

10W ALFA DRIVER DATASHEET



IP 20 SELV          **RoHS**

PRODUCT DESCRIPTION

- Leading and trailing edge dimming LED constant current independent driver
- $\pm 5\%$ output current accuracy(under maximum load)
- 90° C Maximum case operation temperature(Tc-point ¹)
- Reliable, Class II, SELV output according EN 61347
- Permissible AC cable 0.75-2.5mm² wire gauge, 3.5~10mm PVC jacket diameter
- Grow wire tested 650° for 30S and 850° for 5S
- Operating temperature ¹: -25° C ~ +45° C, the humidity: 20% ~ 85%
- Over 50,000 hrs nominal lifespan at Tc=70° C
- Protection for output open load, short circuits, over voltage and over temperature
- Five-year factory guarantee and lifetime technical support ¹

¹ Detailed data please refer to the "Specification" table .

PARAMETERS

MODEL		10W Triac dimming LED Driver
Output	Output voltage	30-40V
	Rated current	220mA
	Maximum power	8.4W
	Current tolerance	$\pm 5\%$
	Dimming Range	Triac dimming
	Ripple voltage ²	1.2Vp-p
	Ripple current	125mA _{p-p}
	Line regulation	$\pm 5\%$
	Load regulation	$\pm 8\%$
	Starting time	<500mS
	Turn off time	<1.0S

	Noise ³		<22dB		
Input	Voltage		Rated:220-240Vac; Range:198-264Vac;		
	Frequency		Rated:50-60Hz; Range:47-63Hz;		
	Power factor		≥0.9 @ 36V Output voltage		
	I-THD ⁴		≤18%		
	Efficiency ⁵		≥82%		
	AC current		100mA max.		
	Inrush current ⁶		4.5A		
	Inrush current time		130uS		
	Leakage current		<1mA		
	ON/OFF switches cycle		>100,000		
	Stand by power		≤0.5w		
	Protection	Over current		Constant current limiting, recovers automatically after fault condition is removed	
		Over voltage		Shut down output voltage, with auto-recovery or re-power on to recovery	
Over temperature		Shut down output voltage, recovers automatically after temperature goes down			
Short circuit		Constant current limiting, recovers automatically after fault condition is removed			
Safety & EMC	Safety standards		EN61347-2-13; Design refer to TUV EN60950-1, TUV EN61347-1		
	Withstand voltage		I/P-O/P:3KVac I/P-FG:1.5KVac O/P-FG: 500Vdc		
	Isolation resistance		I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/75%RH		
	EMC emission ⁷		EN55015B, EN55022 Class B, EN61000-3-2, EN61000-3-3		
	EMC immunity		EN61000-4-2, EN61547, EN55024, EN-61000-4-5 Surge immunity Line-Earth: Line-Earth:1KV, L Line- N Line:0.5KV		
Environment	Ambient temperature range ⁹		-25°C ~ +45°C		
	Max. case temperature(tc) ¹⁰		85°C		
	Relative humidity range		20% ~ 85%RH		
	Storage temperature range		-30°C ~ +75°C		
	Max. No. of PSUS(Driver supply unit) on miniature circuit breaker(MCB)	MCB TYPE B	10A	65pcs @ full load	
			13A	104pcs @ full load	
			16A	130pcs @ full load	
	MCB TYPE C	10A	75pcs @ full load		
		13A	120pcs @ full load		
		16A	187pcs @ full load		
Others	Dimming control mode		Triac dimming		
	Lifetime(hrs)@tc=60°C		> 50,000H		
	MTBF [MIL-HDBK-217F(ta=25°C)]		192.5K Hrs min		
	Glow wire test		850°C for 5S; 650°C for 30S		
	Dimension L x W x H		119x 45 x 27mm		
	Warranty years		5 years		

"2" Ripple voltage is measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 100nF & 47uF parallel capacitor.

"3" The flicker for frequencies of 200 Hz or below, input voltage 230Vac, at 100% output current level and 20% output current level with dimmer attached, output current ripple is defined as $[(I_{max} - I_{min}) / (I_{max} + I_{min})] * 100\%$, (CEC-400-2016-018-FS, Title 24 part 6 JA8).

"4" The noise of LED driver is defined as test data when driver tested in noise room with 50~60dB environment, and been hang in 1ft

(305mm) inside chamber.

"5" Rated voltage input, rated output current, maximum output current.

"6" The typical efficiency is test data of output current at input @230Vac with 36V output voltage, maximum output current.

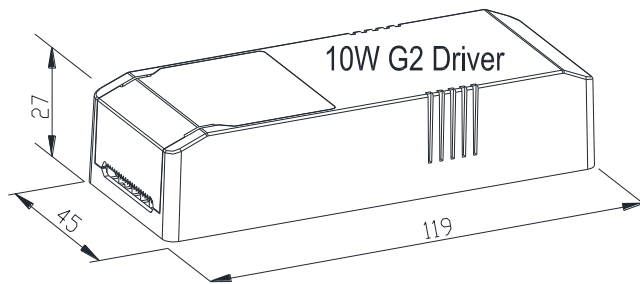
"7" The inrush current is test data of 230Vac input, cold start, measured at input current peak.

"8" The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC directive on the complete installation again.

"9" For other than independent use, higher ta of the control gear possible as long as highest allowed tc point temperature is not exceeded.

"10" The tc is defined as the highest permissible temperature which may occur on the outer surface of the power under normal operating conditions and at the rated voltage/current/power or the maximum of the rated voltage/current/power range, refer to "output power vs temperature" section.

MECHANICAL



Dimension	Gross Weight	Net Weight	Qty/Carton
390x200x300mm	9.3kg	8.0kg	50pcs