Product Features

- Class I Power Supply
- Rated Input Voltage: 100-240V AC
- Complies with the EMC EN 55035/EN 55032 Class B conducted emission standards
- The maximum operating temperature can reach 70°C
- Overvoltage Category III
- Low no-load power consumption, with no-load power consumption ≤ 0.5W
- Short-Circuit, Overvoltage and Overload Protection
- Designed for Service Life, 3-Year Warranty

c UL us E540299

Product Applications

Industrial Control, Industrial Equipment, Power Systems, Rail Transit, Lighting Systems

Model List

Model	Rated Input Voltage	Maximum Output Power	Output Voltage	Output Current max.	Efficiency typ.	Ripple Current	Voltage-Adjustable
DL-50W-V12-EXL	100-240Vac	50W	12Vdc	4.17A	87%	240mV	±10%
DL-50W-V15-EXL	100-240Vac	50W	15Vdc	3.34A	87%	240mV	±10%
DL-50W-V24-EXL	100-240Vac	50W	24Vdc	2.08A	88%	240mV	±10%
DL-50W-V36-EXL	100-240Vac	50W	36Vdc	1.4A	88%	360mV	±10%
DL-50W-V48-EXL	100-240Vac	50W	48Vdc	1.05A	88%	360mV	±10%

Note:

1、Test conditions for the above parameters: Measured after 30 minutes of full-load operation at Ta = 25℃ and 230Vac input.

2、Measurement Method for Ripple and Noise: Measure using a 12-inch twisted pair cable, with a 0.1μF capacitor and a 47μF capacitor connected in parallel at the terminal, and under a 20MHz bandwidth.

Input Characteristics

Parameters	Min	Typical Values	Max	Remarks
Rated Input Voltage	100Vac/140Vdc	230Vac	240Vac/330Vdc	-
Input Voltage Range	90Vac	/	264Vac	-
Input Frequency	47Hz	50/60Hz	63Hz	-
PF	-	N/A	-	-
THD	-	N/A	-	-
Input Current / 100Vac	-	-	1.2A	100% Load, 100Vac Input
Input Inrush Current/230Vac	-	-	70A	230Vac Input, Cold Start (25℃)
Leakage Current	-	-	0.25mA	RMS Max.

Output Characteristics

Parameters	Min	Typical Values	Max	Remarks
Output Accuracy	-	±1%	-	0-100% load
Line Regulation	-	±1%	-	Rated load
Load Regulation	-	±1%	-	@230Vac
Setup/Rise Time	-	-	500ms/30ms	@230Vac
Hold-Up Time	16ms	-	-	230Vac, rated load

Protection

Including Functions	Function Description
Output Overload Protection	1.4-1.8 times the rated output power; hiccup restart mode, which enables automatic recovery after the abnormal load condition is removed.
Output Short-Circuit Protection	Yes; Hiccup Mode, which can automatically recover after the abnormal condition is removed
Output Overvoltage Protection	Yes; the output voltage will shut down when it exceeds 1.08-1.2 times the operating voltage.

Environmental Reliabilit

Environmental Categories	Parameter
Rated Operating Temperature	-40 ~ +50℃@100-240Vac
Working temperature	-40 ~ 70℃; When the operating temperature exceeds 50℃, the load power shall decrease by 2% for every 1℃ increase in temperature
Working humidity	20 ~ 95% RH, No Condensation
Storage temperature, humidity	-40~+80℃, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G, 12 minutes per cycle, 72 minutes each for X, Y, Z axes
MTBF	230Khrs min. MIL-HDBK-217F (Ta=25℃)
Lifetime	30,000 hours @ 230Vac, ambient temperature 25℃; for details, please refer to the life curve

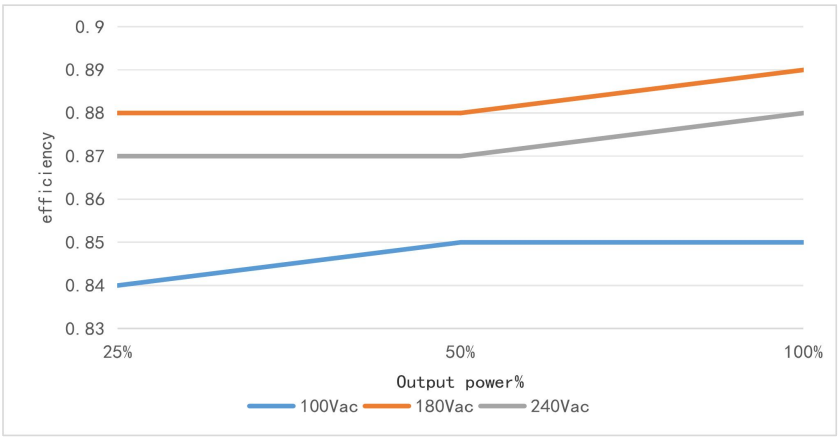
Safety and EMC

Safety categories	Standard	
Safety	UL62368-1, TUV BS EN/EN62368-1, BS EN/EN60335-1, BS EN/EN61558-1/-2-16,GB 4943.1	
EMC	EMI	BS EN/EN55032、EN55035、Class B
	Harmonic Current	BS EN/EN 61000-3-2 Class A
	ESD	BS EN/EN 61000-4-2
	EFT/Burst	BS EN/EN 61000-4-4
Surge protection	Differential Mode L-N ± 2kV (2Ω), Common Mode L, N-Earth ± 4kV (12Ω) – Refer to IEC 61000-4-5 2014	
High-pot test	I/P-O/P:4KVac I/P-PE :2KVac O/P-PE :1.25KVac	
Insulation impedance	I/P-PE:100MΩ / 500VDC; I/P-O/P:100MΩ / 500VDC / 25℃/ 70% RH	

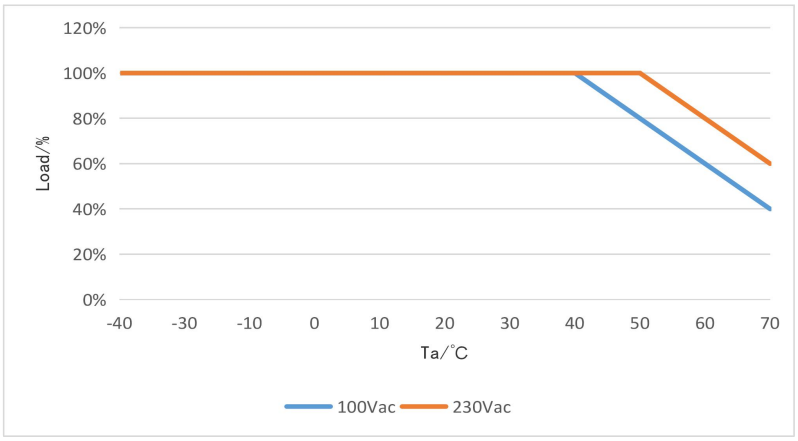
Note: When the power supply is used as a component with terminal equipment, its EMC performance is affected by the entire device. The terminal equipment manufacturer shall re-verify the EMC performance of the entire device.

Parametric curves

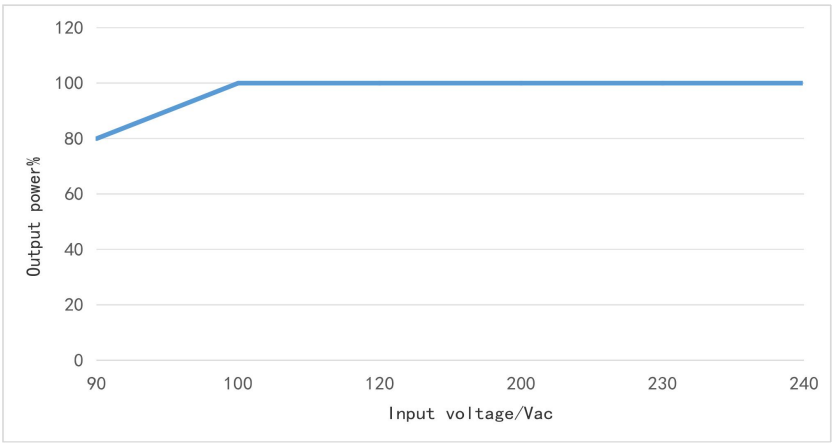
input/Efficiency Curve



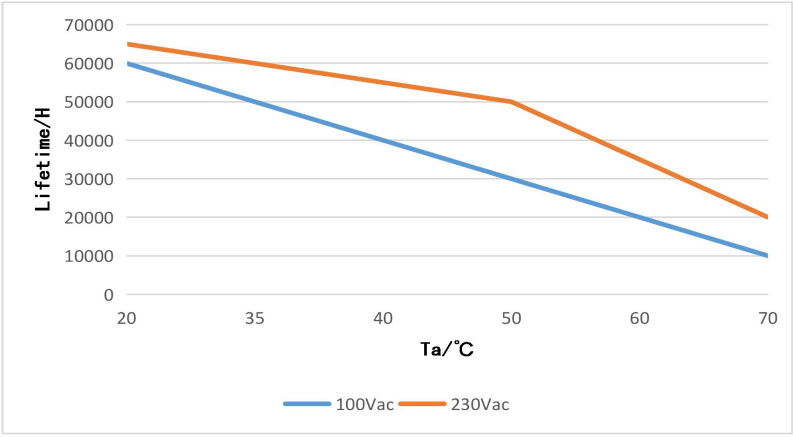
Power/Ambient Temperature



Power/Input Voltage

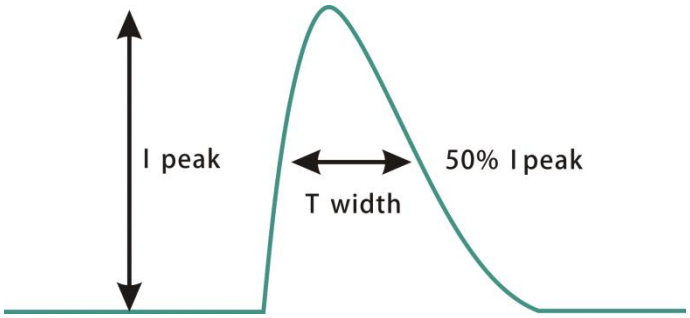


Service Life/Ambient Temperature



Inrush Current

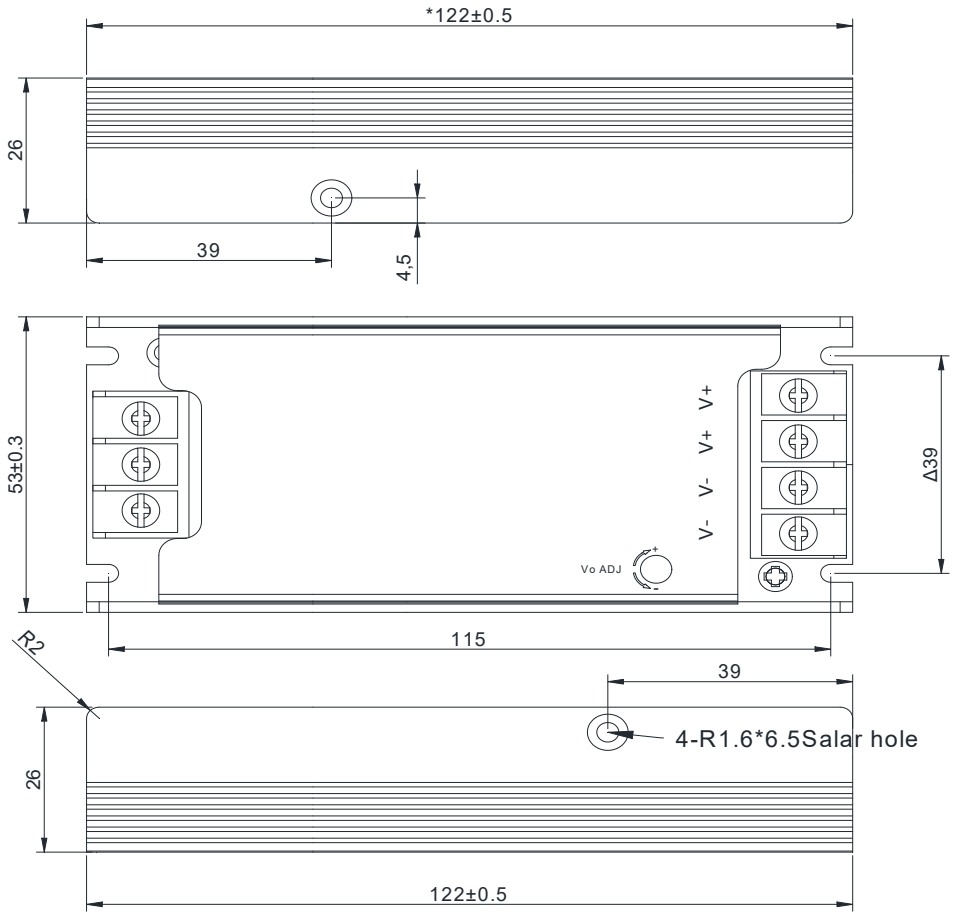
Input Voltage	Peak Current	T (@50%Peak Current)
120Vac	27.44A	168us
230Vac	61.6A	167us
277Vac	67A	166us



Dimensions&Packaging

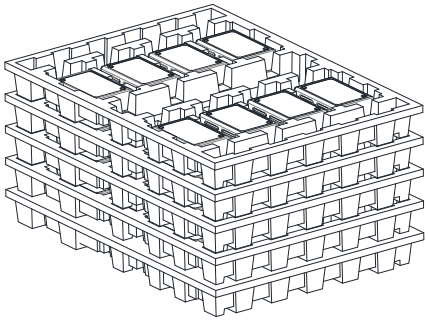
Weight

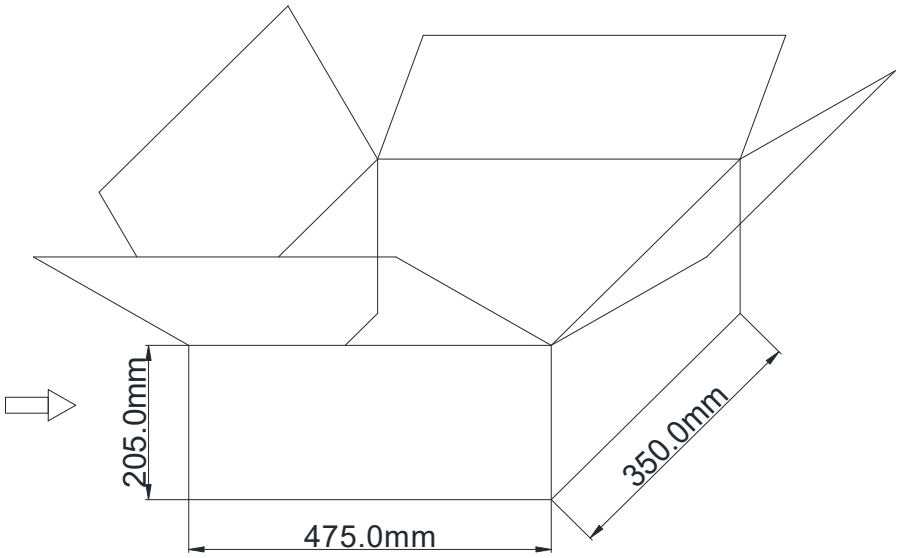
Weight	288 g



Packaging

packaging（mm）	L475mm*W350mm*H205mm





Note:

1. One Carton 5layers and 8pcs/layer, 40pcs/carton in total.
2. According to the certificates obtained by the LED DRIVER, the LED DRIVER with English labels is sold in Europe, America and India.
3. LED driver power supplies with Chinese labels are only for the Chinese market.