

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.	ALF40-12S	ALF40-15S	ALF40-24S	ALF40-48S	ALF40-54S	
Max Output Wattage (W)	40W					
Input	Voltage	90-305 VAC or 120-430 VDC				
	Frequency (Hz)	47-63 Hz				
	Current (Full load)	0.43 A max. (115 VAC) / 0.24 A max. (230 VAC) / 0.23 A max. (277 VAC)				
	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				
Output	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	3333	2666	1666	833	740
	Current ADJ Range (mA)	1667 ~ 3333	1333 ~ 2666	833 ~ 1666	417 ~ 833	370 ~ 740
	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	200mVp-p	300mVp-p	300mVp-p
	Efficiency (typ.)	85%	85%	87%	88%	88%
	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.					

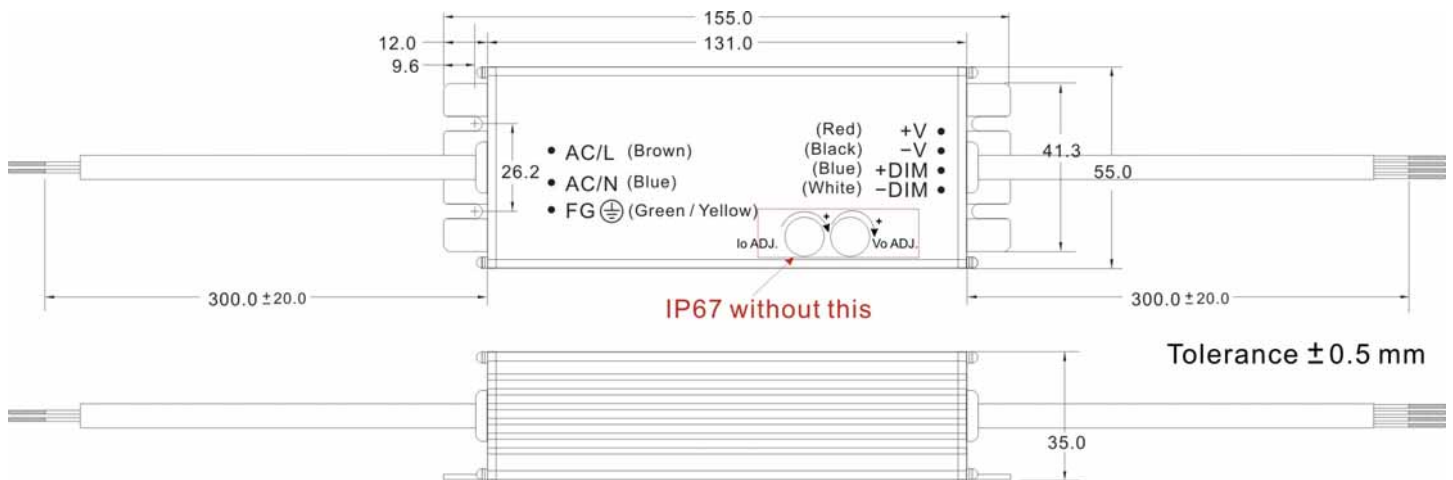
1. All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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

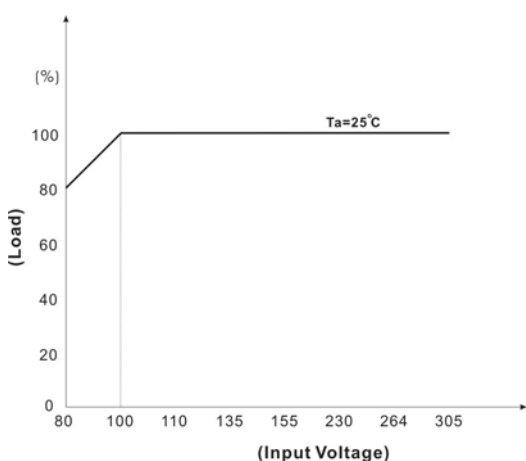
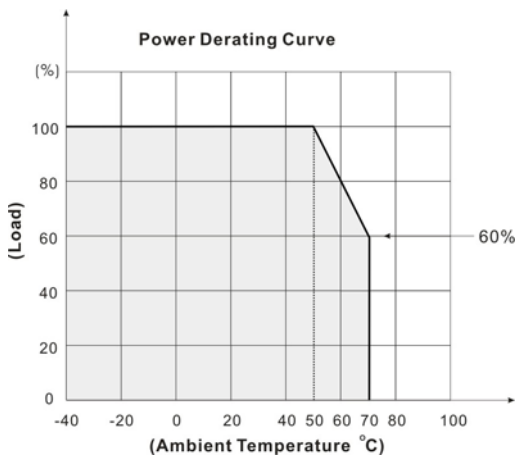
Model No.		ALF40-12S	ALF40-15S	ALF40-24S	ALF40-48S	ALF40-54S
Physical	Dimension (L x W x H)	6.1 x 2.17 x 1.38 Inches (155.0 x 55.0 x 35.0 mm) Tolerance ± 0.5 mm				
	Weight	g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	EN61347-1:2008、EN61347-2-13:2006 (Pending)				
EMC	EMI (Conducted & 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

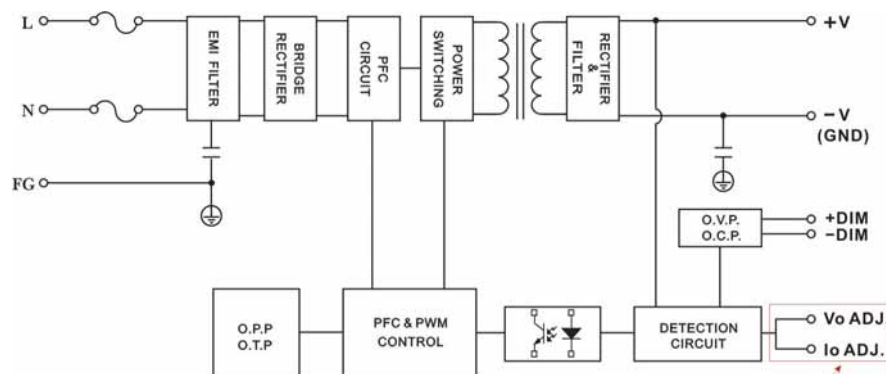


ASSEMBLY INSTRUCTIONS

*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

EFFICIENCY VERSUS LOAD

ALF40-12S

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 (%)						

ALF40-15S

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 (%)						

ALF40 SERIES**40 Watts**

EFFICIENCY VERSUS LOAD

ALF40-24S

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 (%)						

ALF40-48S

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 (%)						

EFFICIENCY VERSUS LOAD

ALF40-54S

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 (%)						