

Single Output General Purpose Power Supplies



- ◆ Very low cost
- ◆ Small size
- ◆ 115VAC or 230VAC input
- ◆ Withstands 300VAC surges (5s)
- ◆ Three year warranty

RoHS

Key Market Segments & Applications

Test & Measurement
Automated Service

| Specifications | | LS25 | LS35 | LS50 | LS75 | LS100 | LS150 | |
|-------------------------------------|-----|--|-----------------|-----------------|-----------------|-----------------|----------------------|--|
| ITEMS | | Preliminary | Preliminary | | | | | |
| AC Input Voltage (300VAC for 5s) | VAC | 88 - 264VAC (See note (2) for LS100) | | | | | 88-132/176-264VAC(1) | |
| Input Frequency | Hz | 47 - 63Hz | | | | | | |
| DC Input Voltage | VDC | 125 - 373VDC | | | | | 248 - 273VDC | |
| Inrush Current (230VAC, cold start) | A | 30 | 36 | 40 | 40 | 60 | 40 | |
| Power Factor | - | Meets EN61000-3-2, -3 | | | | | | |
| Input Current (115/230VAC) | A | 0.7 / 0.4 | 0.8 / 0.55 | 1.3 / 0.8 | 1.6 / 1.0 | 2.2 / 1.2 | 3.5 / 2 | |
| Temperature Coefficient | - | <0.02%/°C | | | | | | |
| Overcurrent Protection | - | > 110% | | | | | | |
| Overvoltage Protection | V | 3.3V: 3.8-4.45V, 5V: 5.75-6.75V, 12V: 13.8-16.2V, 15V: 17.25-20.25V, 24V: 27.6-32.4V, 36V: 41.4-48.6V, 48V: 55.2-64.8V | | | | | | |
| Hold Up Time (115 / 230V input) | ms | 14 / 60 | 12 / 50 | 14 / 60 | 14 / 60 | 25 / 150 | 20 / 28 | |
| Leakage Current (230VAC 60Hz) | mA | TBA | | <1mA | | <1mA | | |
| Remote Sense | - | No | | | | | | |
| LED Indicator | - | Green LED = On | | | | | | |
| Operating Temperature | - | -25 to +70°C. Derate linearly to 50% load from +50 to +70°C (2) | | | | | | |
| Storage Temperature | - | -40 to +85°C | | | | | | |
| Operating Humidity | - | 20 - 90% RH (non condensing) | | | | | | |
| Storage Humidity | - | 10 - 95% RH (non condensing) | | | | | | |
| Cooling | - | Convection | | | | | | |
| Withstand Voltage | - | Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min. | | | | | | |
| Isolation Resistance | - | >100M at 25C & 70%RH, Output to Ground 500VDC | | | | | | |
| Vibration (non operating) | - | 10 - 55Hz: 19.6m/s ² constant sweep 1 min X, Y, Z for 1 hour | | | | | | |
| Shock | - | < 196.1 m/s ² (20G) | | | | | | |
| Immunity | - | IEC61000-4-2, -3, -4, -5, -6, -8, -11 | | | | | | |
| Safety Agency Approvals | - | UL60950-1, EN60950-1, IEC60950-1, CE Mark | | | | | | |
| Conducted & Radiated EMI | - | EN55011/EN55022-B, FCC-B | | | | | | |
| MTBF (MIL-HDBK-217F) | hrs | TBD | | 712,890 | 648,786 | 545,375 | 505,393 | |
| Weight (Typ) | g | 200 | 300 | 350 | 410 | 600 | 700 | |
| Size (LxWxH) | in | 3.1 x 2.0 x 1.1 | 3.9 x 3.2 x 1.4 | 3.9 x 3.8 x 1.4 | 5.1 x 3.8 x 1.5 | 6.3 x 3.8 x 1.5 | 7.8 x 3.9 x 1.5 | |
| Warranty | yrs | Three Years | | | | | | |

(1) Switch selectable for 115 or 230VAC

(2) LS50, LS75-3 & -5: Derate linearly to 70% load from +50 to +70°C.
 LS75-12, -15, -24, -36, -48: Derate linearly to 60% load from +50 to +70°C.
 LS100-3 & -5: Derate linearly to 60% load from +45 to +70°C. Derate linearly to 80% load from 115V to 88VAC input.
 LS100-12, -15, -24, -36, -48: Derate linearly to 60% load from +50 to +70°C. Derate linearly to 80% load from 115V to 88VAC input.
 LS150-3 & -5: Derate linearly to 50% load from +40 to +70°C.
 LS150-12, -15, -24, -36, -48: Derate linearly to 70% load from +50 to +70°C.

| Model Selector | | | | | | | |
|----------------|---------|------------------|-----------------|---------------|---------------|-------------------|--------------------|
| Model | Voltage | Adjust Range (V) | Max Current (A) | Load Reg (mV) | Line Reg (mV) | Ripple Noise (mV) | Efficiency (typ) % |
| LS25-3.3 | 3.3V | 3.0 - 3.3 | 6 | 66 | 16.5 | 80 | 72 |
| LS25-5 | 5V | 4.75 - 5.5 | 5 | 50 | 25 | 80 | 77 |
| LS25-12 | 12V | 10.8 - 13.2 | 2.1 | 60 | 60 | 120 | 79 |
| LS25-15 | 15V | 13.5 - 16.5 | 1.7 | 75 | 75 | 120 | 82 |
| LS25-24 | 24V | 22 - 27.2 | 1.1 | 120 | 120 | 120 | 84 |
| LS25-36 | 36V | 32 - 40 | 0.75 | 150 | 150 | 150 | 85 |
| LS25-48 | 48V | 42 - 54 | 0.57 | 180 | 180 | 200 | 85 |
| LS35-3.3 | 3.3V | 3.0 - 3.3 | 7 | 66 | 16.5 | 80 | 73 |
| LS35-5 | 5V | 4.75 - 5.5 | 7 | 50 | 25 | 80 | 77 |
| LS35-12 | 12V | 10.8 - 13.2 | 3 | 60 | 60 | 120 | 81 |
| LS35-15 | 15V | 13.5 - 16.5 | 2.4 | 75 | 75 | 120 | 83 |
| LS35-24 | 24V | 22 - 27.2 | 1.5 | 120 | 120 | 120 | 84 |
| LS35-36 | 36V | 32 - 40 | 1 | 150 | 150 | 150 | 84 |
| LS35-48 | 48V | 42 - 54 | 0.8 | 180 | 180 | 200 | 84 |
| LS50-3.3 | 3.3V | 3.0 - 3.6 | 10 | 40 | 20 | 80 | 75 |
| LS50-5 | 5V | 4.75 - 5.5 | 10 | 40 | 20 | 80 | 80 |
| LS50-12 | 12V | 10.8 - 13.2 | 4.2 | 96 | 48 | 120 | 84 |
| LS50-15 | 15V | 13.5 - 16.5 | 3.4 | 120 | 60 | 120 | 85 |
| LS50-24 | 24V | 22 - 27.2 | 2.2 | 192 | 96 | 120 | 86 |
| LS50-36 | 36V | 32 - 40 | 1.4 | 288 | 144 | 150 | 86 |
| LS50-48 | 48V | 42 - 54 | 1.1 | 384 | 192 | 200 | 86 |
| LS75-3.3 | 3.3V | 3.0 - 3.6 | 15 | 40 | 20 | 80 | 75 |
| LS75-5 | 5V | 4.75 - 5.5 | 12 | 40 | 20 | 80 | 79 |
| LS75-12 | 12V | 10.8 - 13.2 | 6 | 96 | 48 | 120 | 84 |
| LS75-15 | 15V | 13.5 - 16.5 | 5 | 120 | 60 | 120 | 85 |
| LS75-24 | 24V | 22 - 27.2 | 3.2 | 192 | 96 | 120 | 86 |
| LS75-36 | 36V | 32 - 40 | 2.1 | 288 | 144 | 150 | 86 |
| LS75-48 | 48V | 42 - 54 | 1.6 | 384 | 192 | 200 | 87 |
| LS100-3.3 | 3.3V | 3.0 - 3.6 | 20 | 40 | 20 | 80 | 75 |
| LS100-5 | 5V | 4.75 - 5.5 | 16 | 40 | 25 | 80 | 79 |
| LS100-12 | 12V | 10.8 - 13.2 | 8.5 | 96 | 48 | 120 | 82 |
| LS100-15 | 15V | 13.5 - 16.5 | 7 | 120 | 60 | 120 | 84 |
| LS100-24 | 24V | 22 - 27.2 | 4.5 | 192 | 96 | 120 | 86 |
| LS100-36 | 36V | 32 - 40 | 3 | 288 | 144 | 150 | 86 |
| LS100-48 | 48V | 42 - 54 | 2.3 | 384 | 192 | 200 | 86 |
| LS150-3.3 | 3.3V | 3.0 - 3.6 | 30 | 40 | 20 | 80 | 75 |
| LS150-5 | 5V | 4.75 - 5.5 | 26 | 40 | 20 | 80 | 79 |
| LS150-12 | 12V | 10.8 - 13.2 | 12.5 | 96 | 48 | 120 | 83 |
| LS150-15 | 15V | 13.5 - 16.5 | 10 | 120 | 60 | 120 | 85 |
| LS150-24 | 24V | 22 - 27.2 | 6.5 | 192 | 96 | 120 | 86 |
| LS150-36 | 36V | 32 - 40 | 4.3 | 288 | 144 | 150 | 87 |
| LS150-48 | 48V | 42 - 54 | 3.3 | 384 | 192 | 200 | 87 |

Notes: Preliminary models shaded in green

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