Features

- Constant current output adjustable via DIP switch
- DALI DT8 tunable white (logarithmic dimming or linear dimming selectable at DALI programmer)
- Dimming depth: 0.1%
- Color temperature range: 2700-6500K
- Standby power consumption <0.5W
- Isolated; flicker-free
- Open-circuit protection and short-circuit protection
- IP20; suitable for Class I lighting fixtures
- 5-year warranty (please refer to the warranty condition)

Applications

· Residential lighting · indoor office lighting · decorative lighting · commercial lighting · flood lighting
· greenhouse lighting

Descriptions

LF-BBD060-1400-42 is a maximum 60W DT8 tunable white LED driver. Its rated input voltage ranges from 220 to 240Vac (limit voltage: 198-264Vac). Its output current is adjustable from 1050 to 1400mA via DIP switch with every 50mA as a step.

Product Model

LF-BBD060 -1400 -42

- 42: maximum output voltage: 42V
- 1400: maximum output current: 1400mA
- 060: maximum output power: 60W
- BD: DALI dimming product
- B: for indoor use and constant output current

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Electrical Characteristics

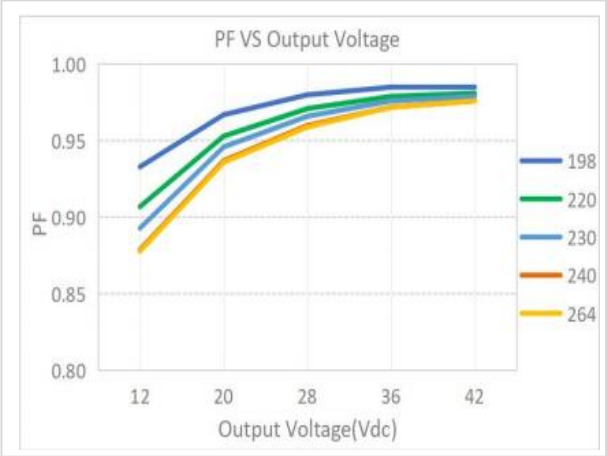
Model		LF-BBD060-1400-42							
Output	Output Voltage	12-42V							
	Output Current	1050mA	1100mA	1150mA	1200mA	1250mA	1300mA	1350mA	1400mA
	Flicker Index	IEC-Pst≤1,CIE SVM≤0.4, complies with IEEE Std 1789-2015							
	Current Tolerance	±5%							
	Temperature Drift	±10%							
	Start-up Time	≤2.5S @230Vac							
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)							
	DC Input Voltage	220-240Vdc (voltage limit: 180-264Vdc)							
	Input Frequency	0/50/60Hz							
	Input Current	0.45A max							
	PF	≥0.95@230Vac (Max Load)							
	THD	≤15%230Vac (Max Load)							
	Efficiency	≥86.5%@230Vac (Max Load)							
	Inrush Current	≤40A@100uS@230Vac (Max)							
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16			
		Quantity (pcs)	12	12	19	19			
	Leakage Current	≤0.7mA							
	Standby Power Consumption	≤0.5W (PWM OFF)							
Protection Characteristics	Open Circuit	≤59Vdc							
	Short Circuit	Constant output current with no damage to driver							
Environment Descriptions	Operating Temperature	-20℃ - +50℃							
	Operating Humidity	20-90%RH (no condensation)							
	Storage Temperature/ Humidity	-40℃ - 80℃ (6 months in Class I environment); 10-90%RH (no condensation)							
	Atmospheric Pressure	86-106kPa							

Electrical Characteristics

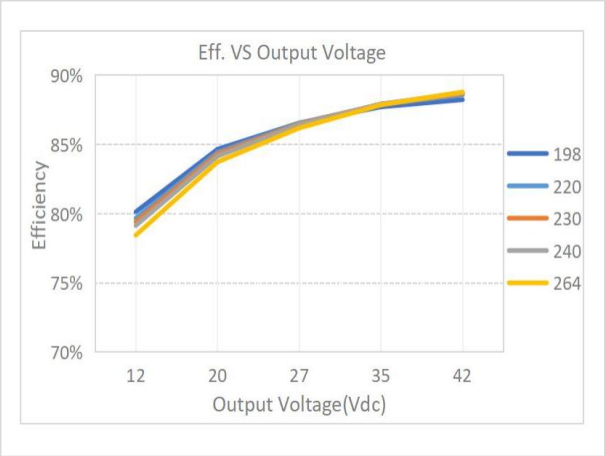
Safety & EMC	Certifications	CE
	Withstand Voltage	I/P-O/P：3.75kV,<5mA 60S;I/P-PG:1.5KVac,<5mA 60S;O/P-PG:0.5KVac,<5mA 60S, I/P- DALI:1.5KVac,<5mA 60S;O/P-DALI:0.5.KVac,<5mA 60S;PG - DALI:1.5KVac,<5mA 60S
	Insulation Resistance	I/P-O/P：>100MΩ@500Vdc；I/P-PG:>100MΩ@500Vdc；O/P-PG:>100MΩ@500Vdc;I/P- DALI:500VDC,>100MΩ;O/P-DALI:500VDC,>100MΩ; PG-DALI:500VDC,>100MΩ
	Safety Standards	CE-LVD: EN 61347-2-13:2014/A1:2017，EN 61347-1:2015，EN 62493:2015
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5 (lightning strike L-N: 1kV), 6, 11
	PUSH Inrush	PUSH-PUSH: 0.5kV
Other Parameters	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Noise Level	≤29dB (The noise collector should be tested at 10cm from the driver in a quiet room)
	Warranty	5 years (Tc≤80℃)
	DALI Standard	IEC 62386-101 102 207: DALI 2.0
Test Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber; Everfine EMS61000-5B, fast transient generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, Hi-pot tester: EEC SE7440, flicker tester (flicker-free coefficient test) LFA-3000, etc.	
Test Remark	If there are no special remarks, the above parameters are tested at the ambient temperature of 25℃, humidity of 50%, full load and input voltage of 230Vac/50Hz.	
Additional Remarks	1. It is well-advised to install the over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety. 2. The PC cover, casing and end cap for assembling the LED driver in the light fixture must meet the fire rating of UL94-V0 or above. 3. The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. Thus, the manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished. 4. The total output power of the driver cannot exceed the rated maximum power during use, otherwise it cannot be warranted.	

Product Characteristic Curves

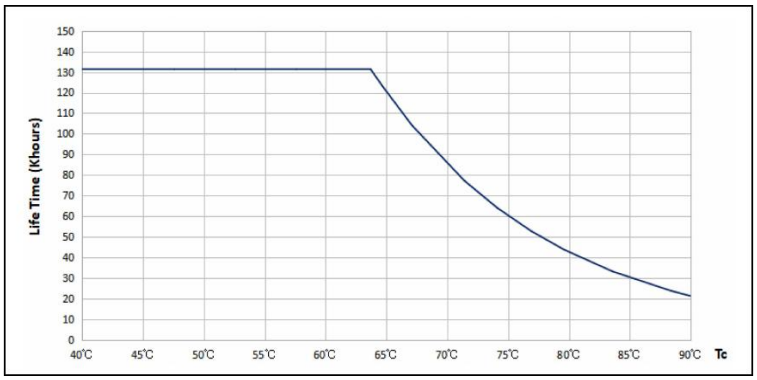
PF Curve



Efficiency Curve



Lifetime Curve



Product Definition

Product Terminals

INPUT		OUTPUT	
AC-L	AC live wire input	LED+	Positive electrode output of LED driver
AC-N	AC neutral wire input	WW-	Negative electrode of driver's warm light
NC	/	CW-	Negative electrode of driver's cold light
PGND	Earth wire input		
DALI1/PUSH	DALI1/PUSH dimming input		
DALI2/PUSH	DALI2/PUSH dimming input		

Product Definition

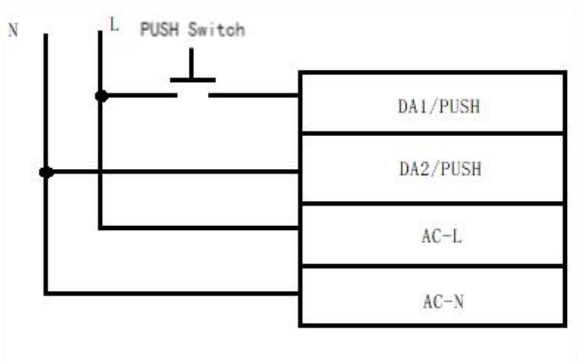
Product DIP Switch

Vo DC	I rated(CC)	1	2	3
12-42V	1050mA	ON	ON	ON
	1100mA	ON	ON	-
	1150mA	ON	-	ON
	1200mA	ON	-	-
	1250mA	-	ON	ON
	1300mA	-	ON	-
	1350mA	-	-	ON
	1400mA	-	-	-

⚠ Please disconnect AC before operating DIP switch.

Dimming Operation Instructions

Wiring Diagram of PUSH Dimming



- Connect PUSH switch between AC-L and DA1 PUSH in series and connect DA2 PUSH to AC-N.
- Make sure that AC-L and AC-N are not directly connected to DA1 PUSH and DA2 PUSH terminals.
- Make sure that PUSH switch is off before the AC is powered on; operate PUSH after the AC is powered on.
- Make sure the PUSH switch is off before disconnecting the AC.
- If you have any questions about the wiring and operation, please confirm with Lifud FAE.

- ⚠ Wrong wiring or operation may cause damage to the driver.

Dimming Operation Instructions

Operations of PUSH Dimming

Operation	Duration	Function
Instant Push	0.1-0.5 sec(s)	LED light on/off
Long Push	0.6-9 sec(s)	When light is on, long PUSH to dim up/down
Reset Push	>9 sec(s)	Long press the PUSH button to reset the brightness to 50%

- In PUSH mode, continuous double-click (each press-time is not less than 100ms, double-click interval is not more than 200ms) to switch dimming mode or CCT change mode.
- The PUSH operation won't cause any variations on LED driver if it's less than 0.1S.
- Min. dimming depth of PUSH dimming: 1% (Iout)
- The PUSH dimming mode has the memory function in case of any power failure. When powering the LED driver on again, the light will return to the previous state before power failure.
- The present dimming direction of PUSH dimming is opposite to the former one.
- Max. wire length from the PUSH switch to the farthest LED driver: 135m; wire diameter: 12-24AWG
- Max. quantity of drivers connected in parallel in DALI dimming mode: 64 pcs.

Operations of PUSH CCT Changing

Operation	Duration	Function
Instant Push	0.1-0.5 sec(s)	LED light on/off
Long Push	0.6-9 sec(s)	LED light CCT changing
Reset Push	>9 sec(s)	Reset to 50% warm light & 50% cold light two-channel output

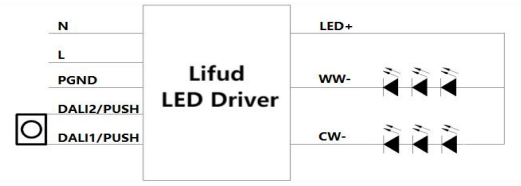
- In PUSH mode, continuous double-click (each press-time is not less than 100ms, double-click interval is not more than 200ms) to switch dimming mode or CCT change mode.
- The PUSH operation won't cause any variations on LED driver if it's less than 0.1S.
- CCT of PUSH dimming: minimum one: warm light; maximum one: cold light.
- When entering to the PUSH dimming mode for the first time, it's default to be 50% warm light & 50% cold light two-channel output.
- For the first long press on the PUSH button, the brightness remains the same but the CCT turns to the cold light.
- For the press on the PUSH button again, the dimming is opposite to the last one.

Dimming Operation Instructions

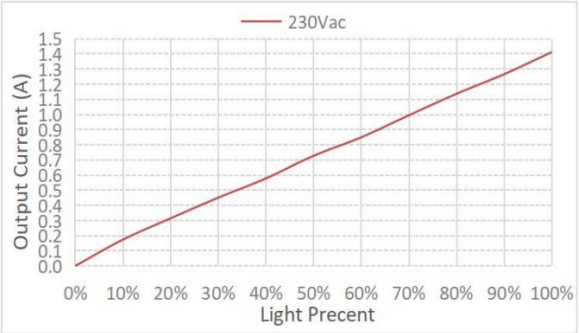
Operations of DALI Dimming

- It's default to be 50% warm light & 50% cold light two-channel output with 100% brightness.
- Connect DALI signal to DA1 PUSH and DA2 PUSH terminals.
- DALI protocol includes 16 groups and 64 IP addresses.
- Max. number of LED drivers connected in parallel in DALI dimming mode: 64 pcs.
- Min. dimming depth of DALI dimming: 0.1% (@ max. output current).

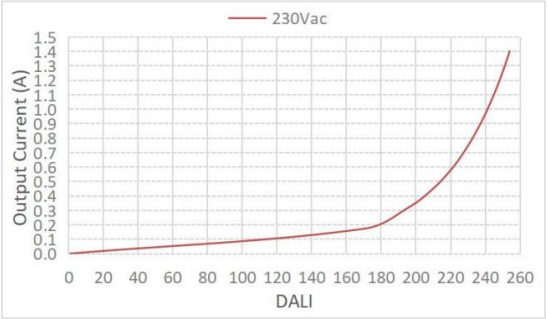
Wiring Diagram of DALI Dimming



DALI Dimming Curve (Linear)



DALI Dimming Curve (Logarithmic)



Instructions of Switching Dimming Modes

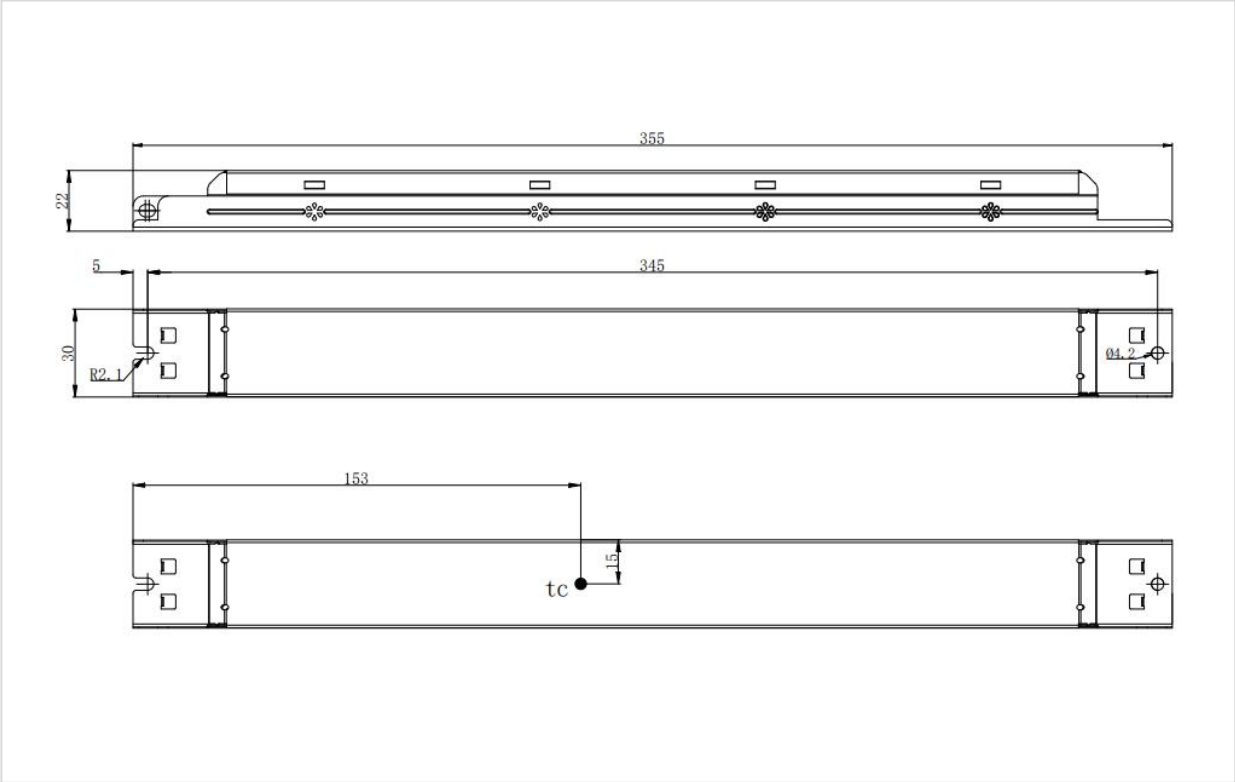
- DALI and PUSH dimming function CANNOT be used at the same time, otherwise it will damage the DALI dimmer.
- It's default to DALI logarithmic dimming mode. If you need DALI linear dimming mode, please use DALI programmer to switch.
- Switching to PUSH dimming: After AC power on for 2s, you can switch to PUSH mode by long press the PUSH switch and hold it for over 3s.
- Switching to DALI dimming: After AC power on for 2s, you can switch to DALI dimming mode by press DALI dimmer for ON/OFF operation.
- It must be DALI ON when switching from DALI dimming mode to other dimming modes. It CANNOT switch dimming modes when DALI OFF by default.

Structure & Dimensions (unit: mm)

Product Dimensions

Model	Overall Appearance (L*W*H)	Distance Between 2 Positioning Holes	Diameter of Positioning Hole
LF-BBD060-1400-42	355*30*22 mm (±0.2mm)	345 mm (±0.2mm)	4.2 mm

Structure Diagram



Packaging Specifications

Model	LF-BBD060-1400-42
Carton Size	420*300*215mm (L*W*H)
Quantity	6 pcs/layer; 5 layers/ctn; 30 pcs/ctn
Weight	0.31±0.01 kg/pc; 9.98 ±0.2 kg/ctn

Transportation and Storage

1. Transportation

- Suitable transportation means: vehicles, boats and aeroplanes.
- In transit, it is necessary to prepare awnings for rain or sun protection. Moreover, please keep civilized loading and unloading to prevent the vibration or impact of LED driver as much as possible.

2. Storage

- The storage of LED driver shall conform to the standard of Class I environment. When using LED drivers which have been stored for more than 6 months, please re-test them firstly. Do not use them unless they are tested to be qualified.

Cautions

- Please use Lifud LED driver according to its parameters in the specification, otherwise the LED driver may malfunction.
- Using any incompatible light fixtures or those that have not been certified may cause fire, explosion or other risks.
- Man-made damage is beyond the scope of Lifud warranty service.

Remark: Lifud Tecnology Co., Ltd. reserves the right to interpret any contents of this specification.