

KEY FEATURES

- Open Frame LED Power Supply
- With Constant Current & Constant Voltage (C.C+C.V mode)
- With P.F.C. Function, PF>0.9
- High Efficiency up to 89%
- Free Air Convection
- Protections: Over Load / Over Voltage / Short Circuit
- High Reliability & Double Layered PCB
- Ultra Compact Size: 4.12 x 2.07 x 1.06 Inches
- 3-Year Product Warranty



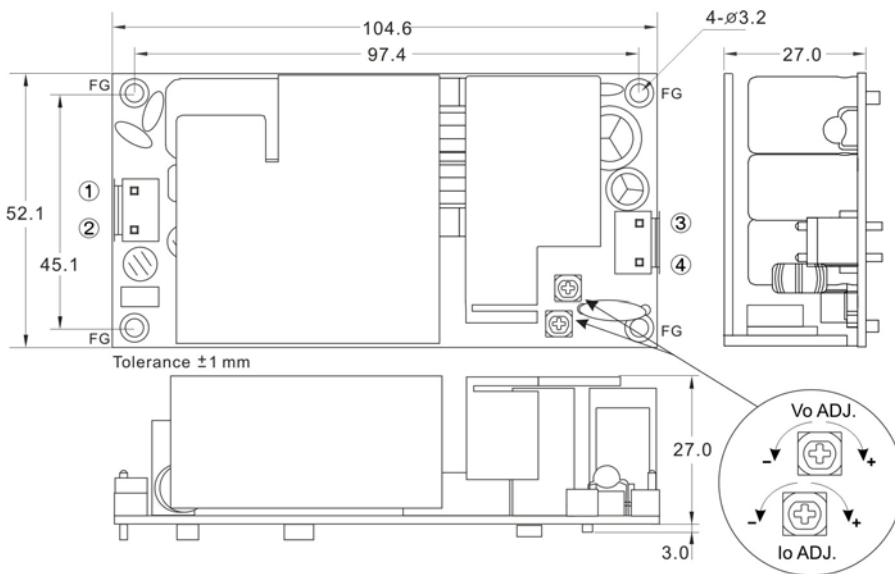
ELECTRICAL SPECIFICATIONS

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

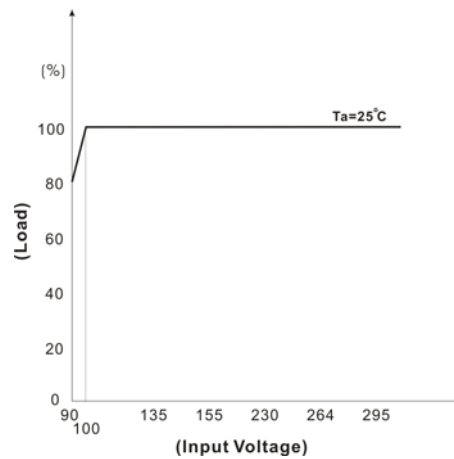
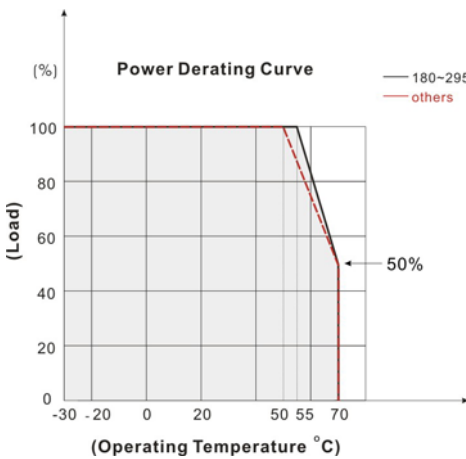
Model No.	ZLF60-24S	ZLF60-36S	ZLF60-48S	ZLF60-54S	
Max output wattage (W)	60W				
Input	Voltage (Note2)	90-295 VAC			
	Frequency (Hz)	50 / 60 Hz			
	Power factor	PF>0.9 at Full load (115 VAC / 230 VAC)			
	Current (Full load)	0.8A (115 VAC) / 0.4A (230 VAC)			
	Inrush current (at 230 VAC)	45 A max.			
	Leakage Current	< 0.7 mA max at 240 VAC			
Output	Voltage (V.DC.)	24V	36V	48V	54V
	Voltage ADJ Range Setup (CV Mode)	22 ~ 26.5V	33 ~ 39.5V	44 ~ 51.5V	49 ~ 55V
	Constant Current Operation Voltage (max) (CC Mode) (Note3)	15.6~ 24 VDC	23.4~36 VDC	36~48 VDC	35.1~54 VDC
	Voltage Tolerance	±10%			
	Preset Current (mA) (CC Mode) (at 230 VAC)	2450	1750	1250	1050
	Current Adjustment Range (mA) (CC Mode)	2000~2500	1350~1750	1000~1300	900~1150
	Minimum Load (mA)	2000	1350	1000	900
	Line Regulation (typ.) (110-240 VAC)	±4%			
	Load Regulation (Min-Max) (typ.)	±5%			
	Ripple & Noise (typ.) (Note1)	2.7Vp-p	5Vp-p		
	Efficiency (at 230VAC / Full Load)(typ)	89%			
Protection	Over current protection	Auto recovery			
	Over voltage protection	Zener diode clamp			
	Short circuit protection	Auto recovery			
Isolation	Input-Output (V.AC)	3750V			
	Input-FG (V.AC)	1880V			
	Output-FG (V.AC)	500V			
Environment	Operating temperature	-30°C...+70°C (with derating)			
	Storage temperature	-40°C...+85°C			
	Temperature coefficient	0.02%/°C			
	Humidity	95% RH			
	MTBF	>450,000 h @ 25°C (MIL-HDBK-217F)			
Physical	Dimension (L x W x H)	4.12 x 2.05 x 1.2 Inches (104.6 x 52.1 x 27.0 mm) Tolerance ±1mm			
	Weight	195 g			
	Cooling method	Free air convection			
Safety	Agency Approvals	UL8750 · IEC / EN 61347-2-13 · IEC / EN 61347-1			
EMC	EMI (Conducted & Radiated Emission)	EN 55015			
	EMS (Noise Immunity)	EN 61547			
	Harmonic Current	EN 61000-3-2(at Full Load) · EN 61000-3-3			
	Surge	2KV L-N, 4KV L N-FG			

Note:

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Please check the derating curve for more details.
3. Input Voltage=115 or 230 VAC. This is the suitable operation region for LED related application.but please reconfirm special electrical requirements for some specific system design.
4. Please contact us for more information.
5. It's recommended to add Varistor 14S561K at L / N input side in parallel.
6. This driver is suggested for LED application only.
7. Direct connection to LEDs is suggested. Connecting additional drivers would not be appropriate.

MECHANICAL DIMENSION (Top View)


PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

DERATING

BLOCK DIAGRAM
