

1. Product description



Type: Isolated LED driver suitable for class I LED luminaires.

Category: AC100-120V, UL Triac dimmable series

Product properties: active PFC, high efficiency, low THD.

Application: commercial, residential and decorative lighting.

Warranty: 5 years (please refer to the warranty condition).

Certificate: UL, FCC

2. Technical data (1)

	Full model number	LF-GDE024YD0350L	LF-GDE024YD0400L	LF-GDE024YD0450L
Output	Output voltage	25-40 VDC		
	Output current	350mA	400mA	450mA
	Ripple voltage	≤4.2V		
	Current tolerance	±6% @ AC120V		
	Start-up time	100Vac<1S		
	Temperature drift	±10%		
	Output Line regulation	±5%		
Input	Input Line regulation	±5%		
	Input voltage	100-120Vac (limit voltage: 100-140Vac)		
	Frequency	60Hz		
	Input current	0.3A Max		
	Power factor	≥0.9/120Vac	≥0.9/120Vac	≥0.9/120Vac
	THD	≤20%		
	Efficiency	≥83%/120Vac	≥83%/120Vac	≥83%/120Vac
	In-rush current (peak /duration)	I<60A/350uS@230Vac		
Standby power consumption	Pin<1W			
Protective features	Open-circuit	Open-circuit 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	UL, FCC		
	Hi-pot test	I/P-O/P:3.75KVac,<5mA 60S; O/P-FG:0.5KVac,<5mA 60S		
	Insulation resistance	I/P-O/P,I/P-FG,O/P-FG:500VDC,>100MΩ		
	Surge level	Comply with IEC61000-4-5 (L/N: 1KV)		
	EMI	Comply with FCC-PART-15B		
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.		
Others	Packing (weight)	Carton size: 385*285*210 mm (L*W*H); Net weight: 117.4g±5%/pc; 5.12KG±5%/ctn; Quantity: 60 PCS/ctn		
	IP level	IP20		
	Warranty condition	5 years (Max. case temperature must not exceed 75℃).		

Model	LF-GDE024YD	Series	UL Triac Dimmable Series
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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°C and humidity 50%, AC input 120V and 90% output load.
Additional Remark	<ol style="list-style-type: none"> 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. 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. 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.

Technical data (2)

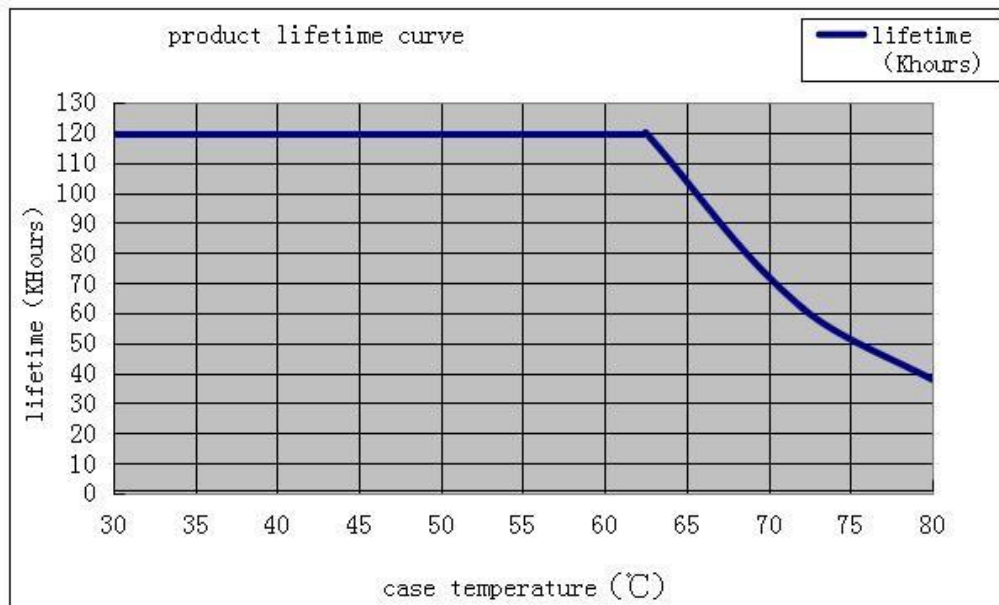
	Full model number	LF-GDE024YD0500L	LF-GDE024YD0550L	LF-GDE024YD0600L
Output	Output voltage	25-40 VDC		
	Output current	500mA	550mA	600mA
	Ripple voltage	≤4.2V		
	Current tolerance	±6% @ AC120V		
	Start-up time	100Vac<1S		
	Temperature drift	±10%		
	Output Line regulation	±5%		
Input	Input Line regulation	±5%		
	Input voltage	100-120Vac (limit voltage: 100-140Vac)		
	Frequency	60Hz		
	Input current	0.3A Max		
	Power factor	≥0.9/120Vac	≥0.9/120Vac	≥0.9/120Vac
	THD	≤20%		
	Efficiency	≥83%/120Vac	≥83%/120Vac	≥83%/120Vac
	In-rush current (peak /duration)	I<60A/350uS@230Vac		
Standby power consumption	Pin<1W			
Protective features	Open-circuit	Open-circuit voltage ≤55V		
	Short-circuit	Hiccup mode (auto-recovery)		
Environment condition	Working temperature	-30°C ~ +50°C		
	Working humidity	20-90%RH (no condensation)		
	Storage temperature /humidity	-40°C ~ +80°C (6 months under the class I environment); 10-90%RH (no condensation)		
	Atmospheric pressure	86-106KPa		
Safety and norms	Certifications	UL, FCC		
	Hi-pot test	I/P-O/P:3.75KVac,<5mA 60S;		
	Insulation resistance	I/P-O/P,I/P-FG,O/P-FG:500VDC,>100MΩ		
	Surge level	Comply with IEC61000-4-5 (L/N: 1KV)		
	EMI	Comply with FCC-PART-15B		
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.		
Others	Packing (weight)	Carton size: 385*285*210 mm (L*W*H); Net weight: 117.4g±5%/pc; 5.12KG±5%/ctn; Quantity: 60 PCS/ctn		
	IP level	IP20		
	Warranty condition	5 years (Max. case temperature must not exceed 75°C).		

Model	LF-GDE024YD	Series	UL Triac Dimmable Series
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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°C and humidity 50%, AC input 120V and 90% output load.
Additional Remark	4. 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. 5. 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. 6. 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.

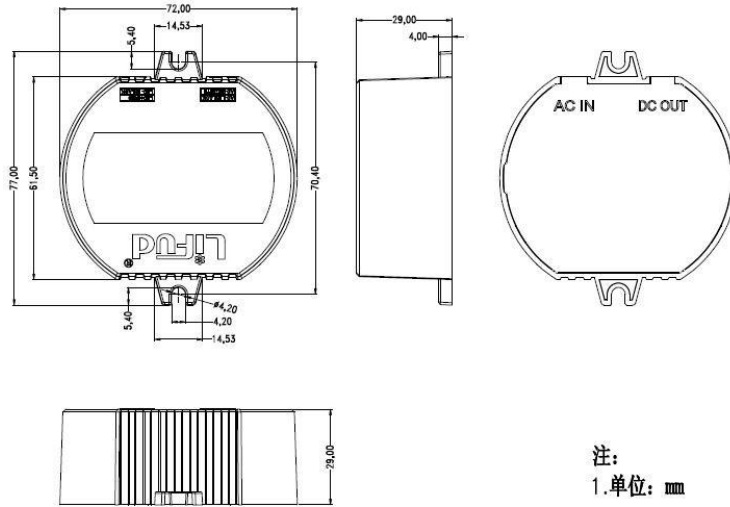
3. Product Referenced Lifetime Curve

The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40°C, 50°C, 60°C, 70°C, 80°C.

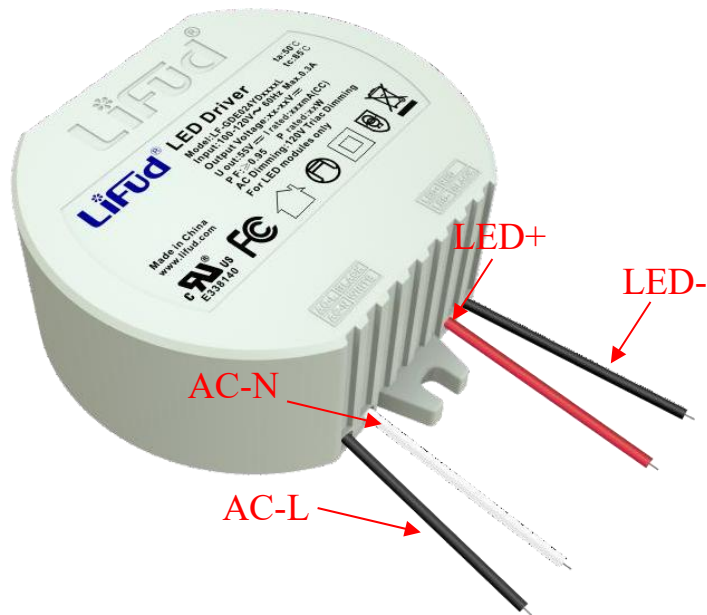


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4. Dimensional Drawing (unit: mm)



5. Wire Connection Diagram:



Input wire: UL1015 No.18 multi-stand wire, Black AC-L and White AC-N ,total length of 300mm ± 10mm, exposed 250mm ± 10mm, tail stripping dip tin 10mm ± 2mm

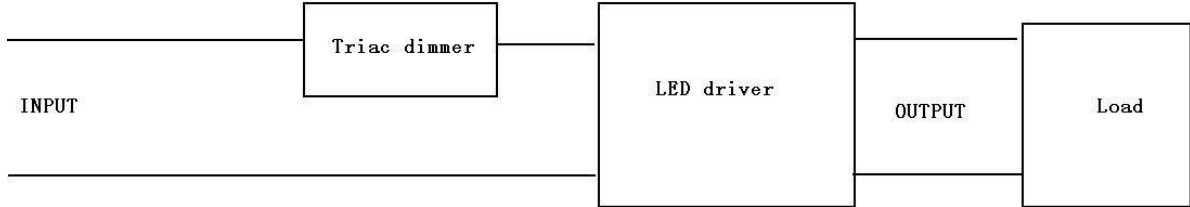
Output wire: UL3239 NO.22 silicone wire, Red LED+ and Black LED-, total length 160mm ± 10mm, exposed 130mm ± 10mm, Tail stripping dip tin (3mm ± 1mm positive tolerance)

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6. Instructions:

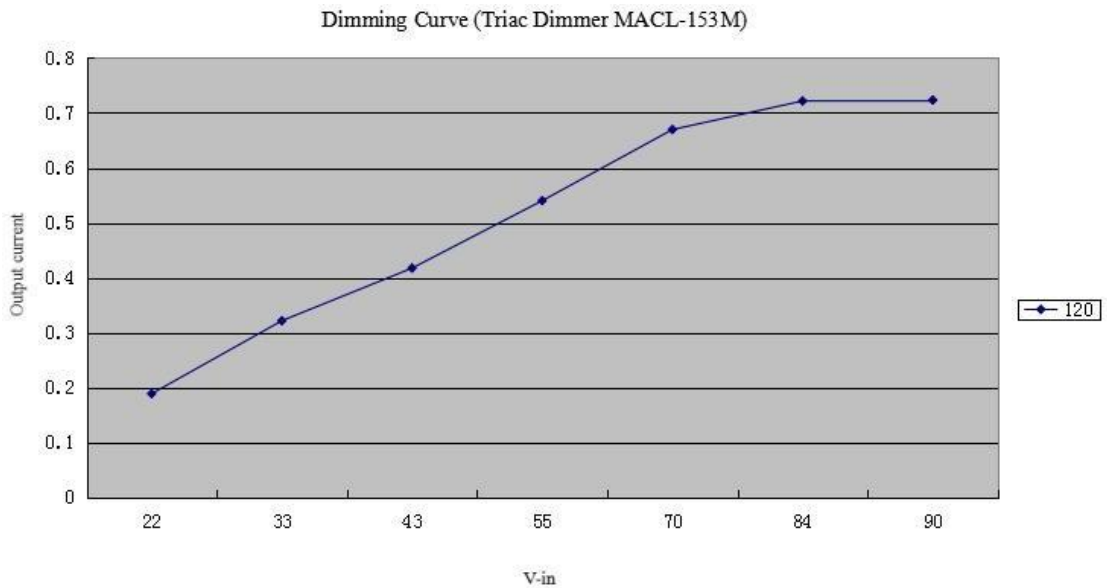
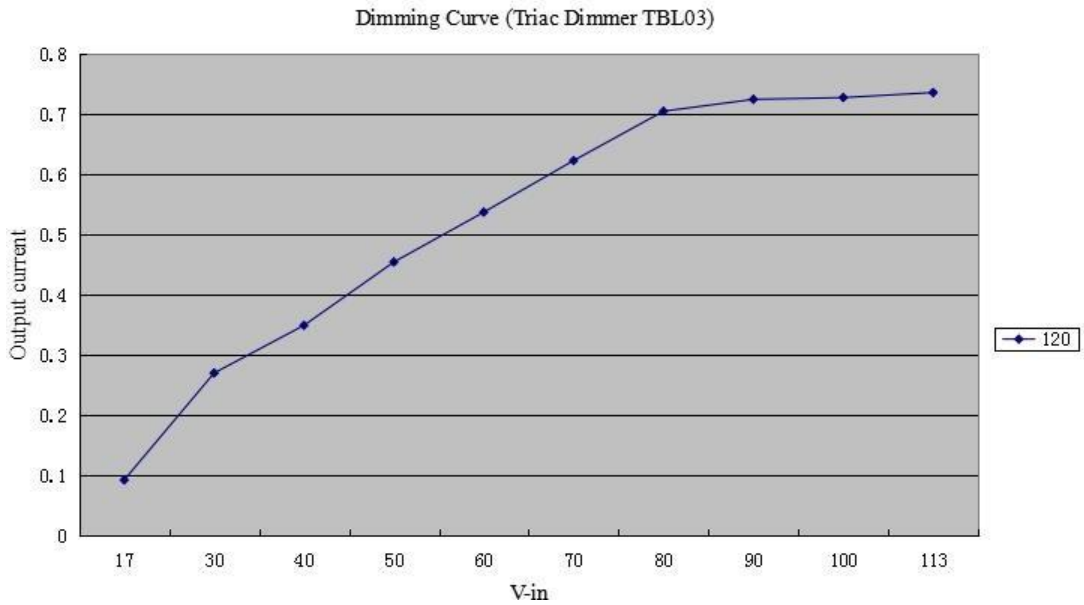
(1) Dimming function description:

Diagram:



(2). Compatible Triac Dimmers and Dimming

Curve LUTRON Model:MACL-153M
LEVITON Model:TBL03



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