"HALF BRICK"

PRODUCT FEATURES

- Wide Input Voltage Ranges
- Isolated & Regulated
- 50, 75 & 100 Watt Output Rating from Same Package
- Industry Standard Package (2.28 x 2.4 x 0.5") and Footprint
- Input and Output Filtering Integral to Supply
- Fixed Operating Switching Frequency
- UL1950, cUL950, TUV EN60950 (48V in Nominal Only)

THE SP/SPW SERIES FROM WALL INDUSTRIES

The SP/SPW Series of DC/DC converters offers up to 100 watts of output power. It is intended to provide power and isolation for pc board and chassis mount applications requiring high power density. Being encapsulated, these supplies have improved thermal dissipation and protection for ruggedized environments.

SPECIFICATIONS: SP/SPW SERIES

All specifications apply @ +25 C ambient unless otherwise noted.

INPUT SPECIFICATIONS

Input Voltage Range.....SP 18-36, 36-75VDC...SPW 18-75VDC
Nominal Input.....24, 48VDC
Input Voltage Lockout.....<16 >38VDC, <34 > 78VDC (see note 1)
Input Filter.....Pi input filter
Input Reflected Ripple.....20mA p-p (see note 2)
Remote On/Off Control.....Open Collector TTL

OUTPUT SPECIFICATIONS

Output Current.....see table
Output Voltage Tolerance.....±1% max.
External Output Trim.....±10%
Line Regulation.....±0.1%
Load Regulation.....±0.1%
Short Circuit Protection.....Continuous
Over Voltage Protection.....approx. 120% Vout, self-resetting
Ripple/Noise (20MHz BW).....1.5% Vout (see note 3)
Remote Sense.....up to 0.5V power line drop
Transient Response.....±5.0% deviation, ... 100u/sec recovery to within ±1.0%
Current Limiting Inception.....approx. 125%
Thermal Overload.....+110°C baseplate, self-resetting

GENERAL SPECIFICATIONS

Efficiency .....85% typical
Isolation Voltage (input to output).....1500VDC min.
Isolation Voltage (input to case & output to case.....750VDC
Isolation Resistance (input to output).....>100 M Ohms
Switching Frequency (Fixed).....400kHz ±10%
Minimum Load.....none required

ENVIRONMENTAL SPECIFICATIONS

Storage Temperature.....-55 to +125°C
Operating Temperature.....-40 to +100°C baseplate
Humidity (non-condensing).....20% to 95% R.H.
Temperature Coefficient.....±0.01%/°C

PHYSICAL SPECIFICATIONS

Weight.....approx. 4.0 oz.
Case Material.....Non-metallic with .....aluminum baseplate

Due to advances in technology, specifications subject to change without notice.

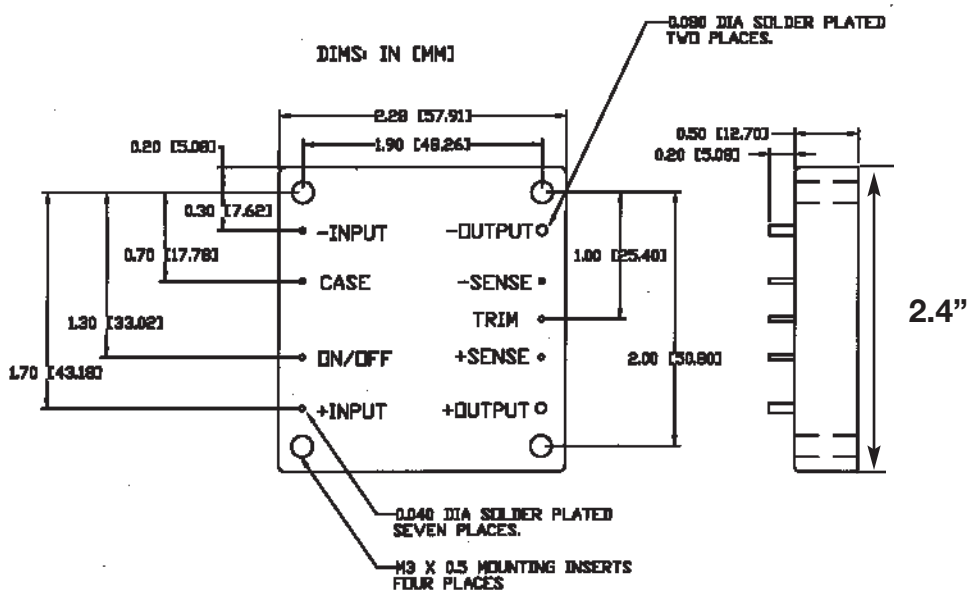
Input Voltage	Output Voltage	50 Watt Output Current	75 Watt Output Current	100 Watt Output Current	Model Number
18-36 VDC	3.3	20A	N/A	N/A	SP24S3.3-66
	5	10 A	15 A	20A	SP24S5-XXX**
	12	4.16 A	6.25 A	8.33A	SP24S12-XXX
	15	3.33 A	5 A	6.66A	SP24S15-XXX
	24	2.08 A	3.12 A	4.17	SP24S24-XXX
	48	1.04 A	1.56 A	2.08	SP24S48-XXX
36-75 VDC	3.3	20A	N/A	N/A	SP48S3.3-66
	5	10A	15A	20A	SP48S5-XXX
	12	4.16A	6.25A	8.33A	SP48S12-XXX
	15	3.33A	5A	6.66A	SP48S15-XXX
	24	2.08A	3.12A	4.17A	SP48S24-XXX
	48	1.04A	1.56A	2.08A	SP48S48-XXX.
18-75 VDC	3.3	20A	N/A	N/A	SPW48S3.3-66
	5	10 A	15 A	20A	SPW48S5-XXX
	12	4.16 A	6.25 A	8.33A	SPW48S12-XXX
	15	3.33 A	5 A	6.67A	SPW48S15-XXX
	24	2.08A	3.12 A	4.16A	SPW48S24-XXX
	48	1.04A	1.56A	2.08A	SPW48S48-XXX(10)

** Insert power level (50, 75, or 100 watts) in place of XXX to indicate output power.

Notes:

1. Auto off power train protection.
2. Industry standard 12MH source impedance with a low ESR aluminum 33uf capacitor across input.
3. Measured with a 10uf // 0.1uf across output.
4. All case, pin to case, and pin to header dimensions reference only unless otherwise noted.
5. Pin diameters are 0.04" except: those used for +Vout and -Vout are 0.08". Pin length is 0.20" min
6. Pin to pin tolerance ± 0.01". Pin diameter tolerance ± 0.005"
7. Significant capacitive load on output may inhibit start-up and operation, consult factory.
8. All DC/DC converters should be externally fused on the front end for protection.
9. Heatsinks available, consult factory
10. Models SPW48S48-75 and SPW48S48-100 have input voltage range limited to 20-60VDC.
11. Through-hole instead of threaded inserts available (0.125" diameter), add suffix "TH"

SP SERIES



see note 11

**Note: Remote On/Off
(Referenced to -Vin)
No Suffix
TTL Open = On
Low = Off
R Suffix
Open = Off
Low = On