

600-1000W Single Output Low Profile Power Supplies

Features

- ◆ Low Cost
- ◆ Low Profile
- ◆ Active Power Factor Correction
- ◆ Universal Input (85 - 265VAC)
- ◆ Input Transient Protected IEC61000-4
- ◆ Low Acoustical noise
- ◆ Medical Certifications (SWS1000L)
- ◆ Global safety Approvals
- ◆ Variable speed fan



Key Market Segments & Applications



| Specifications | | SWS600L | SWS1000L |
|------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Input Voltage range | - | 85 - 265VAC (47 - 63Hz) or 120 - 350VDC* | |
| Inrush Current (115 / 230VAC) | A | 20 / 40 | |
| Power Factor | - | Meets EN61000-3-2 Class A | |
| Input Current (100/200VAC) | A | 7.1 / 3.6 (3.3V: 5 / 2.5) | 12 / 6 |
| Temperature Coefficient | - | <0.02%/°C | |
| Overcurrent Protection | - | >105%, Constant current style | |
| Overvoltage Protection | V | 125% -145% | |
| Overtemperature Protection | - | Yes, cycle AC or Remote On/Off to reset | |
| Hold Up Time (Typ) | ms | 20ms at 115/230VAC | |
| Leakage Current (max) | mA | <0.75mA | 100µA at 115VAC 60Hz(2) |
| Remote Sense | - | Yes | |
| Parallel Connection | - | Yes | |
| Remote On/Off (CNT) | - | Yes | |
| Voltage Programming (1) | - | Yes | |
| DC Good & Fan Fail Signal | - | Yes, open collector output | |
| Auxiliary Output | - | 12V 0.1A | |
| LED Indicator | - | Green LED = On | |
| Operating Temperature | °C | -40°C start up. -20 to 74°C, derating linearly to 50% load above 50°C | |
| Storage Temperature | °C | -40 to +85°C | |
| Humidity (non condensing) | - | 20 - 90% RH operating, 10 - 95%RH non operating | |
| Cooling | - | Variable speed internal fan | |
| Withstand Voltage(One minute) | - | Input to Ground 2kVAC, Input to Output 3kVAC, Output to Ground 500VAC, Output to CNT 100VAC | Input to Ground 2kVAC, Input to Output 4kVAC**, Output to Ground 500VAC, Output to CNT 100VAC |
| Isolation Resistance | - | >50M at 25C & 70%RH, Output to Ground 500VDC | |
| Vibration (non operating) | - | MIL-STD-810F 514.5 Cat. 4, 10 | |
| Shock (in packaging) | - | MIL-STD-810F 516.5 Procedure I, VI | |
| Immunity | - | EN61000-4-2, -3, -4, -5, -6, -8, -11 | |
| Safety Agency Certification | - | UL/CSA/EN 60950-1, UL/CSA/IEC/EN 60601-1 & ANSI/AAMI ES60601-1, (1000W only), IEC61010-1 (600W only), EN50178, CE Mark | |
| Conducted & Radiated EMI | - | EN55011 / EN55022-B, FCC Class B | |
| Weight (Typ) | g | 1600 | 2300 |
| Size (WxHxD) | in | 2.4 x 4.72 x 7.48" | 2.4 x 5.91 x 9.45" |
| MTBF - Telcordia SR-332 issue 3*** | hours | 1,444,923 | 1,348,293 |
| Warranty | yrs | Three Years | |

(1) 1-6V program voltage input to adjust output 20-120% (typical) of nominal. See instruction manual for details & models with this feature.

(2) Worst case: <300µA at 264VAC, 63Hz (Normal Condition); <500µA (Single Fault Condition).

*Safety certified for AC input only

**2 x MOPPs (3rd edition 60601)

*** 24V output model, 25°C ambient, full load, 230VAC input

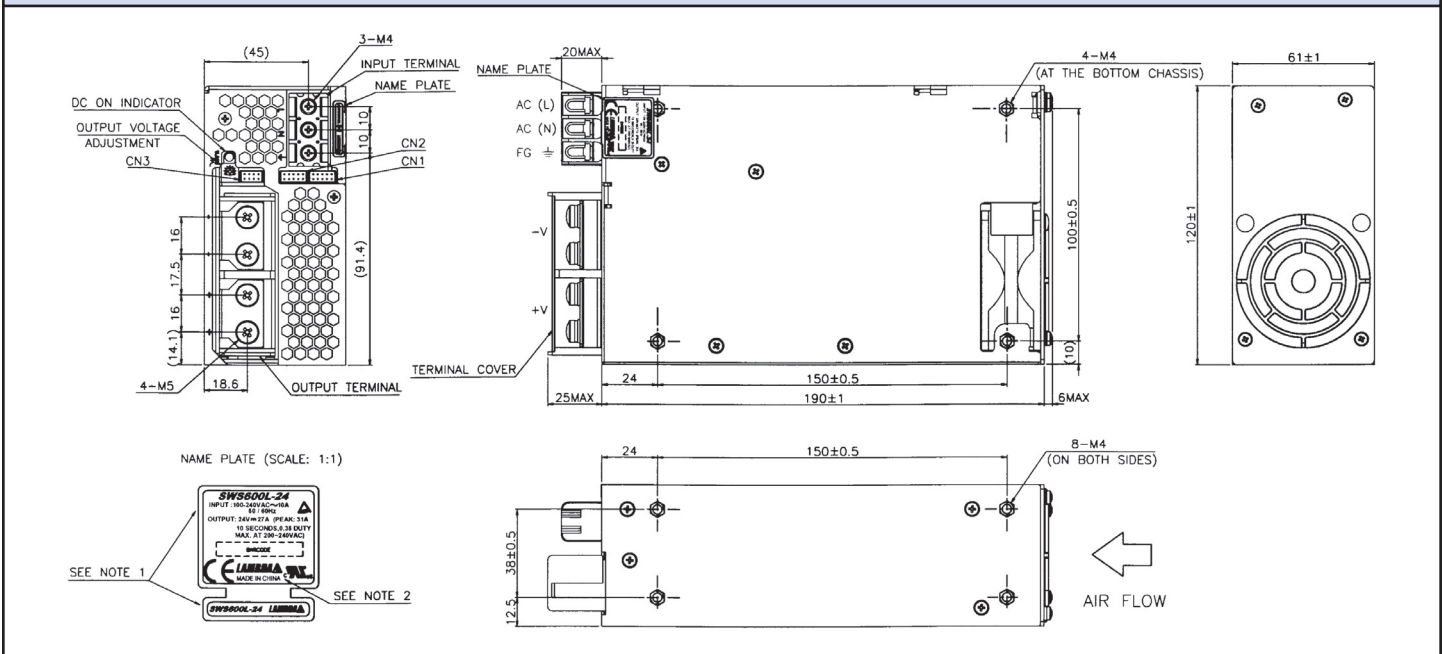
Model Selector

| Model | Voltage | Adjust Range | Max Current (A) | Max Power (W) | Load Reg (mV) | Line Reg (mV) | Ripple Noise (mV) | Efficiency (typ) % ⁽³⁾ |
|-------------|---------|--------------|------------------------|---------------|---------------|---------------|-------------------|-----------------------------------|
| SWS600L-3 | 3.3V | 2.64 - 3.96V | 120A | 396W | 30 | 20 | 120 | 70 / 72 |
| SWS1000L-3 | 3.3V | 2.64 - 3.96V | 200A | 660W | 30 | 20 | 120 | 74 / 76 |
| SWS600L-5 | 5V | 4 - 6V | 120A | 600W | 30 | 20 | 120 | 75 / 77 |
| SWS1000L-5 | 5V | 4 - 6V | 200A | 1000W | 30 | 20 | 120 | 79 / 81 |
| SWS600L-12 | 12V | 9.6 - 14.4V | 53A | 636W | 72 | 48 | 150 | 79 / 82 |
| SWS1000L-12 | 12V | 9.6 - 14.4V | 88A | 1056W | 72 | 48 | 150 | 82 / 84 |
| SWS600L-15 | 15V | 12 - 19.5V | 43A | 645W | 90 | 60 | 150 | 79 / 82 |
| SWS1000L-15 | 15V | 12 - 19.5V | 70A | 1050W | 90 | 60 | 150 | 82 / 84 |
| SWS600L-24 | 24V | 19.2 - 28.8V | 27A (31A) ⁴ | 648W(744W) | 144 | 96 | 150 | 81 / 84 |
| SWS1000L-24 | 24V | 19.2 - 28.8V | 44A (51A) ⁴ | 1056W(1224W) | 144 | 96 | 150 | 84 / 86 |
| SWS600L-36 | 36V | 28.8 - 43.2V | 18A | 648W | 216 | 144 | 200 | 82 / 84 |
| SWS1000L-36 | 36V | 28.8 - 43.2V | 29A | 1044W | 216 | 144 | 200 | 84 / 86 |
| SWS600L-48 | 48V | 38.4 - 56V | 13A (15A) ⁴ | 624W(720W) | 288 | 192 | 200 | 82 / 84 |
| SWS1000L-48 | 48V | 38.4 - 56V | 22A (25A) ⁴ | 1056W(1200W) | 288 | 192 | 200 | 84 / 86 |
| SWS600L-60 | 60V | 48 - 66V | 10A | 600W | 360 | 240 | 200 | 82 / 84 |
| SWS1000L-60 | 60V | 48 - 66V | 17A | 1020W | 360 | 240 | 200 | 84 / 86 |

Notes: (3) 115 / 230VAC

(4) Peak current and power possible at 170-265VAC input, 10s max, 35% duty cycle

SWS600L Outline Drawing



Other Industrial Products

| | |
|---------------|--------------------------------------------|
| SWS | 50 - 300W Single Output |
| HWS | 15 - 1800W Single output, high reliability |
| ZWS | 5 - 240W pcb style single, output |
| DLP, DPP, DSP | 10 - 480W DIN Rail mount |
| LS | 25 - 200W Single output, low cost |

For Additional Information, please visit
us.tdk-lambda.com/lp/products/sws-series.htm

