



The USP-60PFN-12DN is a high-efficiency switching power supply that delivers a precise 12V DC output with an accuracy of $\pm 2\%$. It features a rated output current of 4.5A and a maximum output power of 54W, making it ideal for powering medium-duty industrial and automation systems. Its compact size ensures a space-saving solution without compromising on performance.

Key Features:

- **Precise Voltage Output** – 12V DC $\pm 2\%$ Accuracy
Ensures stable and consistent power for critical applications.
- **Wide Current Range** – 0~4.5A
Supports a variety of load conditions, offering versatility in use.
- **Reliable Power Output** – 54W Capacity
Provides sufficient power for medium-duty industrial and automation tasks.
- **Compact and Efficient Design**
Space-saving form factor perfect for confined installations without sacrificing functionality.
- **Durable Construction**
Engineered for long-term performance in rugged industrial environments.

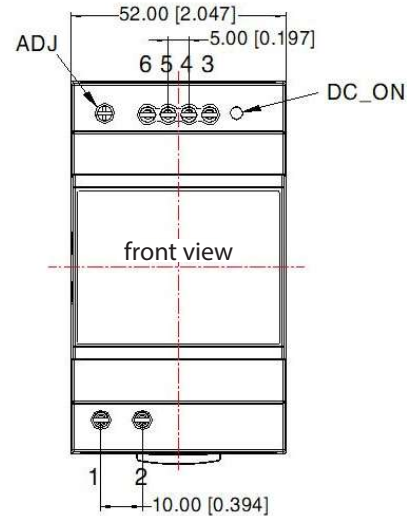
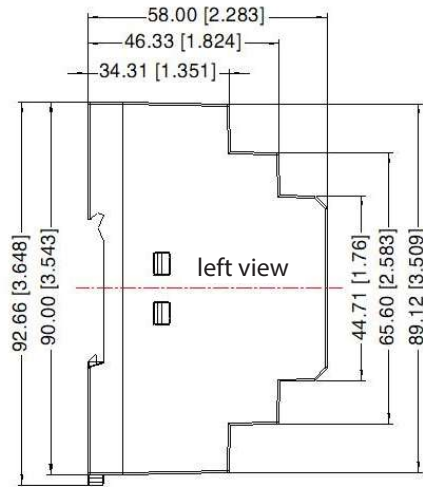
Notes

1. If not specified, all parameters are measured at $T_a = 25^\circ\text{C}$, humidity $< 75\% \text{ RH}$, rated input voltage and rated output load.
2. To improve the conversion efficiency. When the module is higher than the operating voltage, there may be some audio noise, but not affecting the product performance and reliability.
3. When the product terminal is used, the shell should be connected to the ground.
4. The test method for ripple and noise adopts the proximity test method, with a 47 μF electrolytic capacitor and a 0.1 μF ceramic capacitor connected in parallel at the output.
5. The power supply shall be regarded as a part of the system components, and all EMC tests shall be confirmed in combination with the terminal equipment.

Electrical specifications

	Type	USP-60PFN-12DN
Output	DC output voltage	12V
	Output voltage accuracy	$\pm 2\%$
	Rated output current	4.5A
	Output current range	0-4.5A
	Output power	54W
	Ripple and noise	120mVp-p
	DC voltage adjustable	10.8~13.8V
	Power-down hold time	15ms/115VAC, 80ms/230VAC
Input	Input voltage range	85~264VAC / 127~370VDC
	AC input current	1.2A/115VAC/0.8A/230VAC
	Efficiency	88%
	Impact current	30A/115VAC 60A/230VAC(cold boot)
	Leakage current	$< 0.5\text{mA}/240\text{VAC}$
Protection Feature	Short-circuit protection	Hiccup protection: After the short-circuit state disappears, the recovery time is 3 seconds. It can provide long-term short-circuit protection and self-recovery
	Overcurrent protection	$\geq 120\% I_o$, self-recoverable after the load condition is removed (230VAC, rated load)
	Overvoltage protection	$\leq 16\text{V}$ (Output voltage clamping or hiccups)
Environment	Operating temperature and humidity	$-40^\circ\text{C} \sim +70^\circ\text{C}$; 20%~90%RH No condensation (Please refer to the "Reduction Curve").
	Storage temperature and humidity	$-40^\circ\text{C} \sim +85^\circ\text{C}$; 10%~95%RH No condensation
Safe	Pressure resistance	I/P-O/P: 4KVAC
	Insulation resistance	I/P-O/P: 100M Ω Ohms/500VDC/25°C/70%RH
Standard	Safety standards	Meet IS13252(Part1)&EN62368-1, UL/IEC62368-1
General Data	Size	92.66*52*58mm
	Package	0.175kg

Institutional size



PIN Mode	
PIN	LI60-20B
1	AC(L)
2	AC(N)
3	+Vo
4	+Vo
5	-Vo
6	-Vo

Note:

Unit size: mm [inch]

ADJ: Output adjustable resistance

Crimping range: 24-12 AWG

Tightening torque: Max.0.4 N. m

Reduction curve

