



Dimension: 129*97*30mm

■ Features:

- Universal AC input/Full range
- Miniature size and 1U low profile, low weight
- Protections: Short circuit/Overload/Over voltage
- Cooling by free air convection
- No load power consumption < 0.5W
- Operating altitude up to 5000 meters (Note6)
- LED indicator for power on
- 100% full load burn-in test
- High efficiency, long life and high reliability
- 2 years warranty



■ Applications:

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

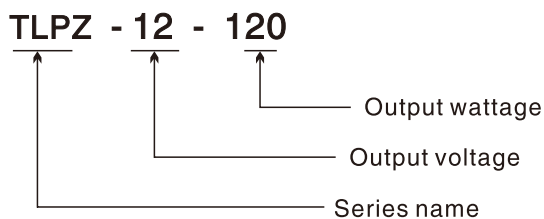
■ Description:

TLPZ-120 series is a 120W single-output enclosed type power supply with 30mm of low profile design. Adopting the input of 115VAC or 230VAC (selectable by switch), the entire series provides an output voltage line of 5V, 12V, 15V, 24V, 36V and 48V.

In addition to the high efficiency up to 90%, the design of metallic mesh case enhances the heat dissipation of TLPZ-120 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 0.5W), it allows the end system to easily meet the worldwide energy requirement, TLPZ-120 has the complete protection functions and 3G anti-vibration capability; it is complied with the international safety regulations such as TUV EN62368-1, UL 62368-1 and GB 4943, TUV EN61347-1, UL 61347-1

TLPZ-120 series serve as a high price-to-performance power supply solution for various industrial applications.

■ Model Encoding



SPECIFICATION

Model		TLPZ-5-120	TLPZ-12-120	TLPZ-15-120	TLPZ-24-120	TLPZ-36-120	TLPZ-48-120	
Output	DC voltage	5V	12V	15V	24V	36V	48V	
	Rated current	20A	10A	8A	5A	3.34A	2.5A	
	Current range	0~20A	0~10A	0~8A	0~5A	0~3.34A	0~2.5A	
	Rated power	100W	120W	120W	120W	120.2W	120W	
	Ripple&noise	100mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p	
	DC voltage ADJ. range	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
	Voltage tolerance <small>Note.3</small>	± 3%	± 2%	± 1%	± 1%	± 1%	± 1%	
	Line regulation <small>Note.4</small>	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	
	Load regulation <small>Note.5</small>	± 2%	± 1%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	
	Setup,rise,hold up time	800ms,30ms,55ms/230VAC(full load)						
Input	Voltage range	90~264VAC ,127~373VDC(Withstand 300VAC surge input for 5 second)						
	Frequency range	47~63Hz						
	AC current	2.8A/115VAC 1.4/230VAC						
	Efficiency	86%	88%	88.5%	90%	90.5%	91%	
	Inrush current	Cold start 50A/230VAC						
	leakage current	< 0.75mA/240VAC						
Protection	Overload	Rated output power110% ~ 150%Start overload protection						
		Protection type:hiccup mode,auto-recovery after fault condition is removed						
	Over voltage	Rated output voltage 115%~135% Start over voltage protection						
		Protection type:cut off the output,auto-recovery after fault condition is removed						
Environment	Working temperature	-30°C ~ +70°C(Please refer to“derating curve”)						
	Working humidity	20%~90%RH Non-condensing						
	Storage temp& humidity	-40°C ~ +85°C;10%~95%RH Non-condensing						
	Withstand vibration	10~500Hz,3G 10min./1Cycle, Period for 60min, Each axes						
Safety	Withstand voltage	I/P-O/P: 1.5KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC						
	Isolation resistance	I/P-O/P,I/P-FG,O/P-FG: 100M Ohms/500VDC/25°C/70%RH						
Standards compliance	Safety standards	Compliance to UL 62368 -1,TUV EN62368-1,UL 61347-1,TUV EN 61347-1						
	EMC emission	Compliance to EN 55032,EN 55015(CISPR22)Class A, GB9254 Class A,EN 55014,EN 61000-3-2,3						
	EMC immunity	Compliance to EN 61000-4-2,3,4,5,6,8,11, EN 55024,EN 61000-6-1						
Others	Dimension	129*97*30 mm (L*W*H)						
	Weight	0.34kg/54pcs/20kg/0.035m³/1.23CUFT						
	MTBF	≥ 650K hrs min. MIL-HDBK-217F(25°C)						

Note: 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.

2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

3. Tolerance : includes set up tolerance, line regulation and load regulation.

4.Line regulation is measured from low line to high line at rated load.

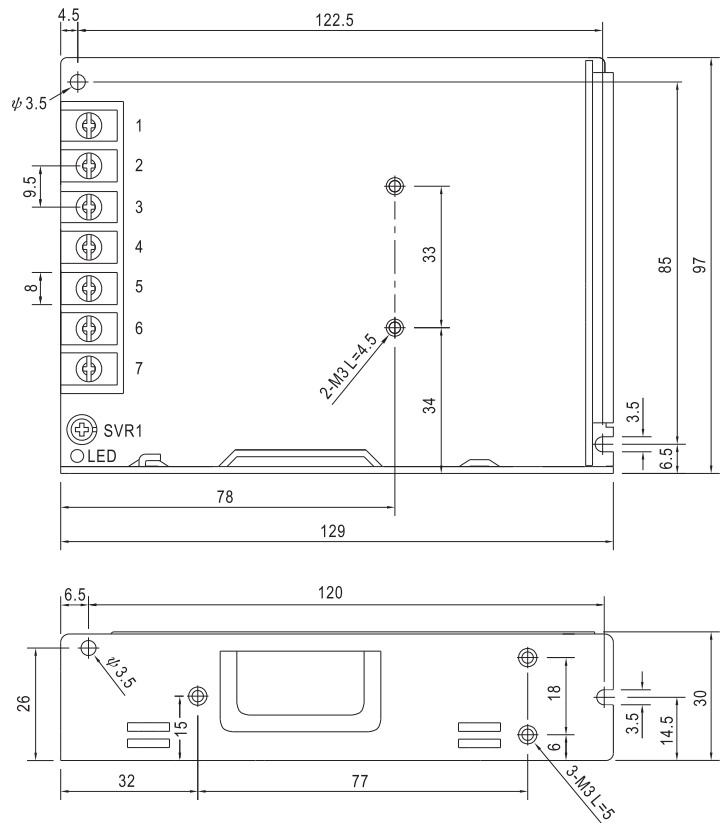
5.Load regulation is measured from 0% to 100% rated load

6.The ambient temperature derating of 5°C/1000 m is needed for operating altitude greater than 2000m(6500ft)

7.The power supply is considered as a component which will be installed into a finalequipment.The final equipment must be re-confirmed that it still meets EMC directives.For guidance on how to perform these EMC tests.

Mechanical specification

Unit:mm

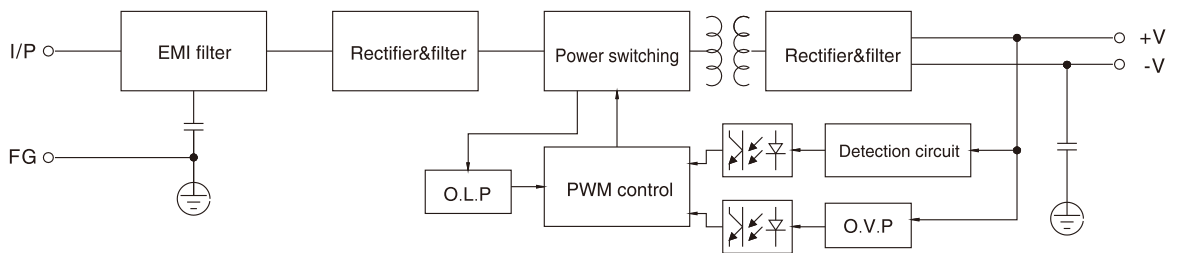


Terminal Pin No.Assignment

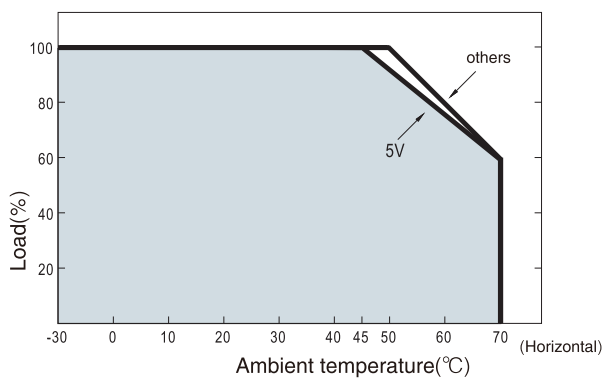
Pin No.	Assignment	Pin No.	Assignment
1	AC/N	4,5	DC OUTPUT -V
2	AC/L	6,7	DC OUTPUT +V
3	FG \perp		

Block diagram

PWM Frequency : 65KHz



Derating curve



Static characteristic

