

Switching Power Supply Type SPD 60W DIN rail mounting

CARLO GAVAZZI



- Universal AC input full range
- Installation on DIN rail 7.5 or 15mm
- Short circuit protection
- Overload protection
- Class 2 output
- High efficiency
- LED indicator for DC power ON
- Power Ok output
- CE, 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 60 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 performances

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)	Voltage Trim Range		DC on LED (VDC Min.)	Typical Efficiency
				Min. VDC	Max. VDC		
SPD05	5	10	50	5	5.5	4	79%
SPD12	12	5	60	12	14	9.6	86%
SPD24	24	2.5	60	24	28	19.2	89%
SPD48	48	1.25	60	48	55	37	89%

Output data

Line regulation	± 0.5%	Output Voltage accuracy	± 2%
Load regulation	± 0.5%	Temperature coefficient	± 0.02%/°C
Minimum load	0	Hold up Time Vi = 115Vac	20ms
Turn on time (full resistive load)	1.0s max	Hold up time Vi = 230Vac	30ms
Transient recovery time	300µs	Voltage fall time (I _o nom)	150ms max
Ripple and noise	50mVpp	Voltage rise time at full resistive load	150ms max

Input data

Rated input voltage	100 - 240	Frequency range	47- 63 Hz
Voltage range		Inrush current	
AC	85 - 264 Vac	Vi= 115Vac	30A
DC	90 - 375 Vdc	Vi= 230Vac	60A

Specifications are subject to change without notice

Controls and Protections

Overload	110 – 150%	Over voltage protection	VDC	
Input Fuse	T2A/250Vac internal*		Min.	Max.
Output Short Circuit	Fold forward		6	6.8
Power ready output (only SPD 24)			15	16.5
On threshold	$\geq 20V \pm 1V$		30	33
Off threshold	$\leq 19.2V \pm 1V$	SPD5 SPD12 SPD24 SPD48	60	66

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

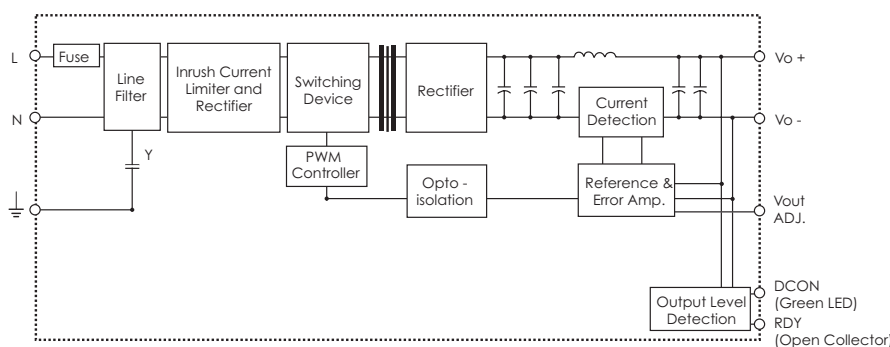
Ambient temperature	-10°C to 71°C	Cooling	Free air convection
Derating (>60°C to +71°C)	2.5%/°C	MTBF (MIL-HDBK-217F)	500.000h
Ambient humidity	20 ~ 90%RH	Case material	Plastic: PC, UL94-V0
Storage	-25°C to +85°C	Dimensions L x W x D	90 x 40.5 x 115
Protection degree	IP20	Weight	360g

Norms and Standards

Insulation voltage I / O	3.000Vac min	CE	EN61000-6-3 - EN55022
Insulation resistance	100Mohm min		Class B
UL / cUL	UL508 listed, UL1950, UL1310 Class 2 (5V without class 2) Recognised		EN61000-3-2 - EN61000-3-3
TUV	EN60950		EN61000-6-2 - EN550241
			EN61000-4-2 - EN61000-4-3
			EN61000-4-4 - EN61000-4-5
			EN61000-4-6 - EN61000-4-8
			EN61000-4-11

* fuse not replaceable by user

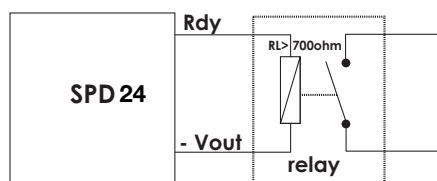
Block diagrams



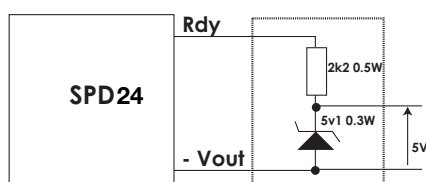
Pin assignement and front controls

Pin No.	Designation	Description
1	RDY	DC OK, output for relay (only on SPD 24)
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)
	Vout ADJ.	Trimmer for fine output voltage adjustment
	DC ON	DC output ready LED

Output Rdy Wiring diagram

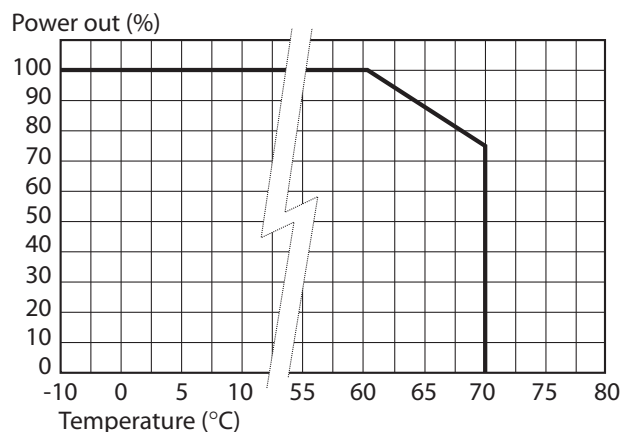


Relay connection diagram

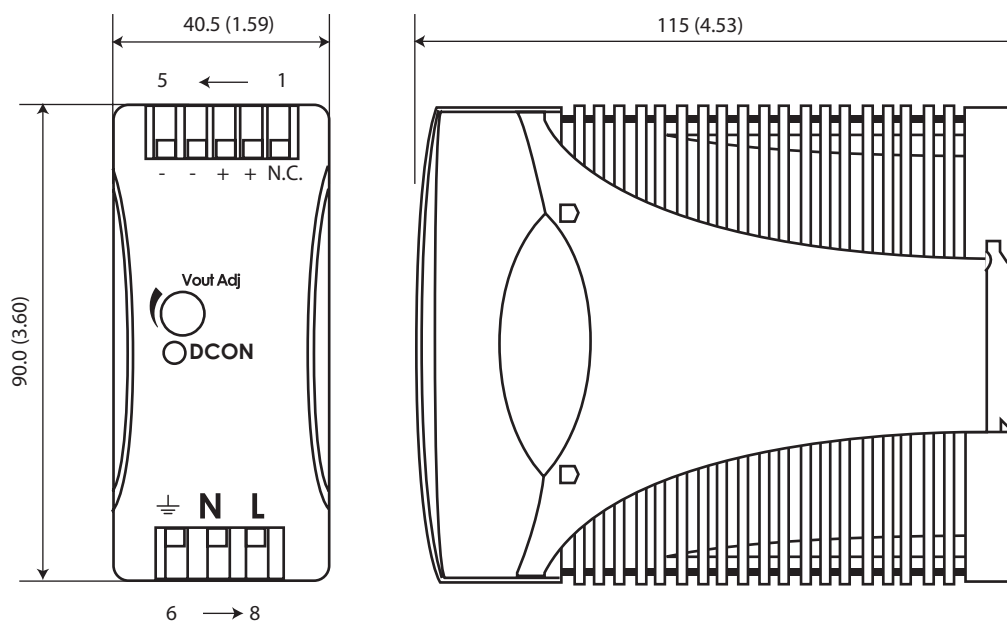


5V signal

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 – 2mm²
(AWG24-14)
(use copper conductors only)