USP-120MFN-24DN Switching Power Supply

The USP-120MFN-24DN is a compact, high-performance switching power supply designed for precision and reliability in industrial and automation applications. Delivering 120W of power with a DC output voltage of 24V, it boasts an output accuracy of ±1% and supports a current range of 0 to 5A. With a slim width of 32mm and a height of 125mm, this power supply is ideal for applications requiring high efficiency in a space-constrained setup.

Key Features:

- Precision Output – 24V DC ±1% Accuracy
  Ensures consistent voltage delivery for sensitive equipment.
- Wide Current Range – 0~5A
  Accommodates a variety of load requirements for flexibility in use.
- High Power Output – 120W
  Supports demanding industrial systems while maintaining compact dimensions.
- Compact Design – 32mm Width, 125mm Height
  Optimized for space-saving installations in control panels and automation systems.
- Reliable Performance
  Built to endure the rigors of industrial environments with stable output and robust design.

Notes
1. All parameters are derived at Ta= 25"C, humidity <75%RH, rated input voltage and rated output load unless otherwise slated
2. To improve conversion efficiency, there may be some audio noise when the module is above the operating voltage, but this does not affect product performance or reliability.
3. When the product is used al the end, the housing needs to be connected lo the system earth.
4. The ripple and noise test method is based on a reliance test, with 47UF electrolytic capacitors and 0.1 UF ceramic capacitors connected in parallel to the output.
5. The power supply should be considered as part of the system components and all EMC tests need to be confirmed in conjunction with the terminal equipment.

Electrical specifications

	Type	USP-120MFN-24DN
Output	DC output voltage	24V
	Output voltage accuracy	±1%
	Rated output current	5A
	Output current range	0-5A
	Output power	120W
	Ripple and noise	120mVp-p
	DC voltage adjustable	24-28V
	Power-down hold time	8ms/115V AC, 16ms/230V AC
Input	Input voltage range	90-264V AC /127-370V DC
	AC input current	2. 7A/115V AC/1.6A/230V AC
	Efficiency	88%
	Impact current	Turn on current,cooling 30A/115V AC 55A/230V AC
	Leakage current	<1mA/240V AC
Protection Feature	Short-circuit protection	The recovery time is less than 8s after removal of short circuit Short-circuit protection in long-term, self-recovery
	Overcurrent protection	Over-current protectlon{hlgh temperature : 105%-150% lo Constant current mode. Self-recovery after removal of load (230V AC related load) Over-current protection(low/high temperature: ≥105% lo Constant current mode. Self-recovery after removal of load (230V AC related load)
	Overvoltage protection	< 33V (Off output voltage, and recover input) Off output voltage and recover after temperature drop
Environment	Operating temperature and humidity	-20°C~+60°C; 20%~90%RH
	Storage temperature and humidity	-40°C~+85°C;10%~95%RH
Safe	Pressure resistance	I/P-0/P: 4KV AC L'P-FG: 2KVAC 0/P-FG: 0,5KV AC
	Insulation resistance	I/P-0/P:100MΩ Ohms/500VDC/25"Cf70%RH
Standard	Safety standards	Meet IS13252{Part1)&EN62368-1, IEC/UUBS EN62368-1, UL61010-1,UL508
General Data	Size	100*36*125mm
	Package	0.41kg

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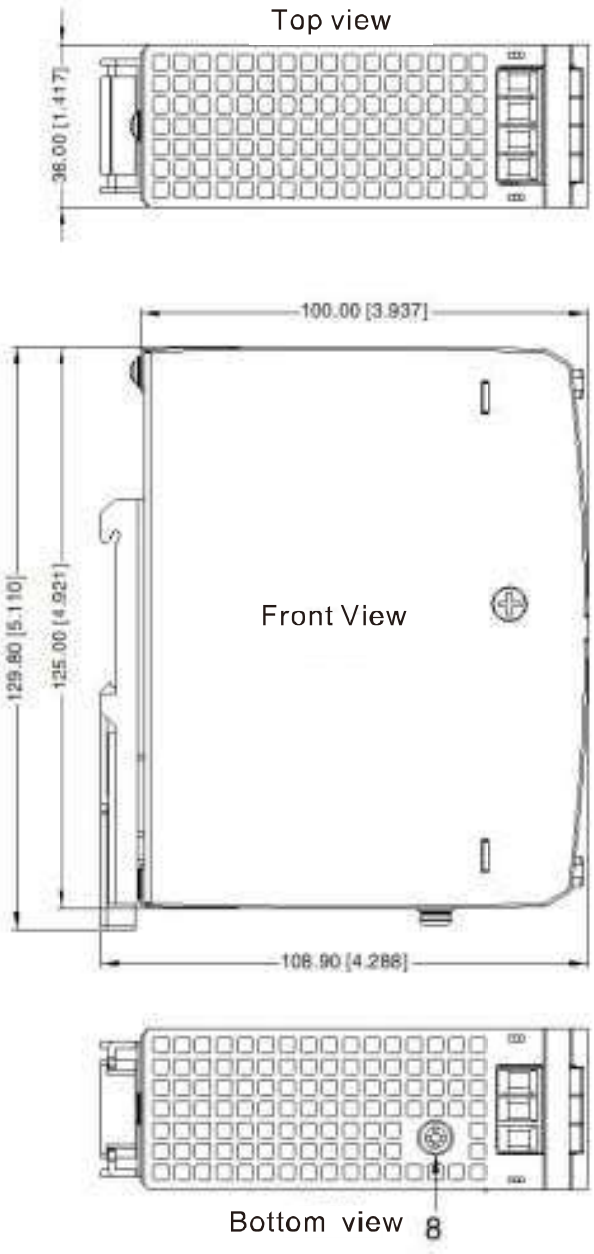
Installation Dimension - Unit = mm



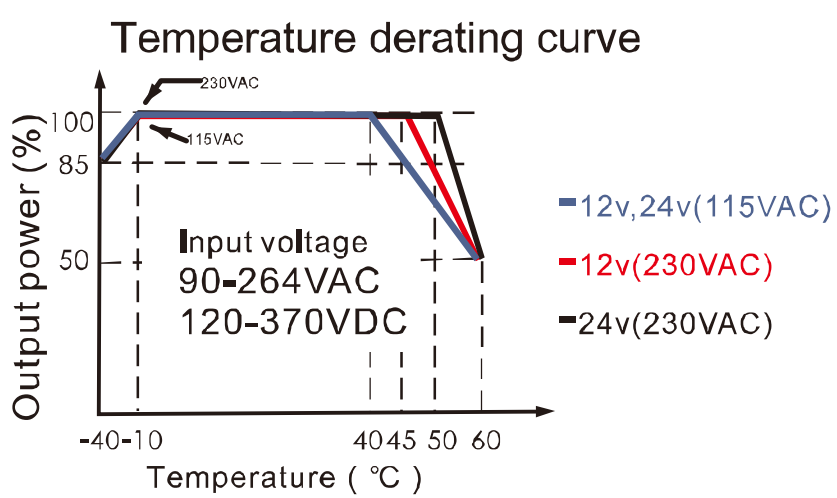
Third-angle projection 

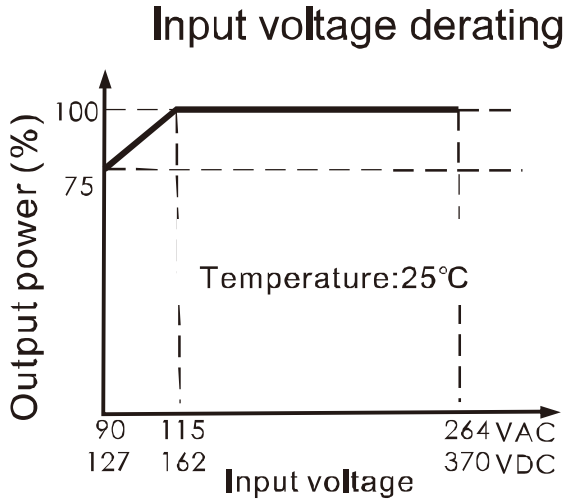
Pinout Method	
Pins	Function
1	–Vo
2	–Vo
3	+Vo
4	+Vo
5	AC(N)
6	AC(L)
7	⏚

Any position of 7 or 8 must grounded 

Notes.
Dimensions : mm(inch)
ADJ: Output voltage adjustment knob
Wiring range: 26-10AWG
Tightening torque:Max 0.4N.m
Rail type: Ts35
Tolerances not marked:±1.00 (±0.039)

Derating Curve





Notes :

1.85-100VAC/120-140VDC input voltage derate input voltage on the base of temperature derating.
2.The use of product is in a natural cold environment. If in a closed environment, please consult us.