

Switching Power Supply

Type SP D 24-05

DIN Rail mounting

CARLO GAVAZZI



SP D 24 05

- Universal AC Input Full range
- Installation on DIN Rail 7.5 or 15mm
- Short circuit protection
- Overload protection
- High efficiency
- LED indicator for power on
- Led indication for DC low
- Internal input filter
- TUV approved and cULus Listed

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 05 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
Spring connectors	B

Output data

Output nominal voltage	24Vdc*	Transient recovery time	300i s
Current	210mA	Ripple and noise	50mVpp
Output voltage range	-10 to +20% of rated V.	Efficiency typ.	72%
Line regulation	± 1%	Output Voltage accuracy	± 1%
Load regulation	± 2%	Temperature coefficient	± 0.02%/°C
		Hold up Time Vi = 115Vac	30ms
		Hold up time Vi = 230Vac	130ms

Input data

Rated input voltage	100 - 240	Frequency range	47 - 63Hz
Voltage range		Inrush current	
AC	90 - 265Vac	Vi = 115Vac	10A
DC	120 - 370Vdc	Vi = 230Vac	18A

* 5Vdc, 12Vdc and 15Vdc available upon request



Controls and Protections

Overload	110 – 135%	Output Short Circuit	Hiccup mode
Input Fuse	T2A/250Vac internal*	Dc out On, indicator	>21.6Vdc
Overvoltage Protection	125 – 145%	Dc out low, indicator	18 – 21.6Vdc

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

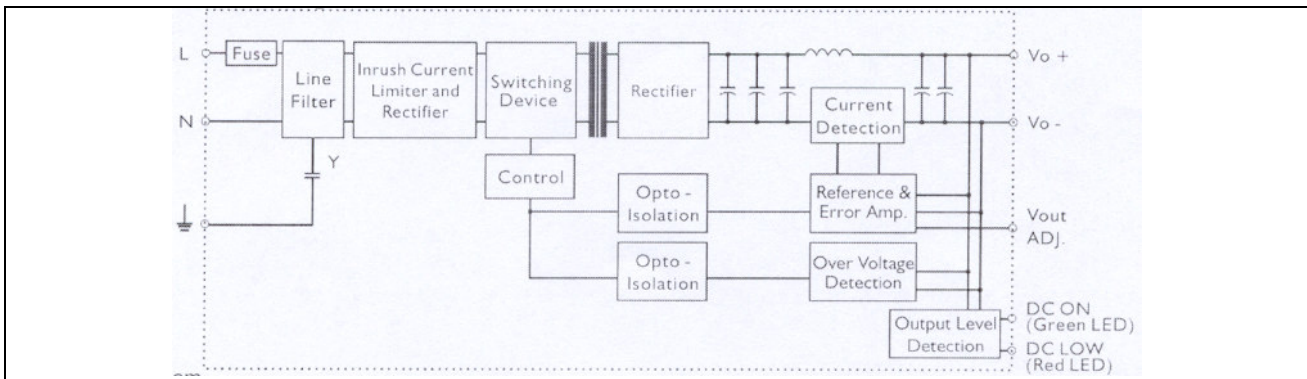
Ambient temperature	-10°C to 50°C	Cooling	Free air convection
Case temperature V/I nom	+85°C	Switching frequency	100kHz
Derating (>50°C to +71°C)	2%/°C	MTBF (MIL-HDBK-217F)	235.000h
Ambient humidity	20 - 95%RH	Case material	Plastic
Storage	-25°C to +85°C	Dimensions L x W x D	90 x 22.5 x 115
		Weight	115g

Approvals and EMC

Insulation voltage I / O	3.000Vac	CE EMI	EN50081-1 / EN55022 Class B
Insulation resistance	100Mohm		
UL / cUL	UL508, UL1310 listed, Class 2		
TUV	EN60950	CE EMS	EN50082-1 / EN55024

* fuse not replaceable by user

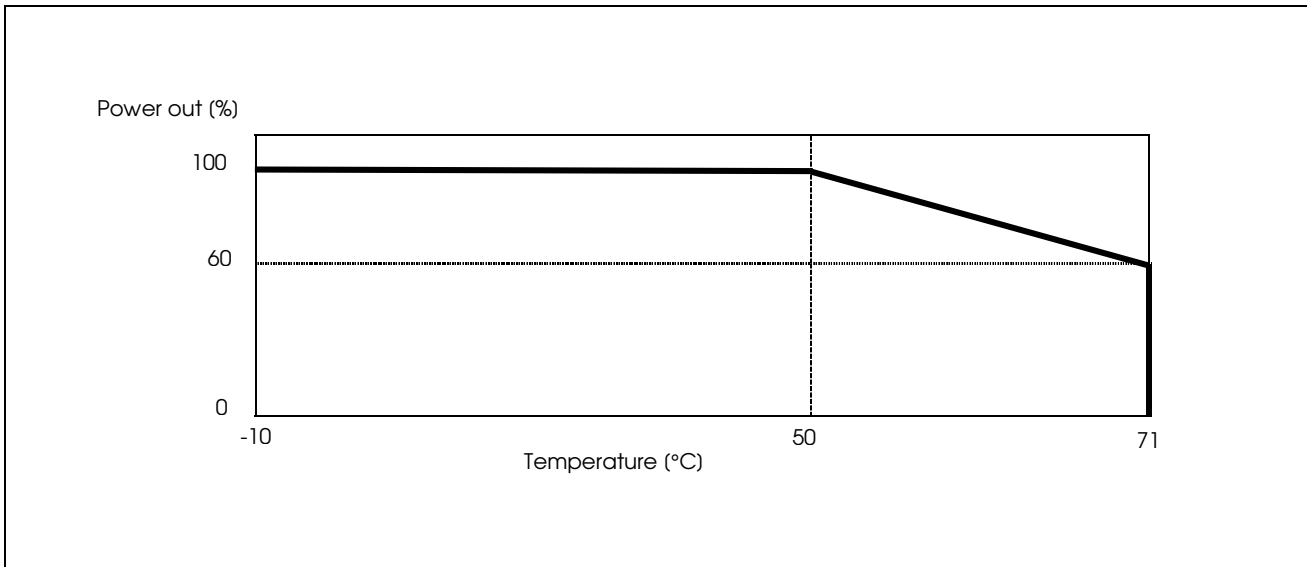
Block diagram



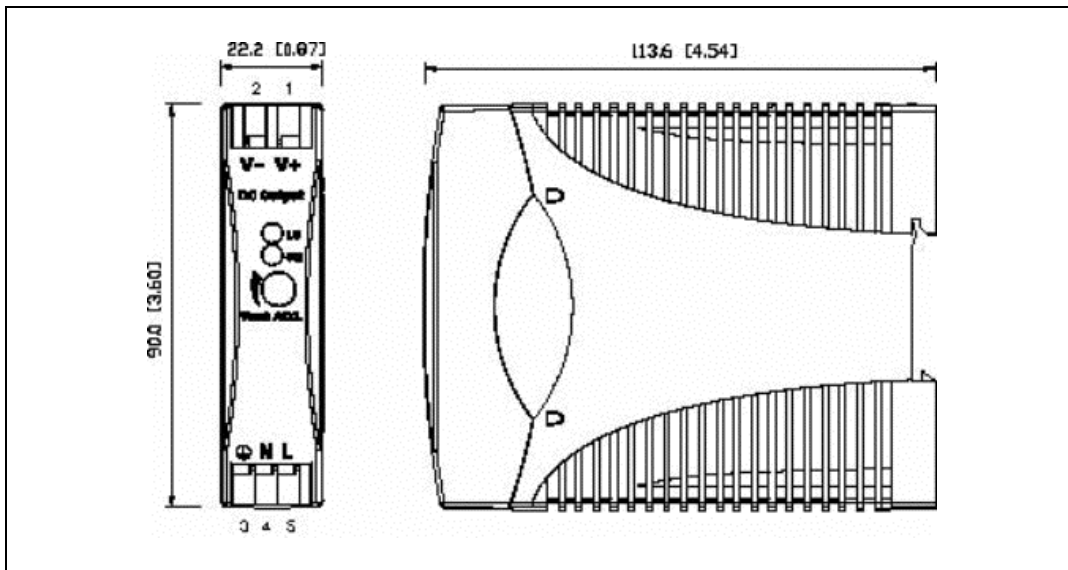
Pin assignment and front controls

Pin No.	Designation	Description
1	V+	Positive output terminal
2	V-	Negative output terminal
3	GND	Ground terminal to minimise High frequency emissions
4	N	Neutral input (no polarity with DC input)
5	L	Phase input (no polarity with DC input)
	Vout ADJ.	Trimmer for fine output voltage adjustment
	ON	DC output ready LED
	LO	DC low indicator LED

Derating Diagram



Mechanical Drawings



Installation

Ventilation and cooling	Normal convection All sides 25mm free space for cooling is recommended
Connector size range	Solid: 0.2 – 2mm ² (AWG24-14) (use copper conductors only)