

Switching Power Supply Type SPD 120W DIN rail mounting



- Installation on DIN Rail 7.5 or 15mm
- Short circuit protection
- PFC available
- High efficiency
- Power ready output
- LED indicator for DC power ON
- LED indicator for DC low
- 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.

Ordering Key

SP D 24 120 1 BFP

Model _____
 Mounting (D = Din rail) _____
 Output voltage _____
 Output power _____
 Input Type _____
 Optional features _____

Input type: 1= single phase

Approvals



Optional Features

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

Output performances

Model	Rated output Voltage (VDC)	Output Current (A)	Voltage Trim Range ¹⁾		DC on LED (VDC)		DC low LED (VDC)		Typical Efficiency
			Min. VDC	Max. VDC	Min.	Max.	Min.	Max.	
SPD12	12	10	11.4	14.5	10	11	10	11.2	84%
SPD24	24	5	22.5	30	21	22	20.5	22.5	86%
SPD48	48	2.5	45	55	42	44	41	45	87%

Output data

Output voltage accuracy	± 1% max	Output Voltage accuracy	+1% (factory adjusted)
Line regulation	± 0.5%	Temperature coefficient	± 0.3%/°C
Load regulation		Hold up Time Vi = 115Vac	25ms
Non parallel model	± 1%	Hold up time Vi = 230Vac	30ms
Parallel model	± 5%	Minimum load	5%
Temp. coefficient	± 0.3% / °C	Parallel Operation	3 units max.
Transient recovery time	300 ms	(only specific models)	
Ripple and noise	50mVpp		

1)N.A. on parallel model. Output voltage is fixed in house, cannot be trimmed by user.

Specifications are subject to change without notice

Input data

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

Controls and Protections

Input Fuse	T4A/250Vac internal*	Power ready (only SPD 24)	
Oversvoltage Protection	125 - 145%	Threshold at start up (contact closed)	21.1-23.1
Output Short Circuit	Current limited	Threshold after start up (contact open)	20.6-19.0
Rated Overload Protection	105-125%	Contact rating at 60Vdc insulation	0.3A 500Vdc

* Not replaceable by user.

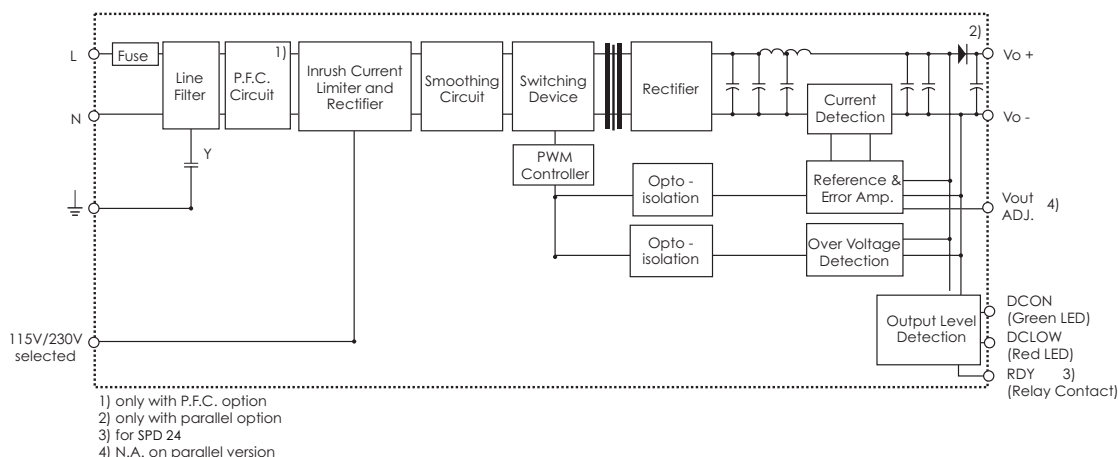
General data (@ nominal line, full load, 25°C)

Ambient temperature	-10°C to 71°C	Cooling	Free air convection
Derating (>60°C to +71°C)	2.5% / °C	Switching frequency	80kHz
Ambient humidity	20 to 95%RH	MTBF (MIL-HDBK-217F)	480.000h
Storage	-25°C to +85°C	Case material	Metal (powder painted aluminium)
Protection degree	IP20	Dimensions L x W x D	125 x 63.5 x 126
		Without P.F.C.	640g
		With P.F.C.	860g

Approvals and EMC

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

Block diagrams



Pin assignement and front controls

Pin No.	Designation	Description
1	RDY (only SPD 24)	DC OK, relay normally open contact
2	RDY (only SPD 24)	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	DC output ready LED
	DC LO	DC low indicator 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

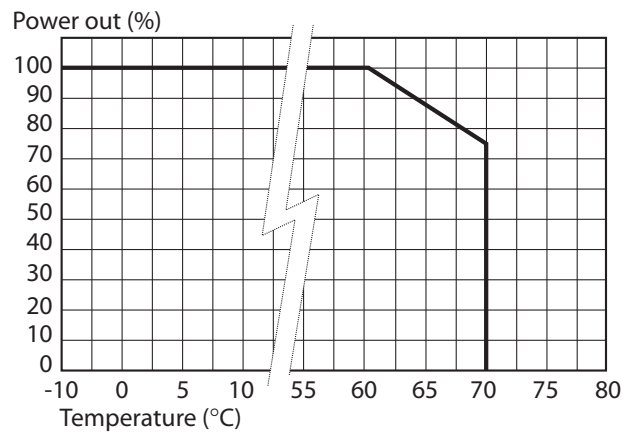
SCREW CONNECTIONS:

- 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

