

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.

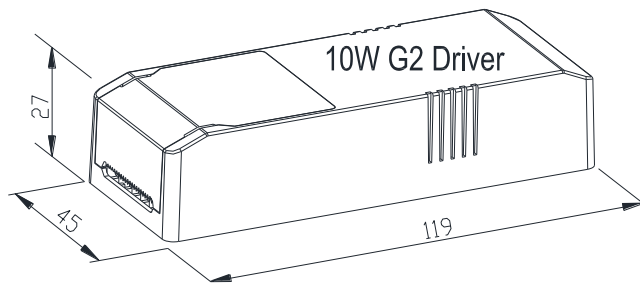
"3" The flicker for frequencies of 200 Hz or below, input voltage 230Vac, at 100% output current level and 20% output current level with dimmer attached, output current ripple is defined as $[(I_{max} - I_{min}) / (I_{max} + I_{min})] * 100\%$, (CEC-400-2016-018-FS, Title 24 part 6 JA8).

"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