

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.		

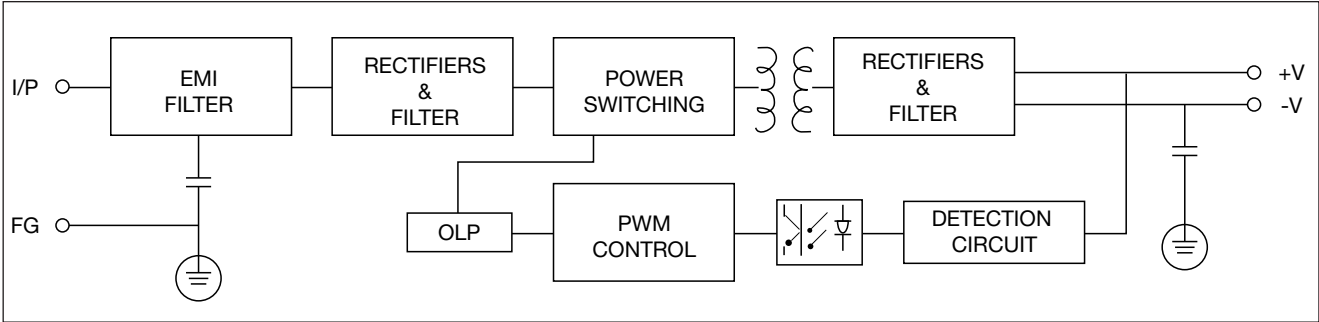
General Data All specifications are at nominal values, full load, 25°C unless otherwise noticed

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		

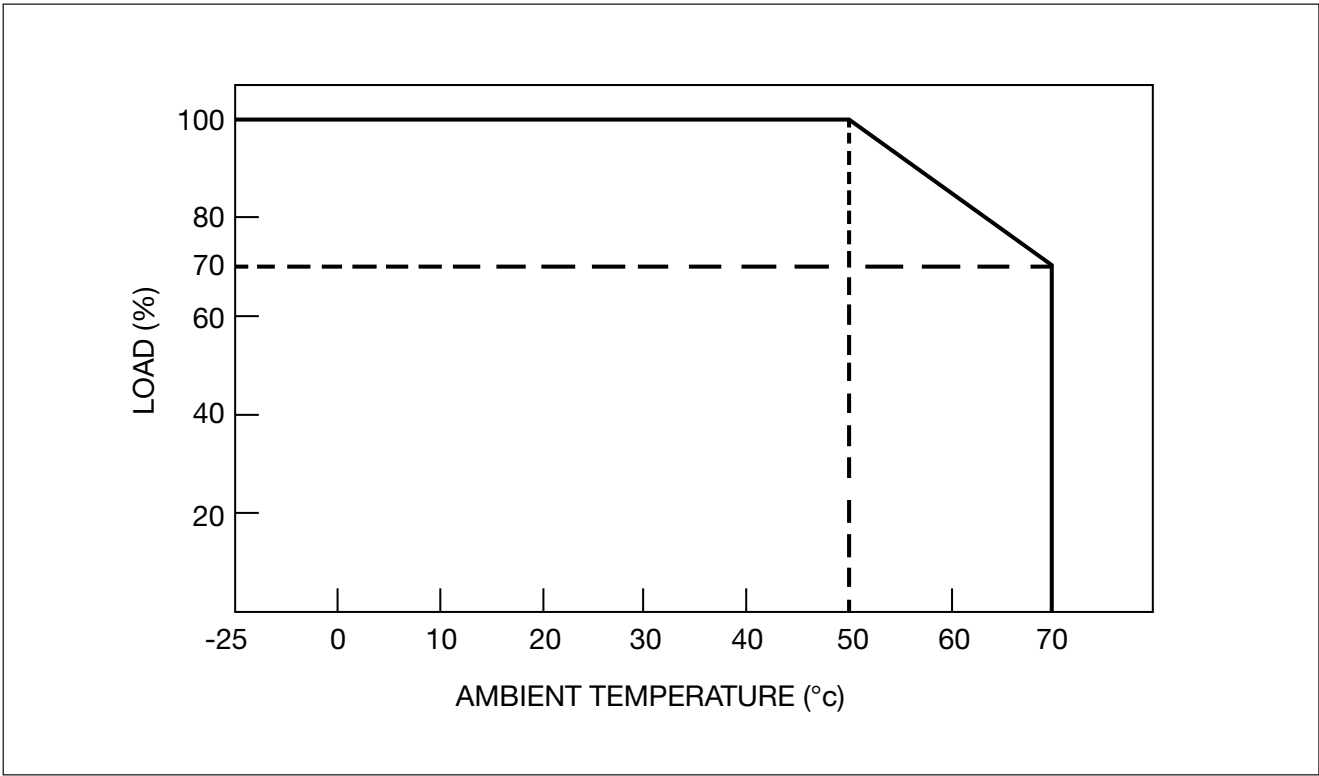
Norms and Standard

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

