

**KEY FEATURES**

- IP65/67 Design for Indoor or LED Outdoor Installations
- Universal Input: 90-305 VAC or 120-430 VDC
- Three in one dimming function  
(1~10VDC & PWM Signal or resistance)
- Built-in Active PFC Function
- Free Air Convection
- High Reliability
- With Constant Current & Constant Voltage
- Output Voltage and Constant Current Level can Be Adjusted Through Internal Potential Meter
- LED Power Application
- 3-Years Product Warranty


**IP65/67 CE**
**ELECTRICAL SPECIFICATIONS**

Model No.	ALF80-12S	ALF80-15S	ALF80-24S	ALF80-48S	ALF80-54S
Max Output Wattage (W)	80W				
Input	Voltage				
	90-305 VAC or 120-430 VDC				
	Frequency (Hz)				
	47-63 Hz				
	Current (Full load)				
	0.85 A max. (115 VAC) / 0.425 A max. (230 VAC) / 0.4 A max. (277 VAC)				
Output	Inrush Current (<2ms)				
	40 A max. (115 VAC) / 70 A max. (230 VAC)				
	Leakage Current				
	<0.75 mA max.				
	Power Factor				
	PF>0.97 (115 VAC) / PF>0.9 (230 VAC) at Full Load				
	Voltage (V.DC.)				
	12V				
	15V				
	24V				
	48V				
	54V				
	Constant Current Range (V.DC.)				
	6 ~ 12V				
7.5 ~ 15V					
12 ~ 24V					
24 ~ 48V					
27 ~ 54V					
Voltage Accuracy					
±2%					
Current (Convection) (mA) max					
6666					
5333					
3400					
1700					
1500					
Current ADJ Range (mA)					
3333 ~ 6666					
2667 ~ 5333					
1700 ~ 3400					
850 ~ 1700					
750 ~ 1500					
Voltage ADJ Range (V.DC.) (for IP65 Design)					
10.8 ~ 13.5V					
13.5 ~ 17V					
22 ~ 27V					
43 ~ 53V					
49 ~ 58V					
Line Regulation					
±1%					
Load Regulation					
±1%					
Minimum Load					
Maximum Capacitive Load					
Ripple & Noise (max.)					
150mVp-p					
150mVp-p					
150mVp-p					
200mVp-p					
200mVp-p					
Efficiency (typ.)					
87%					
88%					
89%					
90%					
90%					
Hold-up Time					
25 ms min.					
Switching Frequency					
Protection	Over Power Protection				
	Auto recovery				
	Over Voltage Protection				
	Auto recovery				
Overt Temperature Protection					
Auto recovery					
Short Circuit Protection					
Auto recovery					
Isolation	Input-Output (V.AC)				
	3750V				
	Input-FG (V.AC)				
1880V					
Output-FG (V.AC)					
500V					
Environment	Operating Temperature				
	-40°C...+70°C (with derating)				
	Storage Temperature				
	-40°C...+85°C				
	Temperature Coefficient				
	±0.02%/°C ( 0~50°C )				
Humidity					
95% RH					
MTBF					
>100,000 h @ 25°C (MIL-HDBK-217F)					
Vibration					
10~500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes.					

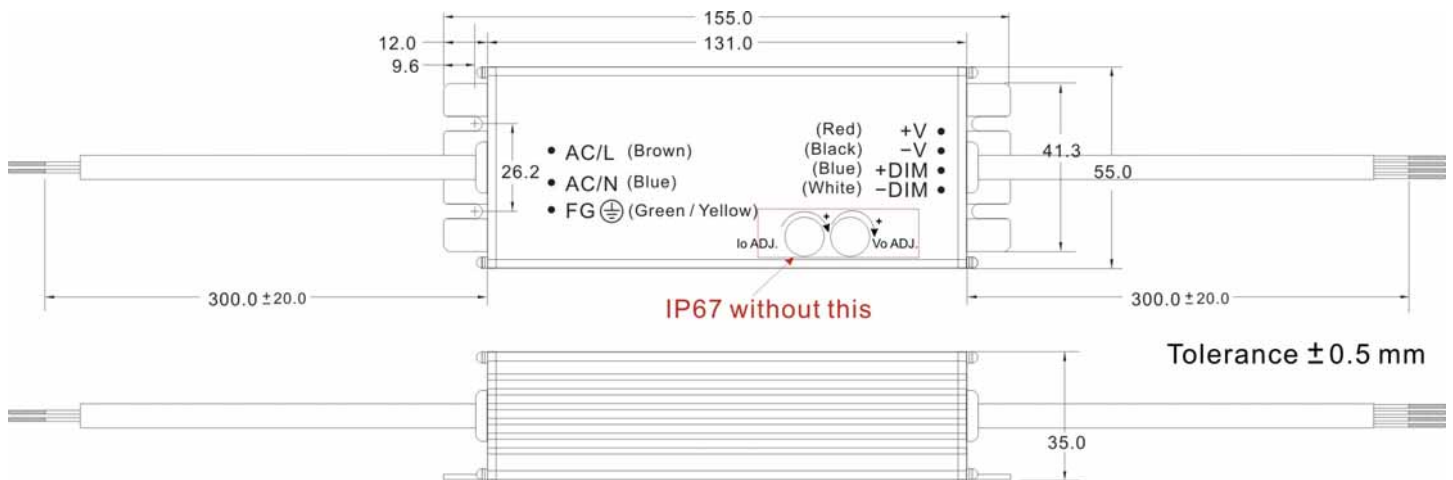
1. All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

2. Ripple &amp; Noise are measured at 20MHz of bandwidth with 0.1uF &amp; 47uF parallel capacitor.

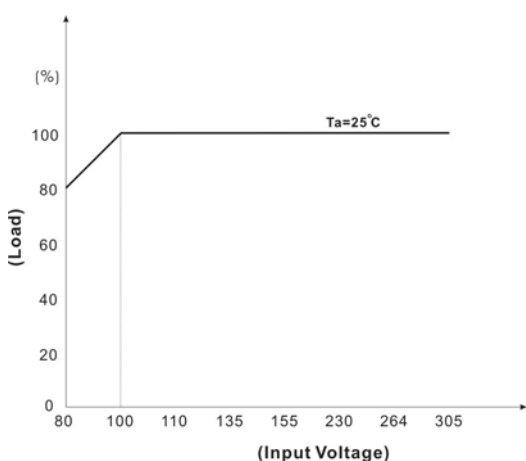
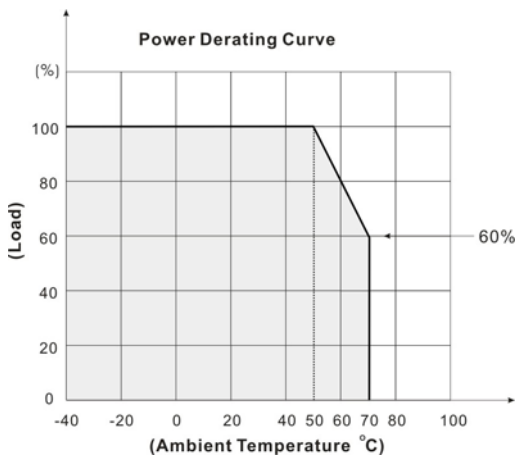
Model No.		ALF80-12S	ALF80-15S	ALF80-24S	ALF80-48S	ALF80-54S
Physical	Dimension (L x W x H)	6.1 x 2.17 x 1.38 Inches (155.0 x 55.0 x 35.0 mm) Tolerance $\pm 0.5$ mm				
	Weight	g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	EN61347-1:2008、EN61347-2-13:2006 (Pending)				
EMC	EMI (Conducted & Radiated Emission)	EN 55015、Class B (Pending)				
	EMS (Noise Immunity)	EN 61547 (Pending)				
	Surge	2KV L-L, 4KV L-E				

1. All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

**MECHANICAL DIMENSION ( Top View )**



**DERATING**

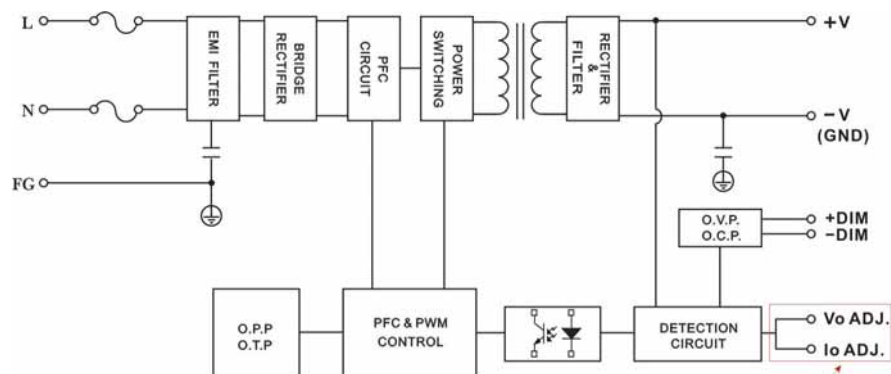


**ASSEMBLY INSTRUCTIONS**

\*U Case T=2.5mm

Customer screws into the length of the case no higher than 0.5mm  
 (Namely screw length for load plate thickness plus 3.0mm)

**BLOCK DIAGRAM**



IP67 without this

**ALF80 SERIES** **80 Watts**

**EFFICIENCY VERSUS LOAD**

**ALF80-12S**

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)					
Input Voltage (V)	277	305			
Efficiency (%)					

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)						
230V (%)						
Load (%)	60	70	80	90	100	
115V (%)						
230V (%)						

**ALF80-15S**

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)					
Input Voltage (V)	277	305			
Efficiency (%)					

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)						
230V (%)						
Load (%)	60	70	80	90	100	
115V (%)						
230V (%)						

**ALF80 SERIES****80 Watts**

**EFFICIENCY VERSUS LOAD**

**ALF80-24S**

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)					
Input Voltage (V)	277	305			
Efficiency (%)					

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)						
230V (%)						
Load (%)	60	70	80	90	100	
115V (%)						
230V (%)						

**ALF80-48S**

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)					
Input Voltage (V)	277	305			
Efficiency (%)					

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)						
230V (%)						
Load (%)	60	70	80	90	100	
115V (%)						
230V (%)						

**ALF80 SERIES** **80 Watts**

**EFFICIENCY VERSUS LOAD**

**ALF80-54S**

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)					
Input Voltage (V)	277	305			
Efficiency (%)					

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)						
230V (%)						
Load (%)	60	70	80	90	100	
115V (%)						
230V (%)						