

92248

# DALI Series (with PUSH Dim) Flicker-Free LED Power Supply



## Product Feature

- Max. 84W
- Constant current output. The current value can be selected via a DIP switch, 50mA every step.
- Metal housing. Compatible with the Class I and Class II light fixtures
- Built-in active power factor correction function
- Stand-by power consumption <0.5W
- DALI dimming (Logarithmic dimming curve, linear dimming curve and push dimming functions are optional.)
- Warranty: 2 years + 3 years extended warranty

## Technical Data

Output	Output Voltage	25-42V										
	Output Current	The output current is selectable via a DIP switch. Refer to the DIP switch table.										
		1550 mA	1600 mA	1650 mA	1700 mA	1750 mA	1800 mA	1850 mA	1900 mA	1950 mA	2000 mA	
	Ripple Voltage	<2V @ 50Hz										
	Percent Flicker	<0.5% @ 50Hz, 230Vac										
	Current Tolerance	±5%										
	Temperature Drift	±10%										
	Line Regulation	±5%										
Start-up Time	<1s @ 230V											
Input	Line Regulation	±5%										
	Input Voltage	220-240VAC (voltage limit: 200-264VAC)										
	Input Frequency	50 / 60Hz										
	Input Current	0.55A Max.										
	Power Factor	≥0.9 @ 230VAC, 2000mA, LED load, DC42V										
	THD	≤15%										
	Efficiency	≥89% @ 230VAC, 2000mA, LED load, DC42V										
	Inrush Current	≤80A @ 350uS @ 230VAC (Max.)										
	Stand-by Power	≤0.5W (when DALI's OFF signal takes into effect)										

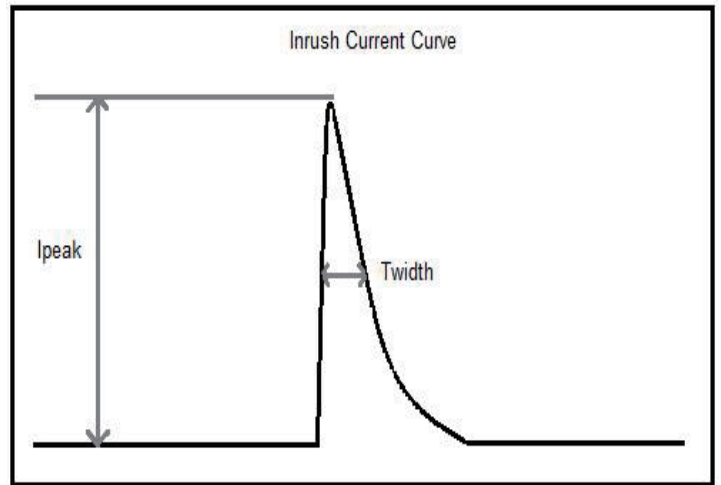
<b>Protective Feature</b>	Open Circuit Protection	<55V
	Short Circuit Protection	Hiccup mode (auto-recovery)
<b>Environment Condition</b>	Working Temperature	-35°C ~ +50°C
	Working Humidity	20-90%RH (no condensation)
	Storage Temperature/Humidity	-35°C ~ 80°C (six months under class I environment); 10-90%RH (no condensation)
	Atmospheric Pressure	86-106KPa
<b>Safety &amp; Norm</b>	Withstand Voltage	I/P-O/P: 3.75KV, 5mA, 60s
	Insulation Resistance	I/P-O/P: 500VDC, >100MΩ
	Surge Rating	IEC61000-4-5 (L-N: 1KV; L-PE:2KV; N-PE: 2KV )
	Safety Standard	EN61347, GB19510
	Electromagnetic Interference	EN55015, EN61000-3-2
	Electro Magnetic Susceptibility	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547
<b>Others</b>	IP Rating	IP20
	Warranty Condition	Tc≤77 °C
	DALI Executive Standard	IEC 62386-101, 102, 207: DALI2.0
<b>Testing Equipment</b>	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, spectrum analyzer: KH3935, hi-pot tester: TH9201B, stroboscope (percent flicker tester) 60N-01, etc.	
<b>Testing Condition</b>	Unless otherwise stated, the parameters of the power factor, THD and efficiency are the test results under the ambient temperature of 25°C and humidity of 50%, AC input of 230V and 100% load.	
<b>Additional Remark</b>	<ol style="list-style-type: none"> <li>1. It is recommended that customer should install protection devices for surge and for over &amp; under voltage to ensure safety before connecting to electricity.</li> <li>2. Make sure the AC power is disconnected and there's no electricity before using the DIP switch to adjust output current.</li> <li>3. The PC cover, housing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above.</li> <li>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 re-confirms the EMC of the whole LED light fixture.</li> </ol>	

### Circuit Breaker & Relevant Parameters

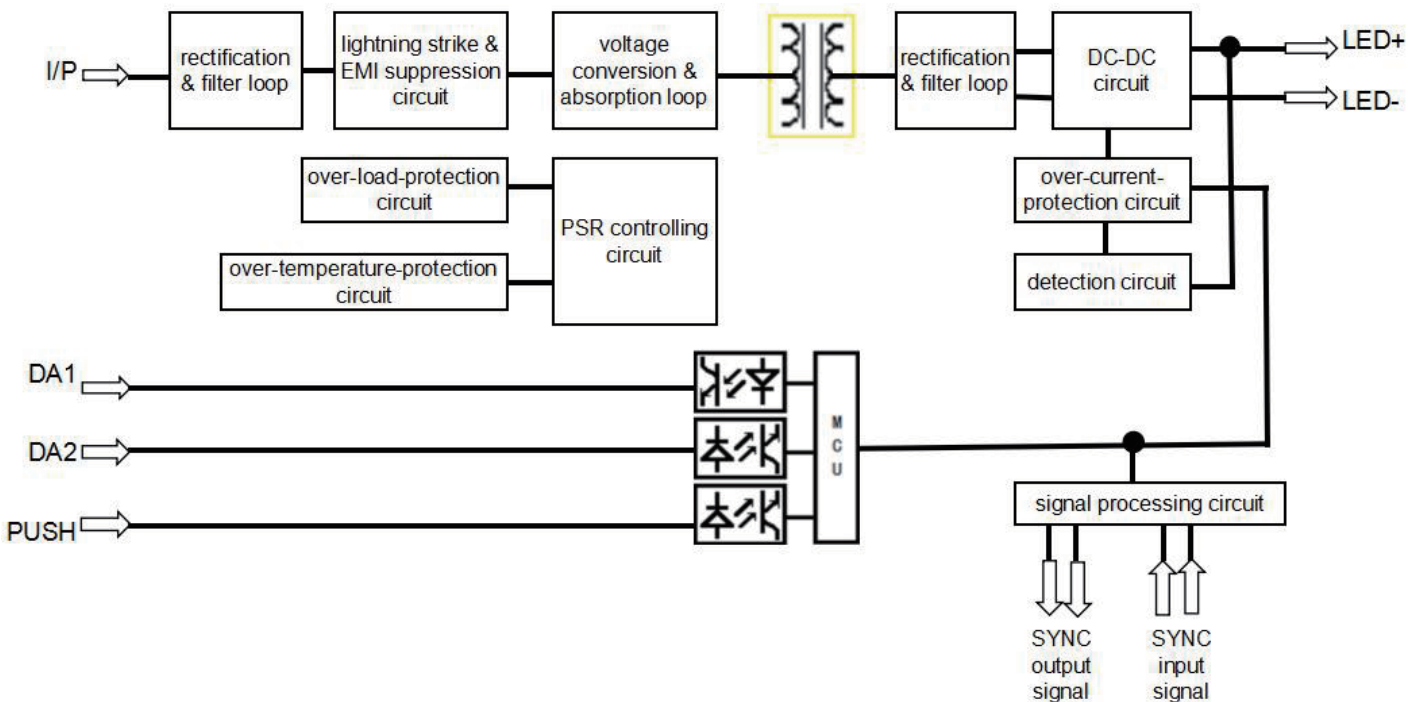
Name	Value	Remark
Surge peak current (Ipeak)	50A	Input voltage 230Vac
Surge half-peak time (Twidth)	68µs	Input voltage 230Vac. Measure the time for Ipeak to drop to its half value.
Quantity of the same model driver that type-B 16A circuit breaker can configure.	24 pcs (max.)	

Driver quantities are below if use another type of circuit breaker.

Type	Rank	Qty of accommodated drivers	Relative conversion ratio
B	10A	15 pcs	63%
	13A	19 pcs	81%
	16A	24 pcs	100% (benchmark)
	20A	30 pcs	125%
	25A	37 pcs	156%
C	10A	24 pcs	104%
	13A	32 pcs	135%
	16A	40 pcs	170%
	20A	49 pcs	208%
	25A	62 pcs	260%



### Function Diagram

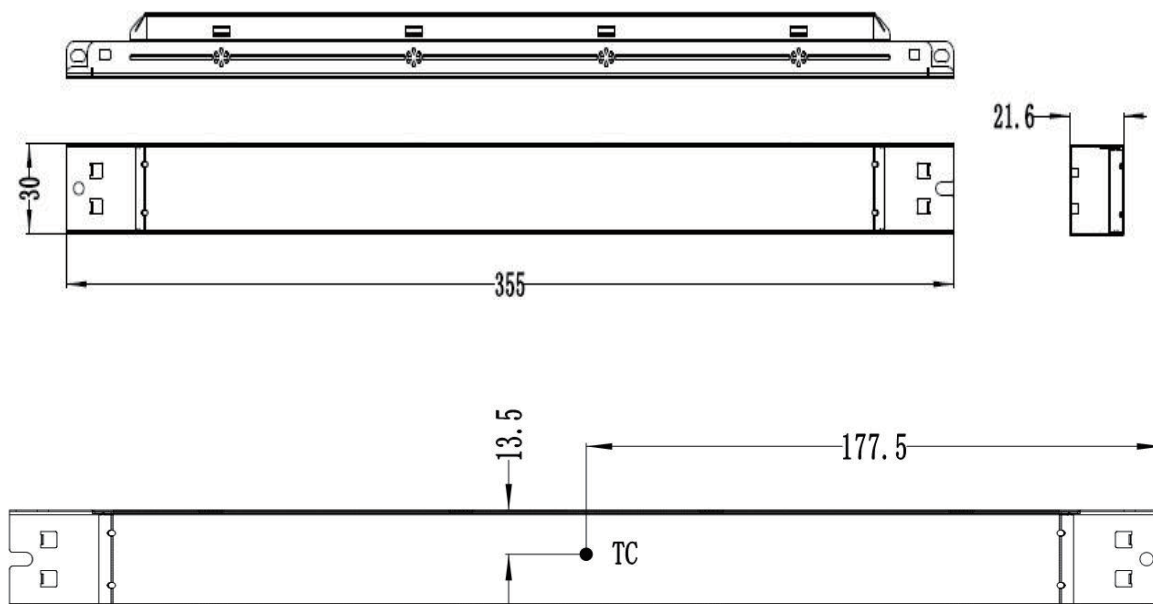


**DIP Switch Table**

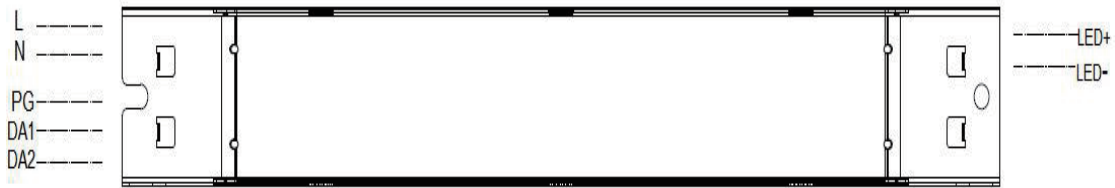
Ta	Vo DC	Current	1	2	3	4
50°C	42V	2000mA	—	—	—	—
		1950mA	—	—	—	ON
		1900mA	—	—	ON	—
		1850mA	—	—	ON	ON
		1800mA	—	ON	—	—
		1750mA	—	ON	—	ON
		1700mA	—	ON	ON	—
		1650mA	—	ON	ON	ON
		1600mA	ON	—	—	—
		1550mA	ON	—	—	ON

Remark: Apart from the noted ways of dial codes, the others are default 2000mA, the maximum current.

**Dimension (unit: mm, tolerance: +0.5mm ) & TC Spot**



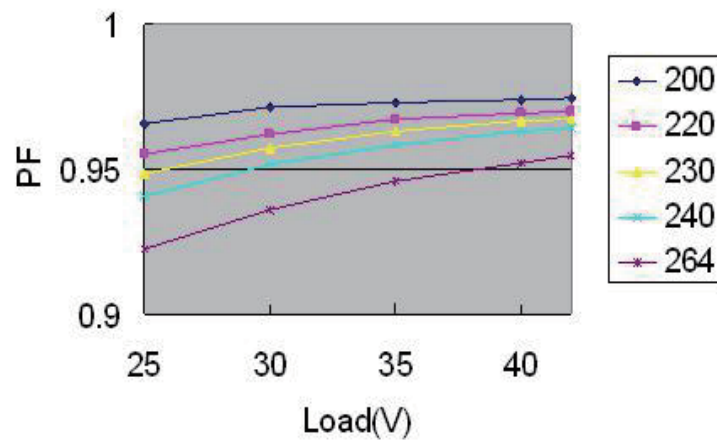
## Wiring Diagram



## Product Feature Curve

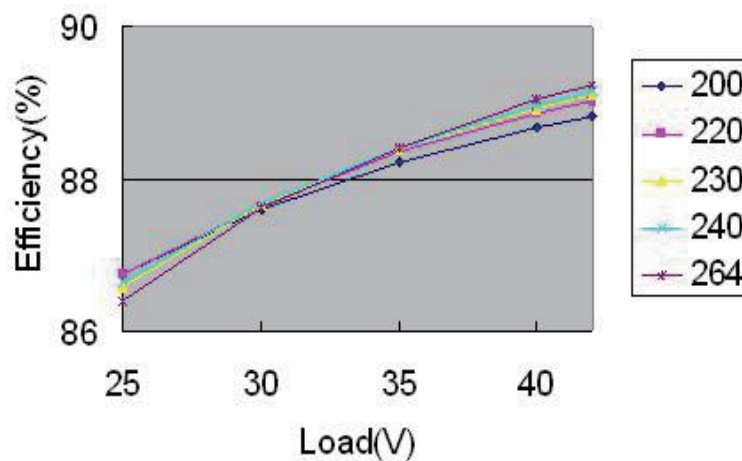
### 1. PF curve

The diagram below is about 2000mA load voltage and PF.



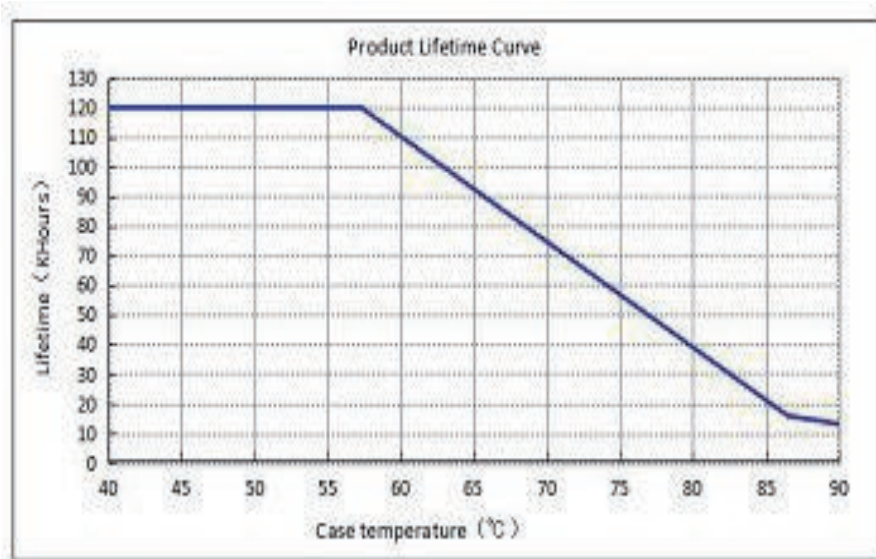
### 2. Efficiency curve

The diagram below is about 2000mA load voltage and efficiency value.



3. Lifetime curve

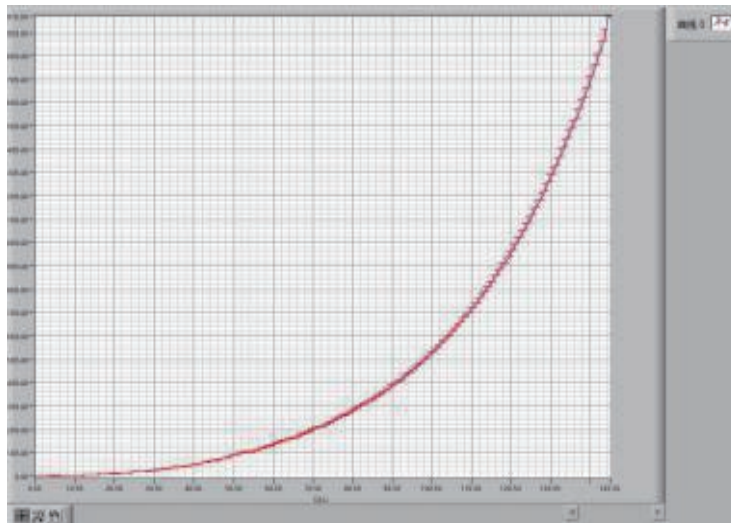
The curve below illustrates the driver's lifetime data when its case temperature in an airtight space reaches 40°C, 50°C, 60°C, 70°C, 80°C and 90°C.



4. Dimming curve

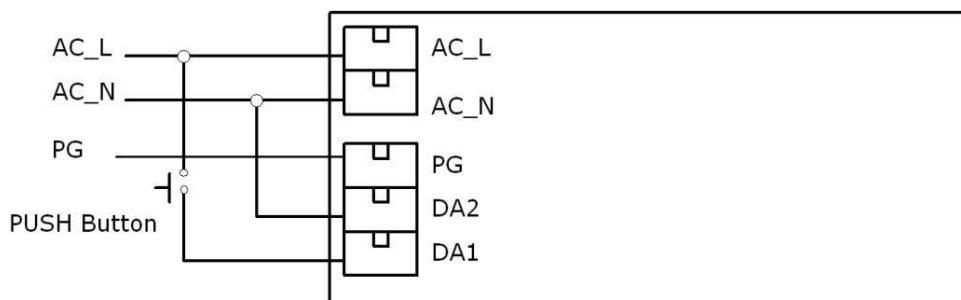
The diagram below is about 2000mA full load DC42V.

Output Current & Standard Error



Statement of Dimming Operation

1. Wiring diagram for PUSH dimming



(1) PUSH dimming


Operation	Operation Time	Function
Instant Push	0.1 sec ~ 0.5 sec	Light On / Off
Long Push	0.5 sec ~ 10 sec	Brighter / Dimmer
Reset Push	> 11 sec	Back to the Brightest

(2) Factory default setting is of 100% brightness.

(3) The push operation won't cause any variation if it's less than 0.05 sec.

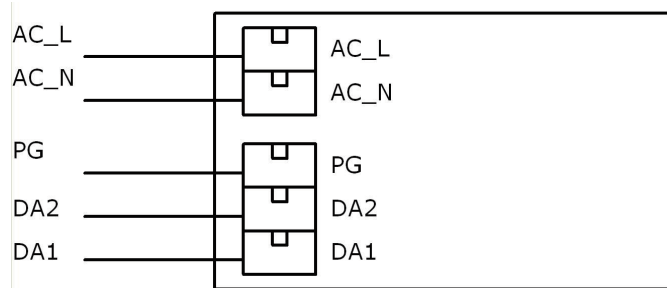
(4) In DALI & PUSH mode, up to 64 pcs of power supplies can be connected in parallel.

(5) The max. length of the wire from the button to the furthest LED power supply is 135m. Wire diameter: 16-22AWG.

(6) The button can only be connected to the AC-L and DA1 terminals of LF-GSD080YE. Connecting to AC-N will cause short circuit. 

(7) The minimum dimming depth of PUSH is 3%\*Iout.

2. DALI dimming



(1) Connect DALI signal to DA1 and DA2 terminals.

(2) DALI protocol includes 16 group and 64 IPs.

(3) The minimum dimming depth of DALI is 3%\*Iout.

3. Dimming mode option

(1) DALI dimming function and push dimming function cannot be executed at the same time, otherwise the DALI dimmer will be damaged.

(2) After choosing push dimming function, connect the parts according to the relative wiring diagram. Disconnect DALI wires otherwise high voltage will go through DALI dimming system and burn DALI devices.

(3) After choosing DALI dimming function, connect the parts according to the relative wiring diagram. Disconnect push dimming wires otherwise high voltage will go through DALI dimming system and burn DALI devices.

**Attention**

1. Use this product according to the specifications, please. Otherwise there may be malfunction.

2. Use luminaires that have not been certified or are not compatible with the drivers may cause fire, explosion or other hazards.

3. Man-made damage is not covered by warranty.