

Switching Power Supply

Type SP D 12 10

DIN Rail mounting



SPD

- 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
- 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

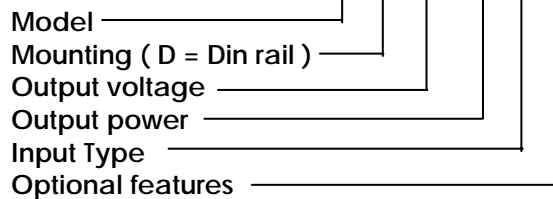
Installation is on a DIN rail and compact dimensions and performance are a must.

Approvals



Ordering Key

SP D 12 10 1 B



Input type : 1= single phase

Optional Features

Description	Code
Spring connectors	B

Output data

Output nominal voltage	12Vdc*	Transient recovery time	300µs
Current	840mA	Ripple and noise	50mVpp
Output voltage range	-10 to +15% of rated V.	Efficiency typ.	75%
Line regulation	± 1%	Output Voltage accuracy	± 1%
Load regulation	± 2%	Temperature coefficient	± 0.02%/°C
		Hold up Time Vi = 115Vac	25ms
		Hold up time Vi = 230Vac	100ms

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, 15Vdc and 24Vdc available, see related datasheets.

Specifications are subject to change without notice



Controls and Protections

Overload	110 – 135%	Output Short Circuit	Hiccup mode
Input Fuse	T2A/250Vac internal*	Dc out On, indicator	10.8Vdc
Overvoltage Protection	125 – 145%	Dc out low, indicator	9 – 10.8Vdc

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

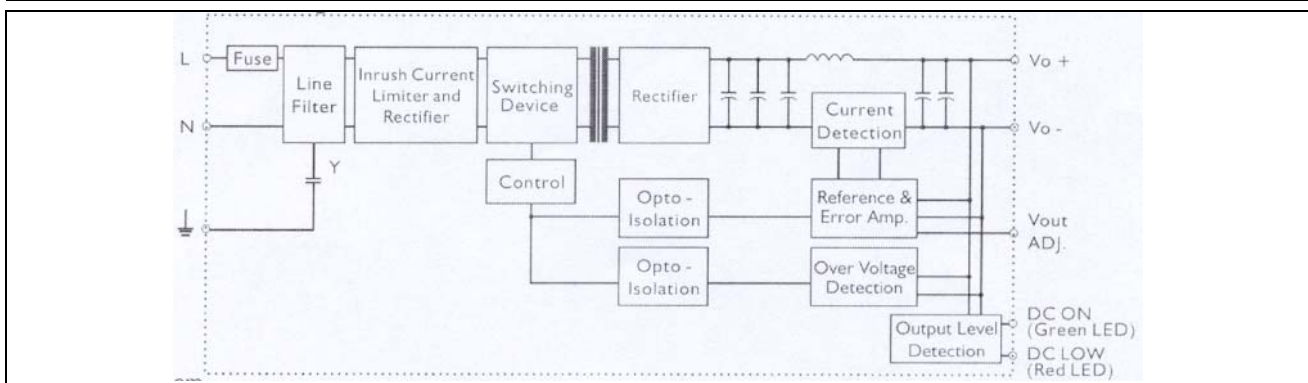
Ambient temperature	-10°C to 71°C	Cooling	Free air convection
Case temperature V/I nom	+85°C	Switching frequency	100kHz
Derating (>60°C to +71°C)	3%/°C	MTBF (MIL-HDBK-217F)	210.000h
Ambient humidity	20 - 95%RH	Case material	Plastic
Storage	-25°C to +85°C	Dimensions L x W x D	90 x 22.5 x 115
		Weight	120g

Approvals and EMC

Insulation voltage I / O	3.000Vac	CE	EN50081-1 / EN55022 Class B
Insulation resistance	100Mohm		
UL / cUL	UL508, UL60950-1, UL1310 Class 2 Recognised		EN50082-1 / EN55024 EN61000-3-2 EN61000-3-3
TUV	EN60950-1		

* fuse not replaceable by user

Block diagram

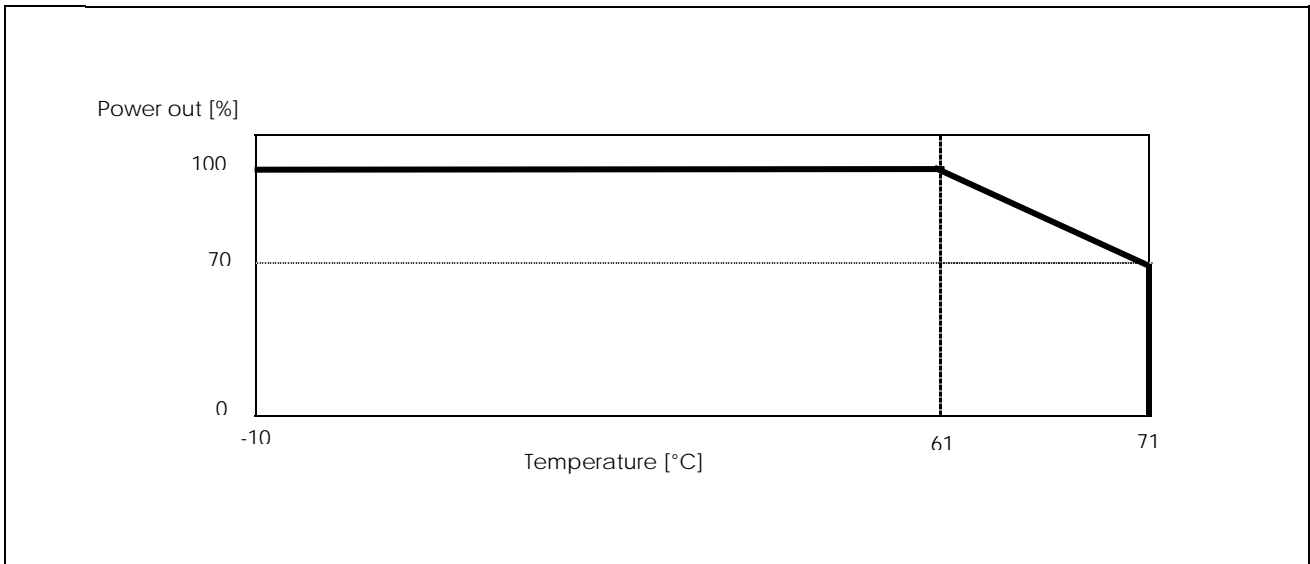


Pin assignement and front controls

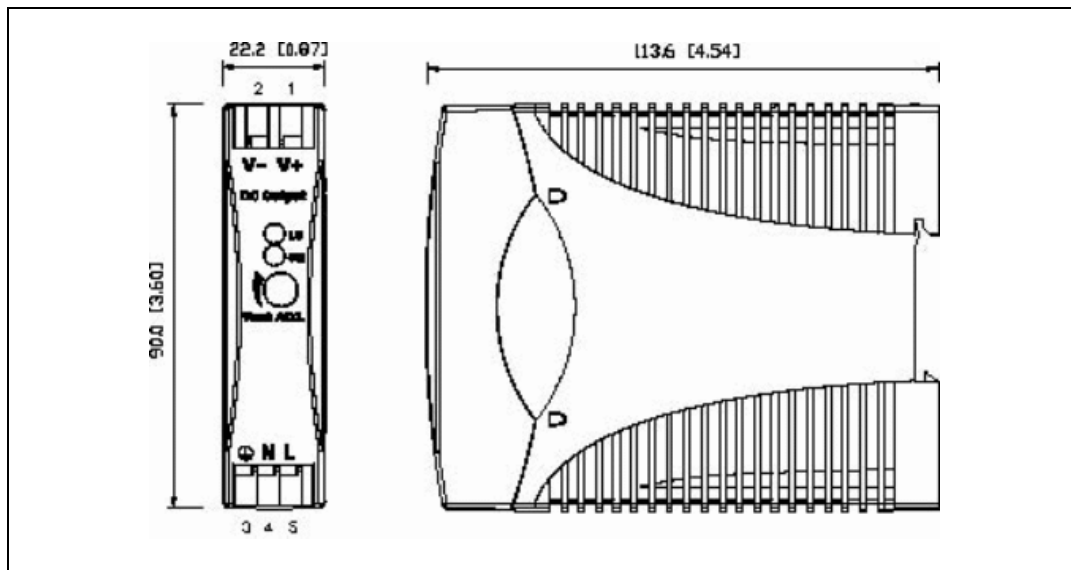
Pin No.	Designation	Description
1	V+	Positive output terminal
2	V-	Negative output terminal
3	GND	Ground terminal to minimise High frequency emissions
4	N	Neutral input (no polarity with DC input)
5	L	Phase input (no polarity with DC input)
	Vout ADJ.	Trimmer for fine output voltage adjustment
	ON	DC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

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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)

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