CATALOG

Ⅰ.Introduction

The power supply has the characteristics of small volume, high efficiency, stable operation and high reliability. Power supply has input overvoltage, output current limiting, output short circuit and so on. Power supply using synchronous rectifier circuit greatly improve the power efficiency, saving energy; this power is wide voltage input, wide ambient temperature work, with a power factor correction circuit, a wide range of applications.

Ⅱ.Product main Specification

Max Output Power (W)	Rated input Voltage (Vac)	Rated Output Voltage (Vdc)	Output Current Range (A)	Precision	Ripple and Noise (mVp-p)
200	100—240	+5.0	0-40.0	±2%	≤200

Ⅲ. Reference standards and specifications

GB/T2423.1-2001 Environmental testing for electric and electronic products, Par 2: Test Method / Test A: Cold.

GB/T2423.2-2001 Environmental testing for electric and electronic products, Par 2: Test Method / Test B: Dry heat.

GB/T2423.3-1993 Basic environmental testing procedures for electric and electronic products -- Test Ca: Damp heat,steady state.

GB/T2423.4-1993 Basic environmental testing procedures for electric and electronic products -- Test Db: Damp Heat,cyclic.

GB/T2423.5-1995 Environmental testing for electric and electronic products Part 2:Test Method / Test Ea and guidance:Shock

GB/T2423.5-1995	Environmental testing for electric and electronic products Part 2:Test Method / Test Ea and guidance:Collision
GB/T2423.8-1995	Environmental testing for electric and electronic products Part 2:Test Method / Test Ed: Free fall
GB/T2423.10-1995	Environmental testing for electric and electronic products Part 2:Test Method / Test Fc and guidance: Vibration(Sine)
GB/T2423.11-1997	Environmental testing for electric and electronic products Part 2:Test Method / Test Fd: Wideband Random Vibration ---general requirement
GB/T2423.22-2002	Environmental testing for electric and electronic products Part 2:Test N: Temperature Variation
GB/T14508-93	Mechanical environmental conditions of cargo transportation in classed highway
EN55022: 1998	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
EN55024: 1998	Information technology equipment - Anti-Jamming Characteristics-Limits and methods of Measurement
CEI IEC 61000-4-2 2001	Electromagnetic compatibility, Testing and Measurement Techniques, Electrostatic Discharge noise Immunity Test
CEI IEC 61000-4-3 2002	Electromagnetic compatibility, Testing and Measurement Techniques, radio-frequency, electromagnetic field noise immunity test
CEI IEC 61000-4-4 1998	Electromagnetic compatibility, Testing and Measurement Techniques, Electrical fast transient / burst noise immunity test
CEI IEC 61000-4-5 1999	Electromagnetic compatibility, Testing and Measurement Techniques, Surge(impact) noise immunity test
CEI IEC 61000-4-6 2001	Electromagnetic compatibility, Testing and Measurement Techniques,Noise immunity to conducted disturbances, induced by radio-frequency fields
CEI IEC 61000-4-8 1993	Electromagnetic compatibility, Testing and Measurement Techniques, Power frequency magnetic Field noise immunity test

CEI IEC 61000-4-11 1994 **Electromagnetic compatibility, Testing and Measurement Techniques, Voltage dips,short interruptions and voltage variations noise immunity tests**

CEI IEC 61000-4-29 2000 **Electromagnetic compatibility, Testing and Measurement Techniques, Voltage dips short interruptions and voltage variations on d.c. input power port noise immunity tests**

IEC 61000-3-2 2001 **Electromagnetic compatibility, Limits, Limits for harmonic current emissions(equipment input current≤16 A per phase)**

IEC 61000-3-3 1994 **Electromagnetic compatibility, Limits, Limitation of voltage fluctuations and flicker in low-voltage power supply systems for equipment with rated current ≤16A**

GB4943-2001 **Safety of Information technology equipment**

YD/T 282-2000 **General reliability test methods for communication equipment**

GB/T 13722-92 **Performance requirements and testing methods for the mobile communication power supply**

YD/T 732-95 **Test method for DC-DC converter for telecommunication**

YD/T 731-2002 **High frequency switch-mode rectifier for telecommunication**

Ⅳ.Condition

Item	Description	Tech Spec	Unit	Remark
1	Working Temperature	-30—60	℃	
2	Storing Temperature	-40—80	℃	
3	Relative humidity	10—60	%	
4	Heat Dissipation Method	Natural cooling		
5	Air Pressure	80—106	Kpa	
6	Height of Sea Level	2000	m	

Ⅴ.Electrical character

1	Input character

Item	Description	Tech Spec	Unit	Remark
1.1	Rated Voltage Range	100-240	Vac	
1.2	Input Frequency Range	47—63	Hz	
1.3	Efficiency	≥89	%	Vin=220Vac Output Full Load (at room temperature)
1.4	Efficiency Factor	≥0.95		Vin=220Vac Rated input voltage, output full load
1.5	Max Input Current	≤2.5	A	
1.6	Dash Current	≤120	A	Vin=220Vac Cold state test
2	Output characteristics			
Item	**Description**	**Tech Spec**	**Unit**	**Remark**
2.1	Output voltage rating	+5.0	Vdc	
2.2	Output current range	0—40.0	A	
2.3	Output voltage adjustable range	4.85—5.15	Vdc	
2.4	Output voltage range	±1%	Vo	
2.5	Load Regulation	±1%	Vo	
2.6	Voltage stability accuracy	±2%	Vo	
2.7	Output Ripple and Noise	≤150	mVp-p	Rated input, output full load, 20MHz bandwidth, load side and 47uf / 104 capacitor
2.8	Start output delay	≤3.5	s	Vin = 220Vac test
2.9	Output Voltage Raise Time	≤50	ms	
2.10	Switch machine overshoot	±5%	Vo	Test conditions: full load, CR mode
2.11	Output dynamic	The voltage change is less than ±5% Vo ; the dynamic response time is less than 250us		LOAD 25%-50%-25% 50%-75%-50 %

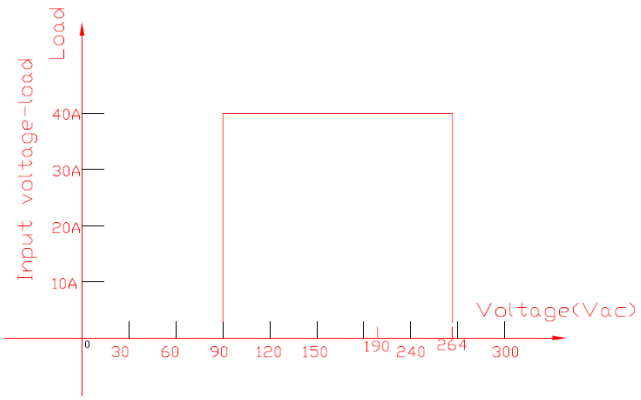
3	Protection characteristics			
Item	**Description**	**Tech Spec**	**Unit**	**Remark**
3.1	Input voltage shortage protection	60-80	VAC	Test conditions: full load
3.2	Input under-voltage recovery point	75-88	VAC	
3.3	Output limited Protection	48-60	A	HI-CUP hiccups self-recovery, avoid long-term damage to power after a short-circuit power.
3.4	Output short circuit protection	≥48.0	A	
Note:				
4	Others			
Item	**Description**	**Tech Spec**	**Unit**	**Remark**
4.1	MTBF	≥40,000	H	
4.2	Leakage current	＜10mA(Vin=220Vac)		GB8898-2001 9.1.1 Test method

VI. Production Compliance characteristics

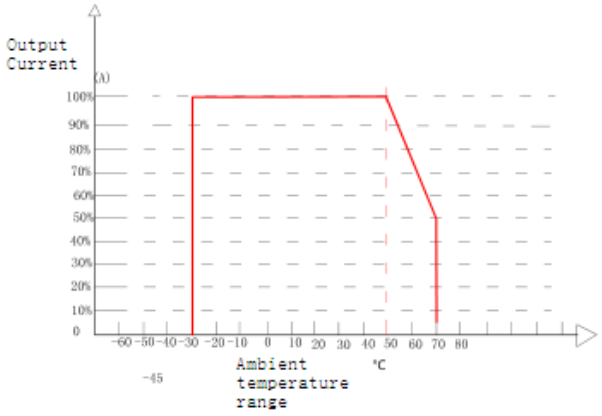
Item	Description		Tech Spec	Unit
1	Electric Strength	Input to output	3000Vac/10mA/1min	No arcing, no breakdown
2	Electric Strength	Input to ground	1500Vac/10mA/1min	No arcing, no breakdown
3	Electric Strength	Output to ground	500Vac/10mA/1min	No arcing, no breakdown

Ⅶ. Relative Data curve

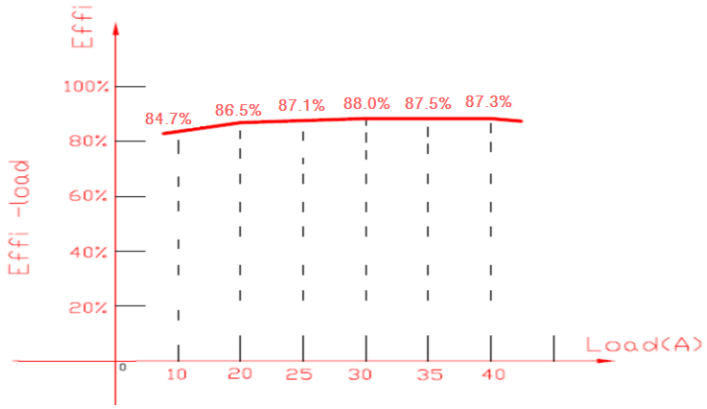
(1) Input Voltage and Load voltage curve：



(2) The relationship between ambient temperature and load：



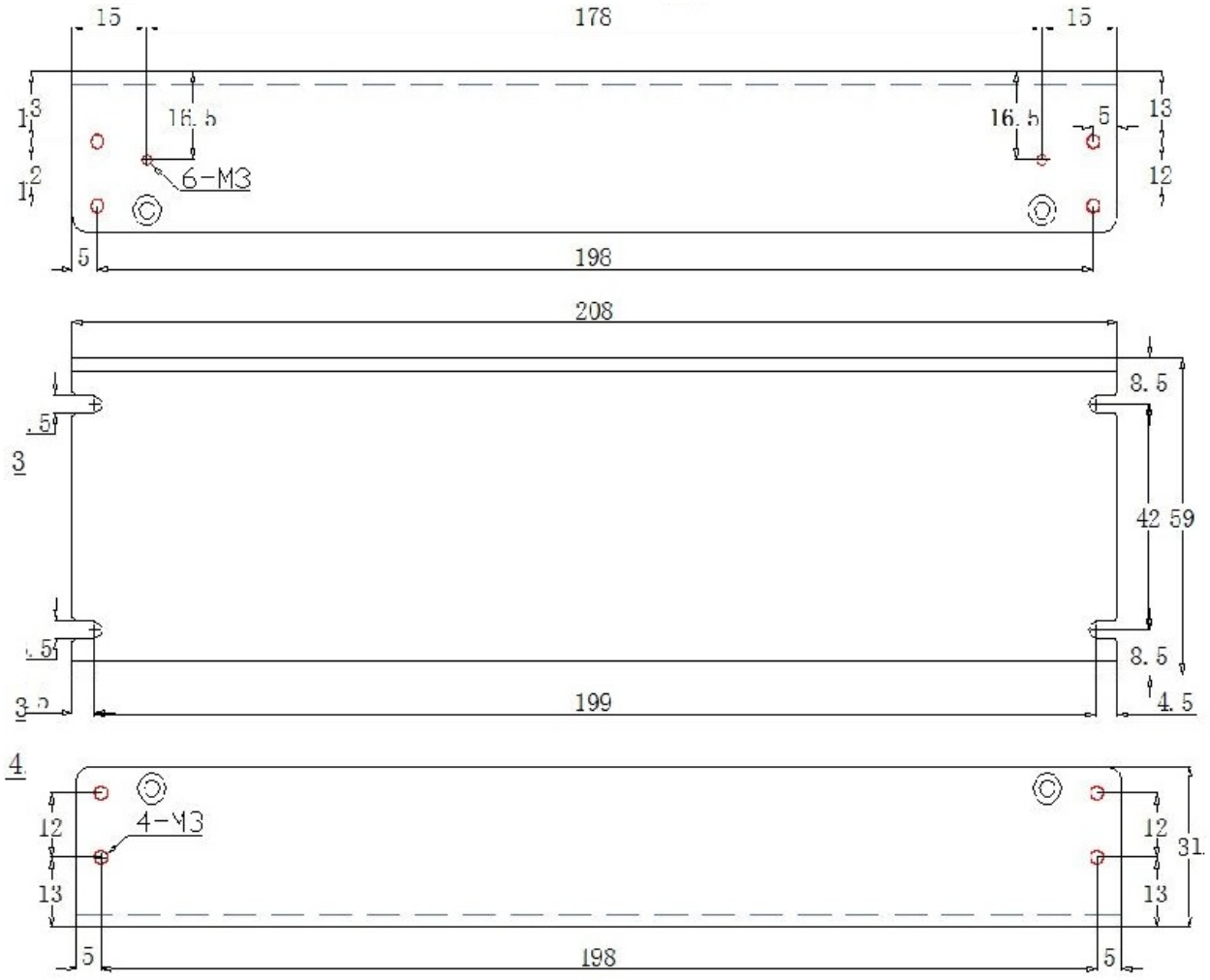
(3) Load efficiency curve：



Ⅷ. The mechanical properties and the definition of connector（unit：mm）

1. Dimensions: length × width × height =208×60×31±0.5

2. Assembly Holes Dimensions



The picture above shows the bottom view, fixed in the customer system screw specification is M3. fixed screw into the power body length can not exceed 3.5mm.

Ⅸ. Attention For Application

1. Power supply to be safe insulation, any side of the metal shell with the outside should be more than 8mm safe distance. If less than 8mm need to pad 1mm thickness above PVC sheet to strengthen the insulation

2. Safe use, to avoid contact with the heat sink, resulting in electric shock

3. PCB board mounting hole stud diameter not exceeding 8mm

4. Need a **L315mm*W90mm*H3mm** aluminum plate as auxiliary heat sink

X. Packaging, transport, storing

1. Packaging

Packing box on the product name, model, manufacturer logo, the quality of the manufacturer's inspection certificate, the date of manufacture.

2. Transport

Suitable for car, ship, air transport, transportation should awnings, sun protection, civilized handling.

3. Storing

When the product is not in use should be stored in the box, the warehouse ambient temperature -10℃—+80 ℃, relative humidity of 10% -90%, the warehouse does not allow harmful gases, flammable, explosive products and corrosion Chemical products, and no strong mechanical vibration, shock and strong magnetic field, the box should be at least 20cm away from the ground, from the wall, heat, window or air inlet at least 50cm, under the conditions of the storage period is generally 2 years，more than 2 years should be re-tested.

Xl. Label