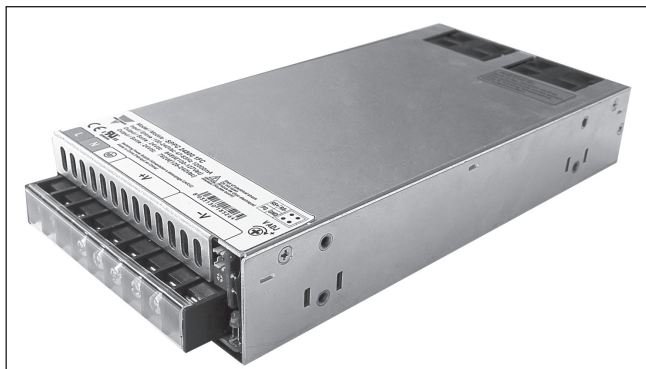


# Switching Power Supply Enclosed Type SPPC 800W Series Single Output

CARLO GAVAZZI



- Universal AC input/ Full range
- Built-in active PFC function, PF>0.96
- Using ZVS technology to reduce power dissipation
- Output protection: OVP/OLP/SCP/OPP/OTP
- Built in Fan speed control
- Built in AC inrush current limiting circuit (<20A)
- Built in constant current limiting circuit
- Built in Remote Sense Function
- Built in DC OK signal
- Wide operating ambient temperature (-30°C~70°C)
- 1 U low profile,41mm

## 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 800W ranges from 24V to 48V. All the range carries full certification offering a wide range of universal input and screw terminal connections.

## Ordering Key

**SP PC XX 800 1 F C**

Power supply model \_\_\_\_\_  
 Panel mounted \_\_\_\_\_  
 Output voltage \_\_\_\_\_  
 Output power \_\_\_\_\_  
 Input type (single phase) \_\_\_\_\_  
 Power Factor Correction (PFC) \_\_\_\_\_  
 Compact \_\_\_\_\_

## Approvals



## Output Performances

MODEL NO.	INPUT VOLTAGE	OUTPUT VOLTAGE	VOLTAGE ADJ	VOLTAGE ACCURACY
Single Output Models				
SPPC 24800 1FC	90VAC~264VAC 127VDC~370VDC	24V	-5%~+10%	±2.0%
SPPC 48800 1FC	90VAC~264VAC 127VDC~370VDC	48V	-5%~+10%	±2.0%

## Output Data

Rated current (100~127VAC)		Line regulation	± 0.5%
SPPC 24800 1FC	27A	Load regulation	± 2.0%
SPPC 48800 1FC	14A	Turn on time	<3S (220VAC input, Full load)
Rated current (128~264VAC)		Output voltage accuracy	±2.0%
SPPC 24800 1FC	33A	Temperature coefficient	±0.03%/°C
SPPC 48800 1FC	16.5A	Hold up time	≥8mS (220VAC input, Full load)
Ripple and noise *Note		Overshoot and Undershoot	< 5.0%
SPPC 24800 1FC	≤200mV		
SPPC 48800 1FC	≤240mV		

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

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

Voltage range	90~ 264VAC 127 ~ 370VDC	Leakage current	
Inrush current	<20A@220VAC Cold start	Input-Output	<0.25mA
Frequency range	47-63Hz	Input-PG	<3.5mA
Efficiency		AC current (max.)	≤12A
SPPC 24800 1FC	≥88%	PFC (Power Factor Correction)	PF>0.98/115VAC; PF>0.96/230VAC
SPPC 48800 1FC	≥89%		

## Controls and Protection

Overload (OLP)	110%~135% of rated output current, constant current, auto recovery	Over voltage (OVP)	110%~150% of rated output voltage; constant voltage, auto recovery.
Output short circuit (SCP)	Long-term mode, constant current, auto recovery.		

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

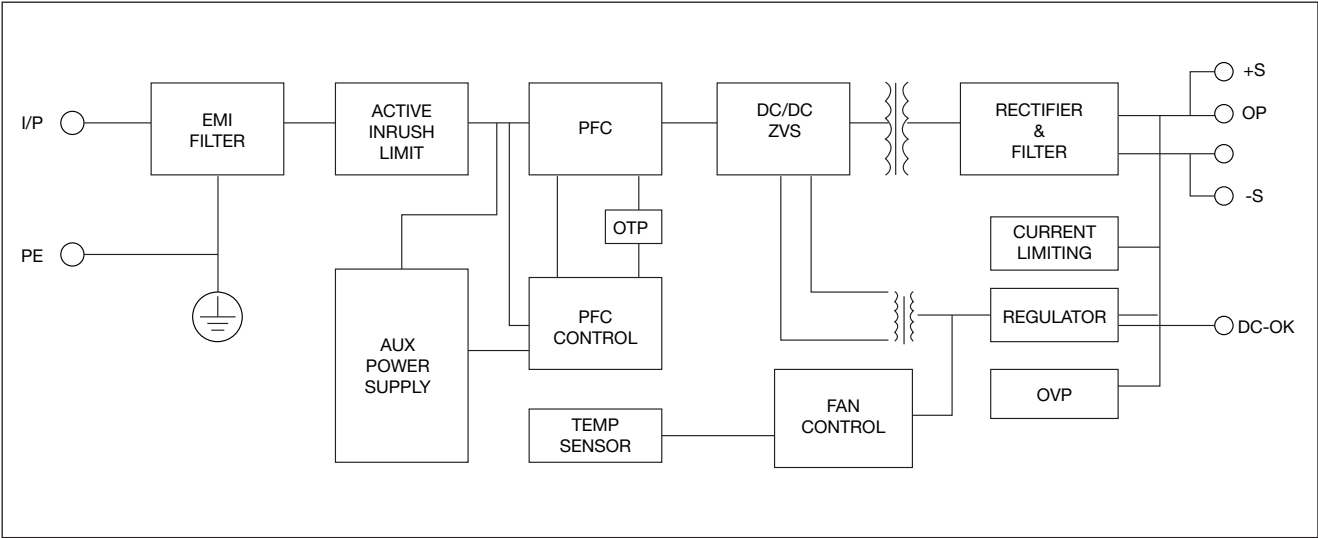
Ambient temperature	-30°C to +70°C	Insolation resistance I/O	≥100M ohms
Relative humidity	20%~90%RH	MTBF (MIL-HDBK-217F)	More than 200.000 hrs
Storage	-40°C to +85°C	Case material	Metal
Cooling	Forced air (built-in fan controlled by load and internal temperature)	Dimensions LxWxD	226 x 116.5 x 41 mm
		Packing	6 PCS/CTN. G.W: 8.9kgs 0.04CBM

## Norms and Standard

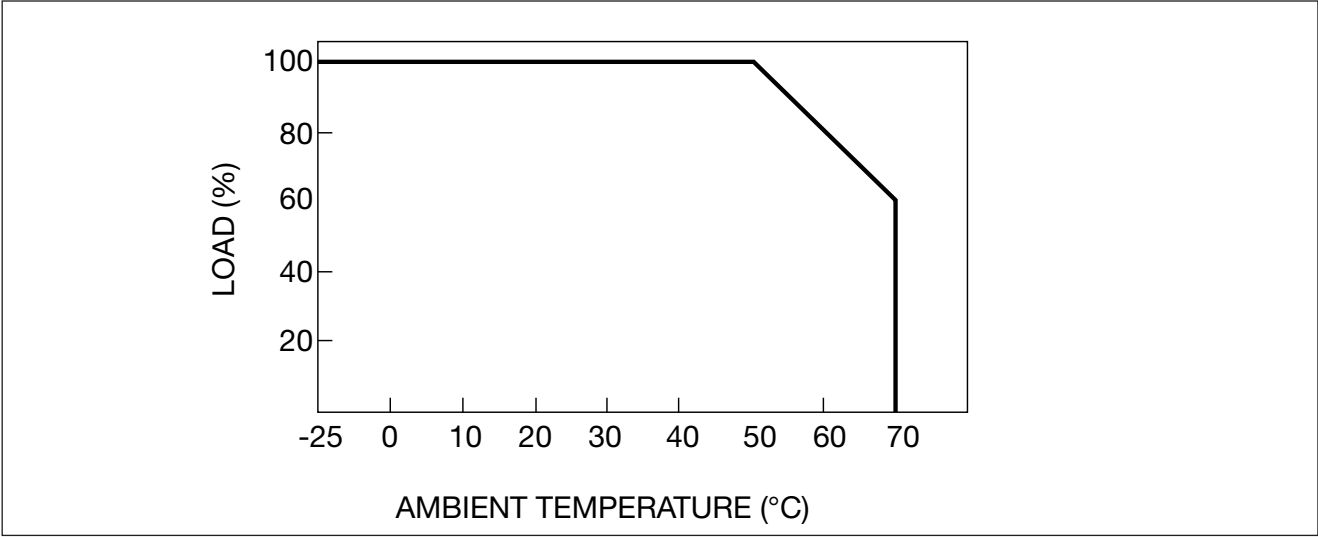
Safety standard	UL60950-1 2 <sup>nd</sup> Ed; IEC 60950-1:2005 (2 <sup>nd</sup> Ed); EN60950-1:2006	EMS immunity	Compliance to EN61000 -4- 2, 3, 4, 5, 6, 8, 11; heavy industry level.
Withstand voltage	Primary-Secondary: 3.0kVAC; ≤10mA. Primary-PG: 1.5kVAC; ≤10mA. Secondary PG: 0.5kVDC; ≤10mA	EMI conduction and radiation	Compliance to EN55022, Class B
		Harmonic current	Compliance to EN61000-3- 2, Class D



Block Diagram



Derating Curve



Technical drawing of the PCB layout for the 12V 10A DC-DC converter, showing dimensions and component locations.

**Top View (Fig. 9):**

- Overall dimensions: 226mm (width) x 116.5mm (height).
- Component locations: CON1 (input connector), CON2 (output connector), S1 (switch), and four mounting holes (1, 2, 3, 4).
- Dimensions: 152.4mm (main component area width), 40.8mm (output connector area width), 63.5mm (output connector area height), 26.5mm (switch area height), 9.25mm (input connector area height), and 11mm (input connector area width).

**Bottom View (Fig. 10):**

- Overall dimensions: 116.5mm (height) x 152.4mm (width).
- Component locations: Mounting holes 5, 6, 7, 8, 9, 10, 11, and 12.
- Dimensions: 33.25mm (output connector area height), 50mm (main component area height), 21.5mm (mounting hole area height), 12.5mm (mounting hole area width), and 32.8mm (mounting hole area width).

**Detail View:**

- Input connector pin configuration: L, N, PE, +V, +V, +V, -V, -V, -V.
- Output connector pin configuration: 3, 4, 1, 2.
- Note: Fixture A (option) Fixture A: for bottom assemble purpose.

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