



Key features



- Universal input : 85-264 VAC, 50/60 Hz
- Low ripple and noise
- Over load and short circuit protection
- Optional of constant current mode of output
- Industrial/military design、 chassis type mounted;
- Lower power, RoSH , no-load loss <0.75W
- 100% test and work
- 3 Years product warranty



SPM (30) (36) (50) series --- a wiring module power supply offered by Zhongyiguang. The maximum output power is (30) (36) (50) W , high efficiency, low loss, and adopts the design of Europe and the United States first-line brand components. It has high reliability, small size, high power density, good anti-interference characteristics, and widely used in military industry, communications, industrial automation, industrial control and so on related high-end industry.

Electrical specifications

| Model | Input voltage | Output Power(W) | Output voltage(V) | Output current(A) | Ripple(mv) | Efficiency (%) |
|-----------------|-----------------------------|-----------------|-------------------|-------------------|------------|----------------|
| SPM30-S05-EA | 85 ~ 264VAC 90 ~ 370VDC | 30 | 5 | 6.0 | 100 | 76 |
| SPM30-S12-EA | | 30 | 12 | 2.5 | 100 | 82 |
| SPM30-S24-EA | | 30 | 24 | 1.25 | 100 | 85 |
| SPM30-S48-EA | | 30 | 48 | 0.625 | 100 | 86 |
| SPM36-S05-EA | 90 ~ 264VAC 100 ~ 370VDC | 35 | 5 | 7.0 | 100 | 76 |
| SPM36-S12-EA | | 36 | 12 | 3.0 | 100 | 82 |
| SPM36-S24-EA | | 36 | 24 | 1.5 | 100 | 85 |
| SPM36-S48-EA | | 36 | 48 | 0.75 | 100 | 86 |
| SPM50-220S12-EA | 220 (165~264)VAC | 48 | 12 | 4 | 100 | 82 |
| SPM50-220S24-EA | | 50 | 24 | 2.1 | 100 | 85 |
| SPM50-220S48-EA | | 50 | 48 | 1.05 | 100 | 86 |
| SPM50-220S50-EA | | 50 | 50 | 1.0 | 100 | 86 |

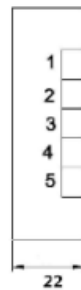
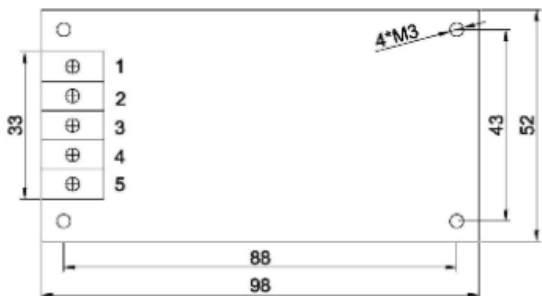
Description: due to the requirement of product naming standard, SPM50-220SXX-EA series products are originally called SPM50-SXX-EA

General features

| | | | | |
|--------|--------------------------|-----------------|---------------------------|--------------|
| Output | Output accuracy | ±2.0% | | |
| | Line regulation | ±1.0% | | |
| | Load regulation | ±1.0% | | |
| | Setup rise time(TYP) | 100ms/230VAC | 200ms/115VAC at full load | |
| | Output hold-up time(TYP) | 40ms/230VAC | 15ms/115VAC at full load | |
| Input | Input voltage range | SPM30-SXX-EA | 85 ~ 264VAC | 90 ~ 370VDC |
| | | SPM36-SXX-EA | 90 ~ 264VAC | 100 ~ 370VDC |
| | | SPM50-220SXX-EA | 220(165~264)VAC | |

| | | | | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------|-----------------|
| | Input current (TYP) | SPM30-SXX-EA | 0.55 A / 115VAC | 0.28 A / 230VAC |
| | | SPM36-SXX-EA | 0.75 A / 115VAC | 0.35 A / 230VAC |
| | | SPM50-220SXX-EA | 0.5 A / 230VAC | |
| | Input frequency | 47 ~ 63Hz | | |
| | Input current(TYP) | 285m A / 115VAC | 175m A / 230VAC | |
| | Inrush current(TYP) | Cool boot 30 A / 115 VAC | 50A / 230 VAC | |
| | Recommended values for External Fuses | T2A / 250Vac (disconnected slowly) | | |
| Leakage current(TYP) | < 1mA at 230VAC/50Hz | | | |
| Protection | Over current and short circuit protection, automatic recovery after troubleshooting.(hiccap mode) | | | |
| Working environment | Operating temperature | -40 ~ +70 °C (According to the output load derating) | | |
| | Humidity | 85% .RH max | | |
| | Storage temperature | -40 ~ +85, 10 ~ 95% RH | | |
| | Temperature coefficient | 0.03%/ (0~ 50°C) | | |
| | Vibration coefficient | 10~500Hz,2G10min./1cycle, 60min.each along X,Y,Z axes | | |
| Safety and EMC(Note:3) | Safety standards | Conform to UL1012,EN60950,UL60950 | | |
| | I/O-isolation voltage | I/P-O/P:2.5KVAC | I/P-FG:1.5KVAC | O/P-FG:0.5KVAC |
| | insulation resistance | I/P-O/P,I/P-FG,O/P-FG:> 100M Ohms/500VDC 25°C 70% RH | | |
| | EMI / RFI conducted | Conform to EN55011, EN55022 (CISPR22) | | |
| | ESD | IEC/EN 61000-4-2 level 4 8kV/15kV | | |
| | RS | IEC/EN 61000-4-3 | | |
| | EFT | IEC/EN 61000-4-4 level 4 4kV | | |
| | Surge | IEC/EN 61000-4-5 level 4 2kV | | |
| Others | MTBF | 200K hrs min. | MIL-HDBK-217F(25) | |
| | Dimension | 50.8*25.4*15.5mm, | | |
| | Weight | 215g | | |
| | Packing box | 360*300*250mm | | |
| Notes | 1. Unless otherwise indicated of the above data,Our products are tested in the condition of TA=25o°C, humidity <75%,230Vac nominal voltage input and rated load output. | | | |
| | 2. Ripple & noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. | | | |
| | 3. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. | | | |
| | 4. Mark " C " means that the product is stabilization of output current.For example: " SPM30-S12-EA-C " means Vo=12V, Io=2.5A, Io is stabilization. | | | |

Dimension



| Pin | Definition | |
|-----|------------|-----------------|
| 1 | AC (L) | ACinput |
| 2 | AC (N) | ACinput |
| 3 | FG | Chassis ground |
| 4 | +Vo | Positive output |
| 5 | -Vo | Negative output |

Product schematic diagram