Single Output General Purpose Power Supplies

Features

- Very low cost
- 25W to 150W
- Small size
- 115VAC or 230VAC input
- Withstands 300VAC surges (5s)
- Three year warranty

Key Market Segments & Applications

Industrial Test COMM LED Broadcast

RoHS

Specifications

Model		LS25	LS35	LS50	LS75	LS100	LS150
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	40	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 / 80	12 / 80	14 / 60	14 / 60	25 / 150	20 / 28
Leakage Current (230VAC 60Hz)	mA	<1mA					
Remote Sense	-	No					
LED Indicator	-	Green LED = On					
Operating Temperature	°C	-25 to +70°C. Derate linearly to 50% load from +50 to +70°C (2)					
Storage Temperature	°C	-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	906,997	706,464	712,890	648,786	545,375	505,393
Weight (Typ)	g	170	270	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					

Notes:

(1) Switch selectable for 115 or 230VAC

(2)

LS25-3	Derate linearly to 60% load from +40 to +70°C.
LS50, LS75-3 & -5	Derate linearly to 70% load from +50 to +70°C.
LS25-5 to 48, LS75-12 to 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.

Output Ratings

Model	Voltage	Adjust Range (V)	Max Current (A)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Efficiency (typ) %
LS25-3.3	3.3V	2.85 - 3.6	6.0	40	20	80	75
LS25-5	5V	4.5 - 5.5	5.0	40	20	80	79
LS25-12	12V	10.8 - 13.2	2.1	96	48	120	83
LS25-15	15V	13.5 - 16.5	1.7	120	60	120	83
LS25-24	24V	22 - 27.6	1.1	192	96	120	84
LS25-36	36V	32 - 40	0.75	288	144	150	84
LS25-48	48V	42 - 54	0.57	384	192	200	85
LS35-3.3	3.3V	2.85 - 3.6	7.0	40	20	80	75
LS35-5	5V	4.5 - 5.5	7.0	40	20	80	78
LS35-12	12V	10.8 - 13.2	3.0	96	48	120	82
LS35-15	15V	13.5 - 16.5	2.4	120	60	120	83
LS35-24	24V	22 - 27.6	1.5	192	96	120	84
LS35-36	36V	32 - 40	1.0	288	144	150	84
LS35-48	48V	42 - 54	0.8	384	192	200	84
LS50-3.3	3.3V	3.0 - 3.6	10.0	40	20	80	75
LS50-5	5V	4.75 - 5.5	10.0	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	15.0	40	20	80	75
LS75-5	5V	4.75 - 5.5	12.0	40	20	80	79
LS75-12	12V	10.8 - 13.2	6.0	96	48	120	84
LS75-15	15V	13.5 - 16.5	5.0	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	20.0	40	20	80	75
LS100-5	5V	4.75 - 5.5	16.0	40	25	80	79
LS100-12	12V	10.8 - 13.2	8.5	96	48	120	82
LS100-15	15V	13.5 - 16.5	7.0	120	60	120	84
LS100-24	24V	22 - 27.2	4.5	192	96	120	86
LS100-36	36V	32 - 40	3.0	288	144	150	86
LS100-48	48V	42 - 54	2.3	384	192	200	86
LS150-3.3	3.3V	3.0 - 3.6	30.0	40	20	80	75
LS150-5	5V	4.75 - 5.5	26.0	40	20	80	79
LS150-12	12V	10.8 - 13.2	12.5	96	48	120	83
LS150-15	15V	13.5 - 16.5	10.0	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

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