

## Single Output General Purpose Power Supplies

### Features

- ◆ Low Cost
- ◆ Power Factor Correction to EN61000-3-2
- ◆ Universal Input (85 - 265VAC)
- ◆ Input Transient Protected IEC61000-4
- ◆ Enclosed
- ◆ Global safety Approvals
- ◆ Level B EMI



### Key Market Segments & Applications



| Specifications              |     |                                                                                  |                   |                           |               |
|-----------------------------|-----|----------------------------------------------------------------------------------|-------------------|---------------------------|---------------|
| Model                       |     | SWS50                                                                            | SWS75             | SWS100                    | SWS150        |
| Input Voltage range (1)     | -   | 85 - 265VAC (47 - 63Hz) or 120 - 370VDC*                                         |                   |                           |               |
| Inrush Current (115/230VAC) | A   | 20/40                                                                            |                   | 16/32                     |               |
| Power Factor                | -   | Meets EN61000-3-2                                                                |                   |                           |               |
| Input Current (115/230VAC)  | A   | 1.2/0.6                                                                          | 1.6/0.8           | 1.2/0.6                   | 1.8/0.9       |
| Temperature Coefficient     | -   | <0.02%/°C                                                                        |                   |                           |               |
| Total Regulation            | -   | <5%                                                                              |                   |                           |               |
| Overcurrent Protection      | -   | >105%, Constant Current Style                                                    |                   |                           |               |
| Overvoltage Protection      | V   | 115 -135%, Cycle AC line to reset                                                |                   |                           |               |
| Hold Up Time (Typ)          | ms  | 20ms at 115VAC                                                                   |                   |                           |               |
| Leakage Current Max.        | mA  | 1mA (0.6mA typ@230VAC)                                                           |                   | 0.75mA (0.5mA typ@230VAC) |               |
| Remote Sense                | -   | Not Available                                                                    |                   |                           |               |
| LED Indicator               | -   | Green LED = On                                                                   |                   |                           |               |
| Operating Temperature       | -   | -10 to +70°C (See table for derating - model specific)                           |                   |                           |               |
| Storage Temperature         | -   | -30 to +85°C                                                                     |                   |                           |               |
| Operating Humidity (2)      | °C  | 30 - 90% RH                                                                      |                   |                           |               |
| Storage Humidity (2)        | °C  | 10 - 95% RH                                                                      |                   |                           |               |
| Cooling                     | -   | Convection                                                                       |                   |                           |               |
| Withstand Voltage           | -   | Input to Ground 2kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min. |                   |                           |               |
| Isolation Resistance        | -   | >100M at 25°C & 70%RH, Output to Ground 500VDC                                   |                   |                           |               |
| Vibration (non operating)   | -   | 19.6m/s² (10 - 55Hz (constant sweep 1 min) X, Y, Z for 1 hour)                   |                   |                           |               |
| Shock                       | -   | < 196.1 m/s² (20G)                                                               |                   |                           |               |
| Safety Agency Approvals     | -   | UL60950-1, CSA60950-1, EN60950-1, CE Mark, EN50178                               |                   |                           |               |
| Conducted & Radiated EMI    | -   | EN55011 / EN55022-B, FCC Class B, VCCI-B                                         |                   |                           |               |
| Recommended EMI Filter      | -   | RSEL-2002W                                                                       | RSEL-2003W        | RSEL-2002W                | RSEL-2003W    |
| Immunity                    | -   | EN61000-4-2,-3,-4,-5,-6,-8,-11                                                   |                   |                           |               |
| Weight (Typ)                | g   | 400                                                                              | 480               | 600                       | 750           |
| Size (WxHxD)                | in  | 3.62 x 1.46 x 6.26                                                               | 3.7 x 1.69 x 6.69 | 3.78 x 1.77 x 7.4         | 3.9 x 2 x 7.8 |
| Warranty                    | yrs | Two Years                                                                        |                   |                           |               |

(1) Derate to 85% load below 100VAC input (2) non condensing

\*Safety certified for AC input only

## Not Recommended For New Designs

## Model Selector

| Model     | Voltage | Adjust Range | Max Curr. | Load Reg mV | Line Reg mV | Ripple Noise | Eff. (typ)% |
|-----------|---------|--------------|-----------|-------------|-------------|--------------|-------------|
| SWS50-3   | 3.3V    | 3-3.6V       | 10        | 40          | 20          | 80           | 73/70       |
| SWS75-3   | 3.3V    | 3-3.6V       | 15        | 40          | 20          | 80           | 72/68       |
| SWS100-3  | 3.3V    | 3-3.6V       | 20        | 40          | 20          | 100          | 69/70       |
| SWS150-3  | 3.3V    | 3-3.6V       | 30        | 40          | 20          | 100          | 70/72       |
| SWS50-5   | 5V      | 4.5-5.5V     | 10        | 50          | 20          | 80           | 77/75       |
| SWS75-5   | 5V      | 4.5-5.5V     | 15        | 50          | 20          | 80           | 77/74       |
| SWS100-5  | 5V      | 4.5-5.5V     | 20        | 40          | 20          | 100          | 75/77       |
| SWS150-5  | 5V      | 4.5-5.5V     | 30        | 40          | 20          | 100          | 76/78       |
| SWS50-12  | 12V     | 10.8-13.2V   | 4.3       | 96          | 48          | 80           | 82/79       |
| SWS75-12  | 12V     | 10.8-13.2V   | 6.3       | 96          | 48          | 80           | 83/81       |
| SWS100-12 | 12V     | 10.8-13.2V   | 8.5       | 96          | 48          | 100          | 79/81       |
| SWS150-12 | 12V     | 10.8-13.2V   | 12.5      | 96          | 48          | 100          | 79/82       |
| SWS50-15  | 15V     | 13.5-16.5V   | 3.5       | 120         | 60          | 100          | 84/80       |
| SWS75-15  | 15V     | 13.5-16.5V   | 5         | 120         | 60          | 100          | 85/82       |
| SWS100-15 | 15V     | 13.5-16.5V   | 6.7       | 120         | 60          | 100          | 81/83       |
| SWS150-15 | 15V     | 13.5-16.5V   | 10        | 120         | 60          | 100          | 81/83       |
| SWS150-18 | 18V     | 16.2-19.8V   | 8.4       | 144         | 72          | 120          | 82/84       |
| SWS50-24  | 24V     | 21.6-26.4V   | 2.1       | 144         | 96          | 100          | 84/80       |
| SWS75-24  | 24V     | 21.6-26.4V   | 3.2       | 144         | 96          | 100          | 85/82       |
| SWS100-24 | 24V     | 21.6-26.4V   | 4.3       | 144         | 96          | 150          | 82/84       |
| SWS150-24 | 24V     | 21.6-26.4V   | 6.3       | 144         | 96          | 150          | 82/85       |

## Vertical Mount

| Convection               | 25°C        | 30°C        | 35°C        | 40°C        | 45°C        | 50°C | 55°C | 60°C |
|--------------------------|-------------|-------------|-------------|-------------|-------------|------|------|------|
| SWS50                    | 100%        | 100%        | 100%        | 100%        | 100%        | 100% | 93%  | 85%  |
| SWS75 (3.3-5V)           | 100%        | 100%        | 100%        | 100%        | 93%         | 85%  | 73%  | 60%  |
| SWS75 (12V-24V)          | 100%        | 100%        | 100%        | 100%        | 100%        | 93%  | 85%  | 60%  |
| SWS100                   | 100%        | 100%        | 100%        | 100%        | 100%        | 87%  | 73%  | 60%  |
| SWS150 (3.3-5V)          | 100%        | 95%         | 90%         | 85%         | 73%         | 60%  | -    | -    |
| SWS150 (12V-24V)         | 100%        | 100%        | 100%        | 100%        | 100%        | 100% | 80%  | 60%  |
| <b>1.2m/s Forced Air</b> |             |             |             |             |             |      |      |      |
|                          | <b>50°C</b> | <b>55°C</b> | <b>60°C</b> | <b>65°C</b> | <b>70°C</b> |      |      |      |
| SWS75                    | 100%        | 100%        | 90%         | 80%         | 70%         |      |      |      |
| SWS100                   | 100%        | 100%        | 90%         | 80%         | 70%         |      |      |      |
| SWS150                   | 100%        | 100%        | 90%         | 80%         | 70%         |      |      |      |

Derate to 80% load from 0 to -10°C

## Other Industrial Products

|                 |                              |
|-----------------|------------------------------|
| HWS             | 15W to 1500W Single Output   |
| LS              | 25W to 200W Low Cost         |
| SWS300/600/1000 | 300W to 1000W (Higher Power) |

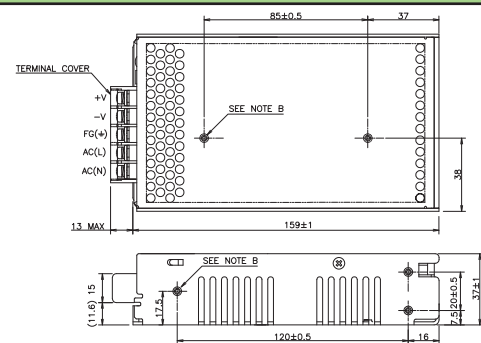
## Options

| Suffix | Descriptor                     |
|--------|--------------------------------|
| /CO2   | Double sided conformal coating |

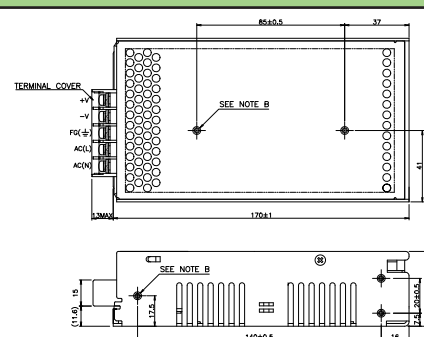
For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/sws-series.htm](http://us.tdk-lambda.com/lp/products/sws-series.htm)



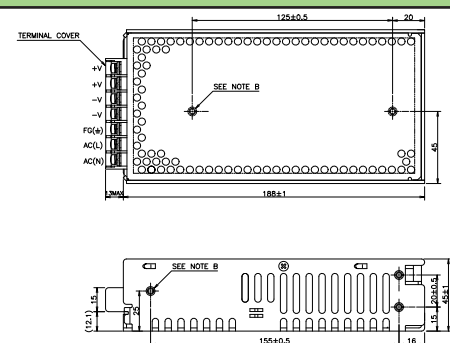
## SWS50 Outline Drawing



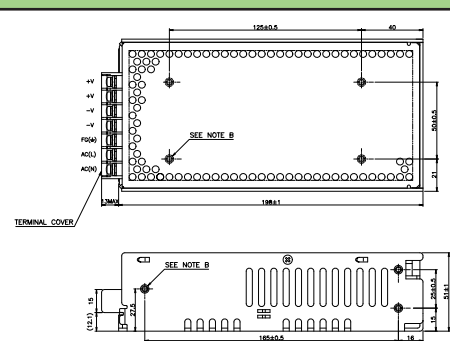
## SWS75 Outline Drawing



## SWS100 Outline Drawing



## SWS150 Outline Drawing



# Not Recommended For New Designs