



- ◆ High MTBF up to 700 000 hours
- ◆ Superior operating temperature performance up to 70 °C
- ◆ Very High efficiency up to 87%
- ◆ Very Low Cost
- ◆ Compact
- ◆ Withstands 300VAC surges (5s)
- ◆ Three Year Warranty

## LS Series Single Output General Purpose Power Supplies

### Key Market Segments & Applications

Test & Measurement  
Automated Service  
Factory Automation

General Purpose  
LED Lighting & Displays

### LS Features and Benefits

#### Features

- ◆ High MTBF
- ◆ High Efficiency
- ◆ -25 to +70 deg C Operating Temperature
- ◆ Low Derating above 50 degs C (up to 70% load available at 70° C)
- ◆ Curve B emc

#### Benefits

- ◆ Superior Reliability
- ◆ Easier System Cooling
- ◆ Suitable for Indoor & Outdoor Enclosures
- ◆ Improved System Power Optimisation
- ◆ Assists System Compliance

### Specifications

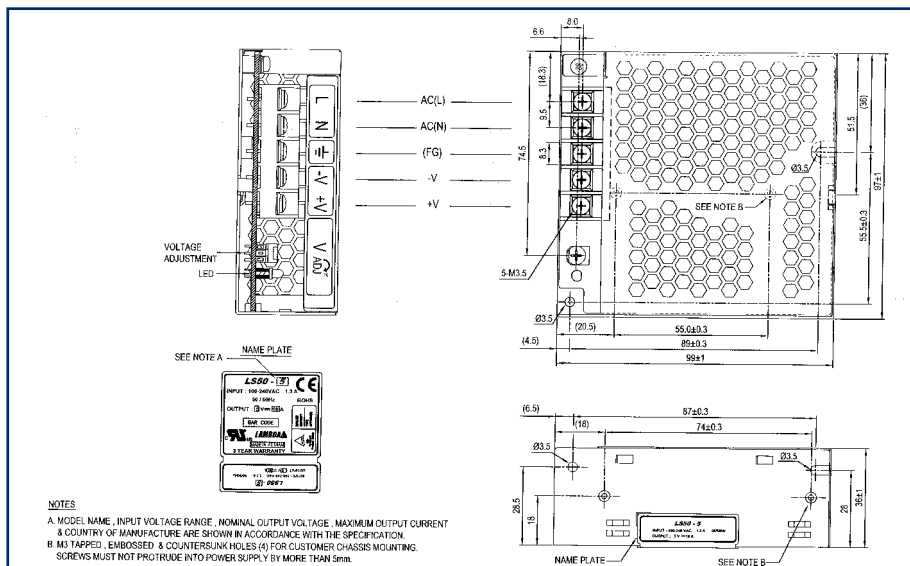
		LS50	LS75	LS100	LS150
AC Input Voltage (300VAC for 5s)	VAC	88 - 264VAC			88-132/176-264VAC(1)
Input Frequency	Hz	47 - 63Hz			
DC Input Voltage	VDC	125 - 373VDC			
Inrush Current (230VAC, cold start)	A	40	40	60	40
Power Factor	-	Meets EN61000-3-2, -3			
Input Current (115/230VAC)	A	1.3 / 0.8	1.6 / 1.0	2.2 / 1.2	3.5 / 2
Temperature Coefficient	-	<0.02%/°C (0 - 50°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	14 / 60	25 / 150	20 / 28
Leakage Current (230VAC 60Hz)	mA	<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 <sup>2</sup> constant sweep 1 min X, Y, Z for 1 hour			
Shock	-	< 196.1 m/s <sup>2</sup> (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)		712,890	648,786	545,375	505,393
Weight (Typ)	g	350	410	600	700
Size (LxWxH)	mm	99 x 97 x 36	130 x 97 x 39	160 x 97 x 39	201 x 99 x 39
Warranty	yrs	Three Years			

## Model Selector

Model	Voltage	Adjust Range (V)	Max Current (A)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Efficiency (typ) %
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 - 3.3	20	40	20	80	75
LS100-5	5V	4.75 - 5.5	16	40	20	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 - 3.3	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

- (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.  
 LS100-12,-15,-24,-36,-48: Derate linearly to 60% load from +50 to -70°C.  
 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.

## LS50 Outline Drawing





## LAMBDA EUROPE

### AUSTRIA

LAMBDA ELECTRONICS GmbH  
Aredstraße 22  
A-2544 Leobersdorf

Telephone: +43 (0) 2256 655 84  
Facsimile: +43 (0) 2256 645 12  
www.lambda-austria.com

### FRANCE

LAMBDA SAS  
ZAC des Delaches, BP1077 - Gometz le Chatel  
91940 Les Ulis

Telephone: +33 (0) 1 60 12 71 65  
Facsimile: +33 (0) 1 60 12 71 66  
Web: www.lambda-f.com

### GERMANY

LAMBDA GmbH  
Karl-Bold-Straße 40  
D-77855 Achern

Telephone: +49 (0) 78 41 666 0  
Facsimile: +49 (0) 78 41 5000  
Web: www.lambda-germany.com

### ISRAEL

NEMIC LAMBDA LTD  
Kibbutz Givat  
Hashlosha 48800

Telephone: +972 (0) 3 902 4333  
Facsimile: +972 (0) 3 902 4777  
Web: www.nemic.co.il

### ITALY

LAMBDA s.r.l.  
Via dei Laboratori 128/130,  
20092, Cinisello Balsamo (Mi)

Telephone: +39 (0) 02 61 29 38 63  
Facsimile: +39 (0) 02 61 29 09 00  
Web: www.lambda-italy.com

### SWEDEN

LAMBDA SCANDINAVIA  
PO Box 546, Rallarvägen 41  
SE-184 25. Akersberga

Telephone: +46 (0) 8 598 94 090  
Facsimile: +46 (0) 8 540 66 096  
Web: www.lambda-scandinavia.com

### UK

LAMBDA UK  
Kingsley Avenue  
Ilfracombe Devon EX34 8ES

Telephone: +44 (0) 1271 856666  
Facsimile: +44 (0) 1271 864894  
Web: www.lambda-gb.com

## LAMBDA NORTH AMERICA

visit [www.lambda-power.com](http://www.lambda-power.com) for a list of Lambda offices and distributors

## LAMBDA ASIA

visit [www.dense-lambda.com](http://www.dense-lambda.com) for a list of Lambda offices and distributors

## LOCAL DISTRIBUTION

