

Switching Power Supply Type SPD 240W 3 phases DIN rail mounting

CARLO GAVAZZI



- Universal AC 3 phases 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
- UL, cUL listed and TUV/CE

Product Description

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

Ordering Key

SP D 24 240 3

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

Input type: 3 = three phase
 (or single phase 400/500VAC³⁾)

Approvals



Output performances

Model	Rated output Voltage (VDC)	Output Power (W)	Output Current (A) ¹⁾	Voltage Trim Range ²⁾		DC OK Threshold at startup (VDC)		DC low LED Threshold after startup(VDC)		Typical Efficiency
				Min. VDC	Max. VDC	Min.	Max.	Min.	Max.	
SPD24	24	240	10 (7.5)	22.5	28.5	17.6	19.4	17.6	19.4	89%
SPD48	48	240	5 (3.75)	47.0	56.0	37.0	43.0	37.0	43.0	90%

¹⁾ When powered with three phases input; with biphas input value is in the brackets.

²⁾ When S/P switch is set to parallel, it is not possible to trim output voltage.

Output data

Line regulation	± 1%	Temperature Coefficient	+0.02% / °C
Load regulation		Hold up time Vi = 230VAC	20ms
Parallel mode	± 5%	Minimum load	0%
Non parallel mode	± 1%	Parallel Operation (only with S/P switch on "P" position)	2 units max.
Output Voltage accuracy	from 0 to +1% (factory adjusted)		
Ripple and Noise	100mV		

Input data

Rated input voltage	400/500VAC	Frequency range	47- 63 Hz
Voltage range		Inrush current	10A
AC in	340 - 575VAC ³⁾	P.F.C. (Vi= 500VAC, Io nom.)	0.6
DC in	480 - 820VDC		
Rated input current (380/500)	0.85A / 0.7A		

³⁾ Biphas or triphase input (biphas can be: L1 L2, L2 L3 or L1 L3.
 Note: when used as biphas, the maximum output power is 75% of rated power.

Controls and Protections

Input Fuse	2.0A/600VAC internal/phase ⁴⁾	Power ready output (only SPD 24)	
Overvoltage Protection SPD24 SPD48	30 – 33VDC 60 – 68VDC	Threshold voltages Contact rating at 60VDC insulation	17.6 - 19.4VDC 0.3A 500VDC
Output Short Circuit Continuous	Current limit	Overtemperature	100 - 110°C (shutdown with auto-restart when temperature is back to normal)
Rated Overload Protection	115 - 135%		

⁴⁾ Not replaceable by user.

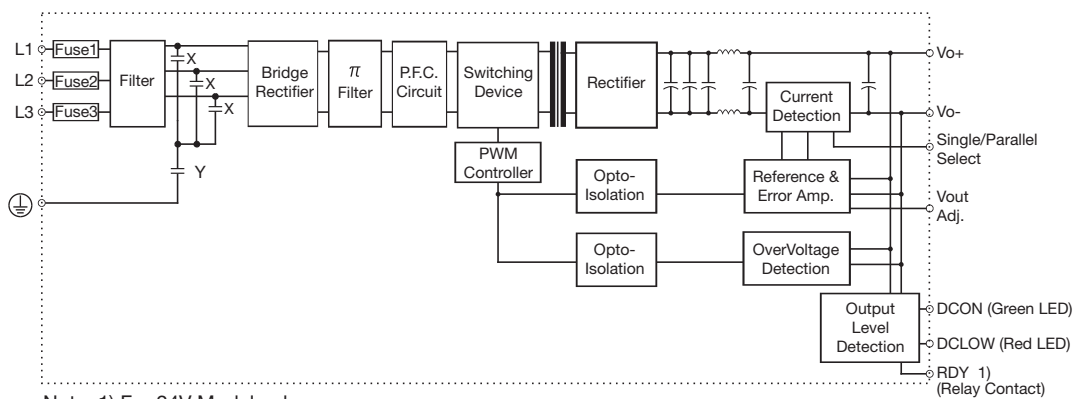
General data (@ nominal line, full load, 25°C)

Ambient temperature	-25°C to 71°C	Cooling	Free air convection
Derating (>61°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 temperature	-25°C to +85°C	Weight	1.1Kg / 38,80oz
Dimensions L x W x D Screw terminal type	123.6 x 89.0 x 110.7 mm 4.87 x 3.50 x 4.36 inches	Protection degree	IP20

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



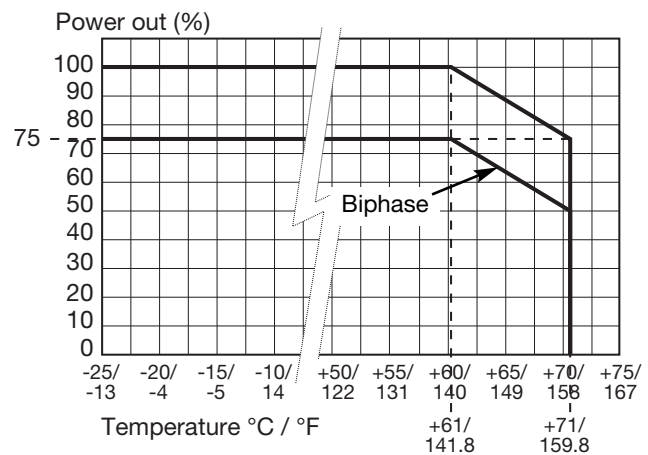
Pin assignement and front controls

Pin No.	Designation	Description
1	V+	Positive output terminal
2	V+	Positive output terminal
3	V-	Negative output terminal
4	V-	Negative output terminal
5	GND	Ground terminal to minimise High frequency emissions
6	L1	Input terminals
7	L2	Input terminals
8	L3	Input terminals
9	RDY	A normal open relay contact for DC ON level control
10	RDY	A normal open relay contact for DC ON level control
	DC ON	DC output ready LED
	DC LO	DC low indicator LED
	Vout ADJ.	Trimmer for fine output voltage adjustment
	S/P	Single / Parallel select switch

Installation

Ventilation and cooling	Normal convection All sides 25mm free space for cooling is recommended
Screw connections	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)

Derating Diagram



Mechanical Drawings mm/inches

