

Linear	Desktop
Enclosed or L Bracket	Open Frame
PCB Mount	Rack Mount Hot Swap

# AC-DC Selector

Applications	# of Outputs	Output Power (W)											
		5	10	15	30	50	100	300	500	1000	1500	2500	
High Reliability Industrial (Five Year Warranty)	Single				NNS								
					HWS								
							JWS						
									LZSA				
	Dual			NND									
	Triple					JWT							
Industrial (Three Year Warranty)	Single & Multiple			HK-A (Single Output, 115VAC input)									
								NV					
					MTW								
									Vega				
										Alpha			
				LS									
Datacom Commercial (One - Two Year Warranty)	Single		KW, KPS, KM										
			ZWS, ZWSAF, ZWSPAF										
					DT								
					H								
					SC, SC120, ZP								
							SWS						
								PFE					
									FPS (1U)				
									TH (1U)				
		Multiple		KW, KM									
				LWD, LWT									
				H									
				DT									
				SC, ZP									
						ZWD, ZWQ							
Programmable	Single							ZUP					
DIN Rail Mount	Single				DSP, DPP, DLP-PU*								
							DLP						

\* See website



## 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 <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)	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