Switching Power Supply
Type SPD 480W
DIN rail mounting

- **Universal AC single phase 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 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 24 480 1 B

- **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	B

Output performances

Model	Output Current (A)	Voltage Trim Range[1] Min. VDC	Voltage Trim Range[1] Max. VDC	DC OK @ Start up (VDC) Min.	DC OK @ Start up (VDC) Max.	Dc low after start up (VDC) Min.	Dc low after start up (VDC) Max.	Typical Efficiency
SPD24	**20**	**22.5**	**28.5**	**17.6**	**19.4**	**17.6**	**19.4**	**89%**
SPD48	**10**	**47.0**	**56.0**	**37.0**	**40.0**	**37.0**	**40.0**	**90%**

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

Output data

Line regulation	± 0.5%
Load regulation	
Non parallel mode	± 0.5%
Parallel mode	± 5%
Ouput Voltage accuracy	+1% (factory adjusted)
Ripple and Noise	100mV

Temperature Coefficient	+0,02% / °C
Hold up time Vi = 230Vac	30ms
Minimum load	0%
Parallel Operation (only with S/P switch on "P" position)	3 units max.

Input data

Rated input voltage	115/264VAC	**Frequency range**	47- 63 Hz
Voltage range		**Inrush current**	
AC in	90 - 264 Vac	Vi= 115Vac	25A
DC in	120 - 370 Vdc	Vi= 230Vac	50A
Rated input current (115/230)	7 / 3.5A	**P.F.C. Vi= 230Vac, Ionom.**	0.99

Controls and Protections

Input Fuse	T10A/250Vac internal*	**Power ready output** (only SPD 24)	
Overvoltage Protection SPD24	30 – 33VDC	Threshold voltages	17.6 - 19.4 VDC
SPD48	57 – 63VDC	Contact rating at 60Vdc	0.3A
Output Short Circuit	Current limit	insulation	500Vdc
Rated Overload Protection	120-140%		

* Not replaceable by user.

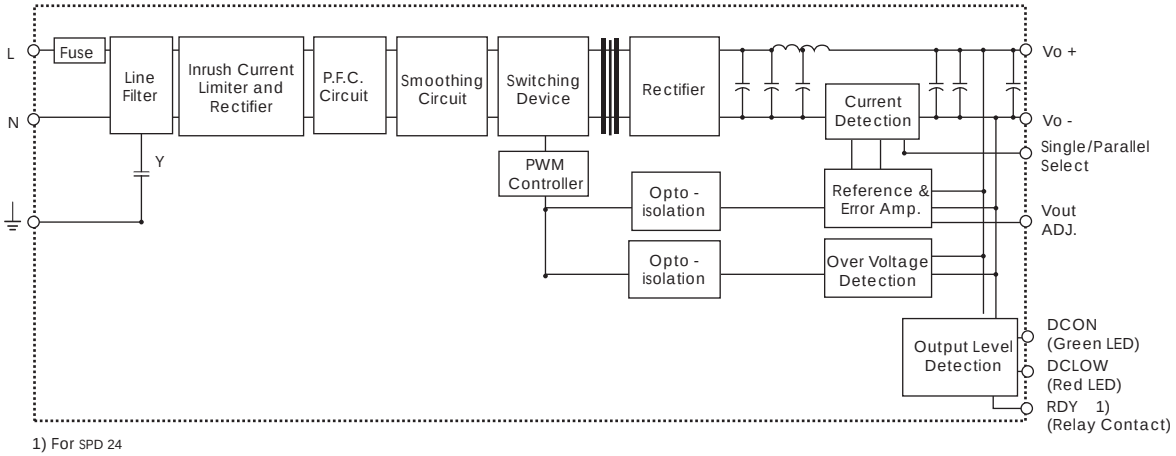
General data (@ nominal line, full load, 25°C)

Ambient temperature	-25°C to 71°C	**Cooling**	Free air convection
Derating (>56°C to +71°C)	2.5%/°C	**MTBF (MIL-HDBK-217F)**	n.a.
Ambient humidity	20 - 95%RH	**Case material**	Metal (powder painted aluminium)
Storage	-25°C to +85°C	**Weight**	1920g
Dimensions L x W x D		**Protection degree**	IP20
Screw terminal type	125 x 175 x 123		
Plug in connectors	142 x 175 x 123		

Approvals and EMC

Insulation voltage I/O	3.000Vac	**CE**	EN61000-6-3
Insulation resistance I/O @ 500VDC	100Mohm		EN55022 class B
			EN61000-3-2
			EN61000-3-3
UL / cUL	UL508 listed, UL60950-1, Recognised		EN61000-6-2
			EN55024
TUV	EN60950-1		

Block diagrams



1) For SPD 24

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
	S/P	Single parallel selection switch

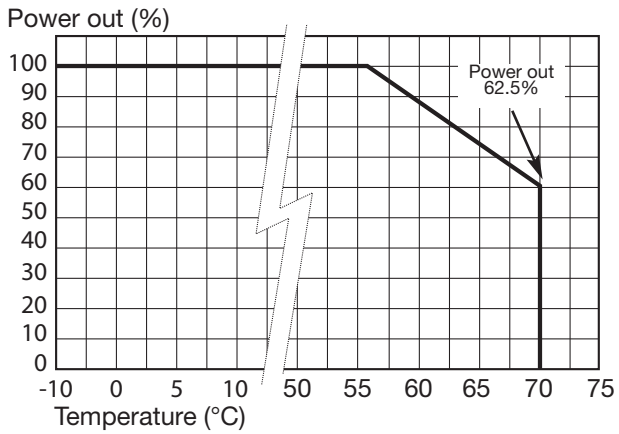
Installation

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