(Voltage input range 90 ~264VAC/127 ~370VDC)

(AC/DC dual use (same terminal input voltage)

(-30~+70℃ working temperature (refer to the reduction curve)

(Output short circuit/overload/overvoltage/overtemperature protection function)

(Installation track: TS-35/7.5 or TS-35/15)

(natural air cooling)

(100% full load aging)

(3 years warranty)

(Application fields: industrial control equipment, machine control, instrumentation, electric power, new energy, etc.
(Reference standards: IEC/EN/UL/BS EN62368, EN61000, UL508, GB4943 standards.

(product description

The CAR-120 series is a standard rail-mounted power supply with a single 120W output. It has an input range of 90 to 264VAC and offers multiple models including 12V,24V, and 48V outputs. The fully metal enclosure makes it widely applicable in industrial control equipment, machine control, instruments, power, and new energy fields. This series boasts ultra-high efficiency, with an efficiency as high as 89%, significantly enhancing the reliability and lifespan of the power supply. The product is safe and reliable, featuring a compact design that ensures good heat dissipation, guaranteeing long-term stable operation.

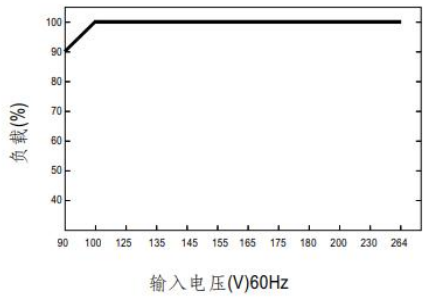
(Electrical parameters

model		CAR-120-12	CAR-120-24	CAR-120-48
import	voltage range	90~264VAC 127~370VDC (please refer to the reduction curve)		
	input currenton	2.2A/115VAC, 1.3A/230VAC		
	frequency range	47~63Hz		
	productiveness (typ.)	≥85%	≥88%	≥89%
	leakage current	<1.0mA/240VAC		
	surge current	Start the cold machine at 50A/230VAC		
output	volts d.c	12V	24V	48V
	rated current	10A	5A	2.5A
	power	120W	120W	120W
	Voltage regulation range	12~14	24~28	48~55
	Ripple and noise	≤100mVp-p	≤120mVp-p	≤150mVp-p
	Start, rise time	1200 ms, 60ms / 230VAC (full load)		
	retention time	50ms / 230VAC (full load)		
	Linear adjustment rate	±0.5%	±0.5%	±0.5%
	load regulation	±1.0%	±1.0%	±1.0%
	voltage accuracy	±2.0%	±1.0%	±1.0%
Environmental requirements	Working temperature and temperature	-30~70℃ 20%~95%RH no condensation (see the reduction curve for details)		
	Store temperature and humidity	-40~85℃ 10%~95%RH no condensation		
	vibrate	The frequency range is 10~500Hz, the acceleration is 2G, each sweep cycle is 10min, and 6 sweep cycles are carried out along X, Y and Z axes		
	lash	Acceleration of 20G, duration of 11ms, and three impacts along the X, Y, and Z axes		
	above sea level	5000m (above 2000m, the ambient temperature decreases by 0.5℃ for every 100m elevation)		
electromagnetics compatible	Electromagnetic compatible transmission	Conforms to BS EN55032 (CISPR32), BS EN61204-3 CLASS B;		
	harmonic current	EN61000-3-2,3; CLASS A		
	Electromagnetic compatibility and immunity	Conforms to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN55024, EN50082-2, EN61000-3-2, 3		
safety standard	safe code	Complies with TUV BS EN/EN62368-1, AS/NZ62368.1, UL508,		
	withstand voltage	Input--output I/P-O/P:3.0kVac; input--housing I/P-FG:2.0kVac; output--housing O/P-FG:0.5kVac. The test time for each item is 1min		
	Insulation impedance	I/P-O/P：100M ohms；I/P-FG：100M ohms；O/P-FG：100M ohms		

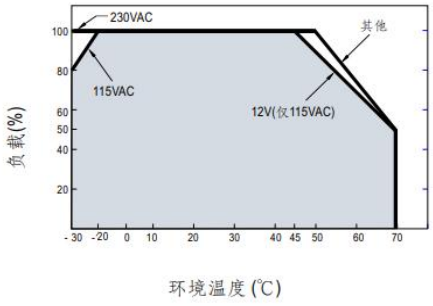
protect	overvoltage crowbar	15~17V	29~34V	56~65V
		Turn off the output voltage and restart to recover		
	overload protection	The output voltage is turned off by 120~150%, and it automatically recovers after the overload is removed		
	Overtemperature protection	Turn off the output voltage and self-recover after the temperature drops		
	short-circuit protection	After the output terminal is short-circuited, the power supply is turned off and the output is restored automatically after the short circuit is removed		
reliability	MTBF	25℃ environment:> 300,000 Hrs, MIL-217 Method		
Other requirements	size	40*125.6*113.5mm(W*H*D)		
	pack	0.6 Kg/ only, 24 per box, 15KG/ box		
	cooling-down method	Cold (self-cooled (air-cooled		
remarks	* Unless otherwise specified, all specifications are measured under input of 230VAC, rated load, and 25℃ conditions. * In order to extend the service life, it is recommended to leave a margin of 30% when configuring the load. For example, if the equipment needs 100W power, the power supply should be no less than 130W. * Ripple test method of switch power supply: Test on the output terminal of the power supply with a 20MHz oscilloscope, the ground length of the oscilloscope probe is not more than 12mm, and connect a 47uF electrolytic capacitor and a 0.1uF high-frequency capacitor in parallel to the probe input. * Power supply is part of the equipment system components, and all EMC tests need to be combined with the terminal equipment for electromagnetic compatibility related confirmation.			

(Downside curve

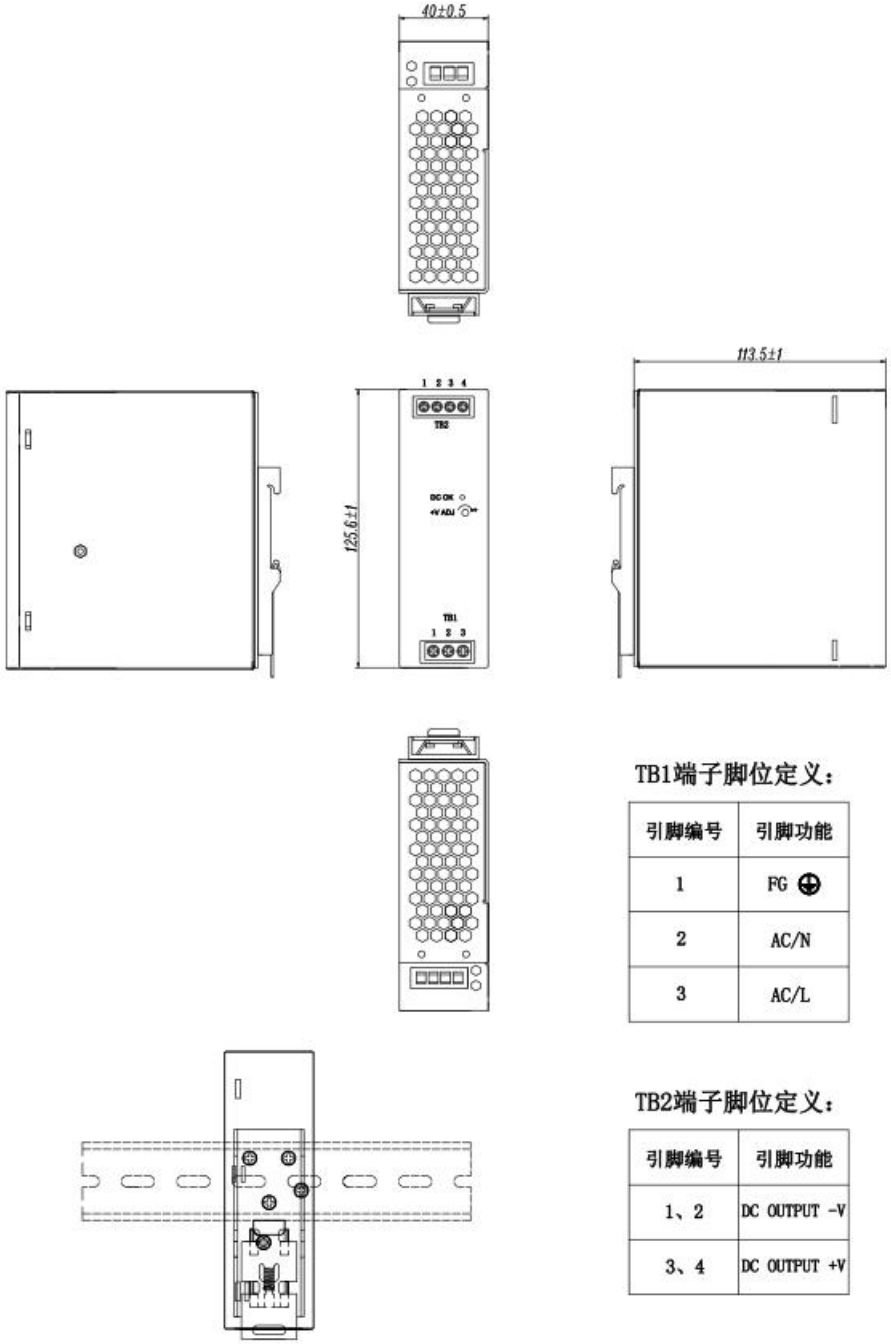
●静态特性曲线



●输出负载与温度曲线



(Institutional size



TB1端子脚位定义：

引脚编号	引脚功能
1	FG ⏚
2	AC/N
3	AC/L

TB2端子脚位定义：

引脚编号	引脚功能
1、2	DC OUTPUT -V
3、4	DC OUTPUT +V

(Product installation and use instructions:

1、 When installing, please follow the installation instructions.

2、 Before the installation is completed and power is turned on for trial operation, please check and check the wiring on each terminal to ensure that the input and output, AC and DC, positive and negative, voltage value and current value are correct, so as to prevent the occurrence of reverse connection and avoid damage to the power supply and user equipment.

3、 Before power supply, please use a multimeter to measure whether the live wire, neutral wire and ground wire are short circuit, whether the output end is short circuit; when power supply, it is best to start under no load.

4、 Do not exceed the nominal value of the power supply when using it to avoid affecting the reliability of the product. If you need to change the output parameters of the power supply, please consult our technical department before using the power supply to ensure the use effect and reliability.

5、 To ensure the safety of use and reduce interference, make sure that the grounding terminal is reliably grounded (the grounding wire is larger than AWG18#).

6、 If the power supply is faulty, please do not repair it without authorization. Please contact our customer service department as soon as possible. Customer service line

7、 The power supply should not be soaked in water or buried in the ground for a long time.

(Transportation, storage:

1、 transport:

This package is suitable for transportation by car, ship, plane, train and so on. During transportation, it should be protected from rain and loaded and unloaded in a civilized manner.

2. Storage:

The product should be stored in the packaging box when not in use. The storage environment's temperature and relative humidity must meet the requirements of the product. There should be no corrosive gases or chemicals in the warehouse, and there should be no strong mechanical vibrations, impacts, or strong magnetic fields. The packaging box should be at least 20cm off the ground, and at least 50cm away from walls, heat sources, windows, or air intake points. Do not allow water to seep in. If stored for an extended period (over one year), it should be re-inspected by a professional before use.