

PSB1/10/24/0.  
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**connectwell**  
THE RIGHT CONNECTION

0.42A ,Single Phase Din Rail Mountable Step Type Switching Power Supplies

- Full Range Input selection from 90 to 264VAC
- Typical efficiency of 80%
- Compact design with a width of only 18mm
- Two years product warranty

**GENERAL SPECIFICATION**

Switching Frequency (typ.)	90 KHz
Min. Isolation Voltage -AC (Input-Output)	3000 VAC
Min. Isolation Voltage -DC (Input-Output)	4242 VDC
Isolation Resistance (Input-Output @500VDC)	100 MΩ
Ambient Temperature Range (Operational at Vi norm)	-25 to +71 deg.C
Derating from +61°C to +71°C (see derating curve)	2.5% per °C
Ambient Temperature Range (Storage)	-25 to +85 deg.C
Relative Humidity Range	20-95 % RH
Temperature Coefficient Range	+/- 0.03 % / Degree celcius
MTBF (Bellcore Issue 6 @40°C, GB)	868000 hr
Altitude During Operation (IEC 60068-2-13)	2000 m
Dimension	L91 x W18 x D56.5 mm
Cooling	Free Air Convection
Pollution Degree	2

**ORDERING INFORMATION**

Cat. No.	PSB1/10/24/0.42
Output Voltage	24 VDC
Output Current	0.42 A
Output Wattage	10 W
Efficiency (min.)	78%
Efficiency (typ.)	80%
Input Voltage Range	90 - 264 VAC
Standard Packing Qty	1

**PHYSICAL SPECIFICATIONS**

Dimensions (H x W x D)	91 x 18 x 56.5 mm
Weight	65 g
Case Material	Plastic
Packing	0.11kg ; 120 pcs / 14.5kg / 2.28 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 Recognized ISA 12.12.01(Class 1, Division 2, Groups A, B, C and D)
TUV	EN 60950-1, CB scheme
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-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	Single
AC Input Voltage Range	90 to 264
DC Input Voltage Range	120 to 375

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#### INPUT SPECIFICATIONS

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)	15 A
Max. Inrush Current (Vi: 230 VAC)	30 A
Rated Input Current -Typ. (Vi : 115 VAC)	200 mA
Rated Input Current -Max. (Vi : 115 VAC)	300 mA
Power Dissipation (Vi: 230 VAC, Io norm)	2.3 W
Leakage Current (Input-Output)	0.25 mA

#### OUTPUT SPECIFICATIONS

Output Voltage	24 VDC
Output Current	0.42 A
Output Voltage Accuracy (Adjusted before shipment)	+/- 1 %
Minimum Load	0 %
Line Regulation	+/- 1 %
Load Regulation	+/- 1 %
Hold Up Time ( Vi: 115VAC)	10 msec
Hold Up Time ( Vi: 230VAC)	30 msec
Turn On Time	1000 ms
Turn On Time With 3500 $\mu$ F	1500 msec
Rise Time	150 ms
Rise Time With 3500 $\mu$ F	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 $\mu$ F
DC On Indicator	Green
DC ON Indicator Threshold at start up (Green LED)	19.2-21.6 VDC
DC LOW Indicator Threshold after start up (Red LED)	19.2-21.6 VDC
Efficiency	80%

#### CONTROL AND PROTECTION SPECIFICATIONS

Input fuse	T1A / 250VAC internal
Internal surge voltage protection: IEC61000-4-5	Varistor
Rated over load protection	110-165 %
Over voltage protection	30 - 33 VDC
Output short circuit	Fold forward
Degree of protection	IP20

#### PIN CONFIGURATION

PIN NO	POSITION	DESIGNATION	DESCRIPTION
1	OUT	-	Negative output terminal
2	OUT	+	Positive output terminal
3	OUT	L	Input terminals (phase conductor, no polarity at DC input)
4	OUT	N	Input terminals (neutral conductor, no polarity at DC input)
	OTHER	DC ON	Operation indicator LED
	OTHER	DC LO	DC LOW indicator LED

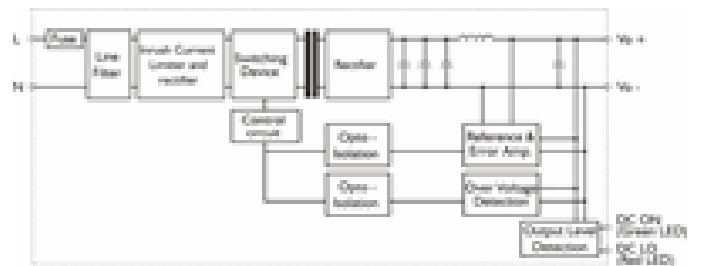
#### CONNECTION DETAILS

Spring terminal: 2 AWG24-14 (0.2~2mm<sup>2</sup>) flexible / solid cable,- Connector can withstand torque at maximum 5 pound-inches.4~5 m/m stripping at cable end recommends 0 Use copper conductors only, 60 / 75 C

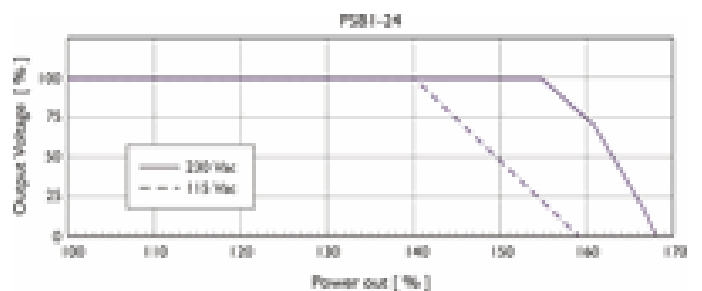
#### INSTALLATION DETAILS

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

#### CIRCUIT SCHEMATIC



#### CURRENT LIMITED CURVE

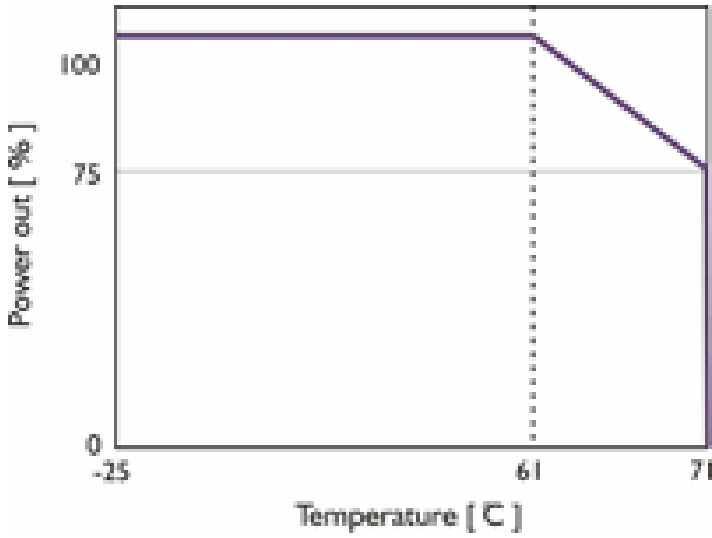


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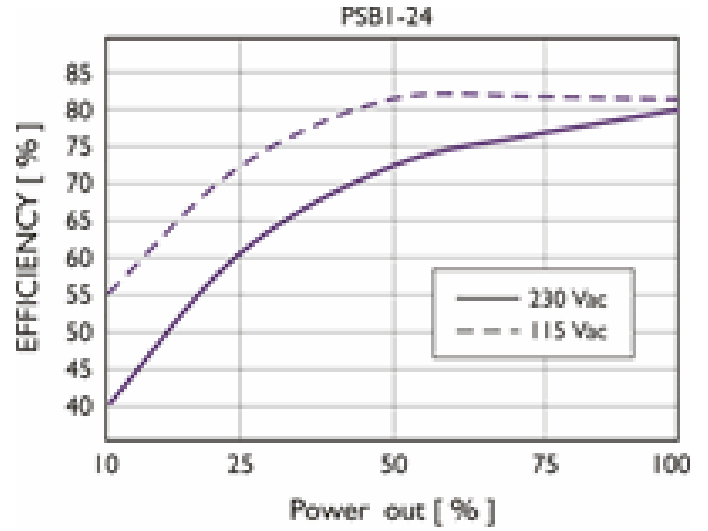


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DERATING CURVE



EFFICIENCY CURVE



DIMENSIONAL DIAGRAM

