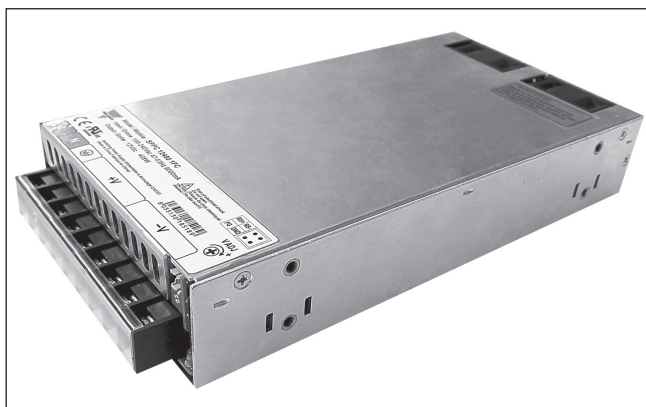


# Switching Power Supply Enclosed Type SPPC 480W Series Single Output

CARLO GAVAZZI



- Universal AC input/ Full range
- Built-in active PFC function, PF>0.96
- Using ZVS technology to reduce power dissipation
- Built in Fan speed control and over temperature protection
- 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 480W ranges from 12V to 48V. All the range carries full certification offering a wide range of universal input and screw terminal connections.

## Ordering Key

**SP PC XX 480 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 12480 1FC	90VAC~264VAC 127VDC~370VDC	12V	-5%~+10%	34 A	±2.0%
SPPC 24480 1FC	90VAC~264VAC 127VDC~370VDC	24V	-5%~+10%	22 A	±2.0%
SPPC 36480 1FC	90VAC~264VAC 127VDC~370VDC	36V	-5%~+10%	14 A	±2.0%
SPPC 48480 1FC	90VAC~264VAC 127VDC~370VDC	48V	-5%~+10%	11 A	±2.0%

## Output Data

### Current range

SPPC 12480 1FC	0~34A
SPPC 24480 1FC	0~22A
SPPC 36480 1FC	0~14A
SPPC 48480 1FC	0~11A

### Ripple and noise \*Note

SPPC 12480 1FC	120mV (0-70°C); 180mV (-30°C)
SPPC 24480 1FC	150mV (0-70°C); 150mV (-30°C)
SPPC 36480 1FC	150mV (0-70°C); 150mV (-30°C)
SPPC 48480 1FC	200mV (0-70°C); 200mV (-30°C)

### Line regulation

Except for SPPC 48480 1FC ± 0.2%

### Load regulation

± 1.0%

### Turn on time

<1.5S (230VAC input, Full load);

<3S (115VAC input, Full load)

### Output voltage accuracy

±2.0%

### Temperature coefficient

±0.05%/°C

### Hold up time

≥16mS (230VAC input, Full load)

### Overshoot and Undershoot

< 5.0%

\* 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@230VAC Cold start	Input-Output	<0.1mA
Efficiency		Input-PG	<0.75mA
SPPC 12480 1FC	88%	AC current (max.)	<7A
SPPC 24480 1FC	89%	Frequency range	47-63Hz
SPPC 36480 1FC	90%	PFC (Power Factor Correction)	PF>0.98/115VAC; PF>0.96/230VAC
SPPC 48480 1FC	90%		

## Controls and Protection

Overload (OLP)	110%~135% of rated output current, constant current.	Over voltage (OVP)	105%~150% of rated 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

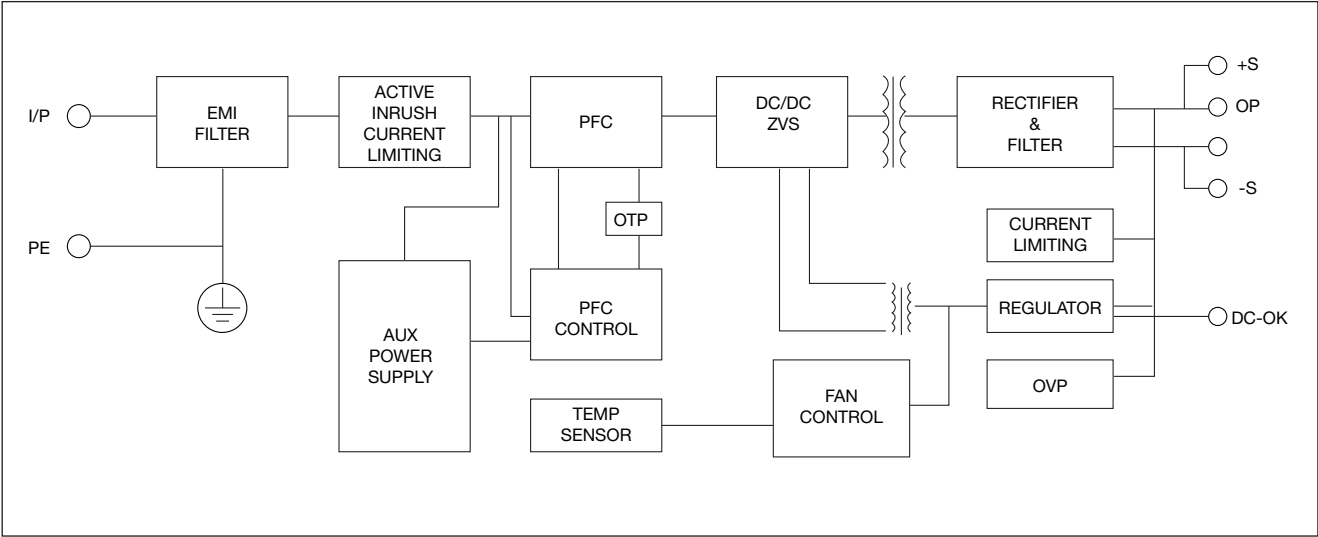
Ambient temperature	-30°C to +70°C	Insolation resistance I/O	≥100M ohms
Relative humidity	20%~90%RH	MTBF (MIL-HDBK-217F)	More than 200.000 hrs
Storage	-40°C to +85°C	Case material	Metal
Cooling	Forced air (built-in fan controlled by load and internal temperature)	Dimensions LxWxD	218 x 116.5 x 41 mm
		Packing	6 PCS/CTN. G.W: 8.7kgs 0.04CBM

## Norms and Standard

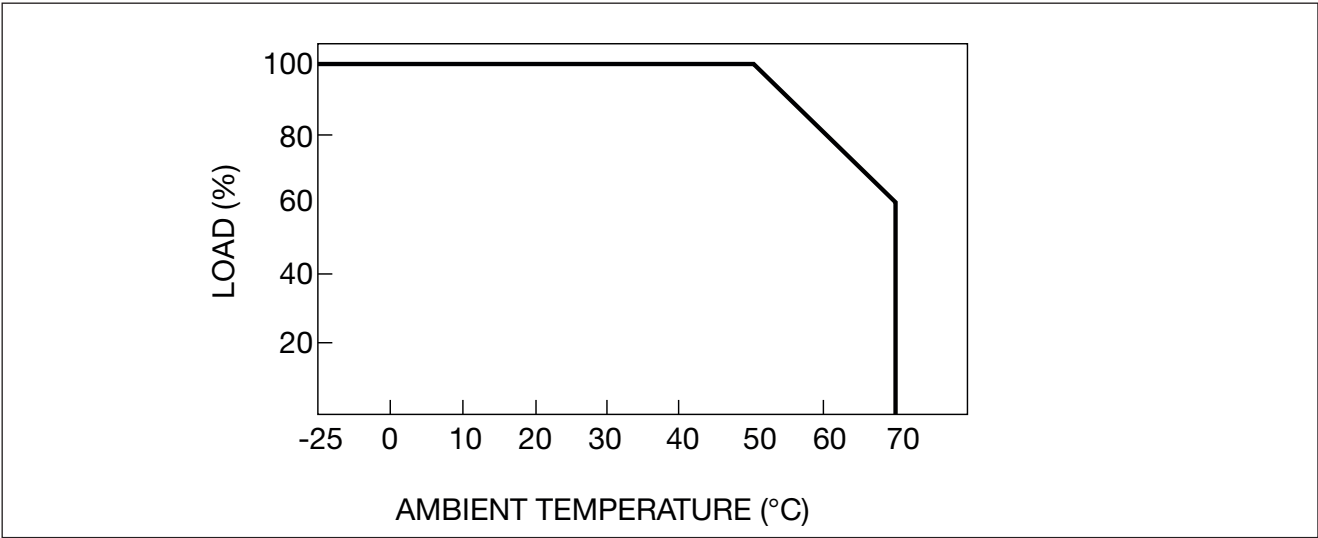
Safety standard	UL60950-1 2 <sup>nd</sup> Ed; IEC 60950-1:2005 (2 <sup>nd</sup> Ed); EN60950-1:2006	EMS immunity	Compliance to EN61000 -4- 2, 3, 4, 5, 6, 8, 11; heavy industry level.
Withstand voltage	Primary-Secondary: 3.0kVAC; ≤10mA. Primary-PG: 1.5kVAC; ≤10mA. Secondary PG: 0.5kVDC; ≤10mA	EMI conduction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



Block Diagram



Derating Curve



## Mechanical Drawing

