

# Switching Power Supply Type SP D 24-30 DIN Rail mounting



- 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
- Power Ok output
- CE, TUV approved and cULus Listed

SPD

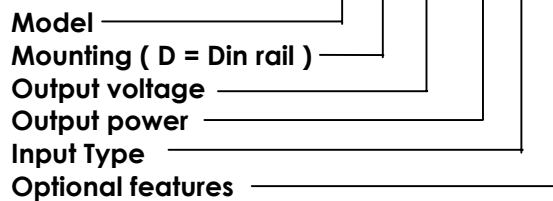
## Product Description

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 30 1 B



Input type : 1 = single phase

## Approvals



## Optional Features

Description	Code
Spring connectors	B

## Output data

Output nominal voltage	24Vdc*	Transient recovery time	300µs
Current	1.25A	Ripple and noise	50mVpp
Output voltage range	24 to 28Vdc	Efficiency typ.	84%
Line regulation	± 1%	Output Voltage accuracy	± 2%
Load regulation	± 2%	Temperature coefficient	± 0.02%/°C
		Hold up Time Vi = 115Vac	20ms
		Hold up time Vi = 230Vac	75ms

## Input data

Rated input voltage	100 - 240	Frequency range	47 - 63Hz
Voltage range		Inrush current	
AC	90 - 265Vac	Vi = 115Vac	16A
DC	120 - 370Vdc	Vi = 230Vac	32A

\* 5Vdc, 12Vdc and 48Vdc available upon request

Specifications are subject to change without notice



## Controls and Protections

<b>Overload</b>	<b>105 – 125%</b>	<b>Output Short Circuit</b>	<b>Hiccup mode</b>
<b>Input Fuse</b>	<b>T2A/250Vac internal*</b>	<b>Power ready</b>	<b>20 – 24Vdc</b>

\* not replaceable by user

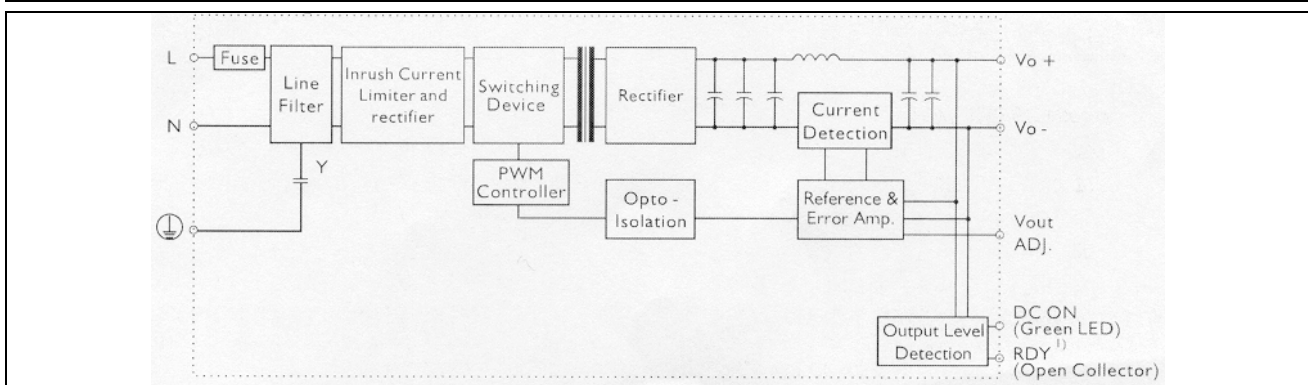
## General data (@ nominal line, full load, 25°C )

<b>Ambient temperature</b>	<b>-10°C to 71°C</b>	<b>Cooling</b>	<b>Free air convection</b>
<b>Case temperature V/I nom</b>	<b>+85°C</b>	<b>Switching frequency</b>	<b>50kHz</b>
<b>Derating (&gt;60°C to +71°C)</b>	<b>2.5%/°C</b>	<b>MTBF (MIL-HDBK-217F)</b>	<b>200.000h</b>
<b>Ambient humidity</b>	<b>&lt;90%RH</b>	<b>Case material</b>	<b>Plastic</b>
<b>Storage</b>	<b>-25°C to 85°C</b>	<b>Dimensions L x W x D</b>	<b>90 x 40.5 x 115</b>
		<b>Weight</b>	<b>290g</b>

## Approvals and EMC

<b>Insulation voltage I / O</b>	<b>3.000Vac</b>	<b>CE</b>	<b>EN55022 Class B</b> <b>EN55024</b> <b>EN61000-3-2</b> <b>EN61000-3-3</b>
<b>Insulation resistance</b>	<b>100Mohm</b>		
<b>UL / cUL</b>	<b>UL508 listed, UL1950, UL1310 Class 2 Recognised</b>		
<b>TUV</b>	<b>EN60950</b>		

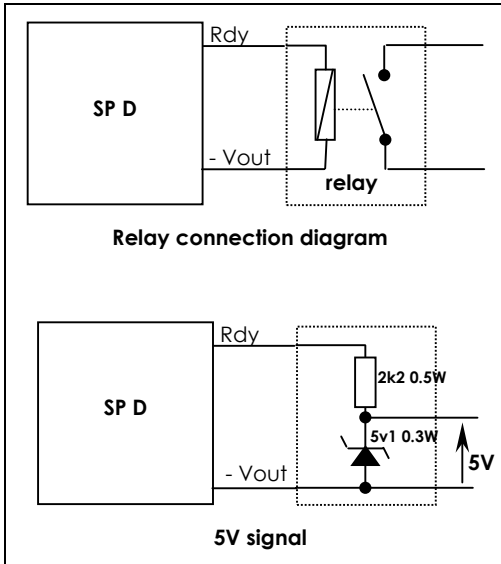
## Block diagram



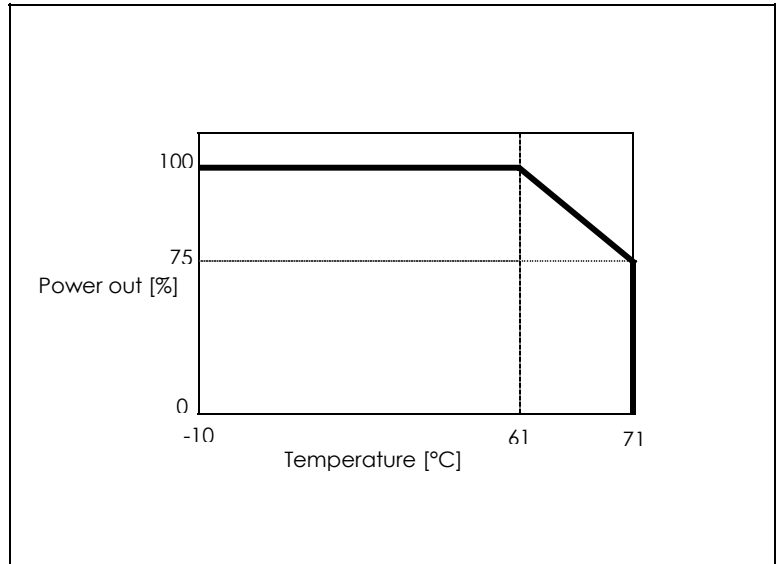
## Pin assignement and front controls

Pin No.	Designation	Description
1	<b>RDY</b>	DC OK, output for relay ( only on 24Vdc models)
2	<b>+</b>	Positive output terminal
3	<b>+</b>	Positive output terminal
4	<b>-</b>	Negative output terminal
5	<b>-</b>	Negative output terminal
6	<b>GND</b>	Ground terminal to minimise High frequency emissions
7	<b>N</b>	Neutral input ( no polarity with DC input )
8	<b>L</b>	Phase input ( no polarity with DC input )
	<b>Vout ADJ</b>	Trimmer for fine output voltage adjustment
	<b>DC ON</b>	DC output ready LED

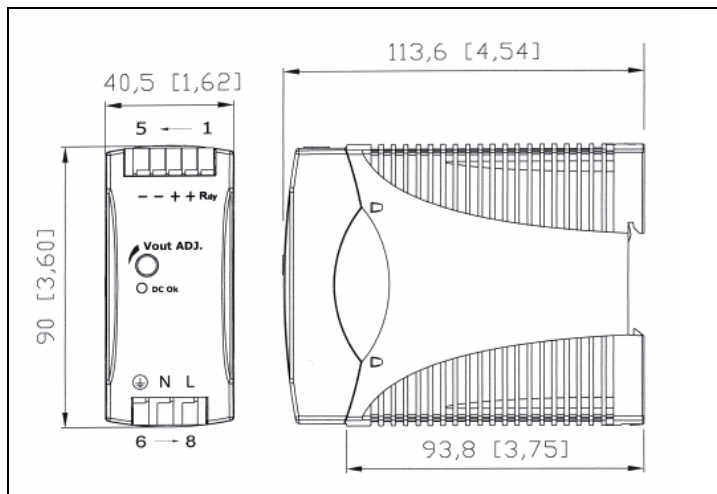
### Output Rdy Wiring diagram



### 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 <sup>2</sup> (AWG24-14) (use copper conductors only)