

**15 AND 30 WATTS - SI SERIES**

Wide Input, Single/Dual/Triple Outputs

**FEATURES**

- Wide Input Voltage Range (2:1)
- Over Voltage Protection on All Models
- 12VDC Nominal Input - 25 VDC Surge,  
24VDC Nominal Input - 50VDC Surge,  
48VDC Nominal Input - 100VDC Surge
- Continuous short circuit protection - all outputs
- Efficiency: up to 85%
- Remote On/Off Control via TTL
- 85-200VDC and 170-400VDC Inputs Available

**THE SI SERIES FROM WALL INDUSTRIES**

The SI Series features a single case size (2.56 x 3.0 x 0.84") for every unit - 15 to 30 watts. Specifications include remote on/off, short circuit protection, Pi input filter, over-voltage protection and excellent line and load regulation. SI Series units operate at case temperatures from -25 to +85°C with no derating. Metallic case provided for shielding.


**SPECIFICATIONS: SI SERIES**

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

**INPUT SPECIFICATIONS**

Input Voltages.....9-18, 18-36, 36-75VDC  
 Nominal Input.....12, 24, 48VDC  
 Input Filter.....Pi input filter  
 Remote On/Off Control.....Open collector TTL

**OUTPUT SPECIFICATIONS**

Output Current.....see table  
 Output Voltage Tolerance.....±1% max.  
 Output Trim (external).....±10%, single outputs  
 Line Regulation.....see note 4  
 Load Regulation.....see note 5  
 Short Circuit Protection.....continuous, all outputs  
 Ripple/Noise (20MHz BW).....100mV p-p  
 Overvoltage Protection.....see table

**GENERAL SPECIFICATIONS**

Efficiency.....up to 85%  
 Isolation Voltage (input to output).....500VDC min.  
 Isolation Resistance (input to output).....500MOhms  
 Switching Frequency.....100kHz typical

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature (case).....-25 to +85°C  
 Storage Temperature.....-55 to +100°C  
 Humidity (non-condensing).....20 - 95% R.H.

**PHYSICAL SPECIFICATIONS**

Shielding.....Six-sided  
 Weight.....7.5 oz.  
 Case Material.....Black coated copper  
 .....with non-conductive baseplate

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

# 15 AND 30 WATTS



# SI SERIES

| Input Voltage (VDC) | Output Voltage (VDC) | Output Current (mA) |          |  | Over Voltage Protection (VDC) | Model Number 15 Watts | Model Number 25 Watts | Model Number 30 Watts |
|---------------------|----------------------|---------------------|----------|--|-------------------------------|-----------------------|-----------------------|-----------------------|
| 9 - 18              | 3.3                  | 7575                |          |  | 5.1                           |                       | SI12S3.3-7575         |                       |
|                     | 5                    | 3000                | 6000     |  | 6.8                           | SI12S5-3000           |                       | SI12S5-6000           |
|                     | 12                   | 1250                | 2500     |  | 15                            | SI12S12-1250          |                       | SI12S12-2500          |
|                     | 15                   | 1000                | 2000     |  | 18                            | SI12S15-1000          |                       | SI12S15-2000          |
|                     | 24                   | 630                 | 1250     |  | 27                            | SI12S24-630           |                       | SI12S24-1250          |
|                     | 48 <sup>11</sup>     | 310                 | 630      |  | 51                            | SI12S48-310           |                       | SI12S48-630           |
|                     | ±5                   | 1500                | 3000     |  | 6.8                           | SI12D5-1500           |                       | SI12D5-3000           |
|                     | ±12                  | 625                 | 1250     |  | 15                            | SI12D12-625           |                       | SI12D12-1250          |
|                     | ±15                  | 500                 | 1000     |  | 18                            | SI12D15-500           |                       | SI12D15-1000          |
|                     | +5/±12               | 1500/310            | 4000/420 |  | 6.8/15                        | SI12T12-310           |                       | SI12T12-420           |
|                     | +5/±15               | 1500/250            | 4000/340 |  | 6.8/18                        | SI12T15-250           |                       | SI12T15-340           |
| 18 - 36             | 3.3                  | 7575                |          |  | 5.1                           |                       | SI24S3.3-7575         |                       |
|                     | 5                    | 3000                | 6000     |  | 6.8                           | SI24S5-3000           |                       | SI24S5-6000           |
|                     | 12                   | 1250                | 2500     |  | 15                            | SI24S12-1250          |                       | SI24S12-2500          |
|                     | 15                   | 1000                | 2000     |  | 18                            | SI24S15-1000          |                       | SI24S15-2000          |
|                     | 24                   | 630                 | 1250     |  | 27                            | SI24S24-630           |                       | SI24S24-1250          |
|                     | 48 <sup>11</sup>     | 310                 | 630      |  | 51                            | SI24S48-310           |                       | SI24S48-630           |
|                     | ±5                   | 1500                | 3000     |  | 6.8                           | SI24D5-1500           |                       | SI24D5-3000           |
|                     | ±12                  | 625                 | 1250     |  | 15                            | SI24D12-625           |                       | SI24D12-1250          |
|                     | ±15                  | 500                 | 1000     |  | 18                            | SI24D15-500           |                       | SI24D15-1000          |
|                     | +5/±12               | 1500/310            | 4000/420 |  | 6.8/15                        | SI24T12-310           |                       | SI24T12-420           |
|                     | +5/±15               | 1500/250            | 4000/340 |  | 6.8/18                        | SI24T15-250           |                       | SI24T15-340           |
| 36 - 75             | 3.3                  | 7575                |          |  | 5.1                           |                       | SI48S3.3-7575         |                       |
|                     | 5                    | 3000                | 6000     |  | 6.8                           | SI48S5-3000           |                       | SI48S5-6000           |
|                     | 12                   | 1250                | 2500     |  | 15                            | SI48S12-1250          |                       | SI48S12-2500          |
|                     | 15                   | 1000                | 2000     |  | 18                            | SI48S15-1000          |                       | SI48S15-2000          |
|                     | 24                   | 630                 | 1250     |  | 27                            | SI48S24-630           |                       | SI48S24-1250          |
|                     | 48 <sup>11</sup>     | 310                 | 630      |  | 51                            | SI48S48-310           |                       | SI48S48-630           |
|                     | ±5                   | 1500                | 3000     |  | 6.8                           | SI48D5-1500           |                       | SI48D5-3000           |
|                     | ±12                  | 625                 | 1250     |  | 15                            | SI48D12-625           |                       | SI48D12-1250          |
|                     | ±15                  | 500                 | 1000     |  | 18                            | SI48D15-500           |                       | SI48D15-1000          |
|                     | +5/±12               | 1500/310            | 4000/420 |  | 6.8/15                        | SI48T12-310           |                       | SI48T12-420           |
|                     | +5/±15               | 1500/250            | 4000/340 |  | 6.8/18                        | SI48T15-250           |                       | SI48T15-340           |

**SI and SIW Series share the same dimensions.**

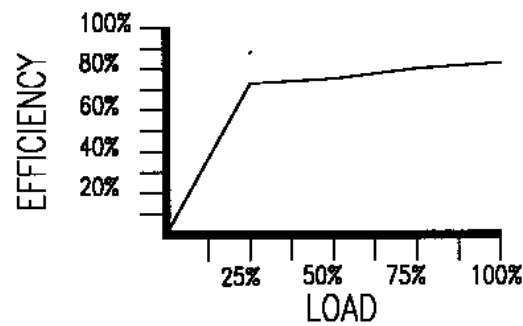
**Please refer to mechanical dimensions and pin connections of SIW Series.**

## NOTES:

1. All case and pin to case dimensions reference only unless otherwise noted.
2. Pins may be omitted on N/C pin functions, consult factory.
3. On 30 watt single output units, "+sense out" pin must be connected to "+Vout" pin; "-sense out" pin must be connected to "-Vout" pin. 15 Watt singles, pin 6 and 8 are omitted, internally connected
4. Line Regulation: Singles and duals: ±0.5% LL-HL  
Triples: ±1.0% LL-HL

5. Load Regulation: Singles: ±1% 1/4 Load to Full Load  
Duals: ±2% 1/4 Load to Full Load  
Dual 5Vout: ±3% 1/4 Load to Full Load  
Triples: ±5% 1/4 Load to Full Load  
15W triples require 20% min. load on main.  
30W duals / triples require 20% min. load on main.
6. PC pins: 0.04" diameter x 0.18" long (min.); typical eight places.
7. All DC/DC converters should be externally fused on the front end for protection.
8. Significant capacitive load may inhibit start-up and operation, consult factory.
9. Limited trim capability on 48VDC output modules, consult factory.

EFFICIENCY VS LOAD CURVE



DERATING CURVE

