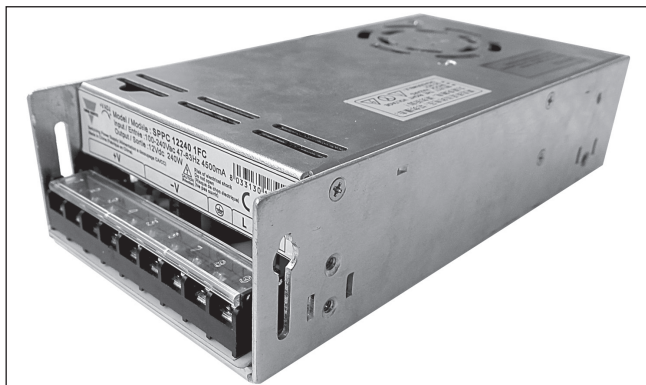


Switching Power Supply Enclosed Type SPPC 240W Series Single Output

CARLO GAVAZZI



- Built-in active PFC (Power Factor Protection), PF>0.95
- Compact size
- Built-in cooling fan speed control
- Universal AC input
- Withstand 300Vac surge input for 5 sec
- High efficiency, long life and high reliability
- Output protections: SCP/OLP/OPP
- Wide operating ambient temperature (-25°C~70°C)
- Operating altitude up to 5,000m
- 100% full load burn-in test
- PCB both sides with conformal coating
- 105°C long life electrolytic capacitor

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 240W 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 240 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	RATED CURRENT	VOLTAGE ACCURACY
Single Output Models					
SPPC 12240 1FC	85VAC~264VAC 120VDC~370VDC	12V	-5%~+10%	20 A	±1.0%
SPPC 24240 1FC	85VAC~264VAC 120VDC~370VDC	24V	-5%~+10%	10 A	±1.0%

Output Data

Current range		Load regulation	± 1.0%
SPPC 12240 1FC	0~20A	Turn on time	<2S (230VAC input, Full load)
SPPC 24240 1FC	0~10A	Output voltage accuracy	±1.0%
Ripple and noise *Note		Temperature coefficient	±0.03%/°C
SPPC 12240 1FC;	<150mV	Hold up time	≥10mS (230VAC input, Full load)
SPPC 24240 1FC	<200mV	Overshoot and Undershoot	< 5.0%
Line regulation	± 0.5%		

* 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	85~ 264VAC 120 ~ 370VDC	Leakage current	
Inrush current	<50A@230VAC; <30A@115VAC Cold start	Input-Output	<0.25mA
Efficiency		Input-PG	<1.0mA
SPPC 12240 1FC	84%	Frequency range	47-63Hz
SPPC 24240 1FC	86%	AC current (max.)	<4.5A
		PFC (Power Factor Correction)	PF>0.98/115VAC; PF>0.95/230VAC

Controls and Protection

Overload (OLP)	120%~170% of rated output current, hiccup mode, auto recovery	Over voltage (OVP)	105%~150% of rated output voltage, hiccup mode, auto recovery
Output short circuit (SCP)	Long-term mode, auto recovery.		

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

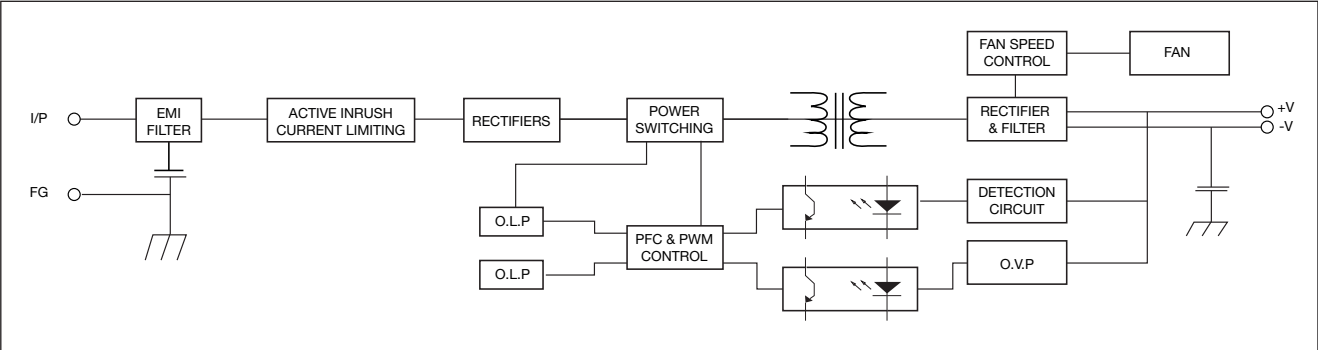
Ambient temperature	-25°C to +70°C	MTBF (MIL-HDBK-217F)	More than 200.000 hrs
Relative humidity	20%~90%RH	Case material	Metal
Storage	-40°C to +85°C	Dimensions LxWxD	199 x 99 x 50 mm
Cooling	Forced air (built-in fan controlled by load and internal temperature)	Packing	12 PCS/CTN. G.W: 11.4kgs 0.04CBM
Insolation resistance I/O	≥100M ohms		

Norms and Standard

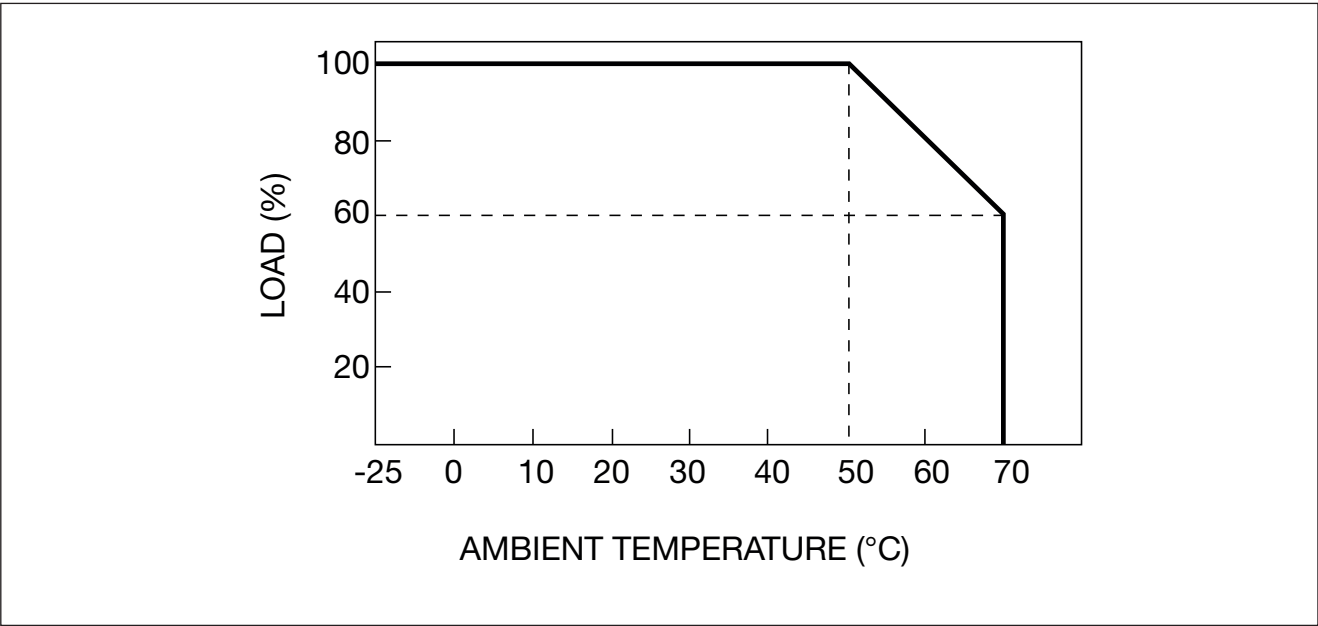
Safety standard	UL60950-1 2 nd Ed; IEC 60950-1:2005 (2 nd Ed); EN60950-1:2006	EMS immunity	Compliance to EN61000 -4- 2, 3, 4, 5, 6, 8, 11; heavy industry level.
Withstand voltage	Primary-Secondary: 3.0kVAC; ≤10mA. Primary-PG: 1.5kVAC; ≤10mA. Secondary PG: 0.5kVDC; ≤10mA	EMI conduction and radiation	Compliance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



Block Diagram



Derating Curve



Technical drawing of the SMPS cover, showing dimensions and callouts for various components and mounting points.

Top View Dimensions:

- Overall width: 199
- Overall height: 119
- Left side panel width: 25
- Distance from left edge to first mounting hole: 12
- Distance between mounting holes: 126
- Distance from right edge to mounting hole: 12
- Distance from left edge to fan area: 117
- Distance from fan area to mounting hole: 65
- Distance from mounting hole to right edge: 64
- Distance from left edge to power input: 49.5
- Distance from power input to first mounting hole: 13
- Distance from first mounting hole to fan area: 150
- Distance from fan area to mounting hole: 15
- Distance from mounting hole to right edge: 7

Left Side Panel Details:

- Power input terminals: +V, +V, +V, -V, -V, -V, L, N
- Terminal block: RV1, S1, FC, CON1
- Mounting holes: 1, 2, 3, 4, 5, 6, 7, 8, 9

Internal Components and Mounting Points:

- FAN
- Mounting points: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
- Mounting holes: 2-M4, 4-M3, 3-M4

Side View Dimensions:

- Overall width: 50
- Distance from top edge to mounting hole: 33

Cross-sectional View:

- Customer Plate
- SMPS Cover
- Assembly Screw
- Thickness: L ≤ 4mm