

PSS30/12/2.5



2.5A,30W Single Phase Din Rail Mountable Switching Power Supplies

- Full Range Input selection from 85 to 264VAC
- Typical efficiency of 84%
- Compact design with a width of only 40.5mm
- Two years product warranty

GENERAL SPECIFICATION

Switching Frequency (typ.)	80-135 KHz
Min. Isolation Voltage -AC (Input-FG)	1500 VAC
Min. Isolation Voltage -AC (Input-Output)	3000 VAC
Min. Isolation Voltage -DC (Input-FG)	2121 VDC
Min. Isolation Voltage -DC (Input-Output)	4242 VDC
Isolation Resistance (Input-Output @500VDC)	100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-40 to +71 deg.C
Derating from +61°C to +71°C (see derating curve)	2.5%/ °C
Ambient Temperature Range (Storage)	-40 to +85 deg.C
Relative Humidity Range	20 to 95 %RH
Temperature Coefficient Range	+/- 0.03 % per deg. C
MTBF (Bellcore Issue 6 @40°C, GB)	582000 hr
Altitude During Operation (IEC 60068-2-13)	4850 m
Dimension	Spring Terminal Type , L90 X W40.5 X D114 mm
Cooling	Free Air Convection
Pollution Degree	2

ORDERING INFORMATION

Cat. No.	PSS30/12/2.5
Output Voltage	12 VDC
Output Current	2500 mA
Output Wattage	30 W
Efficiency (min.)	82%
Efficiency (typ.)	84%
Input Voltage Range	85 - 264 VAC
Standard Packing Qty	1

PHYSICAL SPECIFICATIONS

Dimensions (H x W x D)	90 X 40.5 X 114 mm
Weight	270 g
Case Material	Plastic
Packing	0.35 kg ; 40 pcs / 15 kg / 2.16 CUFT

APPROVALS



ACCESSORIES

IMAGES	CAT. NO.	DESCRIPTION	STD. PACK
	CA501-1M	Din 32 Rail unslotted 1 meter	50
	CA501-1M-S	Din 32 Rail slotted 1 meter	50
	CA501-2M	Din 32 Rail unslotted 2 meter	50
	CA501-2M-S	Din 32 Rail slotted 2 meter	50
	CA701-1M	Din 35 Rail unslotted 1 meter	50
	CA701-2M	Din 35 Rail unslotted 2 meter	50
	CA701-2M-S	Din 35 Rail slotted 2 meter	50
	CA701-1M-S	Din 35 Rail slotted 1 meter	50
	CA701-15-1M	Din 35 Rail 15 deep unslotted 1 meter	50
	CA701-15-1M-S	Din 35 Rail 15 deep slotted 1 meter	50
	CA701-15-2M	Din 35 Rail 15 deep unslotted 2 meter	50
	CA701-15-2M-S	Din 35 Rail 15 deep slotted 2 meter	50
	CA202	End Clamp in Polyamide suitable for Din 35 / Din 35-15 Rails	25
	CA702	End Clamp in Polyamide 66 suitable for Din 32 / Din 35 / Din 35-15 Rails	50
	SCS0.5/3	Electricians Screwdriver for slotted screws	10

STANDARD USED FOR TESTING

UL/cUL	UL 508 Listed UL 60950-1, UL 1310 Class 2 Power (only 5V w/o Class 2) Recognized ISA 12.12.01(Class I, Division 2, Groups A, B, C and D)
TUV	EN 60950-1, CB scheme , EN 61558-1, EN 61558-2-17 (meet EN 60204)
CE	EN 61000-6-3, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3 E N 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-N Level 3, L / N-FG Level 4 EN 61000-4-6 Level 3, EN 61000-4-8
CCC	GB4943, GB9254, GB17625.1
Vibration Resistance	meet IEC 60068-2-6 (Mounting by rail : 10-500 Hz, 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)

INPUT SPECIFICATIONS

Input Phase	Single
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INPUT SPECIFICATIONS

AC Input Voltage Range	85 to 264
DC Input Voltage Range	90 to 375
Rated Max. Input Voltage	240 VAC
Rated Min. Input Voltage	100 VAC
Line Frequency-Max.	63 Hz
Line Frequency-Min.	47 Hz
Max. Inrush Current (Vi: 115 VAC)	20 A
Max. Inrush Current (Vi: 230 VAC)	40 A
Rated Input Current -Typ. (Vi : 115 VAC)	560 mA
Rated Input Current -Typ. (Vi : 230 VAC)	330 mA
Rated Input Current -Max. (Vi : 115 VAC)	800 mA
Power Dissipation (Vi: 230 VAC, Io norm)	5.6 W
Leakage Current (Input-Output)	0.25 mA

OUTPUT SPECIFICATIONS

Output Voltage	12 VDC
Output Current	2500 mA
Output Voltage Accuracy (Adjusted before shipment)	0 to +1 %
Minimum Load	0 %
Line Regulation	+/- 0.5 %
Load Regulation	+/- 0.5 %
Output Voltage Trim Range	12 to 14 VDC
Rated Continuous Loading	2.5A @12Vdc / 2.1A @14Vdc
Hold Up Time (Vi: 115VAC)	20 msec
Hold Up Time (Vi: 230VAC)	30 msec
Turn On Time	1000 ms
Turn On Time With 3500 µF	2000 msec
Rise Time	150 ms
Rise Time With 3500 µF	500 ms
Fall Time	150 msec
Transient Recovery Time	2 ms
Ripple and Noise (BW = 20MHz)	50 mV
Power Back Immunity	18 VDC
Capacitor Load	3500 µF
DC ON Indicator Threshold at start up (Green LED)	9.0 to 10.8VDC
Efficiency	84%

CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	T2A / 250VAC internal
Internal surge voltage protection: IEC61000-4-5	Varistor
Rated over load protection	110 to 140 %
Over voltage protection	15 to 16.5 VDC
Output short circuit	Fold Forward

CONTROL AND PROTECTION SPECIFICATIONS

Degree of protection	IP20
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PIN CONFIGURATION

PIN NO	POSITION	DESIGNATION	DESCRIPTION
1	OUT	RDY	DC OK output for relay (not connect except 24V model)
2	OUT	+	Positive output terminal
3	OUT	+	Positive output terminal
4	OUT	-	Negative output terminal
5	OUT	-	Negative output terminal
6	IN	Ground	Ground this terminal to minimize high frequency emissions
7	IN	N	Input terminals (neutral conductor, no polarity at DC input)
8	IN	L	Input terminals (phase conductor, no polarity at DC input)
	OTHER	Vout ADJ.	Trimmer-potentiometer for Vout adjustment
	OTHER	DC ON	Operation indicator LED

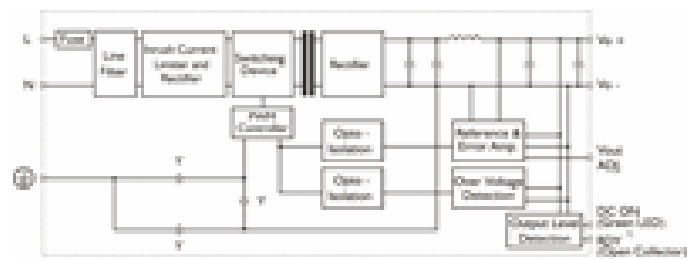
CONNECTION DETAILS

Spring terminal: 2 AWG24-14 (0.2-2mm²) flexible / solid cable, 10 m/m stripping at cable end recommends 0 Use copper conductors only, 60 / 75 C

INSTALLATION DETAILS

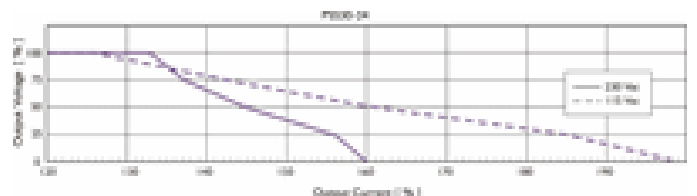
Cooling Normal convection. All sides 25mm free space. For cooling recommended connector size range spring terminal : AWG24-14 (0.2-2 sq.mm) flexible/solid cable, 10m/m stripping at cable end recommends. Use Cu conductors only, 60/75 deg.C

CIRCUIT SCHEMATIC



Note: (1) for 24V Model Only

CURRENT LIMITED CURVE

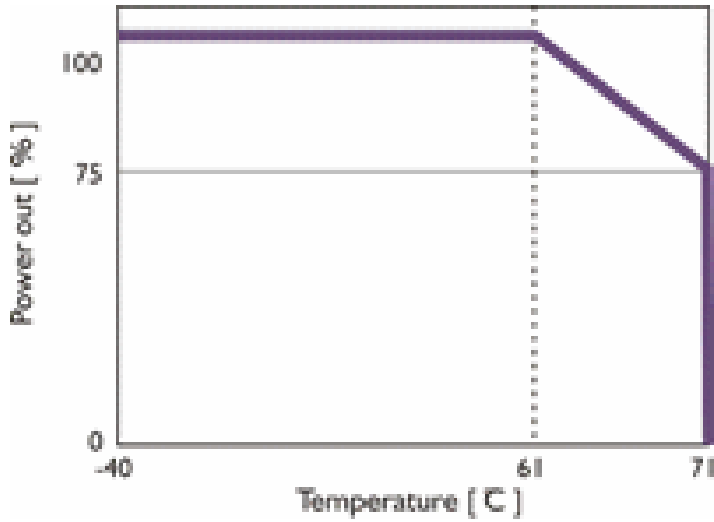


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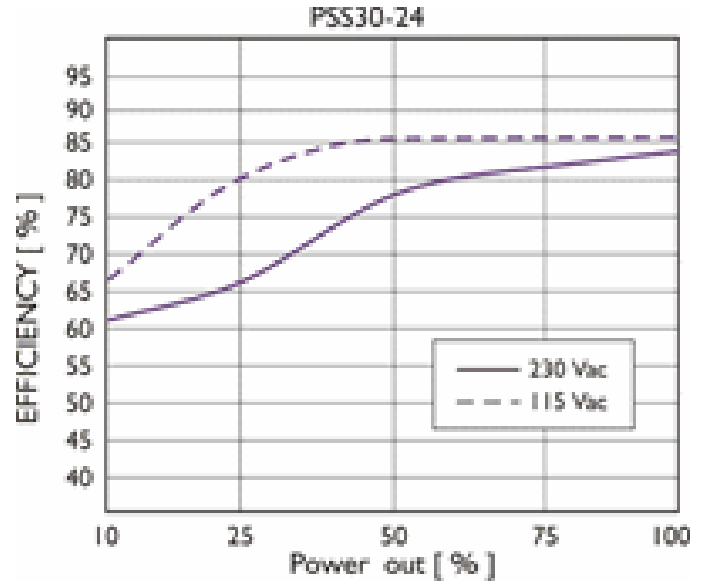


connectwell
THE RIGHT CONNECTION

DERATING CURVE



EFFICIENCY CURVE



DIMENSIONAL DIAGRAM

