Switching power supply manual

■ Summary

1. Switching power supply is a high frequency switch mode power electronics products, often used as a power supply device, usual power conversion methods have: AC-DC, DC-DC, DC-AC etc.
2. Switching power supply has features of high efficiency, small size, and high adaptability, because of its operating principal.

■ Model number legend

S - 120 - 12

- S: Output groups quantity
  - S: Single group
  - D: Double groups
  - T: Triple groups
  - Q: Four groups
- 120: Output power (W)
- 12: Output voltage V

■Selection instructions

1. Input voltage: The input voltage has: 110VAC, 220VAC, 380VAC, need be consistent to the supply voltage.
2. Output voltage: The output voltage has: 3.5V, 5V, 7.5V, 12V, 15V, 24V, 36V, 48V ..... (Within 3.0V-110V range), 380VAC, need match the load's rated voltage.
3. Output current: confirmed by the current or the average current value measured by multimeter. If it is high ambient temperature, bad air flow, inductive load, please add 20 to 30% of the current balance.
4. Output power: decided by the load rated power. If you don't know the power, can calculated by load's rated current and rated voltage (Current * Voltage = Power), the switching power supply's power should be 15 to 30% greater than the actual used power and peak power.
5. Output DC group: Usual it has four types: S- single group, D-dual, T- three groups, Q- four groups, decided by the load.
6. Switching power supply has over / undervoltage, overcurrent, overheating protection and cooling fan protection. Please choose according to actual usage, in order to enhance the systems engineering's stability and reliability.
7. Switching power supply types: Industry iron case type, rail type, LED outdoor weatherproof and waterproof type, please choose according to the actual application.

■ Use description

1. 1.1 Connect the live line and neutral line to L, N.
   1.2 The DC output's positive is marked as "+ V", negative is marked as "- V, COM".
   1.3 Multiple DC output voltage are marked: "+ V1", "+ V2", "+ V3", "+ V4", "- V1", "- V2", "- V3", "- V4" etc or marked voltage directly. The positive and negative's common interfaces is "COM".
   1.4 Power ground is "⏚"
2. Before switching on power supply,
   2.1 Check the input cable and output cable connected right (AC's live line, neutral line, ground line, DC's positive, negative).
   2.2 Whether the power line's cross-sectional area is sufficient (AC line voltage drop doesn't exceed 5%; DC line voltage drop doesn't exceed 0.5%).
   2.3 Check whether the mounting screws and switching power supply (board) device reach to

requirements in order to avoid electric shock, and to ensure safe use and reduce interference, make sure the ground wire is well grounded (grounding copper wire cross-sectional area should be larger than 0.75mm).

3. General-purpose multi-output switching power supply has main output and auxiliary output, main output characteristics is superior than auxiliary output, Usually, bigger rated output current, or more stable and current is not too small output can be main output. If just use auxiliary output and not use main output, the main output must add a 20% rated output's dummy load (It is not limited for customized or special power supply, customer need tell before ordering).

■ Customer need to know

1. Input power on / off frequently or input error will affect the product's life; use abnormal or using it in abnormal environments, also will shorten the life; The environment temperature, humidity (absolute dry), dust, acid pollution extraordinarily, it will have a negative impact on the life of the power supply.
2. The mounting screws must not be too long, to prevent against the board or component, to avoid danger.
3. According to the input AC voltage, pull the switch to 115V or 230V, so as not to damage the switching power supply.
4. When the power network environment is poor, please consider giving measures to enhance the stability and reliability of the using switching power supply.
5. When the supply voltage fluctuate big and often undervoltage, overvoltage, consider installing power enough voltage regulator or Over/Under Voltage Protector before providing power to power equipment.
6. When the power grid has using large electrical equipment, please consider installing matched AC filter before providing power to power equipment.
7. Can full load use within the allowed ambient humidity range, when the ambient humidity exceeds the upper limit, should reduce output power based on the power output curve. For example, if the switching power supply's operating temperature is -10 ~ 45 ° C, when the ambient humidity is 70 ° C, the output power should not exceed 50% rated power, when the ambient temperature is below -10 ° C, the power supply may not start or not normal output.

■ Warranty

1. Warranty: 1 year.
2. If the used environment is beyond the specified range or the exist man-made damage factors, will not have free maintenance service.
3. If self overhaul or replace product, will not have free maintenance service.