Switching Power Supply
Type SPD 240W 3 phases
DIN rail mounting

- **Universal AC 3 phases input full range**
- **Installation on DIN rail 7.5 or 15mm**
- **PFC as standard**
- **High efficiency up to 90%**
- **Power ready output**
- **Parallel connection feature**
- **Compact dimensions**
- **UL, cUL listed and TUV/CE**

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 24 240 3

- **Model**
- **Mounting (D = Din rail)**
- **Output voltage**
- **Output power**
- **Input Type**

Input type: 3 = three phase
(or single phase 400/500VAC[3])

Approvals

Output performances

Model	Rated output Voltage (VDC)	Output Power (W)	Output Current (A)[1]	Voltage Trim Range[2]		DC OK Thereshold at startup (VDC)		DC low LED Thereshold after startup(VDC)		Typical Efficiency
				Min. VDC	Max. VDC	Min.	Max.	Min.	Max.	
SPD24	24	240	10 (7.5)	22.5	28.5	17.6	19.4	17.6	19.4	89%
SPD48	48	240	5 (3.75)	47.0	56.0	37.0	43.0	37.0	43.0	90%

[1] When powered with three phases input; with biphase input value is in the brackets.

[2] When S/P switch is set to parallel, it is not possible to trim output voltage.

Output data

Line regulation	± 1%
Load regulation	
Parallel mode	± 5%
Non parallel mode	± 1%
Ouput Voltage accuracy	from 0 to +1% (factory adjusted)
Ripple and Noise	100mV

Temperature Coefficient	+0.02% / °C
Hold up time Vi = 230VAC	20ms
Minimum load	0%
Parallel Operation (only with S/P switch on "P" position)	2 units max.

Input data

Rated input voltage	400/500VAC
Voltage range	
AC in	340 - 575VAC[3]
DC in	480 - 820VDC
Rated input current (380/500)	0.85A / 0.7A

Frequency range	47- 63 Hz
Inrush current	10A
P.F.C. (Vi= 500VAC, Io nom.)	0.6

[3] Biphase or triphase input (biphase can be: L1 L2, L2 L3 or L1 L3.
Note: when used as biphase, the maximum output power is 75% of rated power.

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Controls and Protections

Input Fuse	2.0A/600VAC internal/phase[4]
Overvoltage Protection SPD24 **SPD48**	30 – 33VDC 60 – 68VDC
Output Short Circuit Continous	Current limit
Rated Overload Protection	115 - 135%

Power ready output (only SPD 24) Threshold voltages Contact rating at 60VDC insulation	17.6 - 19.4VDC 0.3A 500VDC
Overtemperature	100 - 110°C (shutdown with auto-restart when temperature is back to normal)

[4] Not replaceable by user.

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

Ambient temperature	-25°C to 71°C
Derating (>61°C to +71°C)	2.5%/°C
Ambient humidity	20 - 95%RH
Storage temperature	-25°C to +85°C
Dimensions L x W x D Screw terminal type	123.6 x 89.0 x 110.7 mm 4.87 x 3.50 x 4.36 inches

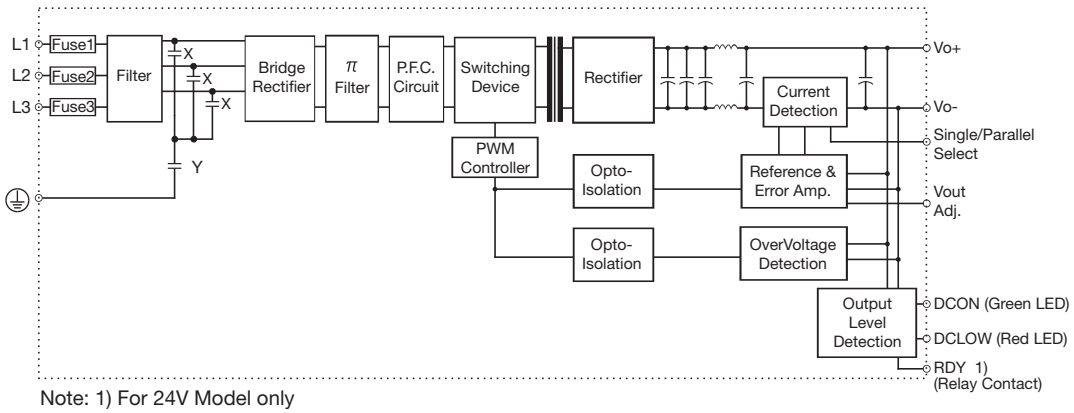
Cooling	Free air convection
MTBF (MIL-HDBK-217F)	n.a.
Case material	Metal (powder painted aluminium)
Weight	1.1Kg / 38,80oz
Protection degree	IP20

Approvals and EMC

Insulation voltage I/O	3.000VAC
Insulation resistance I/O @ 500VDC	100MΩ
UL / cUL	UL508 listed, UL60950-1, Recognized
TUV	EN60950-1

CE	EN61000-6-3 EN55022 class B EN61000-3-2 EN61000-3-3 EN61000-6-2 EN55024

Block diagrams



Note: 1) For 24V Model only

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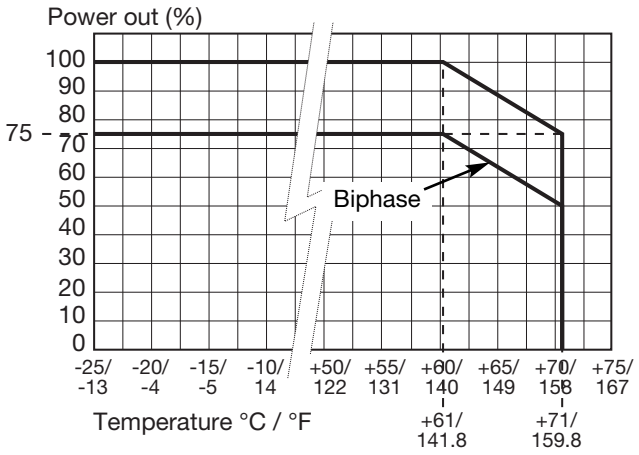
Pin assignement and front controls

Pin No.	Designation	Description
1	V+	Positive output terminal
2	V+	Positive output terminal
3	V-	Negative output terminal
4	V-	Negative output terminal
5	GND	Ground terminal to minimise High frequency emissions
6	L1	Input terminals
7	L2	Input terminals
8	L3	Input terminals
9	RDY	A normal open relay contact for DC ON level control
10	RDY	A normal open relay contact for DC ON level control
	DC ON	DC output ready LED
	DC LO	DC low indicator LED
	Vout ADJ.	Trimmer for fine output voltage adjustment
	S/P	Single / Parallel select switch

Installation

Ventilation and cooling	Normal convection All sides 25mm free space for cooling is recommended
Screw connections	10-24AWG flexible or solid cable 8mm stripping recommend
Max. torque for screws terminals	
Input terminals	1.008Nm (9.0lb-in)
Output terminals	0.616Nm (5.5lb-in)

Derating Diagram



Mechanical Drawings mm/inches