</b>	<b>89 451 003</b>	<b>89 451 006</b>	<b>89 451 010</b>
Product Certification	CE, UL, CSA, NEC Class 2			CE, UL, CSA
Safety Standards Conformity	EN60950-1 UL60950-1, UL508, UL1310 class2 (NEC Class2) CSA22.2 No.60950-1-07 (2nd edition)			EN60950-1 UL60950-1, UL508 CSA22.2 No.60950-1-07 (2nd edition)
EMC Standards Conformity	IEC/EN 61000-6-2 (Industrial) IEC/EN 61000-6-3 (Residential, commercial and light-industrial environments) IEC/EN 61204-3			
Line Dip (200~240 V <sub>AC</sub> )	SEMI F47 (Voltage sag immunity)			
Protection against Radio Interference	CE: EN55022-B, CISPR22-B; RE: EN55022-A, CISPR22-A			
Emission	Harmonic current: CEI/EN 61000-3-2			
Power Factor & Harmonic Correction (PFHC)	Compliant to IEC 61000-3-2, Class A			
Power Supply Earthing	None			
Isolation Class / Class of Protection	Class II (L, N only)			
Pollution	Degree 2, material group 3			
Operating Altitude	3000 m, derating 5 °C/1000 m above 2000 m			

You have a project? Contact us on [www.crouzet.com](http://www.crouzet.com)

## Description:

Crouzet compact range of DIN Rail power supplies, from 10 to 100W at 24 V<sub>DC</sub>. With increased performance in a reduced size, they are designed for a wide range of industrial and building applications. Characterised by their wide voltage input ranges (84 to 264 V<sub>AC</sub>), they allow the supply of single-phase mains electric power to DC power lines.

In addition, the new terminal position, as well as double insulation and a Class II safety input, simplifies wiring and earthing is no longer necessary. In the same way, the NEC Class 2 standard, in accordance with UL1310, allows operation in cases where output currents must be limited under fault conditions. With a high efficiency of up to 90% @230V and a low off-load power consumption, these new power supplies will fully satisfy the needs of 24 V<sub>DC</sub> applications.

For more information about Crouzet's Modular Power Supply range, please visit [www.crouzet.com](http://www.crouzet.com).

	24 V <sub>DC</sub> 10 W	24 V <sub>DC</sub> 30 W	24 V <sub>DC</sub> 60 W	24 V <sub>DC</sub> 100 W
Vibration	Operating, IEC 60068-2-6, Sine Wave, 10-500Hz, 19.6 m/s <sup>2</sup> (2G peak); 10 min per cycle, 60 min for all X,Y,Z directions			
Shock (In package)	Operating, IEC 60068-2-27, Half Sine Wave, 39.2 m/s <sup>2</sup> (4G) for a duration of 22 ms, 3 shocks for each 3 directions, 9 times in total			
Immunity	EN 61000-4-2 (Level 3) EN 61000-4-3 (Level 3) EN 61000-4-4 (Level 4) EN 61000-4-5 (Level 3) EN 61000-4-6 (Level 3) EN 61000-4-8 (Level 4) EN 61000-4-11 (Class 3)			
Operating Temperature	-20 → +71 °C (see derating curve)			
Operating Humidity	20 → 90 % max. (No condensing)			
Storage Temperature	-40 °C → +85 °C			
Storage Humidity	5 → 95 % max. (No condensing)			
Cooling	Convection			
Screw Terminals Connection Capacity	AWG 12-26			
Case Colour	Grey RAL 7035			
Protection Degree	IP20			
Weight	65 g	120 g	200 g	280 g
Dimensions (mm)	18 x 91 x 55.6 mm	36 x 91 x 55.6 mm	54 x 91 x 55.6 mm	72 x 91 x 55.6 mm
<b>Electrical Characteristics</b>				
Input Voltage	100 V <sub>AC</sub> → 240 V <sub>AC</sub>			
Frequency	50/60 Hz (+4 % / -6 %) from 47 to 53 Hz / 57 to 63 Hz			
Nominal Output Voltage	24 V <sub>DC</sub>			
Line Regulation	1 % max			
Load Regulation	1 % max			
Output Voltage Range	N.A	24 → 28 V <sub>DC</sub>		
Input Current	0.18 A / 0.12 A (Typ)* (115/230 V <sub>AC</sub> )	0.6 A / 0.4 A (Typ)* (115/230 V <sub>AC</sub> )	1.2 A / 0.8 A (Typ)* (115/230 V <sub>AC</sub> )	2 A / 1.1 A (Typ)* (115/230 V <sub>AC</sub> )
Maximum Output Current	0.42 A	1.25 A	2.5 A	4.2 A
Maximum Output Power	10.08 W	30 W	60 W	100.8 W
Inrush Current	40 A cold start (Typ) (115/230 V <sub>AC</sub> )	50 A cold start (Typ) (115/230 V <sub>AC</sub> )	60 A cold start (Typ) (115/230 V <sub>AC</sub> )	
Ripple and Noise	1 % max *			
Temperature Coefficient	< 0.02 %/°C			
No Load Input Power	< 0.3 W		< 0.5 W	
Efficiency	87 % (115/230 V <sub>AC</sub> ) (Typ)*	88/90 % (115/230 V <sub>AC</sub> ) (Typ)*	89/90 % (115/230 V <sub>AC</sub> ) (Typ)*	88/90 % (115/230 V <sub>AC</sub> ) (Typ)*
Power Factor	0.56/0.42 (Typ) (115/230 V <sub>AC</sub> )*	0.58/0.45 (Typ) (115/230 V <sub>AC</sub> )*	0.5/0.43 (Typ) (115/230 V <sub>AC</sub> )*	0.5/0.47 (Typ) (115/230 V <sub>AC</sub> )*
Hold-Up Time	20 ms @ 115 V <sub>AC</sub> (Typ)*			15 ms @ 115 V <sub>AC</sub> (Typ)*
Over-Voltage Protection	29.0 → 35.0 V			
Over-Current Protection	> 105 % "Hiccup" with automatic recovery			
Upstream Protection of Power Supply	See "Instruction Manual: IS 18009"			
Withstand Voltage	3 kVAC (20 mA)			
Isolation Resistance	> 100 MΩ (500 V <sub>DC</sub> ) @ 25 °C, 70 % RH			
Status Indication	DC OK LED (green)			
Series Operation	Possible, see "Instruction Manual: IS 18009"			
Transient Response Deviation	<1.2 V (25~75 % load change)			
Transient Response Recovery Time	1 ms, to within 2 % of settled value, 25~75 % load change			

\* at Maximum Output Power, Ta = 25 °C

24 V<sub>DC</sub> 10 W

24 V<sub>DC</sub> 30 W

24 V<sub>DC</sub> 60 W

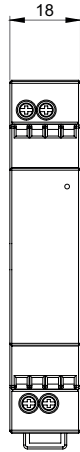
24 V<sub>DC</sub> 100 W

Drawings

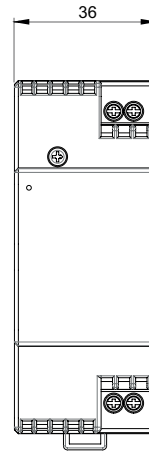
Dimensions (mm)

Front View

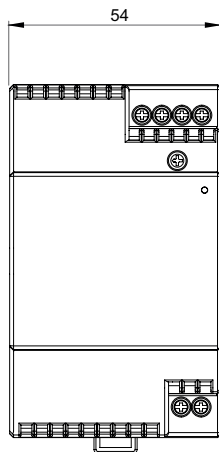
24 V<sub>DC</sub> 10 W



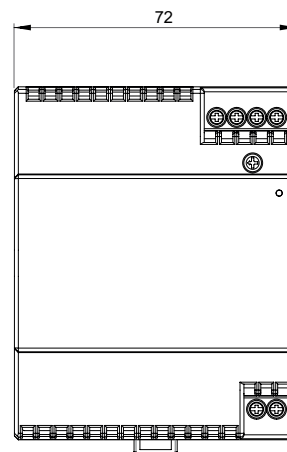
24 V<sub>DC</sub> 30 W



24 V<sub>DC</sub> 60 W



24 V<sub>DC</sub> 100 W



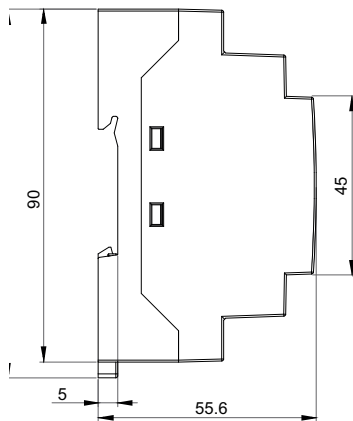
24 V<sub>DC</sub> 10 W

24 V<sub>DC</sub> 30 W

24 V<sub>DC</sub> 60 W

24 V<sub>DC</sub> 100 W

Side View



24 V<sub>DC</sub> 10 W

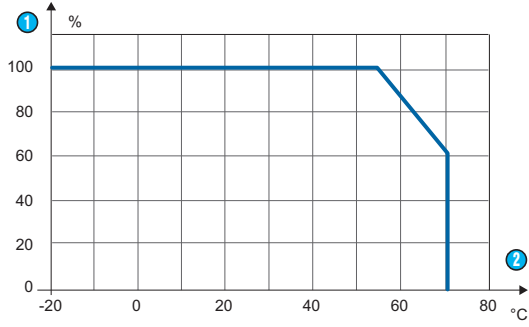
24 V<sub>DC</sub> 30 W

24 V<sub>DC</sub> 60 W

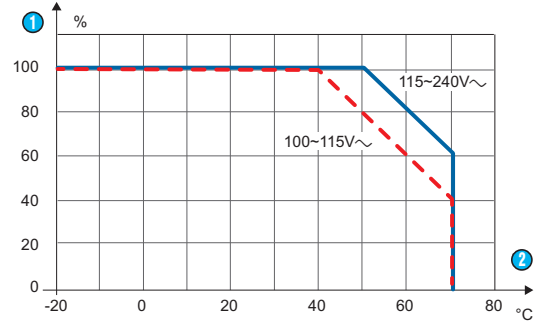
24 V<sub>DC</sub> 100 W

Curves

MPS24-10W, MPS24-30W, MPS24-60W



MPS24-100W



- ① L: Load (%)
- ② Ta: measured at 50 mm or less beneath the unit

Warning:

The product information contained in this catalogue is given purely as information and does not constitute a representation, warranty or any form of contractual commitment. Crouzet Automatismes SAS and its subsidiaries reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.