LED Driver C.C.D2 030W Programmable Series
(in Steel Case version)

Main Features:

- Input Voltage: 120~277Vac
- Output Wattage: Constant Current (C.C.) at 30**W**
  with Adjustable Current Setting
- Flicker-Free : Active PFC 2-Stage Switch Mode
- Programmable Method: **NFC**
- High Efficiency: Up to **86%**
- Dimming Function: **DALI-2**
- Smooth &Continuous Deep Dimming : **100% to 1%**
- Lightning Protection: Built-in **[Line to line 2.0kV, line to ground 4.0kV**
- Reliability Protection: **SCP, OTP , MTP, OCP, OVP**
- Safety Regulation: Complies with UL8750 & EN61347
- Complies with CA Title 24 & FCC Class A
- **Class P** UL standard for retrofit kit
- **Five Year** Warranty under Normal Usage Conditions

SPECIFICATION

Model No. (*)	Output Voltage Range	C.C. or C.P. Programmable Rated Output or Range	Programming Method	Dimming Control Method	Aux
LDD-www(D)vvv(P/F)ccccHH-(V/D)	(Vdc)	(mA) (i)			(Vdc)
LDDY030-56F1050-U-D	12 - 56	150 - 1050	NFC	DALI	NA

(*) model name pattern:
LDD-www(D)vvv(P/F)ccccHH-(V/D)
LDD means, LED Driver with C.C.
(D) means, 12V Aux
(P/F) means, Wire/Wireless Programming method
(V/D) means, Analog Voltage/Digital DALI Dimming method

(i) Pre-set Constant Current Value with dimming
Case Tamp: Tc: 90**℃**

MTP (Module Temperature Protection) :supports thermal feedback and robust thermal manage,LED module working temperature can automatically be reduced by the driver, setting by software of the output current decrease depending on the measured NTC value to avoid decreased lifetime of the LED module.

SCP (Short Circuit Protection): No Damage. Auto recovery after short is removed.

OCP (Output Over Current）Constant Current Limiting circuit 110% IO.

OTP (Over Temperature Protection): The temperature is reduced to 105C and the output is automatically restored.

OVP（Output Over Voltage ）No Damage. Auto recovery after the abnormal disappearance 110% Vo.

Input Spec.	Condition Description	Min.	Normal	Max.	Units

Input Voltage Range	Universal Input	108	120/277	305	VAC
Input Frequency Range		47	50/60	63	Hz
Input Current	At 120 VAC/277 VAC input, full load output			**0.32/0.15**	A
Power Factor	At 120 VAC/277 VAC input, 25°C full load		**>0.9**		
Inrush Current	At 120 VAC input, 25°C cold start / At 277 VAC input, 25°C cold start			**5/18**	A
Leakage Current	@277Vac 60Hz			**750**	uA
Surge Protection	Differential and common mode, combination wave			**2K/4K**	V

Output Spec.	Condition Description	Min.	Normal	Max.	Units
Current Accuracy	At 25°C, @120Vac & 277Vac, full load		±5		%
Ripple Current	At 25°C, full load, measured at 20MHz bandwidth. The result differs according to different LED load characteristic.			5	% Ip-p (Io)
Overshoot/Undershoot	% of I out max & LED load, at 25°C, measured at 20MHz bandwidth			**5**	%
Turn-On Delay	Measured at 120Vac/277Vac input and Full Load			1	S
Aux Output Voltage	Aux out current 200mA max		NA		Vdc

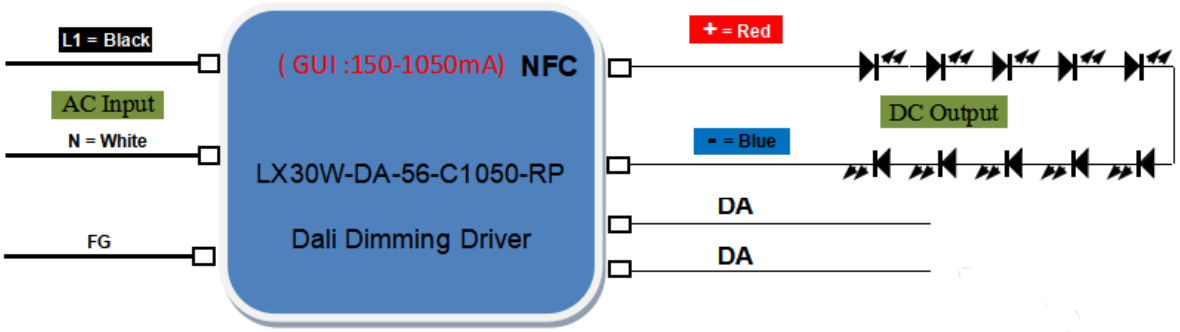
General Spec.	Condition Description	Min.	Normal	Max.	Units
Efficiency	120Vac|277Vac measured at 25°C, full load	**84|85**	**85|86**		%
MTBF	For 12V output model, measured at 120Vac input, 100%Load and Tc=85°C , with a failure probability of less than 10%		**≥42500**		Hours
Lifetime	at Tc < 75℃ Full load and nominal input condition		**≥50,000**		Hours
Operating/Storage Temperature	95%RH/95%RH	**-20/-40**		**50/85**	°C
Dimension (L x W x H)	Length x Width x High	**280 / 270 x 29.0 x26.0**			mm
		11.02/10.63 x 1.14 x 1.02			inch
Weight	Net weight without package				lb/kg

Safety & EMC Compliance	Category	Condition Description
Safety Regulations	UL8750	Light Emitting Diode (LED) Equipment for Use in Lighting Products, Class 2
	CE	Europe: EN 61347-1, EN61347-2-13
	Dielectric Strength (Hi-POT)	Primary to Secondary: **3750Vac** /10mA max / 60 seconds ; Output to Dim: 1500Vac
	Insulation Resistance	**10M** ohm min. @primary to secondary
EMI Standards	FCC	FCC 47CFR Part 15 Class B@ 120Vac, Class A@277Vac
	Energy Star	Surge Immunity Test: NEMA SSL1 – 2010Non-Roadway,100KHz ring wave, 2.5KV, common and differential mode.
EMS Standards	IEC 61000-4-2	Electrostatic discharge (ESD): 8 kV air discharge, 4 kV contact discharge, criteria A
	IEC 61000-4-4	Electrical fast transient (EFT)/ burst-EFT 2kV/5KHz
	IEC 61000-4-5	Surge immunity test, differential and common mode, 2kV, combination wave
	EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
	EN 61547	Electromagnetic Immunity Requirements Applies to Lighting Equipment

■ Dimming Curve

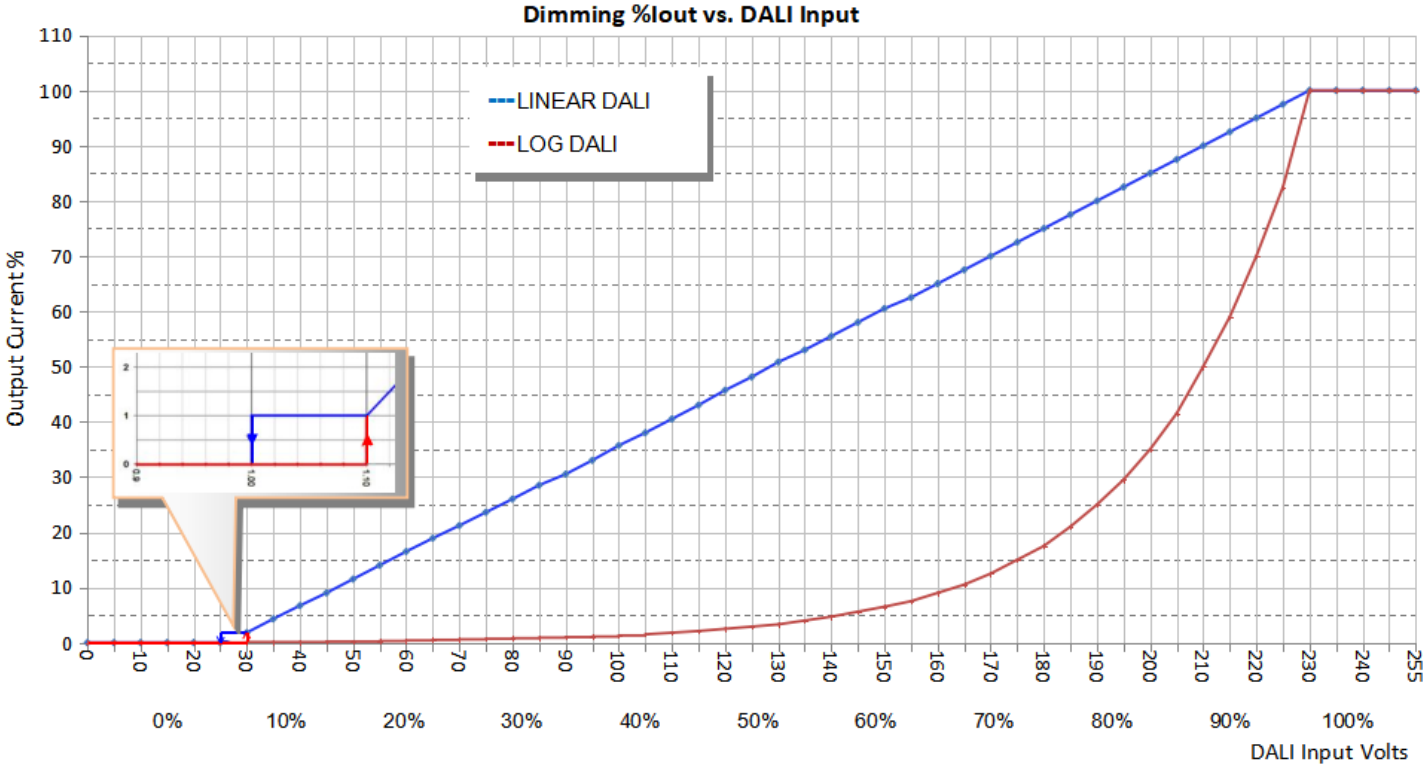
Items	Parameter	Min.	Typ.	Max.	Notes /Conditions
Dali Dimming	Input Absolute Voltage	/	/	500V	GRAY

Dimming Wire

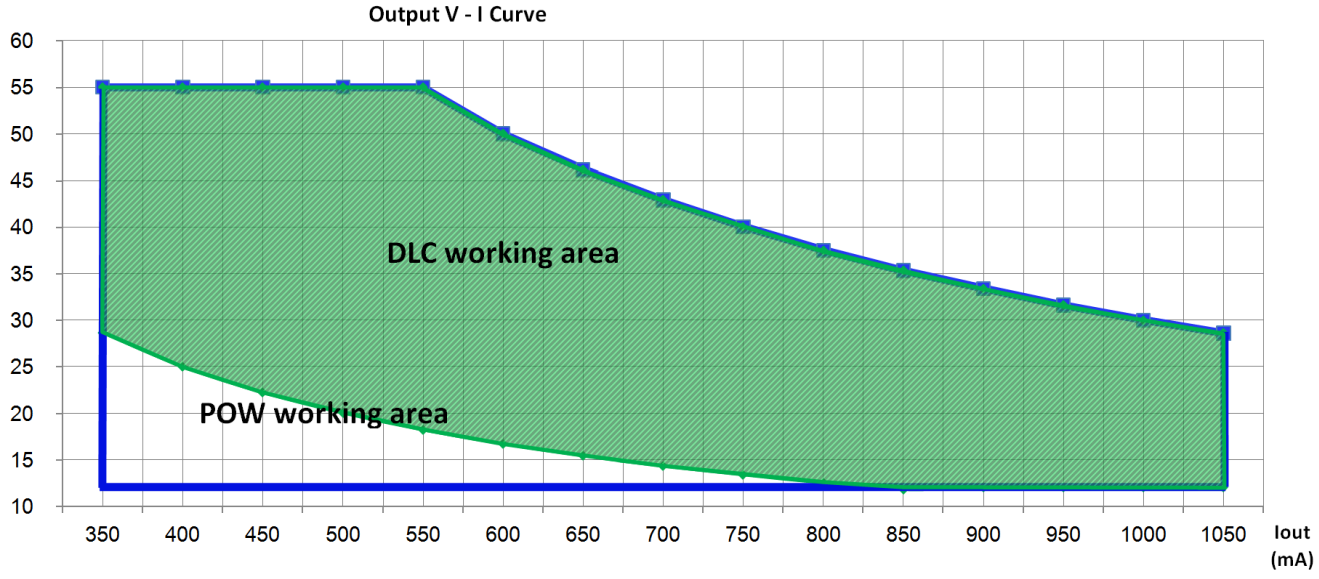


Note:
1. The DIM+ line can't touch the LED+ line and AC line.
2. LED- cannot be shorted with the SCOM and DIM-.

DALI Dimming Curve@Minimum dimming set to 1:



■ Power Operating Window& DLC Window:

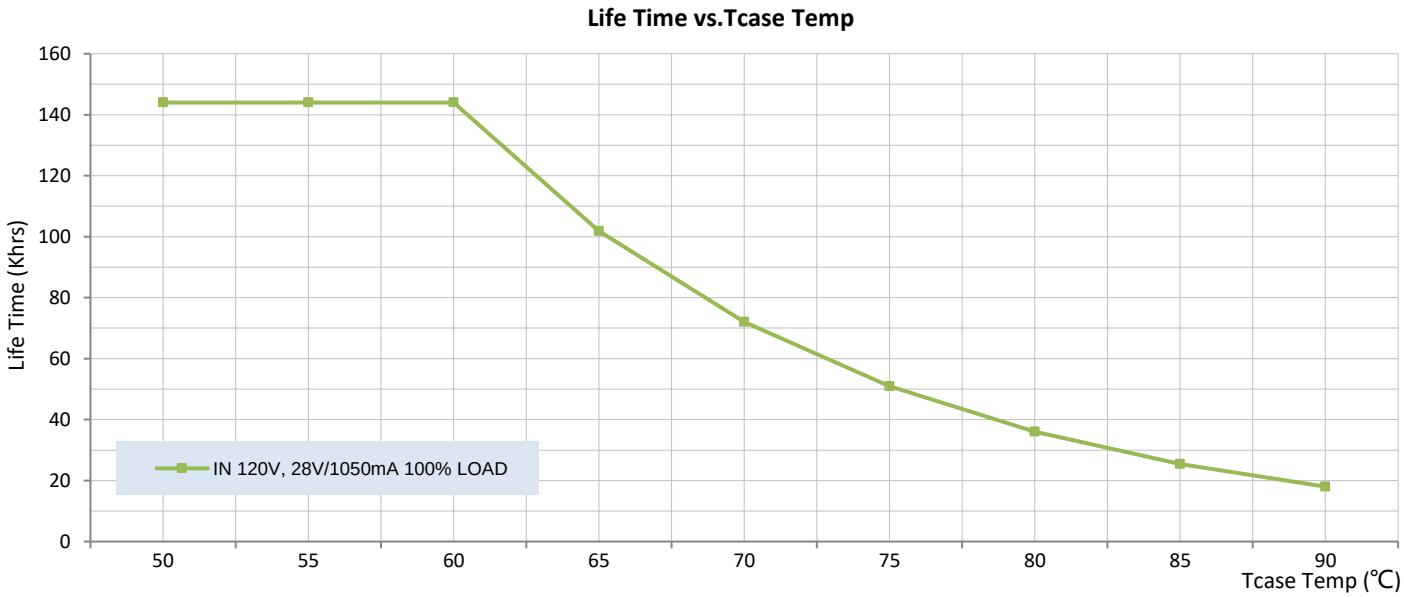


PF>0.9 and THD<20%, Window that meet DLC standards at input 120-277V range.

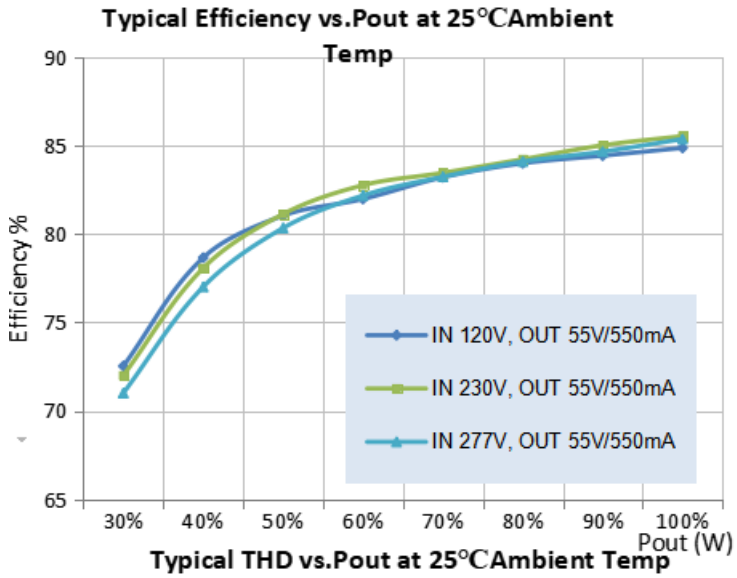
Power Operating Window.

Note: When the output current is set, the output voltage is automatically limited within the curves.

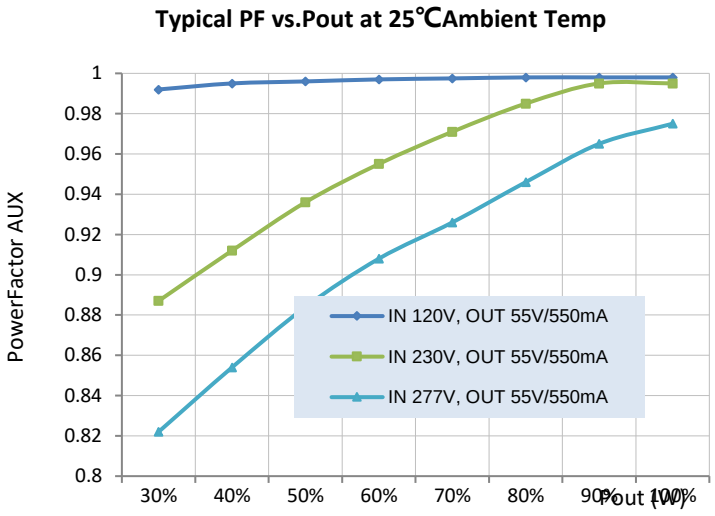
■ Lifetime vs. Case Temperature



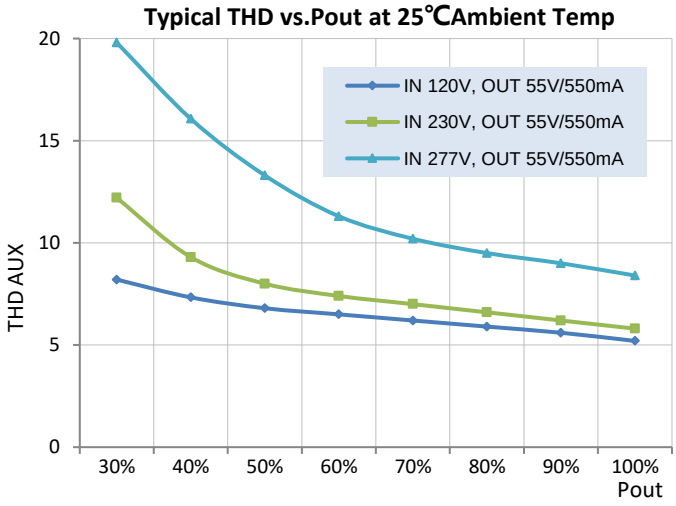
■ Efficiency vs. Load



■ Power Factor vs. Load



■ THD vs. Load



■ Mechanical Outline (Unit: mm)

Note: Metal shell; This product has two Φ8.0mmmounting holes.

AC input for connection thethreeKF250-3.5 connectors; DC output for connectionthefourKFR250-3.5 connectors.

DALI dimming input for the two KFR250-3.5 connectors.

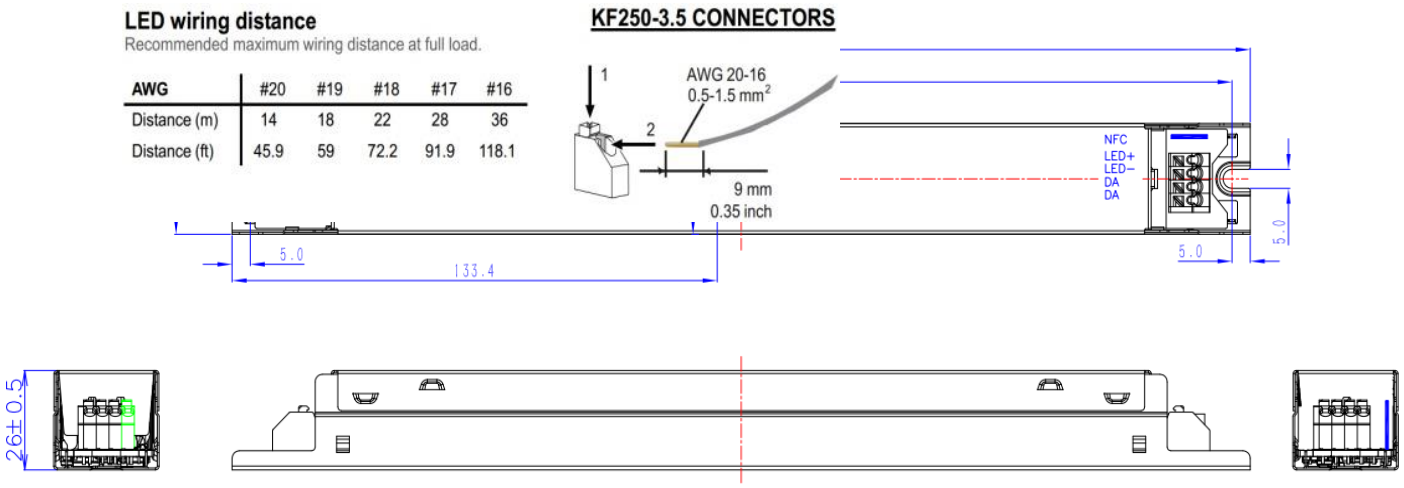


Figure 29, MR11YG

Note:

The independent LED drive conforms to the EMC standard. But it is not guaranteed to be qualified, when the drive is mounted in the LED fixture.

Please forgive us for any discrepancy due to the update of the specifications or the upgrade of the product. If you need the latest information, please contact our marketing department.

Revision

Date	Rev.	Description of Change		
		Item		
6/04/2023	V1a			
11/17/2023	V2a	LDDY030-56F1050-U-D(new model no.)	12 – 56(new output voltage)	