

Switching Power Supply Enclosed Type SPPC 50W Series Single Output

CARLO GAVAZZI



- Universal AC input range
- Miniature size, long life, and high power density, efficiency and reliability
- Operating altitude up to 5,000m
- Easy assembly from top side
- Withstand 300VA surge input for 5 sec.
- Output protections: OLP/OVP/SCP
- Wide operating ambient temperature (-25°C~70°C), 100%@50°C, 70%@70°C
- PCB soldering side with conformal coating

Product Description

Enclosed Switching Power Supply for AC DC and DC DC power requirements. The new SPPC family provides flexible OEM power solutions for industrial control and automation applications,

which in the case of the SPPC 50W ranges from 5V to 48V. All the range carries full certification offering a wide range of universal input and screw terminal connections.

Ordering Key

SP PC XX 50 1

Power supply model _____
Panel mounted _____
Output voltage _____
Output power _____
Input type (single phase) _____

Approvals



Output Performances

| MODEL NO. | INPUT VOLTAGE | OUTPUT VOLTAGE | VOLTAGE ADJ | RATED CURRENT | VOLTAGE ACCURACY |
|----------------------|---------------|----------------|-------------|---------------|------------------|
| Single Output Models | | | | | |
| SPPC 550 1 | 90VAC~264VAC | 5V | -5%~+10% | 8 A | ±3.0% |
| SPPC 1250 1 | 90VAC~264VAC | 12V | -5%~+10% | 4.2 A | ±3.0% |
| SPPC 1550 1 | 90VAC~264VAC | 15V | -5%~+10% | 3.4 A | ±3.0% |
| SPPC 2450 1 | 90VAC~264VAC | 24V | -5%~+10% | 2.2 A | ±3.0% |
| SPPC 4850 1 | 90VAC~264VAC | 48V | -5%~+10% | 1.12 A | ±3.0% |

Output Data

Current range

| | |
|-------------|---------|
| SPPC 550 1 | 0~8A |
| SPPC 1250 1 | 0~4.2A |
| SPPC 1550 1 | 0~3.4A |
| SPPC 2450 1 | 0~2.2A |
| SPPC 4850 1 | 0~1.12A |

Ripple and noise (-25°~70°C)

*Note

| | |
|-------------|--------|
| SPPC 550 1 | <80mV |
| SPPC 1250 1 | <120mV |
| SPPC 1550 1 | <120mV |
| SPPC 2450 1 | <200mV |
| SPPC 4850 1 | <200mV |

* Note: Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 10uF parallel capacitor.

Line regulation

± 0.5%

Load regulation

± 1.0%

Turn on time (full resistive load)

<2.0S (115VAC input, Full load)
<1.5S (230VAC input, Full load)

Temperature coefficient

±0.03%/°C

Hold up time

>20mS (115VAC input, Full load);
>50mS (230VAC input, Full load)

Overshoot and undershoot

<5.0%

Input Data All specifications are at nominal values, full load, 25°C unless otherwise noticed

| | | | |
|------------------------|---------------------------|---------------------------------|---------------------------------------|
| Voltage range | 90VAC~264VAC 27~370VDC | AC current | <1.5A |
| Frequency range | 47Hz~63Hz | Inrush current (Typical) | <20A@115VAC <40A@230VAC Cold start |
| Efficiency | | Leakage current | |
| SPPC 550 1 | 115VAC, 79%; 230VAC 80% | Input - Output | <0.25mA |
| SPPC 1250 1 | 115VAC, 84%; 230VAC 85% | Input - PG | <0.75mA |
| SPPC 1550 1 | 115VAC, 85%; 230VAC 86% | | |
| SPPC 2450 1 | 115VAC, 86%; 230VAC 87% | | |
| SPPC 4850 1 | 115VAC, 88%; 230VAC 89% | | |

Controls and Protection

| | | | |
|-----------------------------------|---|---------------------------|--|
| Overload (OLP) | 105%~150% of rated output current, constant power, auto recovery. | Over voltage (OVP) | 105%~150% of rated output voltage, Constant Voltage. |
| Output short circuit (SCP) | Long-term mode, auto recovery. | | |

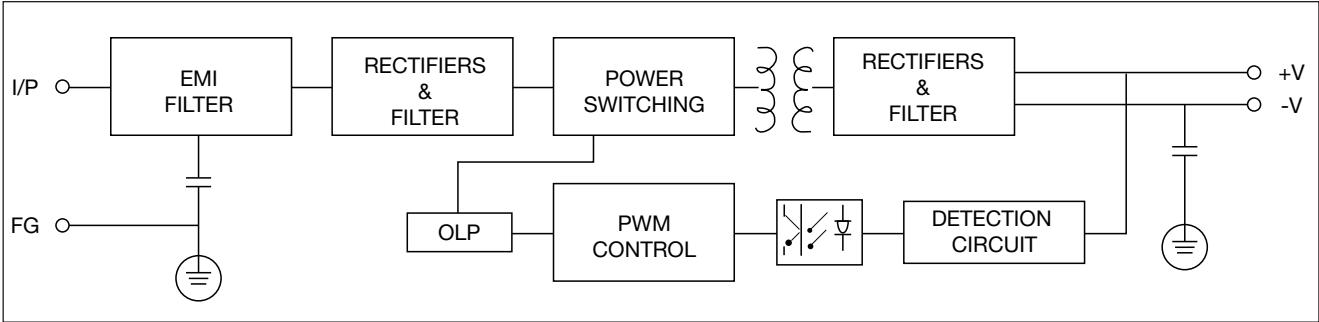
General Data All specifications are at nominal values, full load, 25°C unless otherwise noticed

| | | | |
|----------------------------------|---|-----------------------------|---|
| Ambient temperature | -25°C to +70°C | MTBF (MIL-HDBK-217F) | More than 200.000 hrs |
| Relative humidity | 20 - 90% RH | Case material | Metal |
| Storage | -40°C to +85°C; 10% ~ 95% RH no condensing. | Dimensions LxWxD | 99 x 82 x 35 mm |
| Cooling | Free air convection | Packing | 40 PCS/CTN. G.W: 12.8kgs 0.043CBM |
| Insulation resistance I/O | ≥100M ohms | | |

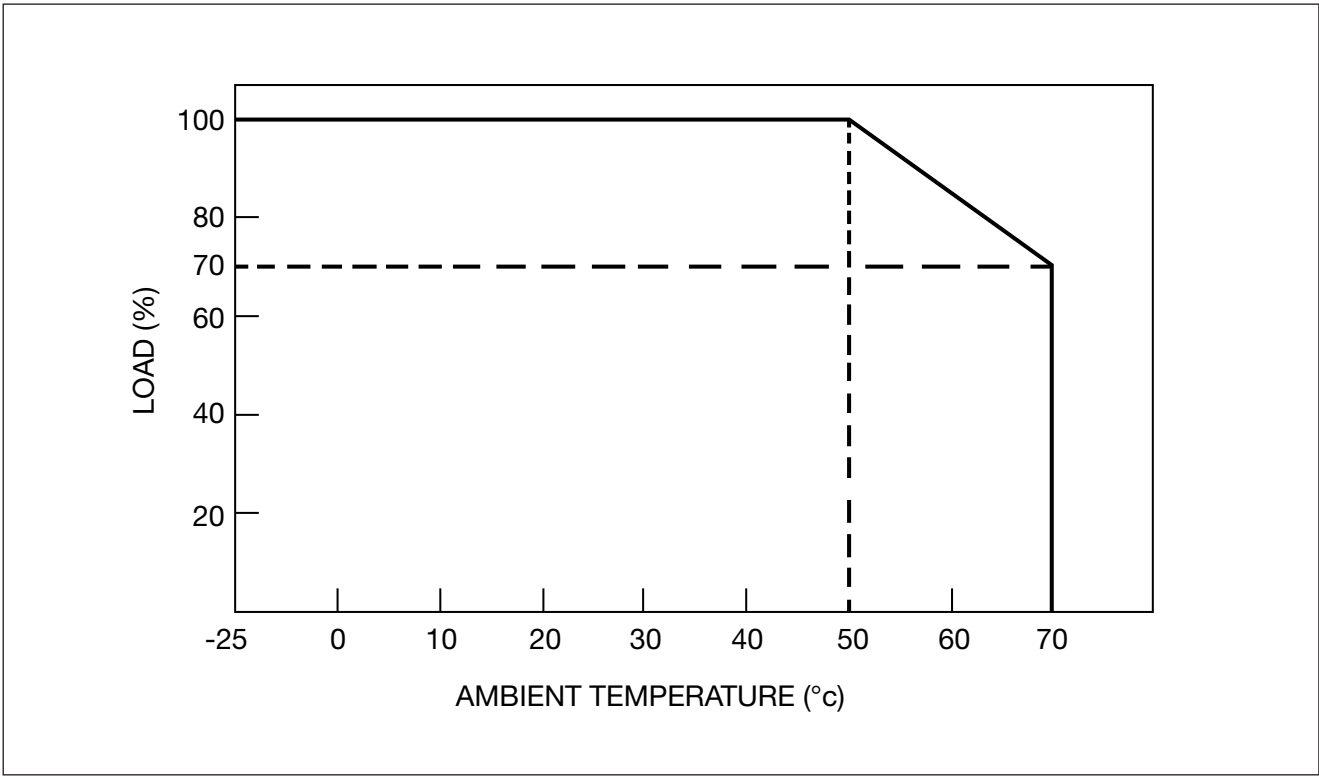
Norms and Standard

| | | | |
|--------------------------|---|-------------------------|---|
| Safety standard | UL60950-1 2 nd Ed: IEC 60950-1:2005 (2 nd Ed); EN60950-1:2006 | Harmonic current | Compliance to EN61000-3-2, 3 |
| Withstand voltage | Primary-Secondary: 3.0kVAC; ≤10mA. Primary-PG: 1.5kVDC; ≤10mA. Secondary PG: 0.5kVDC | EMC emission | Compliance to EN55022, EN55024 ClassB |
| | | EMC immunity | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; ENV55024, EN61000-6-2 heavy industry level. |

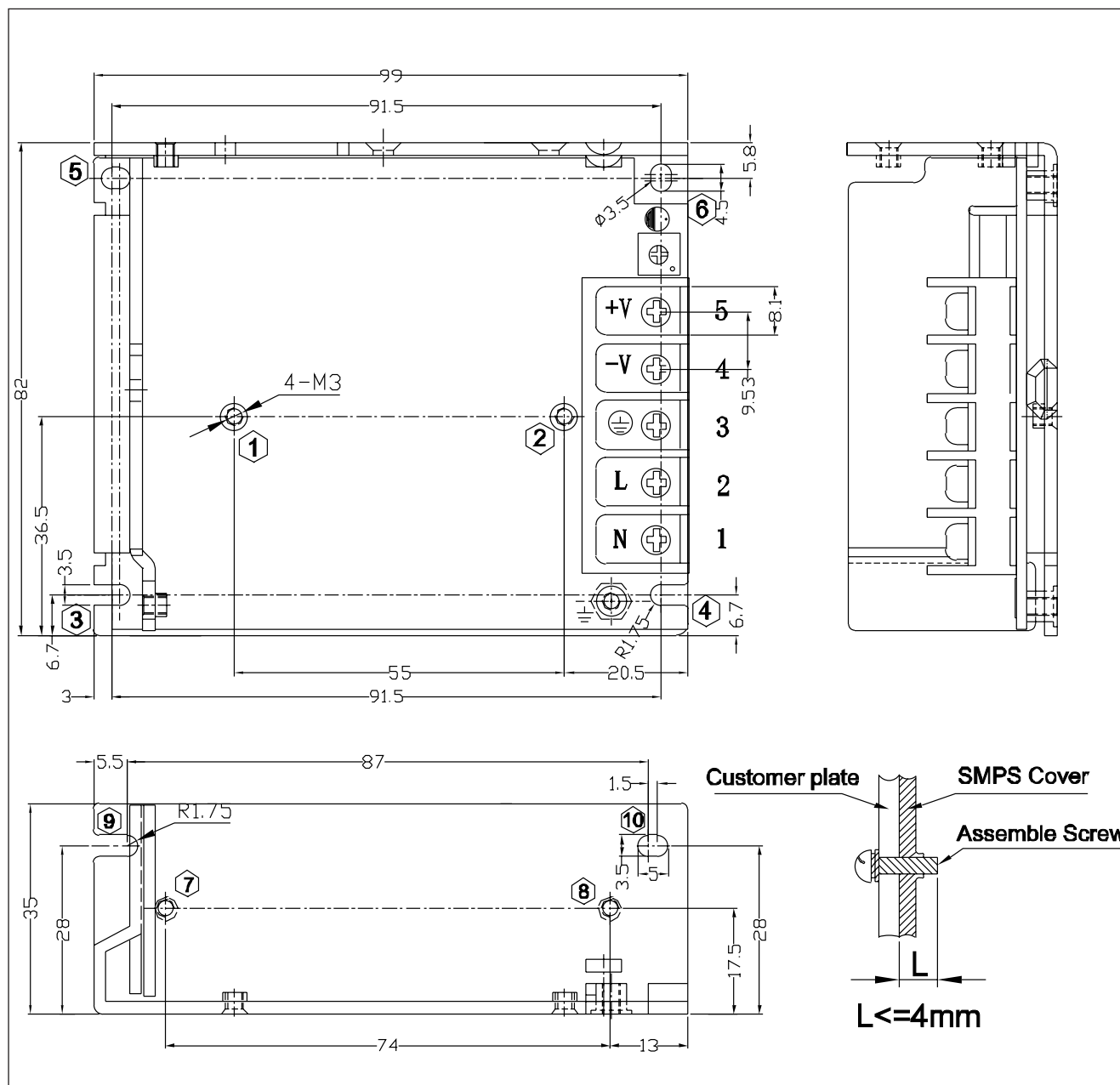
Block Diagram



Derating Curve



Mechanical Drawing



Mouser Electronics

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