Switching Power Supply
Type SPD 60W
DIN rail mounting

- Universal AC input full range
- Installation on DIN rail 7.5 or 15mm
- Short circuit protection
- Overload protection
- Class 2 output
- High efficiency
- LED indicator for DC power ON
- Power Ok output
- 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 60 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	Rated output Voltage (VDC)	Output Power (W)	Output Current (A)	Voltage Trim Range		DC ON green LED at start up DC LOW red LED after start up		Typical Efficiency
				Min. VDC	Max. VDC	Min. VDC	Max. VDC	
SPD05	5	50	10.0	5	5.5	3.5	4.5	79%
SPD12	12	60	5.0	12	14	9.0	10.8	86%
SPD24	24	60	2.5	24	28	18	21.6	89%
SPD48	48	60	1.25	48	55	37	43	89%

Output Data

Line regulation	± 0.5%
Load regulation	± 0.5%
Minimum load (A)	0
Turn on time (full resistive load)	1000ms max
Transient recovery time	2ms
Ripple and noise BW = 20MHz	50mVpp
Output voltage accuracy	± 1% max.
Temperature coefficient	± 0.03%/°C
Hold up time Vi= 115VAC Vi= 230VAC	20ms 30ms
Voltage fall time (I_{0} nom)	150ms max

Rated continuous loading	
5V Model	10A @ 5VDC/9.0A @ 5.5VDC
12V Model	5A @ 12VDC/4.25A @ 14VDC
24V Model	2.5A @ 24VDC/2.1A @ 28VDC
48V Model	1.25A @ 48VDC/1.08A @ 55VDC
Reverse voltage	
5V Model	7.5VDC
12V Model	18VDC
24V Model	35VDC
48V Model	63VDC
Capacitor load	7000µF
Voltage rise time at full resistive load	150ms max

Specifications are subject to change without notice. Pictures are just an example. For special features and/or customization, please ask to our sales network. 30/07/2026

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Input Data

Rated input voltage	100 - 240VAC
Voltage range	
AC	85 - 264VAC
DC	90 - 375VDC
Rated input current	
(Vi : 115VAC)	1060mA
(Vi : 230VAC)	590mA
Input current (Vi : 85VAC)	1500mA
Inrush current	
Vi= 115VAC	20A
Vi= 230VAC	40A

Power dissipation (Vi : 230VAC, Io nom)	
5V Model	12.5W
12V Model	9.0W
24V Model	8.8W
48V Model	7.8W
Frequency range	47- 63Hz
Leakage current	
Input-Output	0.25mA
Input-FG	3.5mA

Controls and Protections

Overload	110 – 150%
Input fuse	T2A/250VAC internal[1]
Output short circuit	Fold forward
Power ready output (Rdy)	
(only SPD 24) On threshold	Vout > 19,2V ± 2%
Off threshold	Vout < 19,1V ± 2%

[1] Fuse not replaceable by user

	VDC	
Over voltage protection	Min.	Max.
5V Model	6.0	6.8
12V Model	15	16.5
24V Model	30	33
48V Model	60	66
Internal surge voltage protection (IEC 61000-4-5)	Varistor	

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

Ambient temperature	-40°C to 71°C
Derating (>61°C to +71°C)	2.5%/°C
Ambient humidity	20 ~ 95%RH
Storage temperature	-40°C to +85°C
Protection degree	IP20
Cooling	Free air convection
Insulation voltage	
Input-Output	3.000VAC/4242VDC min
Input-FG	1.500VAC/2121VDC min
Insulation resistance I/O	100MΩ min (@ 500VDC)

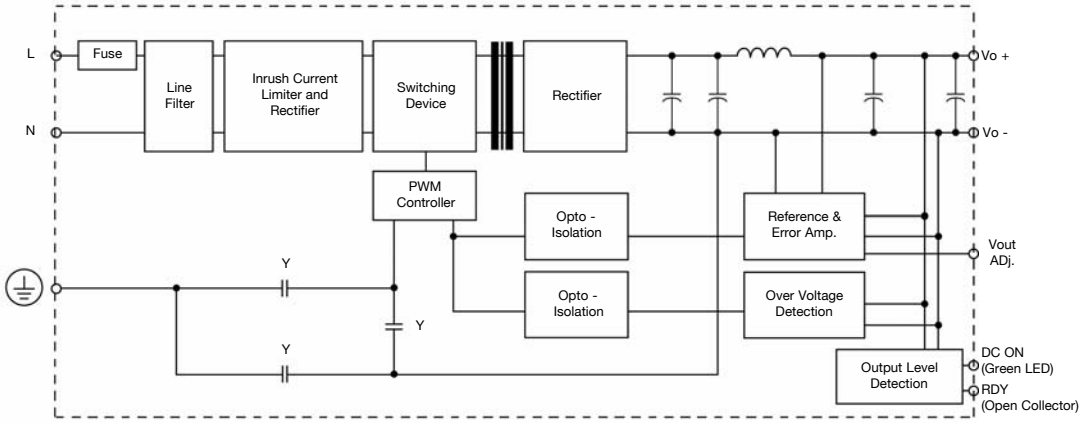
MTBF (Bellcore issue 6 @ 40°C, GB)	
5V Model	498000 Hours
12V Model	504000 Hours
24V Model	520000 Hours
48V Model	531000 Hours
Case material	Plastic: PC, UL94-V0
Pollution degree	2
Altitude	2000m
Dimensions LxWxD mm (inch)	90(3.60)x40.5(1.59)x114(4.49)
Weight	340g

Norms and Standards

Vibration resistance	meet IEC 60068-2-6 (Mounting by rail: 10-500Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)
Shock resistance	meet IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 faces, 3 times for each face)
UL / cUL	UL508 listed, UL60950-1, UL1310 Class 2 Power (only 5V, 12V w/o Class 2) Recognized, ISA 12.12.01 (Class 1, Division 2, Groups A, B, C and D)
TUV	EN 60950-1, CB scheme EN 61558-1, EN 61558-2-16 (meet EN 60204)
CCC	GB4943, GB9254, GB17625.1

CE	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

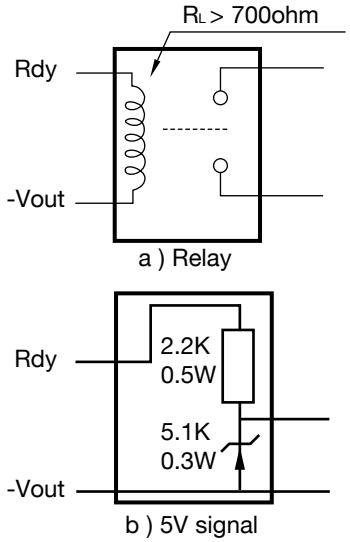
Block Diagrams



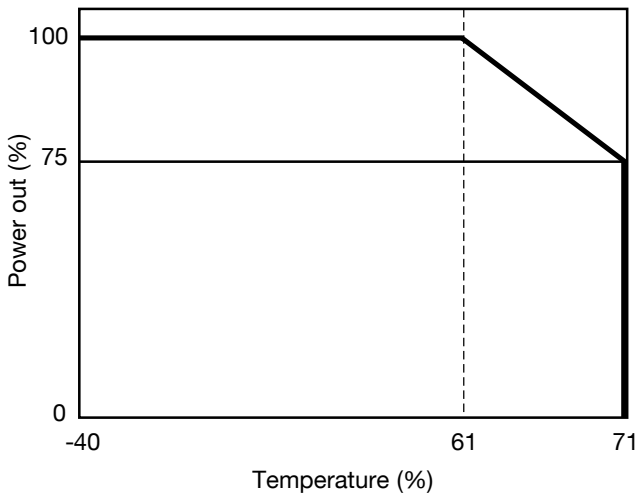
Pin Assignement and Front Controls

Pin No.	Designation	Description
1	RDY	DC OK, output for relay (only on SPD 24)
2	+	Positive output terminal
3	+	Positive output terminal
4	-	Negative output terminal
5	-	Negative output terminal
6	GND	Ground terminal to minimise High frequency emissions
7	L	Phase input (no polarity with DC input)
8	N	Neutral input (no polarity with DC input)
Pot1	Vout ADJ.	Trimmer for fine output voltage adjustment
L1	DC ON	DC output ready LED

Output Rdy Wiring Diagram



Derating Diagram



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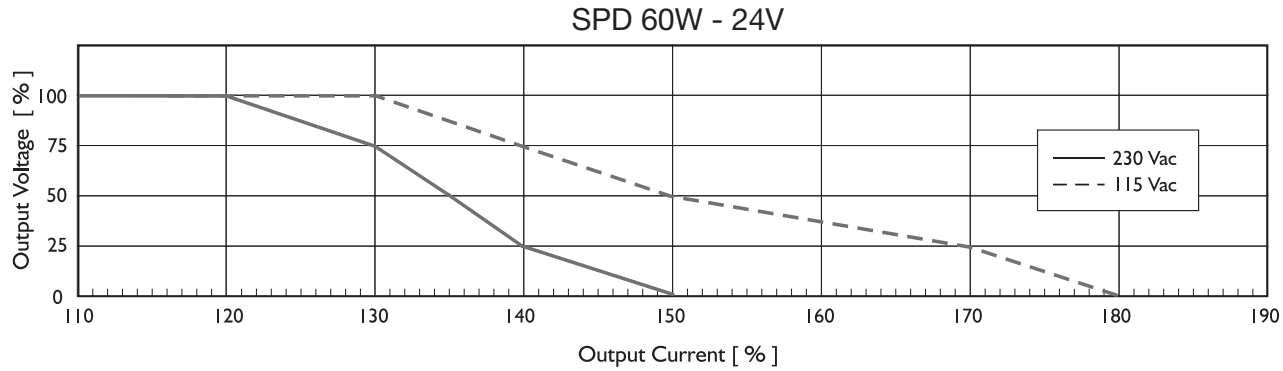
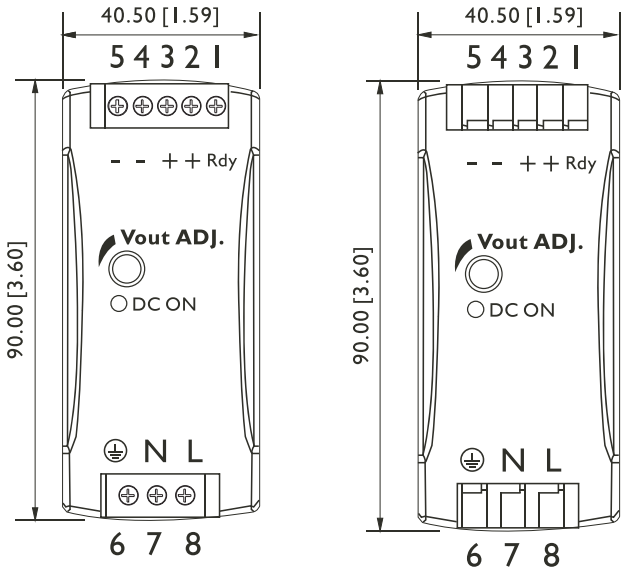
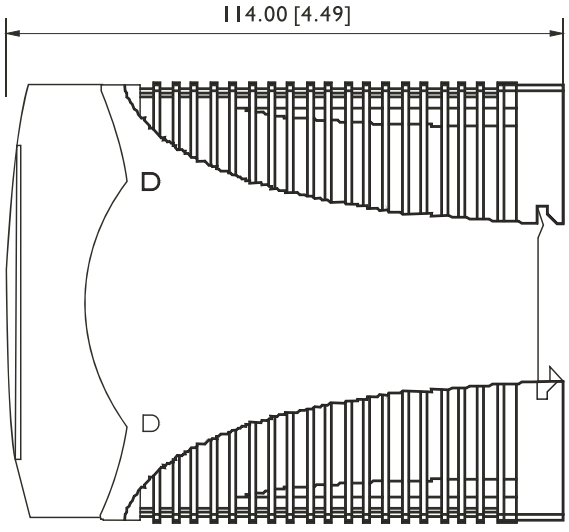
Typ. Current Limited Curve

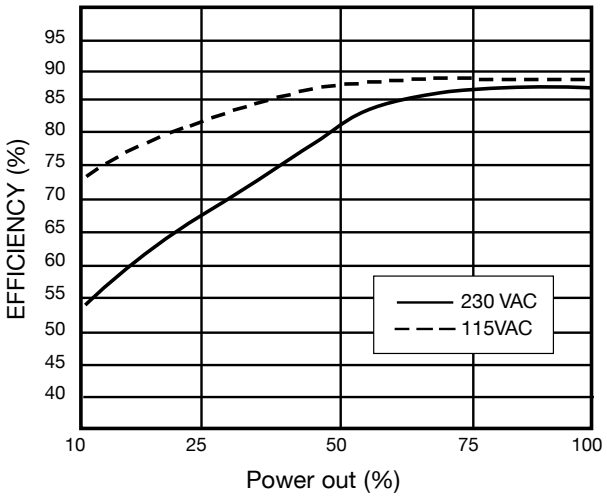


Mechanical Drawings mm (inches)





Typ. Efficiency Curve



Installation

Ventilation and cooling	Normal convection All sides 25mm free space for cooling is recommended
Connector size range	
Spring terminal	AWG24-14 (0.2~2mm²) flexible/solid cable, 10mm stripping at cable and recommends use copper conductors only, 60/75°C
Screw terminal	AWG26-12 (0.2~2.5mm²) flexible/solid cable, connector can withstand torque at max 0,56Nm (5 lbs-in). 4~5 mm stripping at cable and recommends use copper conductors only, 60/75°C
Max. torque for terminal	
Input terminals	0.56Nm (5.0lb-in)
Output terminals	0.56Nm (5.0lb-in)
General tolerances mm (in.)	
0.00 (0.00) ÷ 30.00 (1.18)	±0.30 (0.01)
30.00 (1.18) ÷ 120.00 (4.72)	±0.50 (0.02)

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