

ARCH ALF240 LED Power Datasheet

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KEY FEATURES

- .. IP65/67 Design for Indoor or Outdoor LED Installations
- .. Universal Input: 100-240 VAC (Up to 277 VAC)
- .. Three in one dimming function (Just For IP67 Design)
(2~10VDC & PWM Signal or resistance)
- .. Bulit-in Active PFC Function, PF>0.95
- .. 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

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IP65/67 
ELECTRICAL SPECIFICATIONS

Model No.	ALF240-12S	ALF240-24S	ALF240-36S	ALF240-48S	ALF240-54S	
Max Output Wattage (W)	192W	240W				
Input	Voltage	90-264 VAC or 120-370 VDC (H Type up to 277 VAC)				
	Frequency (Hz)	47-63 Hz				
	Current (Full load)	3 A max. (115 VAC) / 1.5 A max. (230 VAC)				
	Inrush Current (<2ms)	30 A max. (115 VAC) / 60 A max. (230 VAC)				
	Leakage Current	<0.5 mA max.				
	Power Factor	PF>0.97 (115 VAC) / PF>0.93 (230 VAC) at Full Load				
Output	Voltage (V.DC.)	12V	24V	36V	48V	54V
	Constant Current Range (V.DC.)	6 ~ 12V	15 ~ 24V	18 ~ 36V	24 ~ 48V	36 ~ 54V
	Voltage Adjustment Range	±5%				
	Voltage Accuracy	±2%				
	Current (Convection) (A) max	16	10	6.66	5	4.44
	Current Adjustment Range (A)	8 ~ 16	5 ~ 10	3.33 ~ 6.66	2.5 ~ 5	2.22 ~ 4.44
	Line Regulation	±1%				
	Load Regulation	±1%				
	Minimum Load	1%				
	Maximum Capacitive Load	470-23,000µF depending on model				
	Ripple & Noise (max.)	200mVp-p				
	Efficiency (typ.) (at 230 V.AC)	89%	90%	91.5%	92%	91.5%
	Hold-up Time	8 ms min.				
	Switching Frequency	80 kHz				
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)	3000V				
	Input-FG (V.AC)	1500V				
	Output-FG (V.AC)	500V				
Environment	Operating Temperature	-25°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 0.1µF & 47µF parallel capacitor.

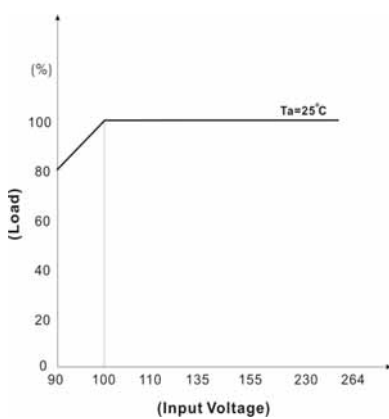
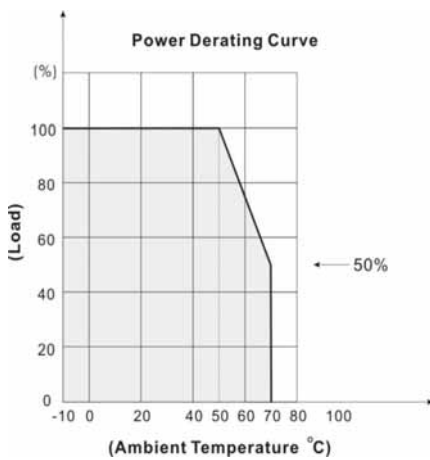
Model No.		ALF240-12S	ALF240-24S	ALF240-36S	ALF240-48S	ALF240-54S
Physical	Dimension (L x W x H)	8.35 x 2.76 x 1.5 Inches (212.2 x 70.0 x 38.0 mm) Tolerance ± 0.5 mm				
	Weight	1010 g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	UL60950-1 , CE				
EMC	EMI (Conducted & Radiated Emission)	EN 55022				
	EMS (Noise Immunity)	EN 55024 (Surge 4KV)				
	Surge	2KV L-N, 4KV L N-FG				

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This series has IP65 and IP67, when you place order, please be noted as ordering Part No.

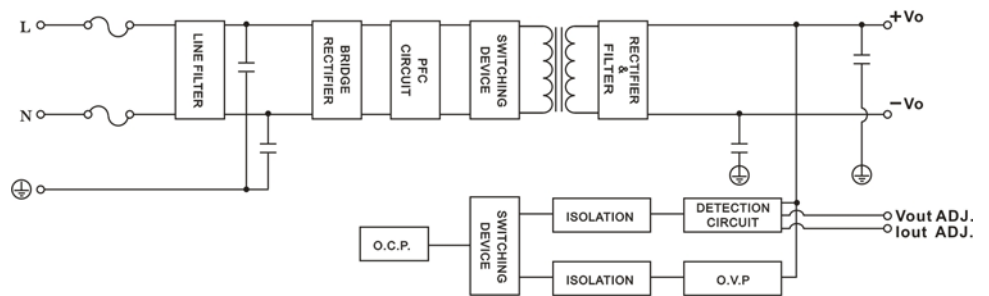
Model No.		ALF240-12S	ALF240-24S	ALF240-36S	ALF240-48S	ALF240-54S
Ordering Part No	IP65	ALF240-12S-IP65	ALF240-24S-IP65	ALF240-36S-IP65	ALF240-48S-IP65	ALF150-700-IP65
	IP67	ALF240-12S-IP67	ALF240-24S-IP67	ALF240-36S-IP67	ALF240-48S-IP67	ALF150-700-IP67

DERATING

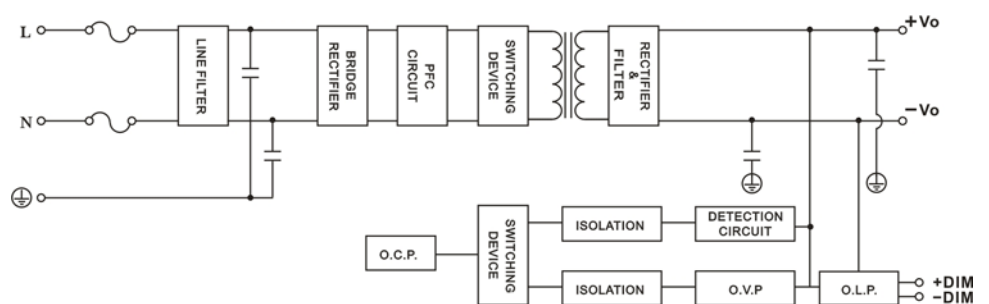


BLOCK DIAGRAM

IP65 Single Output

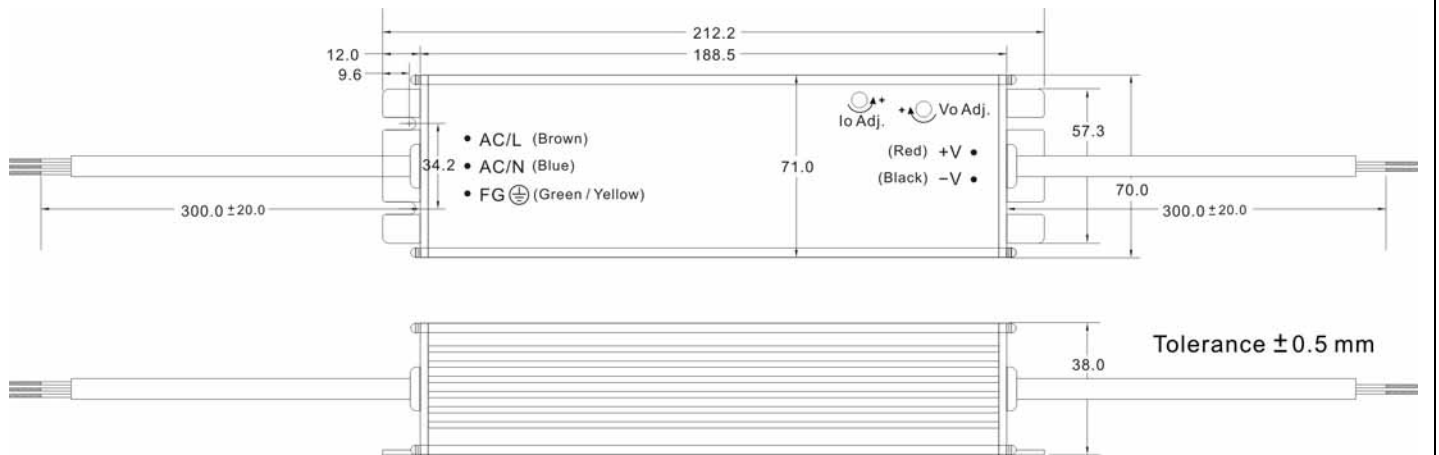


IP67 Single Output

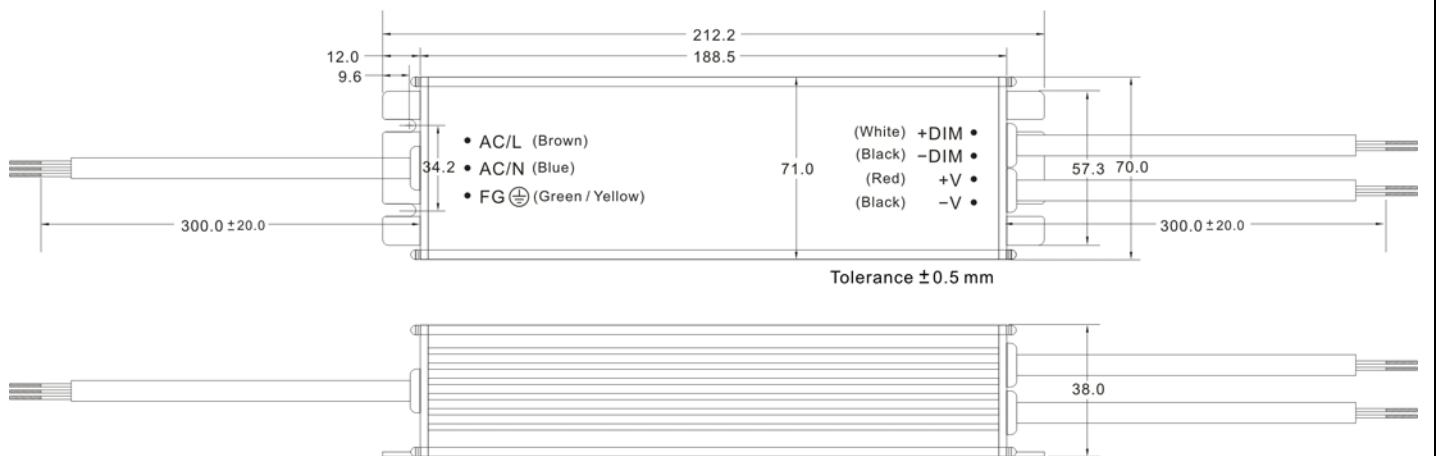


MECHANICAL DIMENSION (Top View)

IP65 Design



IP67 Design



ASSEMBLY INSTRUCTIONS

*U Case T=2.5mm

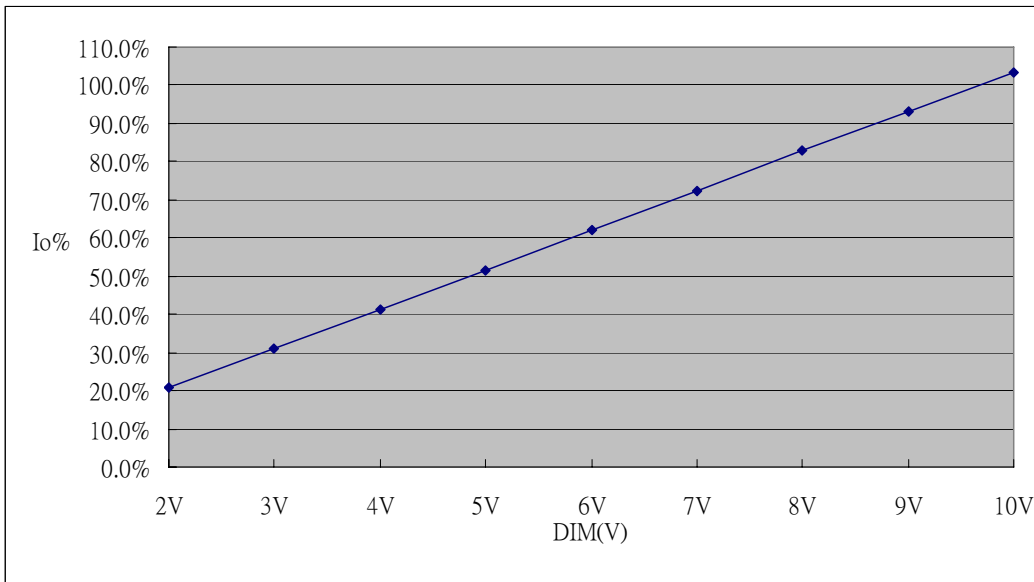
Customer screws into the length of the case no higher than 0.5mm
 (Namely screw length for load plate thickness plus 3.0mm)

DIMMING OPERATION

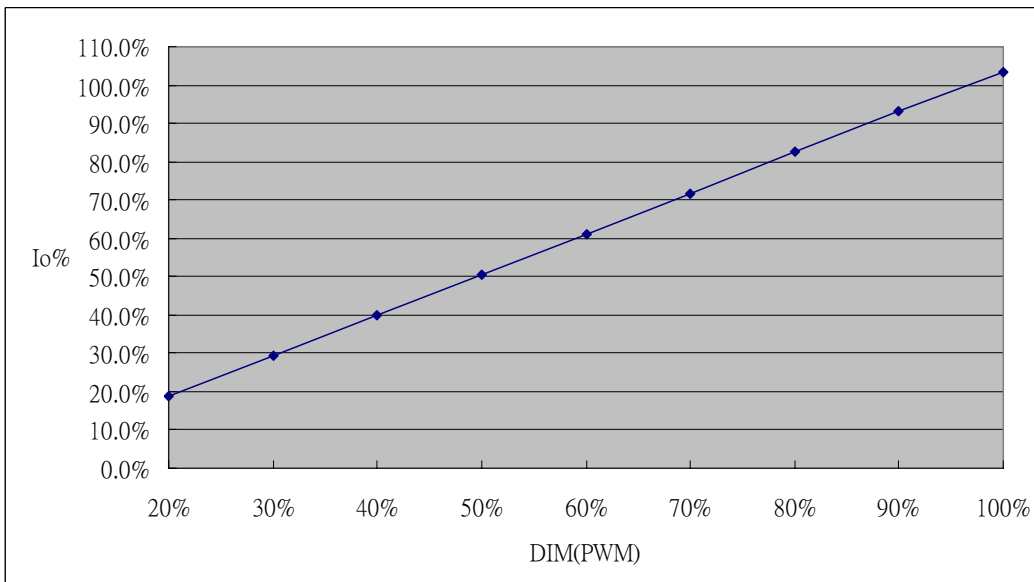
Built-in 3 in 1 dimming function, IP67 rated.

Output constant current level can be adjusted through output cable by connecting a 100K Ohm VR or 2~10Vdc or 10V PWM signal between DIM+ and DIM-

I. 2~10V dimming function for output current adjustment (typ.)



II. 10V PWM signal for output current adjustment (typ.) : Frequency range:100Hz~3KHz



III. It can control 10~100% output Current but it must add 100K Ohm VR in parallel