

# 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 NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)	EFF. (typ.)
<b>Single Output Models</b>						
SPD12	3ø 340~575 VAC	120 WATTS	+ 12 VDC	10 A	85%	87%
SPD24	3ø 340~575 VAC	120 WATTS	+ 24 VDC	5 A	87%	94%

## Output data

Line regulation	± 1%	Voltage fall time (I <sub>0nom</sub> )	150ms max
Load regulation	± 1%	Rated continuous loading	
Minimum load	0	12V Model	10A @ 12VDC/8.2A @ 14.5VDC
Turn on time (full resistive load)		24V Model	5A @ 24VDC/4.2A @ 28.5VDC
Vi nom, Io nom	1000ms	Reverse voltage	
12v model with 3500µF CAP	1500ms	12V Model	18VDC
24v model with 7000µF CAP	1500ms	24V Model	35VDC
Transient recovery time	2ms	Capacitor load	
Ripple and noise	100mVpp	Vi nom Io nom 12V model	7000µF
Output voltage accuracy	± 1%	Vi nom Io nom 24V model	3500µF
Temperature coefficient	± 0.03%/°C	Voltage rise time	
Hold up timeVi	20ms	Vi nom Io nom	500ms
		Vi nom, Io nom	
		12v model with 7000µF CAP	500ms
		Vi nom, Io nom	
		24v model with 3500µF CAP	500ms

## Input data

<b>Rated input voltage</b>	400 - 500VAC		<b>Power dissipation</b>		
<b>Voltage range</b>			<b>12V Model</b>	20W	
<b>AC</b>	340 - 575VAC		<b>24V Model</b>	16W	
<b>DC</b>	480 - 820VDC		<b>Frequency range</b>	47- 63Hz	
<b>Rated input current</b> ( $V_i$ : 115VAC, $I_o$ nom)	<b>Typ.</b>	0.36A	<b>Leakage current</b>		
	<b>Max.</b>	0.5A	<b>Input-Output</b>	0.25mA	
<b>Inrush current</b>	<b><math>V_i= 115VAC</math></b>	10A	<b>Input-FG</b>	3.5mA	

## Controls and Protections

<b>Overload</b>	110-145%	<b>Over voltage protection</b>	<b>VDC</b>	
<b>Input fuse</b>	T2A/600VAC internal <sup>1)</sup>	<b>12V Model</b>	<b>Min.</b>	<b>Max.</b>
<b>Output short circuit</b>	Hiccup mode	<b>24V Model</b>	14.5	17.4
<b>Power ready output</b> (only 24V model)	<b>On threshold</b> $\geq 17.6 - 19.4VDC$	<b>Internal surge voltage protection</b> (IEC 61000-4-5)	30	33
<b>Electrical isolation</b>	500VDC		Varistor	
<b>Contact rating at 60Vdc</b>	0.3A			

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

<b>Ambient temperature</b>	-35°C to 71°C	<b>MTBF</b> (Bellcore issue 6 @ 40°C, GB)	
<b>Derating (&gt;61°C to +71°C)</b>	2.5%/°C	<b>12V Model</b>	527000 Hours
<b>Ambient humidity</b>	20 ~ 90%RH	<b>24V Model</b>	559000 Hours
<b>Storage</b>	-40°C to +85°C	<b>Case material</b>	Metal
<b>Protection degree</b>	IP20	<b>Dimensions LxWxD mm(inch)</b>	124(4.88) x 74.3(2.92) x 118.8(4.68)
<b>Cooling</b>	Free air convection	<b>Weight</b>	800g
<b>Pollution degree</b>	2		

## Norms and Standards

<b>Vibration resistance</b>	meet IEC 60068-2-6 (Mounting by rail: 10-500Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)	<b>CCC</b>	GB4943, GB9254, GB17625.1
<b>Shock resistance</b>	meet IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 faces, 3 times for each face)	<b>CE</b>	EN 61000-6-3, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 55024, EN 61000-4-2 Level 4, EN 61000-4-3 Level 3, EN 61000-4-4 Level 4, EN 61000-4-5 L-Level 3, L/N-FG Level 4, EN 61000-4-6 Level 3, EN 61000-4-8 Level 4, EN 61000-4-11, ENV 50204 Level 2, EN 61204-3
<b>UL / cUL</b>	UL508 listed, UL60950-1, Recognized, ISA 12.12.01 (Class 1, Division 2, Groups A, B, C and D)		
<b>TUV</b>	EN 60950-1, CB scheme EN 61558-1, EN 61558-2-17 (meet EN 60204)		

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Type SPD 120W  
DIN rail mounting



## **Derating Diagram**

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