› Modular Power Supply
MPS24

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

24 V⎓ 10 W

24 V⎓ 30 W

24 V⎓ 60 W

24 V⎓ 100 W

Selection Guide			
Nominal Output Voltage	**Maximum Output Power**	**Maximum Output Current**	**Part Number**
24 V⎓	10 W	0.42 A	**89 451 001**
24 V⎓	30 W	1.25 A	**89 451 003**
24 V⎓	60 W	2.5 A	**89 451 006**
24 V⎓	100 W	4.2 A	**89 451 010**

	24 V⎓ 10 W	**24 V⎓ 30 W**	**24 V⎓ 60 W**	**24 V⎓ 100 W**
General Characteristics				
Part Number	**89 451 001**	**89 451 003**	**89 451 006**	**89 451 010**
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∿)	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**

Description:

Crouzet compact range of DIN Rail power supplies, from 10 to 100W at 24 V⎓. 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∿), 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⎓ applications.

For more information about Crouzet's Modular Power Supply range, please visit www.crouzet.com.

	24 V⎓ 10 W	24 V⎓ 30 W	24 V⎓ 60 W	24 V⎓ 100 W
Vibration	Operating, IEC 60068-2-6, Sine Wave, 10-500Hz, 19.6 m/s² (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/s² (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
Electrical Characteristics				
Input Voltage	100 V∿ → 240 V∿			
Frequency	50/60 Hz (+4 % / -6 %) from 47 to 53 Hz / 57 to 63 Hz			
Nominal Output Voltage	24 V⎓			
Line Regulation	1 % max			
Load Regulation	1 % max			
Output Voltage Range	N.A	24 → 28 V⎓		
Input Current	0.18 A / 0.12 A (Typ)* (115/230 V∿)	0.6 A / 0.4 A (Typ)* (115/230 V∿)	1.2 A / 0.8 A (Typ)* (115/230 V∿)	2 A / 1.1 A (Typ)* (115/230 V∿)
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∿)	50 A cold start (Typ) (115/230 V∿)	60 A cold start (Typ) (115/230 V∿)	
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∿) (Typ)*	88/90 % (115/230 V∿) (Typ)*	89/90 % (115/230 V∿) (Typ)*	88/90 % (115/230 V∿) (Typ)*
Power Factor	0.56/0.42 (Typ) (115/230 V∿)*	0.58/0.45 (Typ) (115/230 V∿)*	0.5/0.43 (Typ) (115/230 V∿)*	0.5/0.47 (Typ) (115/230 V∿)*
Hold-Up Time	20 ms @ 115 V∿ (Typ)*			15 ms @ 115 V∿ (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⎓) @ 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

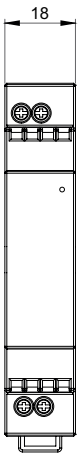
	24 V⎓ 10 W	24 V⎓ 30 W	24 V⎓ 60 W	24 V⎓ 100 W

Drawings

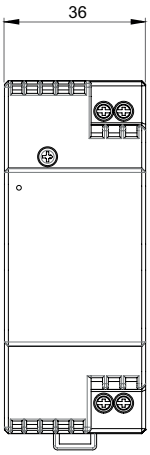
Dimensions (mm)

Front View

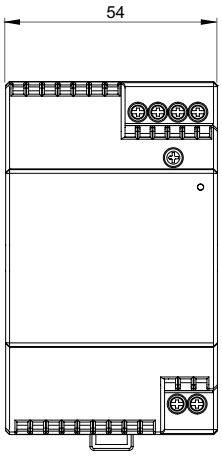
24 V⎓ 10 W



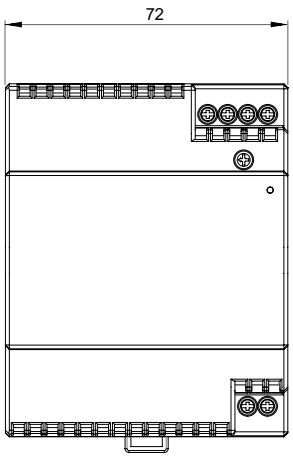
24 V⎓ 30 W



24 V⎓ 60 W



24 V⎓ 100 W



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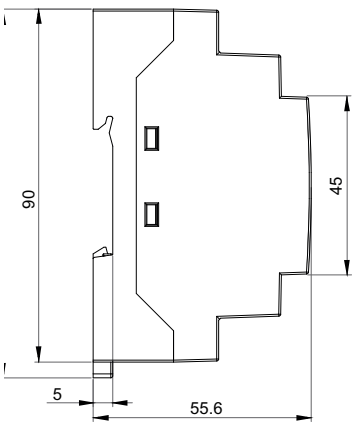
Side View



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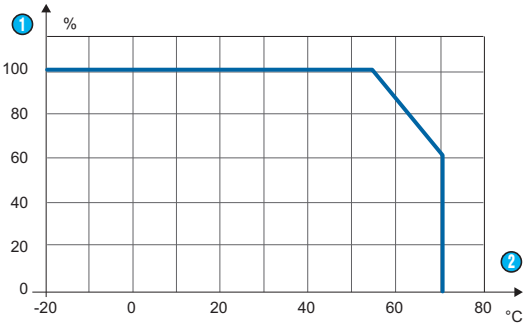
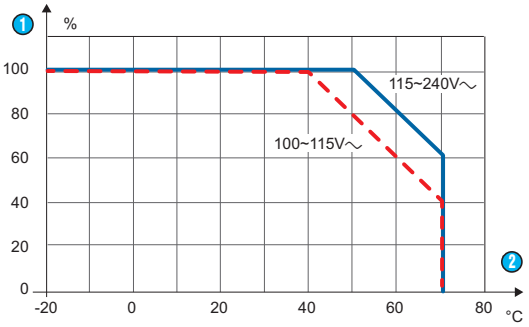
Curves

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



MPS24-100W



1 L: Load (%)

2 Ta: measured at 50 mm or less beneath the unit