



Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 second
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Miniature size and 1U low profile
- Compliance to IEC/EN 60335-1(PD3) and IEC/EN61558-1, 2-16 for household appliances
- Operating altitude up to 5000 meters (Note. 7)
- Withstand 5G vibration test
- LED indicator for power on
- No load power consumption <0.3W
- Over voltage category III
- 100% full load burn-in test
- High operating temperature up to 70°C
- High efficiency, long life and high reliability

Applications

- Industrial automation machinery
- Industrial control system
- Mechanical and electrical equipment
- Electronic instruments, equipments or apparatus
- Household appliances

Description

LY100-PS series is a 100W single-output enclosed type power supply with 30mm of low profile design. Adopting the full range 85~264VAC input, the entire series provides an output voltage line of 3.3V, 5V, 7.5V, 9V, 12V, 15V, 18V, 24V, 36V and 48V.

In addition to the high efficiency up to 91%, the design of metallic mesh case enhances the heat dissipation of LY100-PS that the whole series operates from -30°C through 70°C under air convection without a fan.

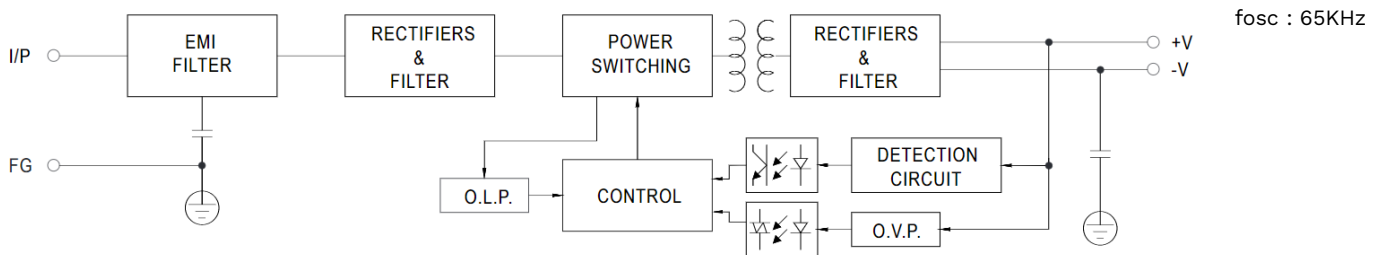
Delivering an extremely low no load power consumption (less than 0.3W), it allows the end system to easily meet the worldwide energy requirement.

LY100-PS has the complete protection functions and 5G anti-vibration capability; it is complied with the international safety regulations such as TUV EN2368-1, EN60335-1, EN61558-1/-2-16, UL62368-1 and GB4943. LY100-PS series serves as a high price-to-performance power supply solution for various industrial applications.

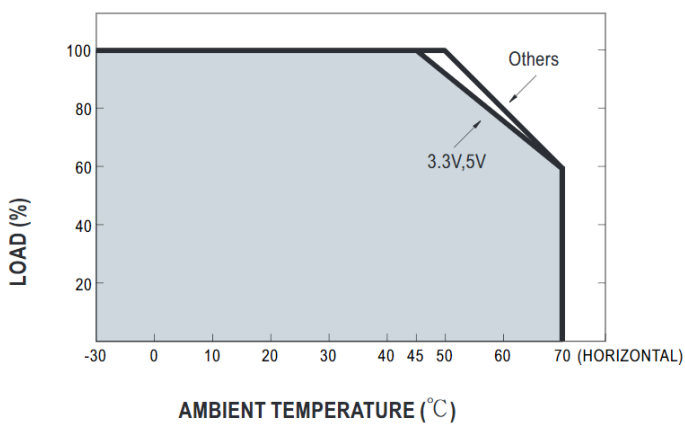
Specifications

Model	LY100-PS3	LY100-PS5	LY100-PS7	LY100-PS9	LY100-PS12	LY100-PS15	LY100-PS18	LY100-PS24	LY100-PS36	LY100-PS48		
Output	DC Voltage	3.3V	5V	7.5V	9V	12V	15V	18V	24V	36V	48V	
	Rated Current	20A	18A	13.3A	11.1A	8.5A	7A	5.5A	4.5A	2.8A	2.3A	
	Current Range	0 ~ 20A	0 ~ 18A	0 ~ 13.5A	0 ~ 11.1A	0 ~ 8.5A	0 ~ 7A	0 ~ 5.5A	0 ~ 4.5A	0 ~ 2.8A	0 ~ 2.3A	
	Rated Power	66W	90W	100W	100W	102W	105W	100W	108W	100.8W	110.4W	
	Ripple & Noise (Max.) Note.2	100mVp-p	100mVp-p	110mVp-p	120mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	
	Voltage Adj. Range	2.97 ~ 3.6V	4.5 ~ 5.5V	6.7 ~ 8.3V	8 ~ 10V	10.2 ~ 13.8V	13.5 ~ 18V	16.2 ~ 19.8V	21.6 ~ 28.8V	32.4 ~ 39.6V	43.2 ~ 52.8V	
	Voltage Tolerance Note.3	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	Line Regulation Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	Load Regulation Note.5	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	Setup, Rise Time	500ms, 30ms/230VAC 500ms,30ms/115VAC at full load										
Hold Up Time (Typ.)	55ms/230VAC 10ms/115VAC at full load											
Input	Voltage Range	85 ~ 264VAC 120 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)										
	Frequency Range	47 ~ 63Hz										
	Efficiency (Typ.)	84.5%	86%	86%	87%	88%	88.5%	89%	90%	90.5%	91%	
	AC Current (Typ.)	1.9A/115VAC 1.2A/230VAC										
	Inrush Current (Typ.)	COLD START 50A/230VAC										
	Leakage Current	<0.75mA / 240VAC										
Protection	Over Load	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed										
	Over Voltage	3.8 ~ 4.45V	5.75 ~ 6.75V	8.6 ~ 10.1V	10.35 ~ 12.1V	13.8 ~ 16.2V	18.7 ~ 21.7V	20.7 ~ 24.3V	28.8 ~ 33.6V	41.4 ~ 48.6V	55.2 ~ 64.8V	
Environment	Working Temp.	-30 ~ +70°C (Refer to "Derating Curve")										
	Working Humidity	20 ~ 90% RH non-condensing										
	Storage Temp., Humidity	-40 ~ +85°C, 10 ~ 95% RH non-condensing										
	Temp. Coefficient	±0.03%/°C (0 ~ 50°C)										
	Vibration	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes										
	Over Voltage Category	III; Compliance to EN61558, EN50178, EN60664-1, EN62477-1; altitude up to 2000 meters										
Safety & Emc (Note 8)	Safety Standards	UL 62368-1, TUV EN62368-1, EN60335-1, EN61558-1/-2-16, CCC GB4943.1, BSMI CNS14336-1, EAC TP TC 004, AS/NZS62368.1 (by CB), KC K60950-1 (for LY100-PS12/24 only) approved										
	Withstand Voltage	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.25KVAC										
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH										
	EMC Emission	Compliance to EN55032 (CISPR32) Class B, EN55014, EN61000-3-2,-3, GB/T 9254, BSMI CNS13438, EAC TP TC 020, KC KN32, KN35 (for LY100-PS12/24 only)										
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A, EAC TP TC 020, KC KN32, KN35 (for LY100-PS12/24 only)										
Others	MTBF	720.6K hrs min. MIL-HDBK-217F (25°C)										
	Dimension	129*97*30mm (L*W*H)										
	Packing	0.34Kg ; 40pcs/14.6Kg/0.92CUFT										
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Line regulation is measured from low line to high line at rated load. Load regulation is measured from 0% to 100% rated load. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up on time. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m(6500ft). The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. 											

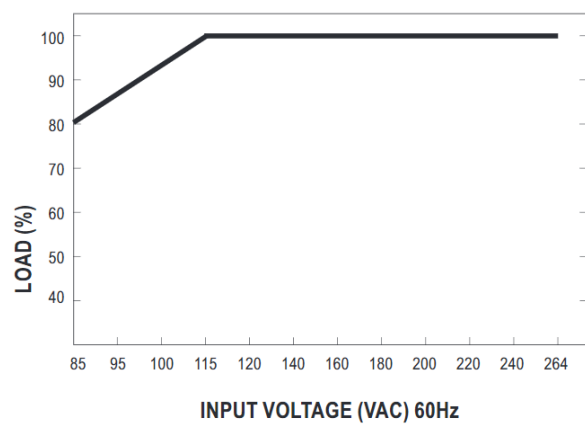
Block Diagram



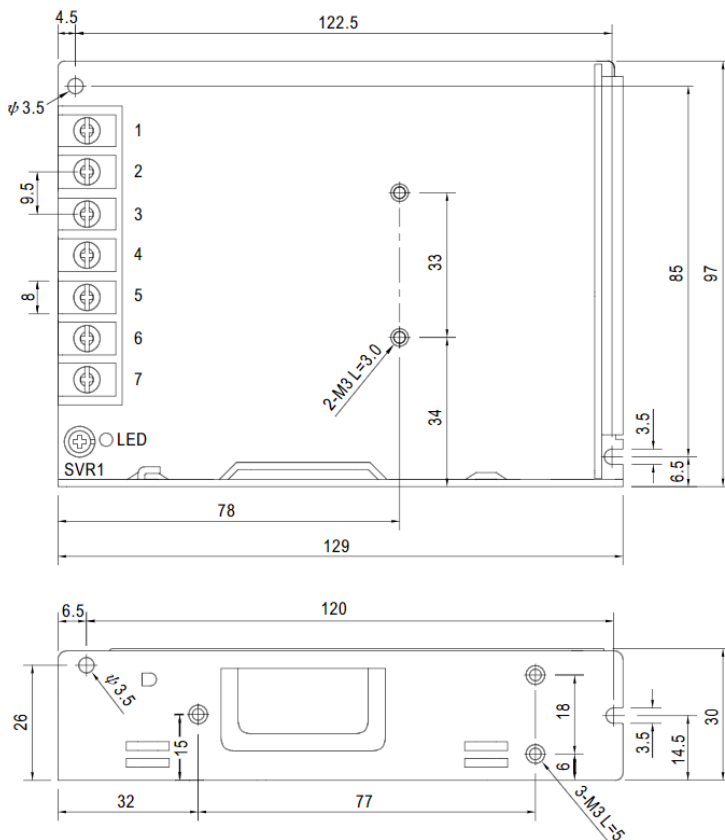
Derating Curve



Static Characteristics



Mechanical Specification



Unit: mm

Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	PE		