

PSS120/24/5



5A, 120W Single Phase Din Rail Mountable Switching Power Supplies

- Full Range Input selection from 90/264 VAC Auto select
- Typical efficiency of 86%
- Compact design with a width of only 64mm
- Parallel function available (Switch)
- Two years product warranty

GENERAL SPECIFICATION

Switching Frequency (typ.)	55 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)	-35 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)	450000 hr
Altitude During Operation (IEC 60068-2-13)	4850 m
Dimension	Screw terminal type L124.5 X W64 X D123.6 mm
Cooling	Free Air Convection
Pollution Degree	2

ORDERING INFORMATION

Cat. No.	PSS120/24/5
Output Voltage	24 VDC
Output Current	5 A
Output Wattage	120 W
Efficiency (min.)	84%
Efficiency (typ.)	86%
Input Voltage Range	90-264 VAC
Standard Packing Qty	1

PHYSICAL SPECIFICATIONS

Dimensions (H x W x D)	124.5 X 64 X 123.6 mm
Weight	920 g
Case Material	Metal
Packing	1.02kg ; 20 pcs / 21.5 kg / 2.01 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
	SCPH1	Phillips Screwdriver for Phillips Recess screws	10

STANDARD USED FOR TESTING

UL/cUL	UL 508 Listed UL 60950-1, UL 1310 Class 2 Power (24V/E Models only) 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)

PSS120/24/5



INPUT SPECIFICATIONS

Input Phase	Single
Rated Input Voltage	115 /230 VAC (auto select)
DC Input Voltage Range	210 to 375
Input Voltage Range (115VAC Selected)	90 to 132 VAC
Input Voltage Range (230VAC Selected)	180 to 264 VAC
Line Frequency-Max.	63 Hz
Line Frequency-Min.	47 Hz
Max. Inrush Current (Vi: 115 VAC)	24 A
Max. Inrush Current (Vi: 230 VAC)	48 A
Rated Input Current -Typ. (Vi : 115 VAC)	2.2 A
Rated Input Current -Typ. (Vi : 230 VAC)	0.83 A
Rated Input Current -Max. (Vi : 115 VAC)	2.8 A
Rated Input Current -Max. (Vi : 230 VAC)	1.4 A
Power Dissipation (Vi: 230 VAC, Io norm)	20 W
Leakage Current (Input-Output)	0.25 mA
P.F.C.	0.7 typ.

OUTPUT SPECIFICATIONS

Output Voltage	24 VDC
Output Current	5 A
Output Voltage Accuracy (Adjusted before shipment)	0 to +1 %
Minimum Load	0 %
Line Regulation	+/- 0.5 %
Load Regulation: Single Mode	+/- 1 %
Load Regulation: Parallel Mode	+/- 5 %
Output Voltage Trim Range	22.5 to 28.5 VDC
Rated Continuous Loading	5A @24Vdc / 4.2A @28.5Vdc
Hold Up Time (Vi: 115VAC)	25 msec
Hold Up Time (Vi: 230VAC)	30 msec
Turn On Time	1000 ms
Turn On Time With 3500 µF	1500 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	35 VDC
Capacitor Load	3500 µF
DC ON Indicator Threshold at start up (Green LED)	17.6 to 19.4 VDC
DC LOW Indicator Threshold after start up (Red LED)	17.6 to 19.4 VDC
Parallel Operation	3 unit
Efficiency	86%

CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	T3.15A / 250VAC internal
Internal surge voltage protection: IEC61000-4-5	Varistor
Rated over load protection	110 to 145 %
Power Ready	Threshold voltage of contact closed(at start up) 17.6-19.4 VDC Electrical isolation 500VDC Contact rating at 60VDC,0.3A
Over voltage protection	125 to 140 %
Output short circuit	Fold Forward
Degree of protection	IP20

PIN CONFIGURATION

PIN NO	POSITION	DESIGNATION	DESCRIPTION
1	OUT	RDY	A normal open relaycontact for DC ON level control
2	OUT		(never connect except 24V/E model)
3,4	OUT	V+	Positive output terminal
5,6	OUT	V-	Negative output terminal
7	IN	Ground	Ground this terminal to minimize high frequency emissions
8	IN	L	Input terminals (phase conductor,no polarity at DC input)
9	IN	N	Input terminals (neutral conductor,no polarity at DC input)
	OTHER	DC ON	Operation indicator LED
	OTHER	DC LO	DC LOW voltage indicator LED
	OTHER	Vout ADJ.	Trimmer-potentiometer for Vout adjustment
	OTHER	S/P	Single / Parallel select switch

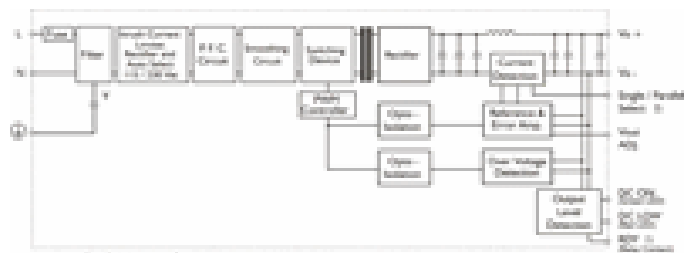
CONNECTION DETAILS

Screw terminal: AWG24-10 (0.2-4mm²) flexible / solid cable, - Input connector can withstand torque at maximum 9 pound-inches. - Output connector can withstand torque at maximum 5.5 pound-inches. 8m/m stripping at cable end recommends

INSTALLATION DETAILS

Cooling Normal convection.All sides 25mm free space.For cooling recommened. Connector size range screw terminal : AWG24-10 (0.2-4 sq.mm) flexible/solid cable-Input connector can withstand torque at max.9 pound-inches -Output connector can withstand torque at max.5.5 pound inches. 8m/m stripping at cable end recommends.Use copper conductors only,60/75°C

CIRCUIT SCHEMATIC

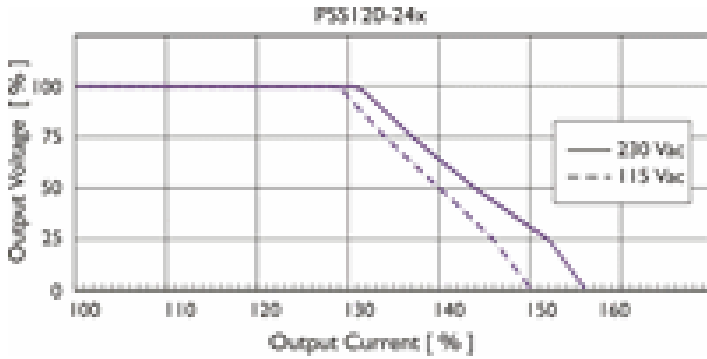


PSS120/24/5

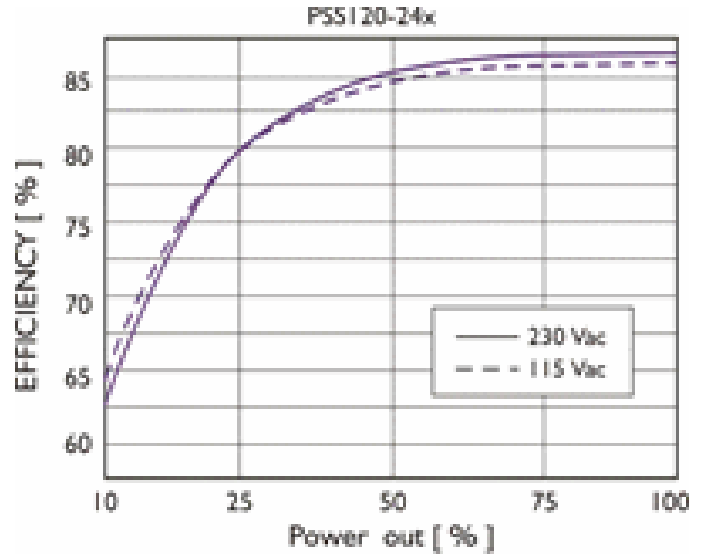


connectwell
THE RIGHT CONNECTION

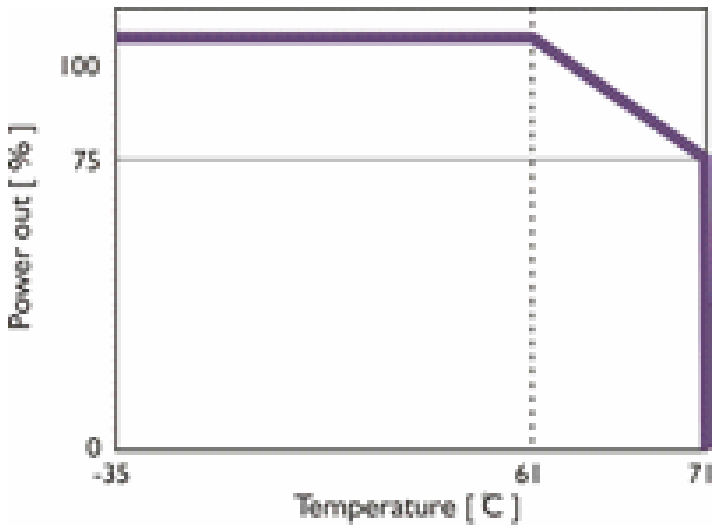
CURRENT LIMITED CURVE



EFFICIENCY CURVE



DERATING CURVE



DIMENSIONAL DIAGRAM

