

# 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)
  - $90^{\circ}$  C Maximum case operation temperature(Tc-point <sup>1</sup>)
  - Reliable, Class II, SELV output according EN 61347
  - Permissible AC cable  $0.75\text{-}2.5\text{mm}^2$  wire gauge, 3.5~10mm PVC jacket diameter
  - Grow wire tested  $650^{\circ}$  for 30S and  $850^{\circ}$  for 5S
  - Operating temperature <sup>1</sup>:  $-25^{\circ}$  C ~  $+45^{\circ}$  C, the humidity: 20% ~ 85%
  - Over 50,000 hrs nominal lifespan at  $T_c=70^{\circ}$  C
  - Protection for output open load, short circuits, over voltage and over temperature
  - Five-year factory guarantee and lifetime technical support <sup>1</sup>
- <sup>1</sup> 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 <sup>2</sup>	1.2Vp-p
	Ripple current	125mAp-p
	Line regulation	$\pm 5\%$
	Load regulation	$\pm 8\%$
	Starting time	<500mS
	Turn off time	<1.0S

	Noise <sup>3</sup>	<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 <sup>4</sup>	≤18%	
	Efficiency <sup>5</sup>	≥82%	
	AC current	100mA max.	
	Inrush current <sup>6</sup>	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 <sup>7</sup>	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 <sup>9</sup>	-25°C ~ +45°C	
	Max. case temperature(tc) <sup>10</sup>	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.

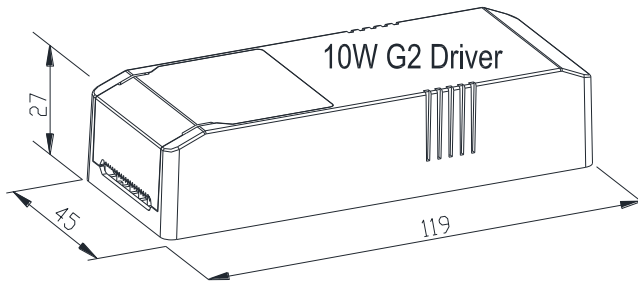
"3" The flicker for frequencies of 200 Hz or below, input voltage 230Vac , at 100% output current level and 20% output current level with dimmer attached, output current ripple is defined as  $[(I_{max} - I_{min}) / (I_{max} + I_{min})] * 100\%$ , (CEC-400-2016-018-FS, Title 24 part 6 JA8).

"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