Switching Power Supply
Type SPD 10W
DIN rail mounting

- **Universal AC input full range**
- **Installation on DIN rail 7.5 or 15mm**
- **Short circuit protection**
- **Overload protection**
- **High efficiency**
- **LED indicator for DC power ON**
- **LED indication for DC low**
- **Internal input filter**
- **CE, TUV approved and cULus Listed**

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 10 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
Spring connectors	B

Output performances

Model	Output Voltage (VDC)	Output Current (A)	Voltage Trim Range Min. (VDC)	Voltage Trim Range Max. (VDC)	DC on LED (VDC Min.)	DC low LED (VDC Min.)	Typical Efficiency
SPD05	**5**	**2**	**4.5**	**5.75**	**4.5**	**3.75**	**73%**
SPD12	**12**	**0.84**	**10.8**	**13.8**	**10.8**	**9**	**75%**
SPD15	**15**	**0.67**	**13.5**	**17.25**	**13.5**	**11.25**	**76%**
SPD24	**24**	**0.42**	**21.6**	**28.8**	**21.6**	**18**	**76%**

Output data

Line regulation	± 1%	**Ouput Voltage accuracy**	± 1%
Load regulation	± 2%	**Temperature coefficient**	± 0.02%/°C
Minimum load	0%	**Hold up Time Vi = 115Vac**	25ms
Transient recovery time	300µs	**Hold up time Vi = 230Vac**	100ms
Ripple and noise	50mVpp		

Input data

Rated input voltage	100 - 240	**Frequency range**	47- 63 Hz
Voltage range		**Inrush current**	
AC	90 - 265 Vac	Vi= 115Vac	10A
DC	120 - 370 Vdc	Vi= 230Vac	18A

Controls and Protections

Overload	110 – 135%	**Overvoltage Protection**	125 – 145%
Input Fuse	T2A/250Vac internal*	**Output Short Circuit**	Hiccup mode

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

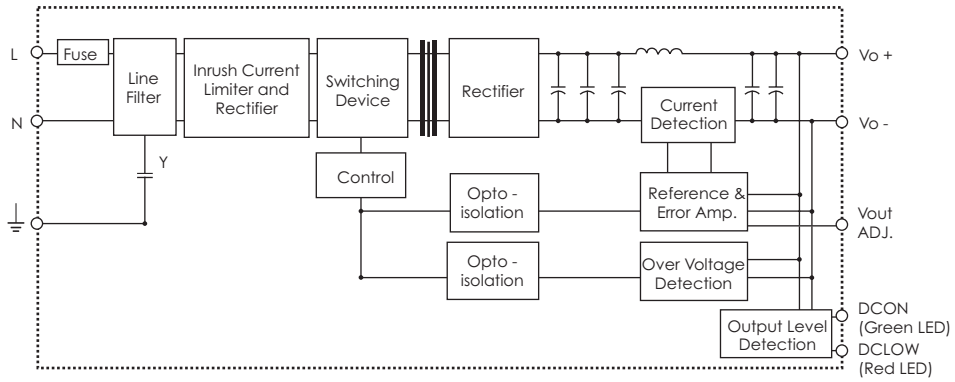
Ambient temperature	-10°C to 71°C	**Switching frequency**	100kHz
Derating (>60°C to +71°C)	3%/°C	**MTBF (MIL-HDBK-217F)**	787.000h
Ambient humidity	20 - 95%RH	**Case material**	Plastic: PC, UL94-V0
Storage	-25°C to +85°C	**Dimensions L x W x D**	90 x 22.5 x 115
Protection degree	IP20	**Weight**	120g
Cooling	Free air convection		

Approvals and EMC

Insulation voltage I / O	3.000Vac	**CE**	EN50081-1 / EN55022 Class B EN50082-1 / EN55024 EN61000-3-2 EN61000-3-3
Insulation resistance	100Mohm		
UL / cUL	UL508, UL60950-1, UL1310 Class 2 Recognised		
TUV	EN60950-1		

* fuse not replaceable by user

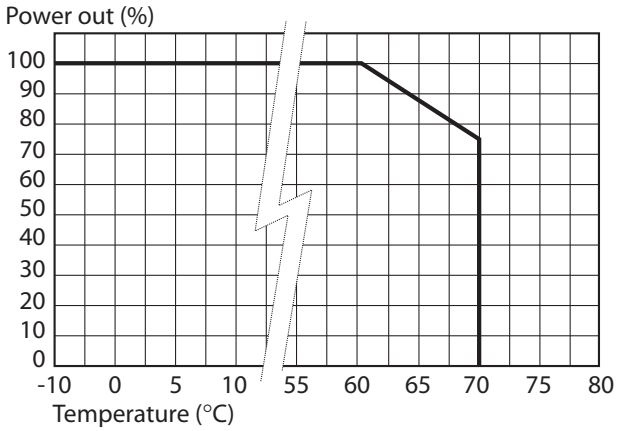
Block diagrams



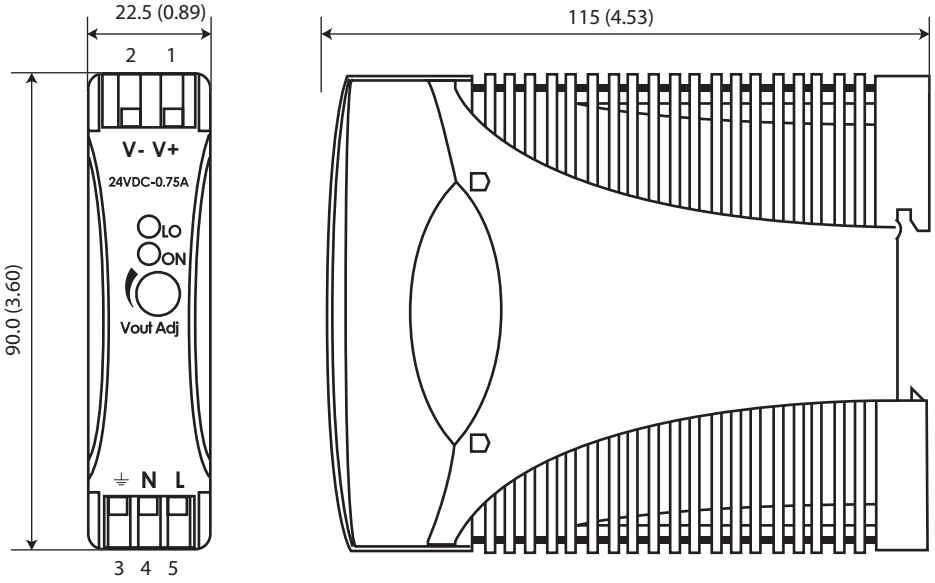
Pin assignement and front controls

Pin No.	Designation	Description
1	**V+**	Positive output terminal
2	**V-**	Negative output terminal
3	**GND**	Ground terminal to minimise High frequency emissions
4	**N**	Neutral input (no polarity with DC input)
5	**L**	Phase input (no polarity with DC input)
	Vout ADJ.	Trimmer for fine output voltage adjustment
	ON	DC output ready LED
	LO	DC low indicator LED

Derating Diagram



Mechanical Drawings



Installation

Ventilation and cooling	Normal convection All sides 25mm free space for cooling is recommended
Connector size range	Solid: 0.2 – 2mm² (AWG24-14) (use copper conductors only)