

# PSD100/48/2. 1



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THE RIGHT CONNECTION

## 2.1A ,2ph/Single Phase Din Rail Mountable Switching Power Supplies

- Full Range Input selection from 340 to 575 VAC
- Typical efficiency of 89%
- Compact design with a width of only 54 mm
- Parallel function available (Switch)
- Two years product warranty

### GENERAL SPECIFICATION

Switching Frequency (typ.)	85 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 Degree Celcius
Derating from +61°C to +71°C (see derating curve)	2.5% per °C
Ambient Temperature Range (Storage)	-40 TO +85 Degree Celcius
Relative Humidity Range	min/max 20/95 % RH
Temperature Coefficient Range	+/- 0.03 % / Degree celcius
MTBF (Bellcore Issue 6 @40°C, GB)	672000 hr
Altitude During Operation (IEC 60068-2-13)	4850 m
Dimension	L90xW54xD114 mm
Cooling	Free air convection
Pollution Degree	2

### ORDERING INFORMATION

Cat. No.	PSD100/48/2.1
Output Voltage	48 VDC
Output Current	2.1 A
Output Wattage	100.8 W
Efficiency (min.)	87%
Efficiency (typ.)	89 %
Input Voltage Range	340 -575 VAC
Standard Packing Qnty	1

### PHYSICAL SPECIFICATIONS

Dimensions (H x W x D)	90 x 54 x 114 mm (3.6 x 2.13 x 4.49 inches)
Weight	500 g
Case Material	Plastic
Packing	0.57 kg ; 32 pcs / 19.5 kg / 1.85 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 Recognized
TUV	EN 60950-1, CB scheme. EN 61558-1, EN 61558-2-17 (meet EN 60204-1)
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
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	2PH /1PH
Nominal Input Voltage	1PH / 2PH 380 / 480 VAC
AC Input Voltage Range	340 - 575 VAC

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### INPUT SPECIFICATIONS

DC Input Voltage Range	480 - 820 VDC
Rated Max. Input Voltage	500 VAC
Rated Min. Input Voltage	400 VAC
Line Frequency-Max.	63 Hz
Line Frequency-Min.	47 Hz
Inrush Current	10 A
Rated Input Current -Max. (Vi : 400 VAC)	0.48 A
Rated Input Current -Typ. (Vi : 500 VAC)	0.41 A
Rated Input Current -Max. (Vi : 400 VAC)	0.75 A
Power Dissipation (Vi: 400 VAC, Io norm)	10.5 W
Leakage Current (Input-Output)	0.25 mA
P.F.C.	0.55

### OUTPUT SPECIFICATIONS

Output Voltage	48 VDC
Output Current	2.1 A
Output Voltage Accuracy (Adjusted before shipment)	+ 1 %
Minimum Load	0 %
Line Regulation	+/- 1 %
Load Regulation: Single Mode	+/- 1 %
Load Regulation: Parallel Mode	+/- 5 %
Output Voltage Trim Range	47 - 56 VDC
Rated Continuous Loading	2.1 A @ 48Vdc / 1.8 A @ 56 Vdc
Hold Up Time	20 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	63 VDC
Capacitor Load	3500 µF
DC ON Indicator Threshold at start up (Green LED)	min / max 37/43VDC
DC LOW Indicator Threshold after start up (Red LED)	min / max 37/43 VDC
Parallel Operation	2 Units
Efficiency	89 %

### CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	2A / 600 VAC internal
Internal surge voltage protection: IEC61000-4-5	Varistor
Rated over load protection	min/max 115/135 %
Over voltage protection	min/max 60 / 66 VDC

### CONTROL AND PROTECTION SPECIFICATIONS

Output short circuit	Hiccup mode
Degree of protection	IP20

### PIN CONFIGURATION

PIN NO	POSITION	DESIGNATION	DESCRIPTION
1	OUT	RDY	A normal open relay contact for DC ON level control (Never connect except 24V model)
2	OUT		(Never connect except 24V model)
3	OUT	V+	Positive output terminal
4	OUT	V+	Positive output terminal
5	OUT	V -	Negative output terminal
6	OUT	V -	Negative output terminal
7	IN	Earth	Ground this terminal to minimize high-frequency emissions
8	IN	N (L2)	Input terminals (phase conductor, no polarity at DC input)
9	IN	L1	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 (Except 24V/E models)

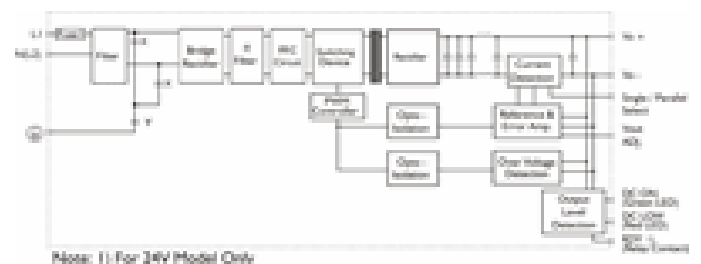
### CONNECTION DETAILS

AWG24-14 (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.8 m/m stripping at cable end recommend. Use copper conductors only, 60 / 75Degree C

### INSTALLATION DETAILS

Ventilation / Cooling Normal convection All sides 25mm free space For cooling recommended

### CIRCUIT SCHEMATIC

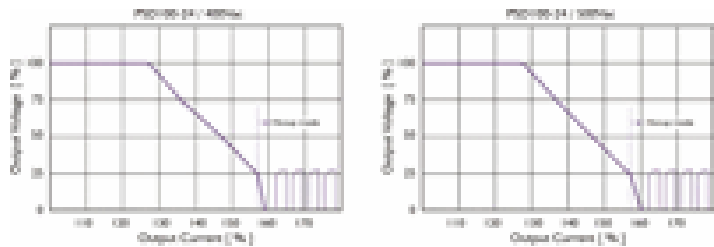


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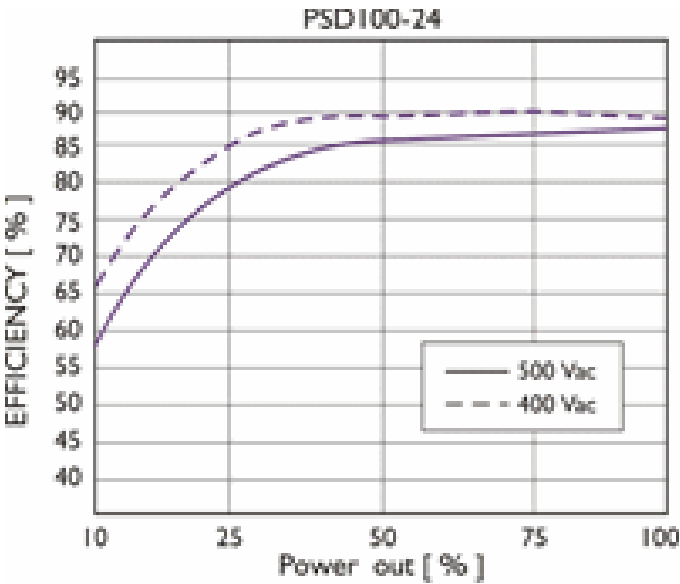


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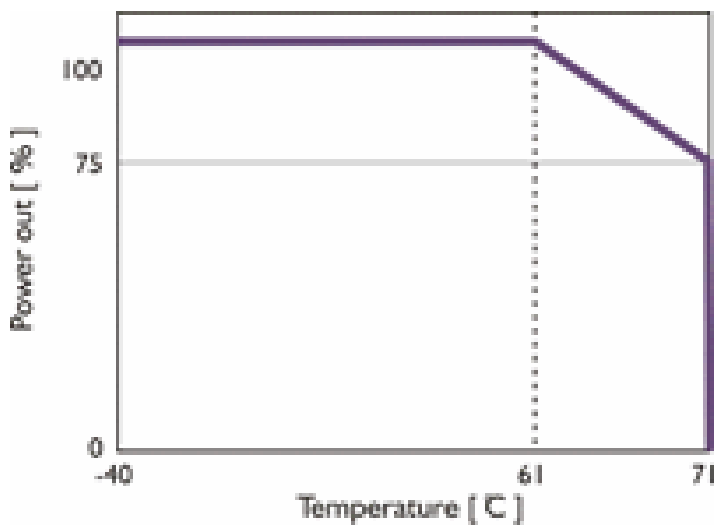
CURRENT LIMITED CURVE



EFFICIENCY CURVE



DERATING CURVE



DIMENSIONAL DIAGRAM

