

Switching Power Supply Type SPD 480W DIN rail mounting

CARLO GAVAZZI



- Universal AC single phase input full range
- Installation on DIN rail 7.5 or 15mm
- PFC as standard
- High efficiency up to 90%
- Power ready output
- Parallel connection feature
- Compact dimensions
- CE, TÜV, CCC approved and cULus listed

Product Description

The Switching power supplies and compact dimensions and SPD series are specially performance are a must. designed to be used in all automation application where the installation is on a DIN rail

Ordering Key

SP D 24 480 1 B

Model _____
 Mounting (D = Din rail) _____
 Output voltage _____
 Output power _____
 Input Type _____
 Optional features _____

Input type: 1= single phase

Approvals



Optional Features

Description	Code
Plug-in connectors	B

Output performances

Model	Rated output Voltage (VDC)	Output Power (W)	Output Current (A)	Voltage Trim Range ¹⁾		DC OK Threshold at startup (VDC)		DC LO LED Threshold after startup(VDC)		Typical Efficiency
				Min. VDC	Max. VDC	Min.	Max.	Min.	Max.	
SPD24			20	22.5	28.5	17.6	19.4	17.6	19.4	89%
SPD48			10	47.0	56.0	37.0	40.0	37.0	40.0	90%

¹⁾ When S/P switch is set to parallel, it is not possible to trim output voltage.

Output data

Line regulation	± 0.5%	Temperature Coefficient	+0.02% / °C
Load regulation		Hold up time Vi = 230VAC	30ms
Non parallel mode	± 0.5%	Minimum load	0%
Parallel mode	± 5%	Parallel Operation (only with S/P switch on "P" position)	3 units max.
Output Voltage accuracy	+1% (factory adjusted)		
Ripple and Noise	100mV		

Input data

Rated input voltage	115 / 264VAC	Frequency range	47- 63 Hz
Voltage range		Inrush current	
AC in	90 - 264VAC	Vi= 115VAC	25A
DC in	120 - 370VDC	Vi= 230VAC	50A
Rated input current (115/230)	7 / 3.5A	P.F.C. Vi= 230VAC, Ionom.	0.99

Controls and Protections

Input Fuse	T10A/250VAC internal ²⁾	Rated Overload Protection	120 - 140%
Overvoltage Protection SPD24 SPD48	30 - 33VDC 57 - 63VDC	Power ready output (only SPD 24) Threshold voltages Contact rating at 60VDC insulation	17.6 - 19.4VDC 0.3A 500VDC
Output Short Circuit	Current limit		

²⁾ Not replaceable by user.

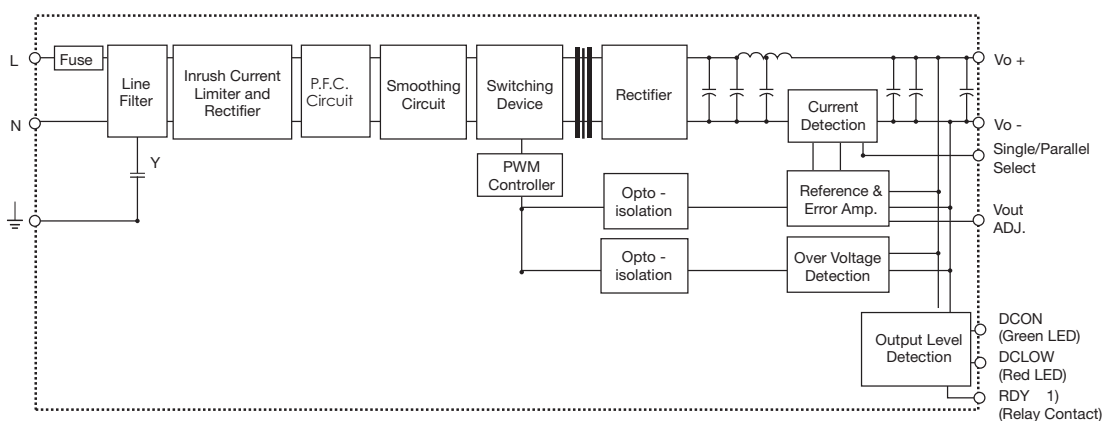
General data (@ nominal line, full load, 25°C)

Ambient temperature	-25°C to 71°C	Cooling	Free air convection
Derating (>56°C to +71°C)	2.5%/°C	MTBF (MIL-HDBK-217F)	n.a.
Ambient humidity	20 - 95%RH	Case material	Metal (powder painted aluminium)
Storage	-25°C to +85°C	Weight	1920g
Dimensions L x W x D		Protection degree	IP20
Screw terminal type	125 x 175 x 123		
Plug in connectors	142 x 175 x 123		

Approvals and EMC

Insulation voltage I/O	3.000VAC	CE	EN61000-6-3 EN55022 class B EN61000-3-2 EN61000-3-3 EN61000-6-2 EN55024
Insulation resistance I/O @ 500VDC	100MΩ		
UL / cUL	UL508 listed, UL60950-1, Recognized		
TUV	EN60950-1		

Block diagrams



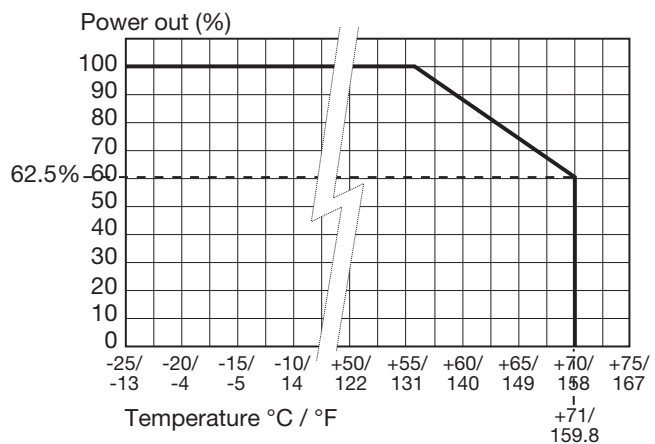
Pin assignement and front controls

Pin No.	Designation	Description
1	RDY (only SPD 24)	DC OK, relay normally open contact
2	RDY (only SPD 24)	DC OK, relay normally open contact
3	+	Positive output terminal
4	+	Positive output terminal
5	-	Negative output terminal
6	-	Negative output terminal
7	GND	Ground terminal to minimise High frequency emissions
8	L	Phase input (no polarity with DC input)
9	N	Neutral input (no polarity with DC input)
	DC ON	DC output ready LED
	DC LO	DC low indicator LED
	Vout ADJ.	Trimmer for fine output voltage adjustment
	S/P	Single parallel selection switch

Installation

Ventilation and cooling	Normal convection All sides 25mm free space for cooling is recommended
Screw terminals	10-24AWG flexible or solid cable 8mm stripping recommend
Max. torque for screws terminals	
Input terminals	1.008Nm (9.0lb-in)
Output terminals	0.616Nm (5.5lb-in)
Plug-in terminals	10-24AWG flexible or solid cable 7mm stripping recommend
Max. torque for screws terminals	
Input terminals	0.784Nm (7.0lb-in)
Output terminals	0.784Nm (7.0lb-in)

Derating Diagram



Mechanical Drawings mm (inches)

