

# Switching Power Supply Type SP D 24-120 DIN Rail mounting



SPD

- Installation on DIN Rail 7.5 or 15mm
- Short circuit protection
- PFC available
- High efficiency
- Power ready output
- Parallel versions available
- Compact dimensions
- UL, cUL listed and TUV/CE approved

## Product Description

The Switching power supplies SPD series are specially designed to be used in all automation application where the

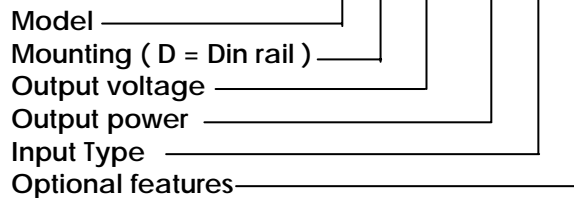
Installation is on a DIN rail and compact dimensions and performance are a must.

## Approvals



## Ordering Key

SP D 24 120 1 BFP



Input type : 1 = single phase

## Optional Features

Description	Code
Plug in connectors	Bxx
With P.F.C.	xFx
With Parallel function	xxP

## Output data

Output nominal voltage	24Vdc*	Transient recovery time	300µs
Current	5A	Ripple and noise	50mVpp
Output voltage range	22.5 to 30Vdc	Efficiency typ.	86%
Line regulation	± 0.5%	Output Voltage accuracy	+1% (factory adjusted)
Load regulation		Temperature coefficient	± 0.3%/°C
Non parallel model	± 1%	Hold up Time Vi = 115Vac	25ms
Parallel model	± 5%	Hold up time Vi = 230Vac	30ms
DC indicator ON	21 – 22Vdc	Minimum load	5%
DC indicator LOW	20.5 – 22.5Vdc	Parallel Operation ( only specific models)	3 units max.

\* 12Vdc and 48Vdc available upon request

Specifications are subject to change without notice



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## Input data

<b>Rated input voltage</b>	115/230 selectable	<b>Frequency range</b>	47 – 63Hz
<b>Voltage range</b>		<b>Inrush current</b>	
AC in, 115 selected	93 – 132Vac	Vi = 115Vac	24A
AC in, 230 selected	186 – 264Vac	Vi = 230Vac	48A
DC in, only 230 selectable	210 – 370Vdc	<b>P.F.C. (optional)</b>	0.7

## Controls and Protections

<b>Input Fuse</b>	T4A/250Vac internal	<b>Power ready (24V only)</b>	
<b>Overvoltage protection</b>	125 – 145%	Threshold at start up	21.1 – 23.1
<b>Output Short circuit</b>	Current limit	Threshold after start up	19.0 – 20.6
<b>Rated Overload Protection</b>	105 – 125%	Contact rating at 60Vdc insulation	0.3A 500Vdc

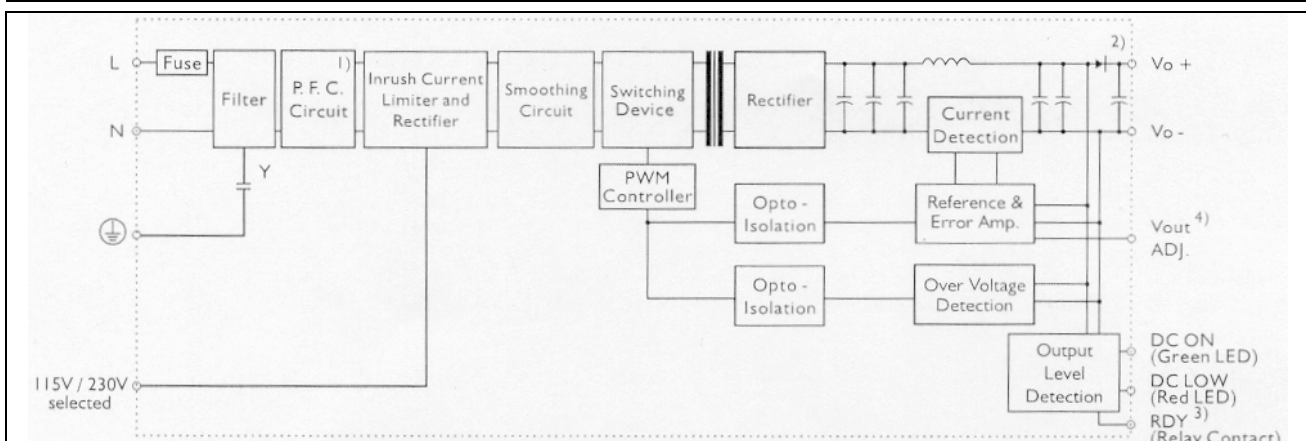
## General data (@ nominal line, full load, 25°C )

<b>Ambient temperature</b>	-10°C to +71°C	<b>Cooling</b>	Free air convection
<b>Case temperature V/I nom</b>	+90°C	<b>Switching frequency</b>	80kHz
<b>Derating (&gt;60°C to +70°C)</b>	2.5%/°C	<b>MTBF (MIL-HDBK-217F)</b>	200.000h
<b>Ambient humidity</b>	<95%RH	<b>Case material</b>	Metal
<b>Storage</b>	-25°C to 85°C	<b>Dimensions L x W x D</b>	125 x 63.5 x 126
		<b>Weight</b>	
		Without P.F.C.	640g
		With P.F.C.	860g

## Approvals and EMC

<b>Insulation voltage I / O</b>	3.000Vac	CE	EN50081-1
<b>Insulation resistance</b>	100Mohm		EN50022 Class B
<b>UL / cUL</b>	UL508 listed, UL60950-1 Recognised		EN61000
<b>TUV</b>	EN60950		EN61000-3-2
			EN61000-3-3
			EN50082-1
			EN55024

## Block diagram



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## Pin assignement and front controls

Pin No.	Designation	Description
1	RDY	DC OK, relay normally open contact
2	RDY	DC OK, relay normally open contact
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 )
	DC ON	Operation LED
	DC LO	LOW DC out LED
	Vout Adj.	Trimmer for fine output voltage adjustment
	115/230	Input voltage selection switch

## Installation

### VENTILATION / COOLING:

- Normal air convection
- 25mm of free space along all sides to allow good cooling

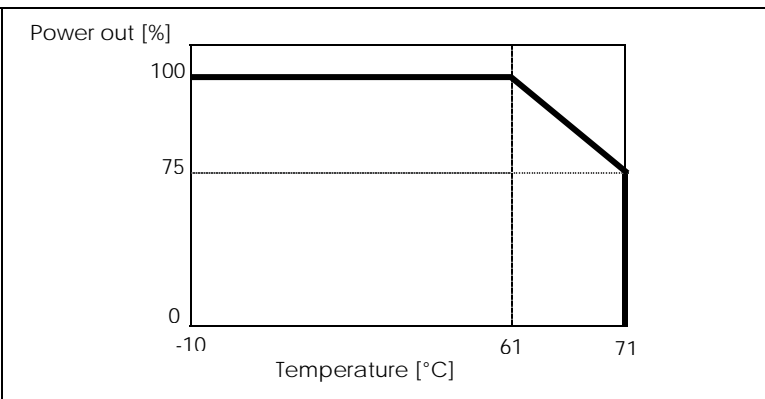
### SCREW CONNECTIONS:

- 10-24AWG Flexible or solid cable. 8mm stripping recommended

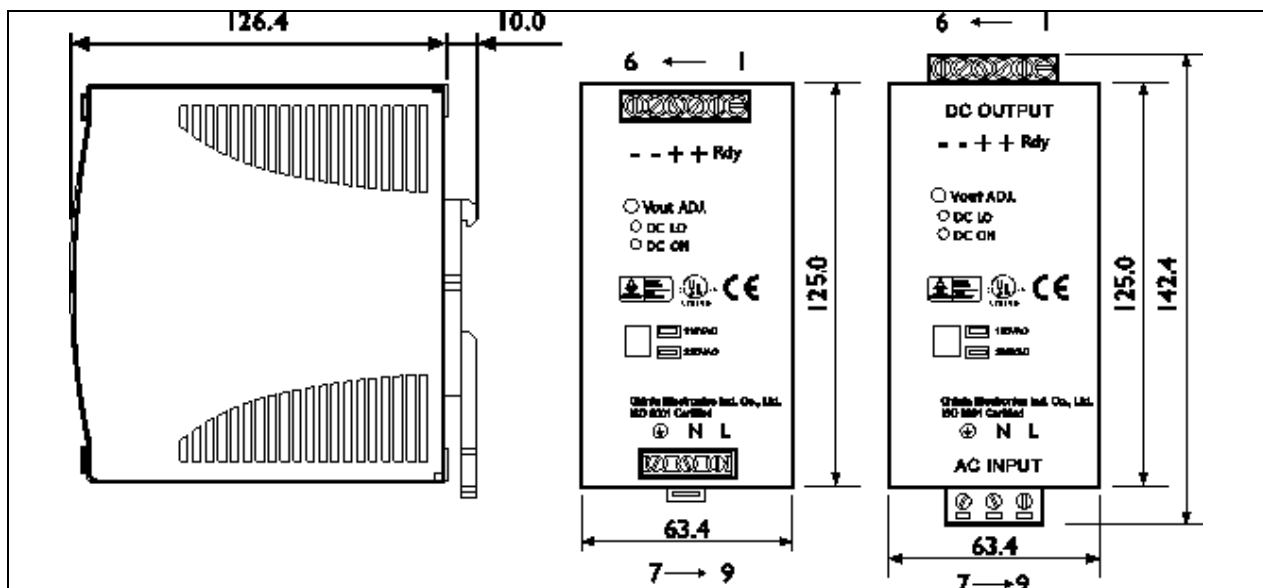
### PLUG IN CONNECTORS:

- 10-24AWG Flexible or solid cable. 7mm stripping recommended

## Derating Diagram



## Mechanical Drawings



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