Product Feature

1. Universal wide range AC voltage input 100-240VAC
2. High power factor up to 0.95
3. Built-in DC fan for forced cooling, fan temperature control design
4. Support output remote voltage compensation and output ON/OFF control
5. Active parallel up to 6400W
6. LED Power Indicator
7. Short circuit/overload/over voltage/over temperature protection function/input over voltage protection
8. Operating temperature: -30℃~+70℃
9. Three years warranty

RoHS CE 3 years Warranty 1370g/Typ.

Describe

EN-1600-XX-F is a 1600W single constant voltage output industrial control power supply, the voltage input range is 90~264VAC, the output voltage is 12V, 24V, 36V, 48V, 55V, etc., the other built- in output ON/OFF control, It can be applied to industrial control system, mechanical and electrical equipment, electronic instrumentation, industrial automation, household appliances and other industrial fields. High efficiency, good heat dissipation, to ensure that this series of products can work stably for a long time.

Design meet EN61000-4-2,3,4,5,6,8,11 \ GB17625.1 \ EN61000-3-2-3 \ EN55032 \ GB4943 \ IEC62368 UL62368-1-1

Application areas

- Industrial automation machinery
- Mechanical and electrical equipment
- Industrial control system
- Electronic instruments

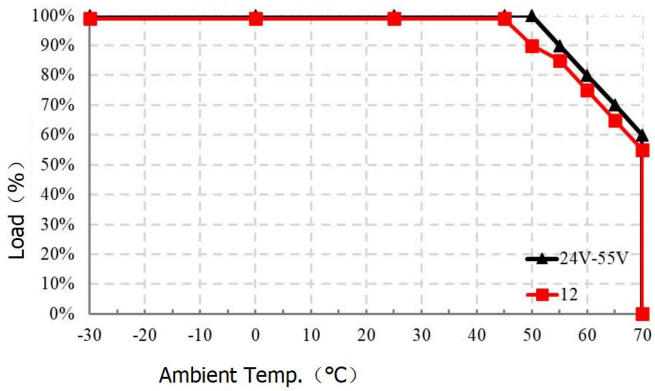
Electrical Specifications

Model number		EN-1600-12-F	EN-1600-24-F	EN-1600-36-F	EN-1600-48-F	EN-1600-55-F
Input	Voltage range	90~264VAC				
	Rated voltage	100~240Vac				
	Input	≤12A@115VAC				
	Efficiency	91%	93%	93%	93%	93%
	Frequency	47～63HZ				
	Leakage current	≤1mA (input 240Vac; Frequency 63Hz)				
	Surge	60A@230Vac				
Output	DC voltage	12V	24V	36V	48V	55V
	Rated current	125A	66.7A	44.5A	33.3A	29.1A
	POWER	1510W	1610.8W	1008W	1608.4W	1610.5W
	Voltage regulation	10.8～14.4V	24～28.8V	36～43.2V	48～56V	55V～58V
	Factory voltage	12.0-12.2V	24-24.3V	36.0-36.4V	48.0-48.4V	55-55.4V
	Ripple noise	150mV	150mV	200mV	300mV	250mV
	Start/rise time	＜2000ms，＜100ms/220VAC load 100%				
	Hold time	＞8ms/220VAC load 100%				
	Linear adjustment	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%

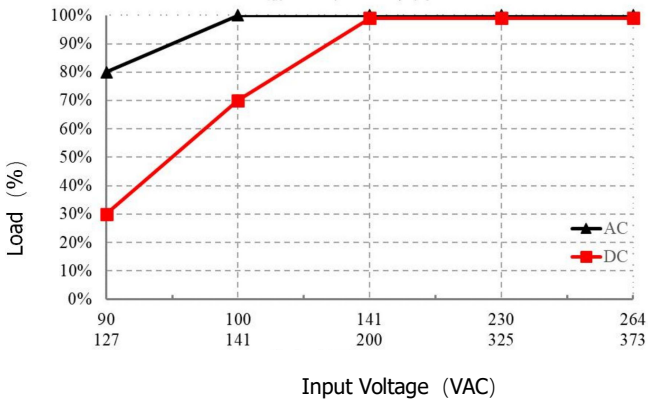
	Load adjustment	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Voltage accuracy	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	Temperature	±0.03%（0-50℃）				
	Output 5V	5V/0~2A				
Electromagnetic Emission (EMI)	conduction	Design Reference: EN 55032 Class B				
	Radiate	Design Reference: EN 55032 Class A				
	Harmonic	Design Reference: EN/IEC 61000-3-2 Class A				
Electromagnetic Compatibility Immunity (EMS)	Radiation	Design reference: EN/IEC 61000-4-3 80MHz~1000MHz 10V/m criterion B				
	Conducted	Design reference: EN/IEC 61000-4-6 0.15MHz~80MHz 10VRms criterion B				
	Static	Design reference: EN/IEC 61000-4-2 Contact discharge ±6KV Air discharge ±8KV				
	Fast Pulse Group (EFT)	Design reference: EN/IEC 61000-4-4 ±2KV 5KHz/100KHz criterion A				
	Lightning Surge	Design reference: EN/IEC 61000-4-5 wire-wire ±2KV wire-ground ±4KV criterion A				
	Voltage drop, interruption (DIP)	Design reference :EN/IEC 61000-4-11				
		Drop to 70%UT for 500mS criterion C Drop to 0%UT for 10mS criterion B				
		Falling to 0%UT lasting 20mS criterion B falling to 0%UT lasting 5000mS criterion C				
Safety	Safety	Design reference :GB4943/UL62368-1				
	Pressure resistance	I/P-O/P:3KVac/10mA; I/P-CASE:1.8KVac/10mAput O/P-CASE:1500KVac/10mA Each test time is :1min				
	Insulation impedance	500VDC; I/P-O/P: 100M ohms; I/P-Case:100M ohms; O/P-Case:100M ohms				
Protection	Over voltage (10% load)	115%-145%, turn off the output voltage, and return to normal after the fault is eliminated				
	Overload	Constant current limit 5S turn off the output and automatically return to normal after eliminating overload.				
	Over temperature	Turn off the output voltage and return to normal after the fault is eliminated				
	Short circuit	Burp mode, product free from damage. When the short circuit is removed, it can be				
		automatically restored.				
Environment	Temperature controlled fan	Fan speed is temperature-dependent and linearly adjusted (normally on)				
	Remote compensation	S+/S-; S+ and S- are connected to the positive and negative ends of the load respectively, and the maximum line pressure drop can be compensated to 0.2V				
	Output ON/OFF	RC+/RC-; 0-1V or short-circuit power supply on, 4-10V or open power supply off				
		(optional)				
	Auxiliary power supply	5V 2A independent auxiliary power supply, see Output feature "AUX 5V" (optional)				
	Flow equalization	4 parallel up to 6400W. Current sharing accuracy ±5%(load 50% and above) (optional)				
Environmental requirements	Operating	-30~70℃ 20%~95%RH non-condensation (please refer to derating curve for details)				
	Storage	- 40 ℃ ~ 80 ℃; 10% to 95%RH does not condense				
	Vibration	Frequency range 10 ~ 500Hz, acceleration 2G, each sweep cycle 10min., 6 sweep cycles along X,Y, Z axis				
	Impact	Acceleration 20G, duration 11mS, 3 shocks each along the X,Y, and Z axes				
	Altitude	5000m (above 2000m, every 100m rise, the ambient temperature will be reduced by 0.5℃)				
Reliability	MTBF	At 25 ° C :100000Hrs, Telcordia SR-332 issue3 Method				
Other	Size	245 * 127 * 40.5mm (L * W * H)				

requirements	Packaging	8 pieces/box 16Kg/ box
	Cooling method	□ Self-cooling air cooling☑FANS
	Extension mode	❒ Three defense☑ capping other
Reserve note	* In order to extend the service life, it is recommended to leave an extra 30% margin when configuring the load. For example: the equipment needs 100W power, then choose not less than 130W power supply.	
	* Switching power supply ripple test method: use a 20MHz oscilloscope to test on the power output terminal, the length of the oscilloscope probe ground wire is not more than 12mm, and the probe input in parallel 47uF electrolytic capacitor and 0.1uF high frequency capacitor.	
	* If not specified, all parameters are measured at 230VAC input, rated current and ambient temperature of 25 ° C.	
	* The power supply is a part of the system components of the equipment. All EMC tests are conducted by installing the sample on the 400*400*3mm metal plate. The power supply needs to be confirmed with the terminal equipment for electromagnetic compatibility。	

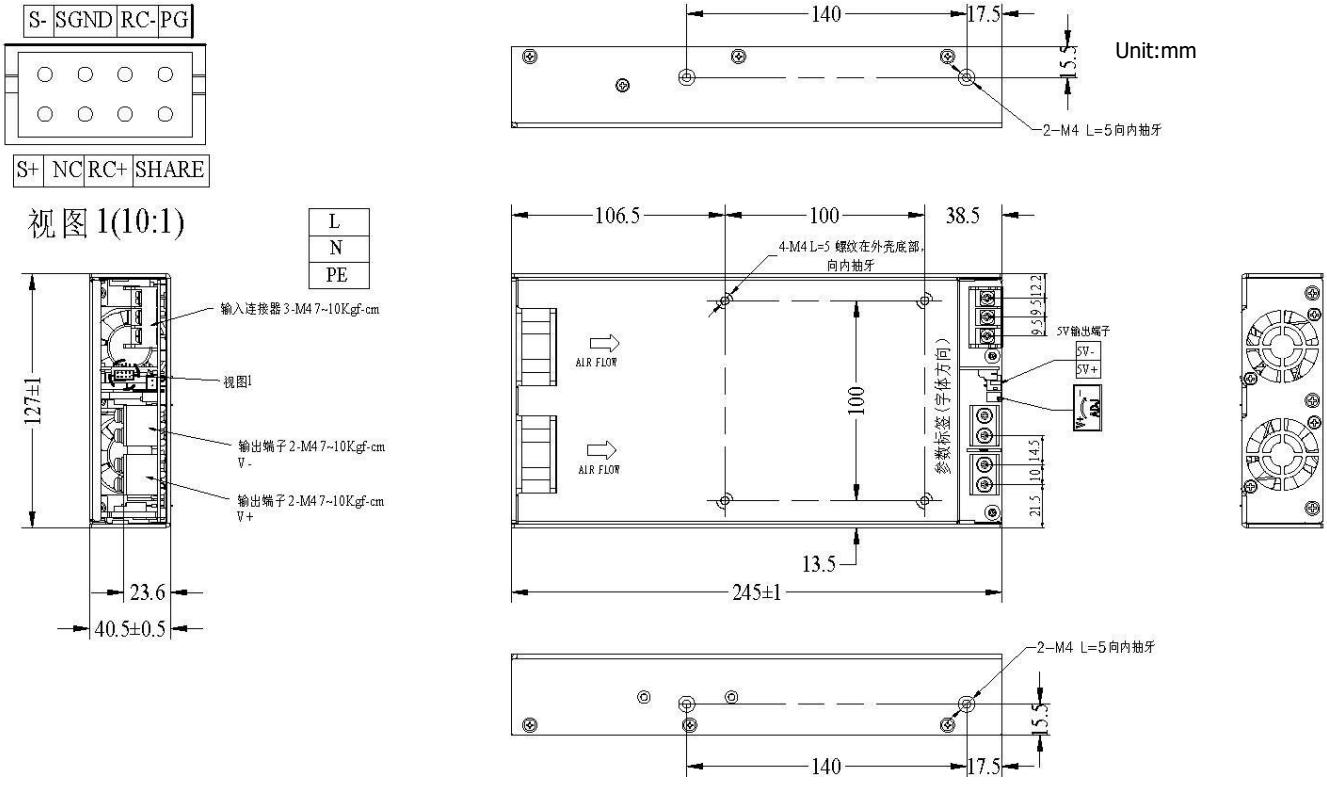
Derating Curve



Output Derating VS Input Voltage



Mechanical Specification



Input terminals		Output terminals	
Pin number	**Pin function**	**Pin numbering**	**Pin function**
L	Ac input Firewire	V+	Dc output +
N	Ac input null line	V-	Dc output -
⏚	Ground terminal	RC+	Output ON/OFF,signal +
		RC-	Output ON/OFF, signal -
		S+	Remote sensing signal +
		S-	Remote sensing signal -
		PG	Power Good
		SHARE	Flow sharing control port
		SGND	SGND
		5V	AUX output 5V

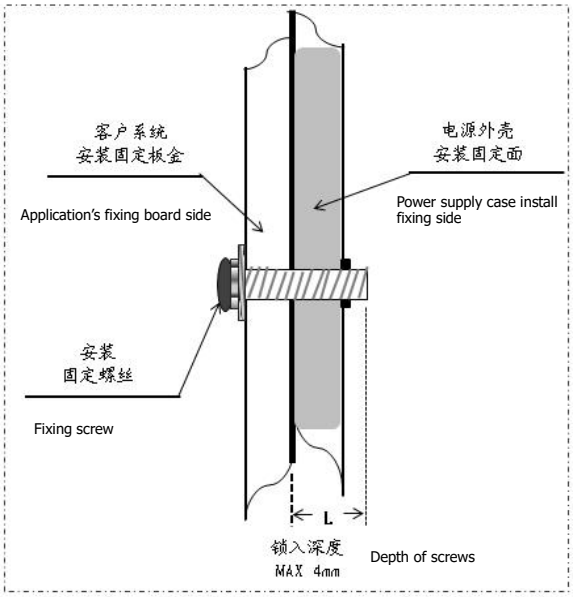
Installation

Warnings

- ✓ Can be mounted through the bottom or side of the housing
- ✓ The power supply needs to be installed in an area that is not directly accessible to non- professionals
- ✓ Please leave enough space for heat dissipation
- ✓ Please use mounting screws M4*8mm,
- ✓ Please use wiring screws

Input: 4*8mm Output: M4*8mm

- ✓ Maximum torque of mounting screw: 0.8N ·m
- ✓ Maximum torque of input and output terminals: 1.2 N·m
- ✓ See the picture on the right



Instructions

1、please follow the installation instructions when use the power supply.

2、Before power on test run after installation, please check and proofread the wiring on each terminal, make sure that the input and output, AC and DC, positive and negative, voltage and current values are correct, prevent the occurrence of wrong connection, and avoid damaging the power supply and user equipment。

3、Before power on, please use a multi meter to measure whether the live wire, zero wire and ground wire are short circuited, and whether the output terminal is short circuited; it is better to start without load when power on.

4、Do not exceed the nominal value of the power supply when using, so as not to affect the reliability of the product. If you need to change the output parameters of the power supply, please consult our technical department before using.

5、In order to ensure the safety of use and reduce interference, please ensure that the grounding terminal is reliably grounded（ground wire please thicker than AWG18#）。

6、If the power supply fails, please do not repair it without permission.

Transport、storage：

1、Transport:

The package is suitable for shipping by automobiles, ships, airs, trains, etc. During transportation, it shall be rain proof,loaded and unloaded gently。

2、Storage：

When the product is not in use, it shall be placed in the packing box. The storage environment temperature and relative humidity shall meet the requirements of the product. No corrosive gas or product in the warehouse, and no strong mechanical vibration, impact and strong magnetic field. The packing box shall be padded at least 20cm above the ground, and not be soaked. If the storage time is too long (more than 1 year), it shall be rechecked by professionals before use.