stringMoni®

Switching Power Supply
Type PSU 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 PSU 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

PS U 24 60 1 B

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

Input type: 1= single phase

Optional Features

Description	code
Spring connectors	B

Output performances

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)	Voltage Trim Range Min. VDC	Voltage Trim Range Max. VDC	DC on LED (VDC Min.)	Typical Efficiency
PSU05	5	10	50	5	5.5	4	79%
PSU12	12	5	60	12	14	9.6	86%
PSU24	24	2.5	60	24	28	19.2	89%
PSU48	48	1.25	60	48	55	37	89%

Output data

Line regulation	± 0.5%	Ouput Voltage accuracy	± 2%
Load regulation	± 0.5%	Temperature coefficient	± 0.02%/°C
Minimum load	0	Hold up Time Vi = 115Vac	20ms
Turn on time (full resistive load)	1.0s max	Hold up time Vi = 230Vac	30ms
Transient recovery time	300µs	Voltage fall time (I_0nom)	150ms max
Ripple and noise	50mVpp	Voltage rise time at full resistive load	150ms max

Input data

Rated input voltage	100 - 240	Frequency range	47- 63 Hz
Voltage range C A C D	 c a V c d V	Inrush current 4 6 2 c a V 8 1 1 = i V A 0 3 5 7 3 c a V 0 9 3 2 = i V A 0 6	

Controls and Protections

Overload	110 – 150%
Input Fuse	T2A/250Vac internal*
Output Short Circuit	Fold forward
Power ready output (only PSU 24)	
On threshold	≥20V ± 1V
Off threshold	≤19.2V ± 1V

Over voltage protection

	VDC Min.	VDC Max.
PSU5	6	6.8
PSU12	15	16.5
PSU24	30	33
PSU48	60	66

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

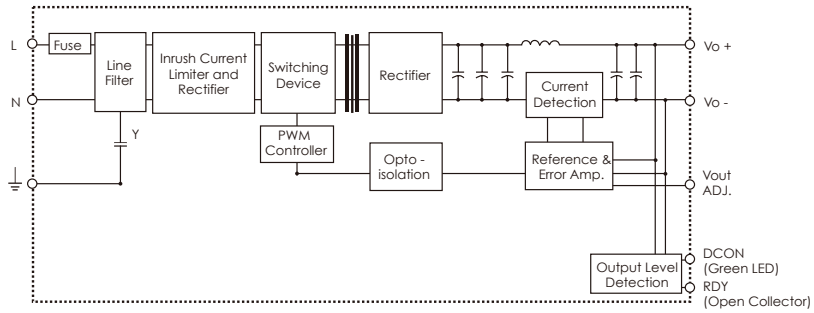
Ambient temperature	-10°C to 71°C	**Cooling**	Free air convection
Derating (>60°C to +71°C)	2.5%/°C	**MTBF (MIL-HDBK-217F)**	500.000h
Ambient humidity	20 ~ 90%RH	**Case material**	Plastic: PC, UL94-V0
Storage	-25°C to +85°C	**Dimensions L x W x D**	90 x 40.5 x 115
Protection degree	IP20	**Weight**	360g

Norms and Standards

Insulation voltage I / O	3.000Vac min	**CE**	EN61000-6-3 - EN55022 Class B EN61000-3-2 - EN61000-3-3 EN61000-6-2 - EN550241 EN61000-4-2 - EN61000-4-3 EN61000-4-4 - EN61000-4-5 EN61000-4-6 - EN61000-4-8 EN61000-4-11
Insulation resistance	100Mohm min		
UL / cUL	UL508 listed, UL1950, UL1310 Class 2 (5V without class 2) Recognised		
TUV	EN60950		

* fuse not replaceable by user

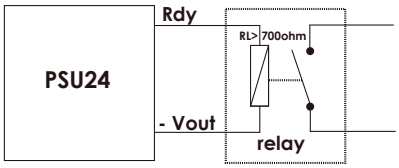
Block diagrams



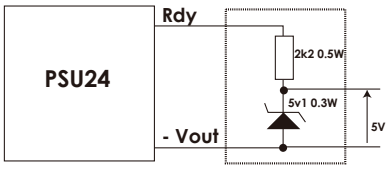
Pin assignement and front controls

Pin No.	Designation	Description
1	RDY	DC OK, output for relay (only on PSU 24)
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)
	Vout ADJ.	Trimmer for fine output voltage adjustment
	DC ON	DC output ready LED

Output Rdy Wiring diagram

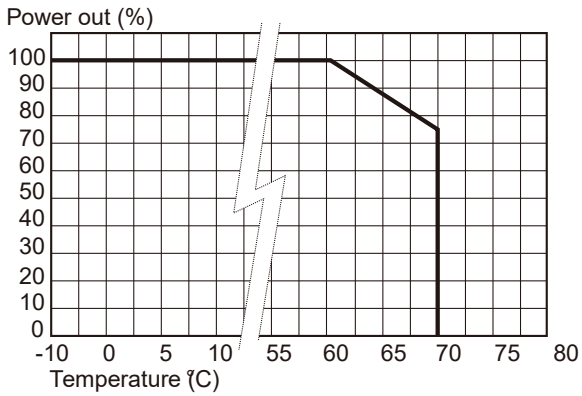


Relay connection diagram

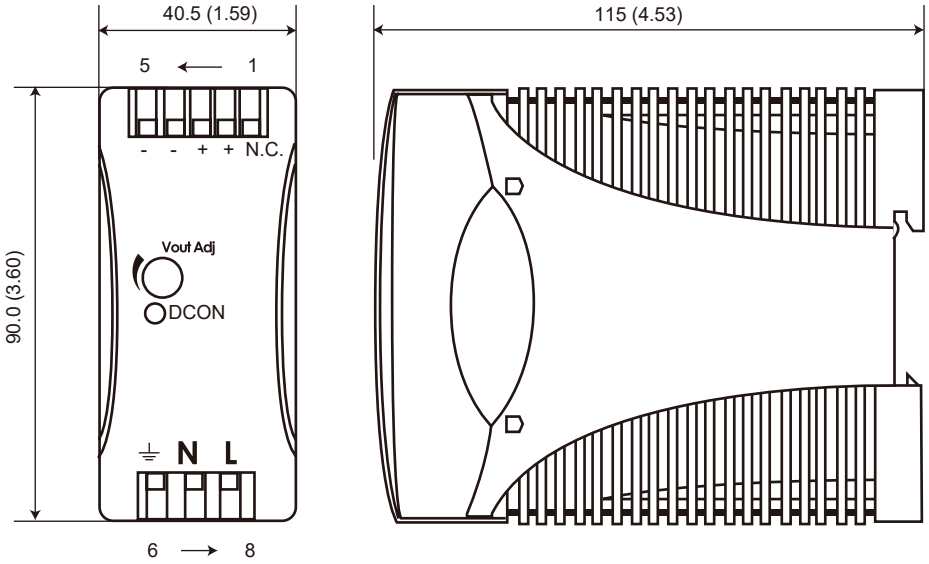


5V signal

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)