SPECIFICATION FOR APPROVAL

Customer: _____

Product Material No.： _____

Model No. LF-GMD063YA

Version ： V3.0

Manufacturer: Sichuan Ledfriend Technology Co., Ltd

Customer Approval

Tested by	Checked by	Approved by

Ledfriend Approval

Tested by	Checked by	Approved by

The full model numbers required by customers

Full model No.		**Full model No.**	
Full model No.		**Full model No.**	

E.C. List

Version	Description of change	Engineer	Date
3.0	format change	Zhu Nengwu	2015-10-30

Shenzhen Ledfriend Optoelectronics Co., Ltd.
4&5/F, Bldg 14A, Taihua Wutong Island, Gushu Development Zone, Xixiang Street, Bao'an District, Shenzhen, China 518126
www.lifud.com, China service hotline: 400-096-6815 (China technical support: 13410244507)

1. Product description

Isolated LED driver designed for class I LED luminaires.

Category: AC100-277V linear metal case, 0-10V/PWM/Rx dimmable version.
Product properties: active PFC, high PF, high efficiency, low THD.
Application: tri-proof lights, grid lights and other linear shape lights.
Warranty: 3 years (please refer to the warranty condition).

Certifications:

2. Technical data (1)

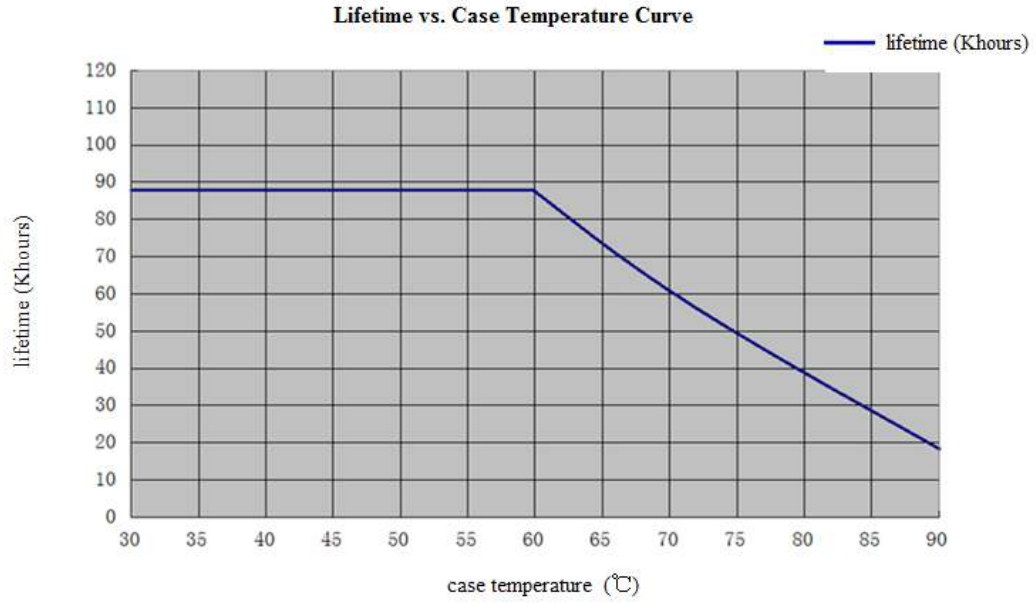
	Full model number	LF-GMD063YA 1200U	LF-GMD063YA 1300U	LF-GMD063YA 1400U	LF-GMD063YA 1500U	LF-GMD063YA 1550U
Output	Output voltage	27-40 VDC	27-40 VDC	27-40 VDC	27-40 VDC	27-40 VDC
	Output current	1200mA	1300mA	1400mA	1500mA	1550mA
	Ripple current	< 480mA				
	Ripple voltage	< 4V				
	Current tolerance	±5%				
	Time to light	100Vac<1S 230Vac <0.5S 277ac <0.5S				
	Temperature drift	±10%				
	Output Line regulation	±5%				
Input	Input Line regulation	±5%				
	Rated input voltage	100-240 Vac, 277 Vac (Max input voltage: 90-305Vac)				
	Frequency	47Hz-63Hz				
	Input current	0.9A Max				
	Power factor	≥0.96/100Vac	≥0.96/100Vac	≥0.96/100Vac	≥0.96/100Vac	≥0.96/100Vac
		≥0.90/230Vac	≥0.91/230Vac	≥0.92/230Vac	≥0.92/230Vac	≥0.92/230Vac
		≥0.88/277Vac	≥0.88/277Vac	≥0.89/277Vac	≥0.90/277Vac	≥0.90/277Vac
	THD	≤20% at AC230V				
	Efficiency	≥85%/100Vac	≥85%/100Vac	≥85%/100Vac	≥85%/100Vac	≥86%/100Vac
		≥86%/230Vac	≥86%/230Vac	≥86%/230Vac	≥86%/230Vac	≥87%/230Vac
		≥85%/277Vac	≥85%/277Vac	≥85%/277Vac	≥85%/277Vac	≥86%/277Vac
	In-rush current (peak /duration)	I<60A/350uS@230Vac				
	Typ. power input on stand-by	Pin<1W				
Protective features	No-load	Max. output voltage (no-load voltage) 55V				
	Short-circuit	Hiccup mode (auto-recovery)				
Environment condition	Working temperature	-30℃ - +50℃				
	Working humidity	20-90%RH (no condensation)				
	Storage temperature/humidity	-40℃ ~ +80℃ (6 months under the class I environment); 10-90%RH (no condensation)				
	Atmospheric pressure	86-106KPa				
Safety and norms	Certifications	CB, TUV, CE, RCM, UL, FCC				
	Hi-pot test	I/P-O/P: 3.75KVac, <5mA, 60S I/P-PG:1.6KVac, < 5mA,60S				
	Insulation resistance	I/P-O/P: 500VDC, >100MΩ				
	Surge level	Comply with IEC61000-4-5(L/N:2KV,L/PG:4KV,N/PG:4KV)				
	EMI	Comply with EN55015, EN61000-3-2.				
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.				
Others	Packing (weight)	Net weight: 300g±5%/pc; 36pcs/carton; 11.8KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).				
	IP level	/				
	Warranty condition	3 years (Max. case temperature must not exceed 80℃).				
Testing equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: TH9201B, flicker-free tester (flicker-free coefficient tester) 60N-01, etc.					
Test conditions	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% output load.					

Model	LF-GMD063YA	**Series**	AC100-277V, linear metal case, 0-10V/PWM/Rx dimmable

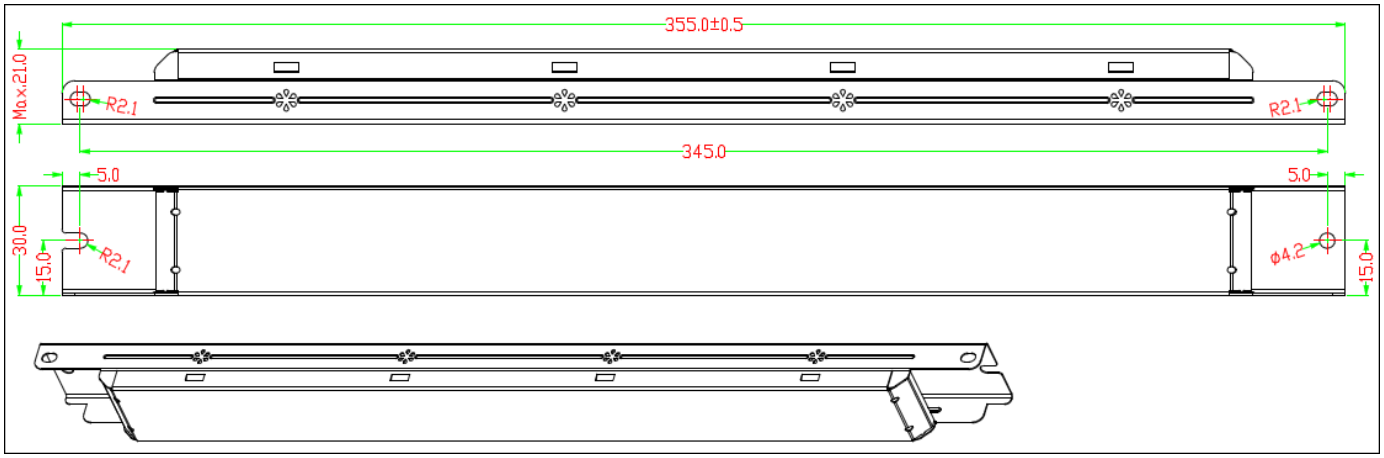
Additional Remark	1. In the power supply circuit, it is recommended that the customer should install an over-under-voltage protection and surge protection device to ensure the safety of using electricity. 2. The PC cover, shell, end caps used together with the LED driver inside the LED lamp must meet the UL94V-0 fire rating level or above. 3. As a part of the LED lamp, the LED driver is not the only factor determining the EMC performance of the LED lamp. And the EMC performance is also related to the LED lamp's structure and the wire routing. Thus we strongly recommend the manufacturer of the finished LED lamp must re-confirm the EMC of the LED lamps.

3. Product Referenced Lifetime Curve

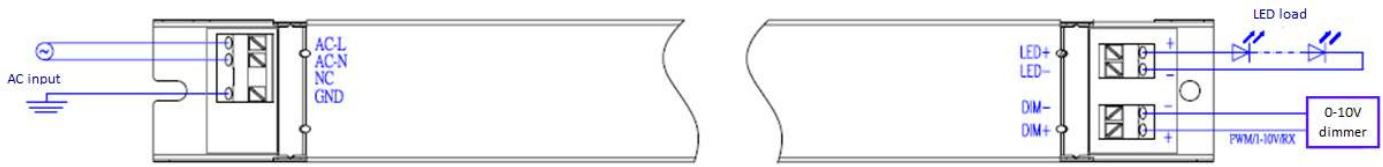
The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40℃, 45℃, 50℃, 55℃, 60℃, 70℃ and 80℃.



4. Dimensional Drawing (unit: mm)



5. Wire Connection Diagram:



Model	LF-GMD063YA	**Series**	AC100-277V, linear metal case, 0-10V/PWM/Rx dimmable

6. Dimmable feature

6.1 0-10V dimmable, dimming range 10%~100% (when the voltage signal is between 0-1V, there might be flicker).

voltage signal	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Output current percentage	3%	3%	5%	12%	23%	33%	45%	60%	78%	95%	100%	95%-105%

6.2 Resistor dimmable, dimming range 10%~100%, resistance value range 10kΩ~100kΩ.

Resistance value	10kΩ	20kΩ	30kΩ	40kΩ	50kΩ	60kΩ	70kΩ	80kΩ	90kΩ	100kΩ	OPEN
Output current percentage	4%	8%	15%	27%	40%	54%	66%	84%	95%	100%	95%-105%

6.3 PWM dimmable, dimming range 10%~100%, 10V voltage amplitude, frequency of PWM signal 500Hz~5KHz.

PWM signal	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Output current percentage	3%	5%	14%	25%	35%	45%	60%	75%	95%	100%	95%-105%

Remark: the output current percentages above are typical values.