



The Brand of Electricity

DALI CC LED DRIVER 40W 25-42VDC 550-1050mA

Product Description

99DALI40150042

LF-ABB050-1200-42 series is a 40W constant current LED driver with the function of adjustable Bluetooth CCT dimming. The input voltage range is 198-264Vac. The output current can be adjusted via the DIP switch from 550mA to 1050mA, in steps of 50mA. Features

- IP20
- Plastic casing
- Suitable for Class I & II light fixtures
- Constant current output and the output current can be adjusted via the DIP switch
- Built-in active PFC function
- Standby power consumption <0.5W
- 0.1% dimming depth
- 10pcs of LED drivers can be dimmed synchronously
- Supports 0-10V/PWM/Rx dimming
- Supports DALI dimming and the logarithmic or the linear dimming curves can be selected via the software
- Supports PUSH dimming
- 7-year warranty (Please refer to the warranty condition.)

Applications

- Horticultural lighting
- Indoor office lighting
- Decorative lighting
- Commercial lighting
 - Residential lighting



TECHNICAL SPECIFICATION

Product Naming

LF-AAA 040 B 1050-42	
42:	maximum output voltage of 42V
1050:	maximum output current of 1050mA
B:	without 12V auxiliary power supply
040:	rated output power of 40W
AAA:	a series

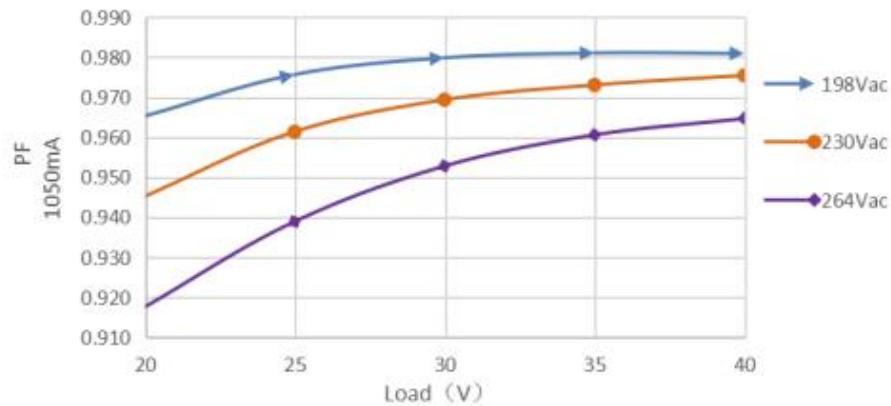
Model		LF-AAA040B1050-42												
Output	Output Voltage	9-42V										9-40V	9-38V	
	Output Current	Current adjustable via the DIP switch, please refer to the DIP Switch Table												
		550 mA	600 mA	650 mA	700 mA	750 mA	800 mA	850 mA	900 mA	950 mA	1000 mA	1050 mA		
	Flicker Index	IEC-Pst≤1; CIE SVM≤0.9; Modulation Depth≤1% Meet with flicker free standard (IEEE Std 1789-2015)												
	Ripple Current	<10% (rated current)												
	Current Tolerance	±5% (20-42V); ±10% (9-20V)												
	Temperature Drift	±10%												
	Start-up Time	<0.5S@230Vac												
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)												
	DC Input Voltage	180-280Vdc												
	Input Frequency	47Hz-63Hz												
	Input Current	0.3A Max.												
	Power Factor	≥0.9 @230Vac												
	THD	<15% @230Vac (full load)												
	Efficiency	≥84%			≥85%			≥86%						
	Inrush Current	≤60A & 260uS @230Vac												
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model				B10		C10		B16		C16		
		Quantity (pcs)				25		40		40		64		
		Leakage Current	≤0.5mA											
	Standby Power Consumption	≤0.5W (DIM OFF)												
Protection	Open Circuit	<59V												
	Short Circuit	Constant current mode												
Environment Description	Operating Temperature	-20℃~+45℃												
	Operating Humidity	20-90%RH (no condensation)												
	Storage Temperature/Humidity	-30℃~+ 60℃ (six months under class I environment); 10-95%RH (no condensation)												
	Atmospheric Pressure	86KPa~106KPa												

TECHNICAL SPECIFICATION

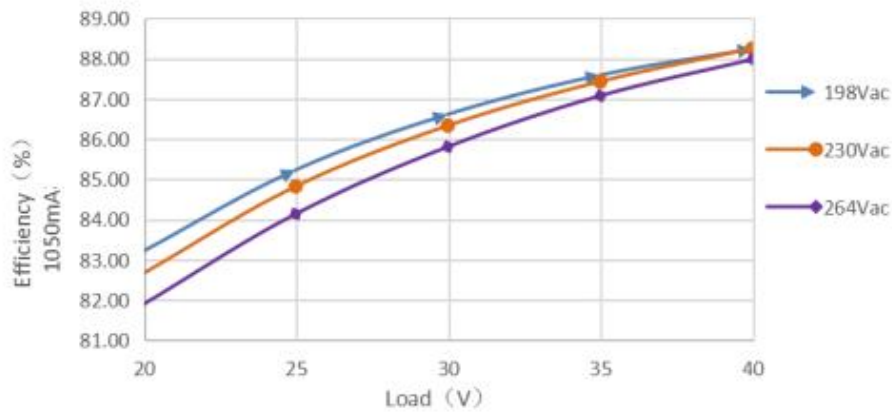
Safety & Electromagnetic Compatibility	Certifications	TUV-ENEC, CE, CB, RCM, CCC
	Withstanding Voltage	I/P-O/P: 3.75KV, 5mA, 60S
	Insulation Resistance	I/P-O/P: >100MΩ @ 500Vdc
	Safety Standards	ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009 CE-LVD: EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62493: 2015 RCM: AS 61347.2-13: 2018 CB: IEC 61347-1: 2015, IEC61347-2-3: 2014, IEC 61347-2-13: 2014/AMD1: 2016 CCC: GB19510.1-2009, GB19510.14-2009
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 CCC:GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5 (lightning strike 1KV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike 1KV), 6, 11
Others	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 yrs (Tcs78.5℃)
Remarks	<ol style="list-style-type: none"> 1. It is recommended that customer should install over voltage, under voltage and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity. 2. Please disconnect AC input before switching output current via the DIP switch. 3. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 4. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer should re-confirm the EMC of the whole LED light fixture. 5. Unless otherwise stated, the parameters above are test results under these conditions: ambient temperature 25℃, humidity 50%, 100% load, maximum output current and input voltage 230Vac. 	

Product Characteristic Curves

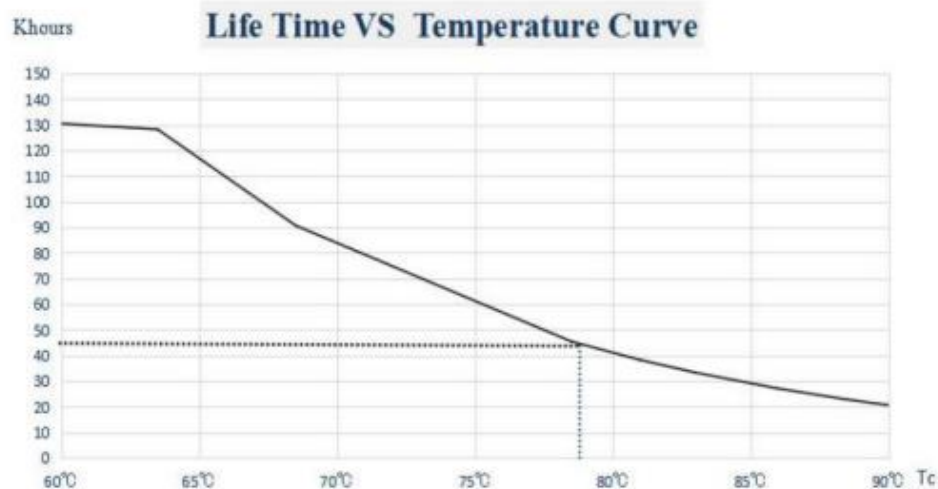
■ PF Curve



■ Efficiency Curve



■ Lifetime Curve



TECHNICAL SPECIFICATION

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■ Terminals

INPUT

DIM+	Positive electrode input of 0-10V/PWM/Rx dimming
DIM-	Negative electrode input of 0-10V/PWM/Rx dimming
AC-L	Input terminal of AC live wire
AC-N	Input terminal of AC neutral wire

OUTPUT

LED+	Positive electrode output of the driver
LED-	Negative electrode output of the driver

■ DIP Switch Table

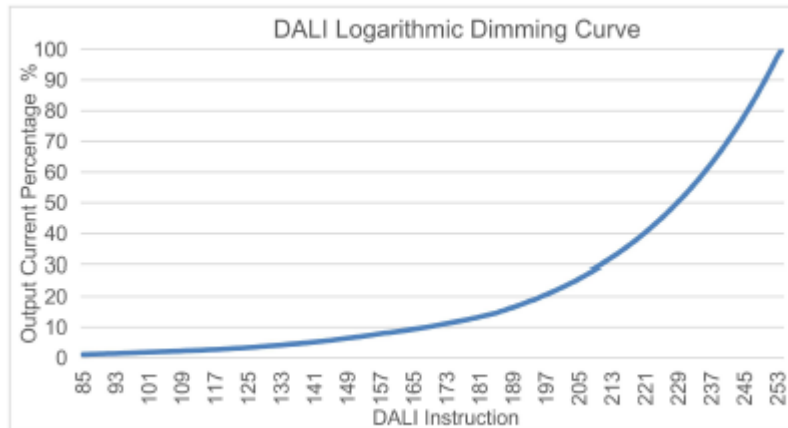
Vo DC	I rated (CC)	1	2	3	4
9--38V	1050mA	OFF	OFF	OFF	OFF
9--40V	1000mA	OFF	OFF	OFF	ON
9--42V	950mA	OFF	OFF	ON	OFF
9--42V	900mA	OFF	OFF	ON	ON
9--42V	850mA	OFF	ON	OFF	OFF
9--42V	800mA	OFF	ON	OFF	ON
9--42V	750mA	OFF	ON	ON	OFF
9--42V	700mA	OFF	ON	ON	ON
9--42V	650mA	ON	OFF	OFF	OFF
9--42V	600mA	ON	OFF	OFF	ON
9--42V	550mA	ON	OFF	ON	OFF

■ Instruction of PUSH dimming

Operation	Operation Time	Function
Instant Push	0.1 ~ 0.5S	Light on / off
Long Push	0.6 ~ 11S	Dim up / down
Reset Push	> 11S	Reset to the 100% brightness

- The PUSH operation won't cause any variation if it's less than 0.1S
- When controlling via the same button, in 0-10V mode, up to 10 pcs of LED drivers can be connected in parallel. In DALI & PUSH mode, up to 640 pcs of LED drivers can be connected in parallel by SYNC DIM connection.
- The PUSH button can only be connected to the middle of AC-L and PUSH terminals. Connecting to AC-N will cause the failure of PUSH dimming function.
- The minimum dimming depth of PUSH dimming is 1% (Iout).
- The PUSH dimming mode has the memory function in case of any power failure. When the LED driver is restored, the light will return to the exact status before power failure.

- The maximum length of the leading wire from the PUSH button to the farthest LED driver is 135 meters. The wire diameter range is 16-22AWG.
- **Instruction of DALI dimming**
- Factory default setting is of 100% brightness.
- Connect the DALI signal to DA1 and DA2 terminals.
- DALI protocol includes 16 groups and 64 IP addresses.
- The minimum dimming depth of DALI dimming is 0.1% (lout).



- **Instruction of 0-10V/PWM/Rx dimming**
 - 0-10V, PWM and Rx signals should be connected to the DIM terminal.
 - In 0-10V mode, the light turns off when the input voltage $\leq 0.3V$ and turns on when the input voltage $\geq 0.5V$.
 - The minimum dimming depth of 0-10V dimming is 5% (lout).
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- **Instruction of Synchronous dimming**
 - The maximum number of LED drivers can be dimmed synchronously is 10 pcs (one master and nine slaves). The maximum wire length between two LED drivers is 15 meters. The maximum wire length between the master and the farthest slave is 135 meters. The wire diameter range is 16-22AWG.
 - The method of switching to synchronous dimming: choose a driver as a master and switch the forth gear on the DIP switch to ON.
 - The master can directly control slaves via DALI, 0-10V and push dimming signals to realize synchronous dimming function.
 - Wiring diagram of synchro dimming:

TECHNICAL SPECIFICATION

0-10V dimming

Dimming voltage	≤0.3V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V
Rated current percentage	OFF	10%	25%	35%	50%	60%	75%	85%	100%	100%	100%

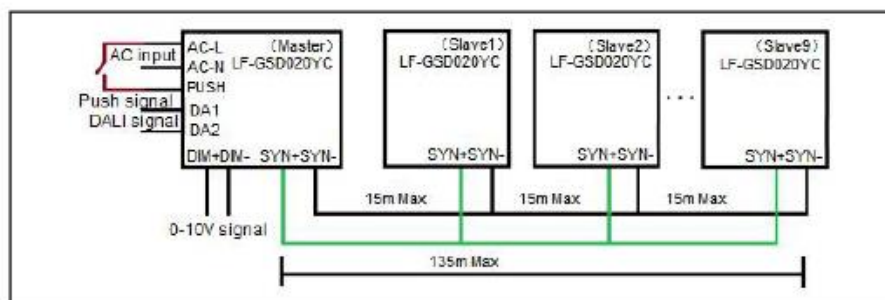
PWM dimming

PWM signal	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Rated current percentage	OFF	20%	40%	55%	70%	80%	90%	100%	100%	100%	100%

Rx dimming

Resistance	0K	10K	20K	30K	40K	50K	60K	70K	80K	90K	100K
Rated current percentage	OFF	30%	55%	70%	80%	85%	90%	95%	100%	100%	100%

Remark: Factory default setting is of 100% brightness.



- Before using synchronous dimming function, please make sure that all LED drivers are at 100% output.
- When the synchronous dimming signal is withdrawn from the slaves, the slaves enter DALI mode by default.
- **Switch between dimming modes**
- **Switch to DALI dimming**

After powering on the driver for two seconds, press the DALI dimmer for ON/OFF operation. And then it becomes DALI dimming mode.

- **Switch to PUSH dimming**

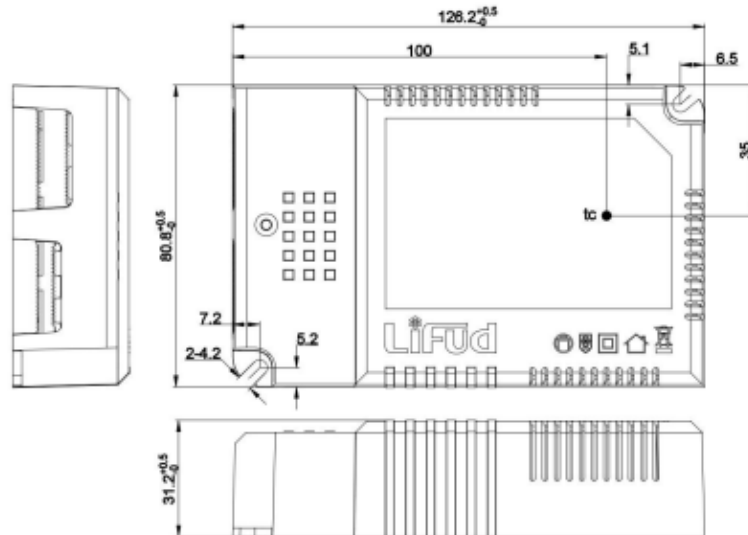
After powering on the driver for two seconds, press the PUSH switch for at least three seconds. And then it becomes PUSH dimming mode.

- **Switch to 0-10V dimming**

After powering on the driver for two seconds, adjust the 0-10V dimmer to the brightest or to the dimmest. One second later, it becomes 0-10V dimming mode.

Remark: When switching the DALI mode to another mode, the light must be on. It's a default setting that when the light is off because the DALI dimming mode cannot be switched to another mode.

Dimensions (unit: mm)



Transportation & Storage

- **Transportation**
- Suitable transportation means: vehicles, boats and aircraft.
- During transportation, there should be awnings for rain protection and sun protection. Civilized loading and unloading are required. There should be no severe vibration or impact.
- **Storage**
- Storage in accordance with the provisions of the Class I environment. For products which have been stored formore than six months, they mustn't be used until they pass the re-inspection.

Attention

- Please use this product according to its specifications otherwise there may be malfunction.
- Use light fixtures that have not been certified or are not compatible with the LED drivers may cause fire or other hazards.
- Man-made damage, any use beyond the specification and non-original-factory modification are not covered by warranty.

