



# SPECIFICATION

**Product Name:** DALI 2 Dimmable LED driver

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**Model No.:** KL12C-PDii, KL20C-PDii, KL35C-PDii

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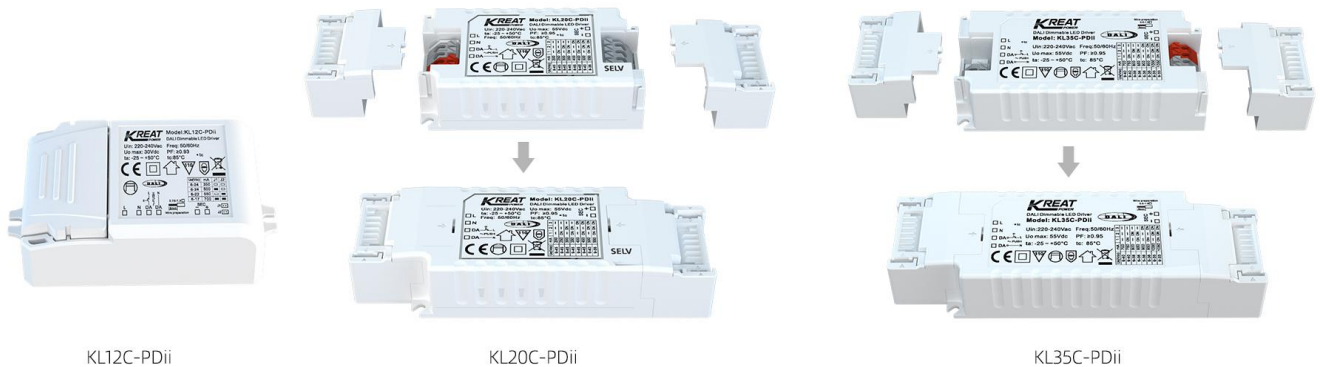
**Issue Date:** October 9, 2021

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CUSTOMER APPROVED

<b>Version</b>	<b>Product Name / Product Model</b>	<b>Reason / content for change</b>	<b>Stage</b>	<b>Date</b>
A0	DALI LED driver		Design verification	2020-12-22
A1	DALI LED driver		Correction parameters	2021-10-09

## Specification for DALI 2 Dimmable LED Driver Micro series C.C.



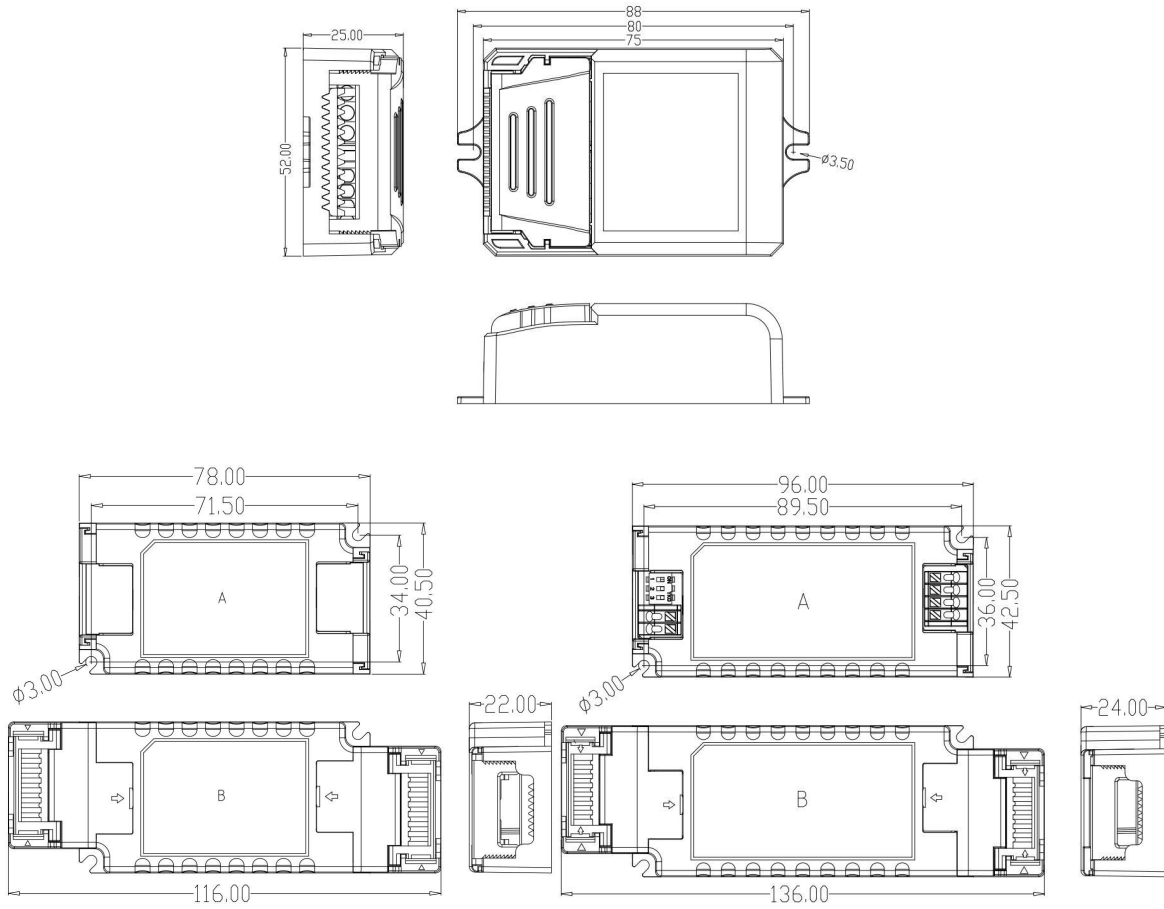
- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Built-in DALI interface DT6
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- 5 year warranty

### 1. Parameters

	Micro series	KL12C-PDii	KL20C-PDii	KL35C-PDii
Input	Operating Voltage	198-264Vac 50Hz /60Hz		
	Rated Input Voltage	220-240Vac 50Hz /60Hz		
	DC Input Voltage range	200-240Vdc		
	Input Current	0.08A Max.	0.12A Max.	0.2A Max.
	Input Inrush Current	<15A (Half current pulse width100µs) @230Vac		
	Power factor(@230V100% load)	≥ 0.93C	≥ 0.94	≥ 0.95
	Total harmonic distortion	Typical: 18% (@230Vac, 100% load)		
	Stand-by power	≤0.5W (@230Vac when PUSH or DALI turn off)		
	Efficiency(@230Vac,100% load)	83%	88%	87%
	Wiring Method	0.75-1.5mm <sup>2</sup>	0.5-1.0mm <sup>2</sup>	0.5-1.0mm <sup>2</sup>
Output	Operating mode	Constant Current		
	Load type	LED		
	Ripple requirement (Flickering or llickering-Free)	Flicker value: less than 2% for whole dimming range		
	Start up time	<1s (@230Vac,)		
	No-load output voltage	30V DC Max.	55V DC Max.	55V DC Max.

	Load output voltage range	3-24V DC	3-45V DC	3-40V DC
	Full load output power	12W	20W	35W
	Load output current		200mA(3-45Vdc)	700mA(3-40Vdc)
			250mA(3-45Vdc)	750mA(3-40Vdc)
		350mA(3-24Vdc)	300mA(3-45Vdc)	800mA(3-40Vdc)
		500mA(3-24Vdc)	350mA(3-45Vdc)	850mA(3-40Vdc)
550mA(3-22Vdc)		400mA(3-45Vdc)	900mA(3-38Vdc)	
	700mA(3-17Vdc)	450mA(3-45Vdc)	950mA(3-36Vdc)	
		500mA(3-40Vdc)	1000mA(3-35Vdc)	
		550mA(3-36Vdc)	1050mA(3-33Vdc)	
	Constant current/voltage Precision	Constant Current Precision $\pm 5\%$		
	Wiring method	Push terminal, wire cross section: 0.5-1.0mm <sup>2</sup>		
<b>Control Method</b>	Primary PUSH Dimming	Primary PUSH dimming (Max.lead length: 20M)		
	DALI Dimming	DALI dimming (Max.lead length: 300M)		
<b>Exception Protection Requirements</b>	Output over temperature protection	Yes, without self recovery function (Can be inquired)		
	Output short circuit protection	Yes, without self recovery function (Can be inquired)		
<b>Operating Environment</b>	Operating temperature/ humidity	-25°C~50°C Humidity:85% (Non-condensing)		
	Storage temperature/ humidity	-40°C~80°C, Humidity:10% - 95%		
	Max. case temp (Tc)	85°C		
<b>Safety &amp; EMC</b>	EMC standard	EN55015 EN61547 EN61000-3-2 EN61000-3-3		
	DALI protocol standard	IEC62386-102, IEC62386-207 DT6		
	Safety standard	EN61347-1 EN61347-2-13		
	Certification	CE		
	Withstand voltage	3750Vac, 5mA, 60s (Input "L N"- Output "SEC")		
<b>Others</b>	Degrees of protection	IP20		
	Type of protection	Class II		
	Installation type	Independent installation		
	With crimping	88*52*25.5mm	116*40.5*22mm	136*42.5*24mm
	Without crimping		78*40.5*22mm	96*42.5*24mm
	Blackout memory function	Yes, PUSH blackout memory		
	PUSH dimming synchronization	20 units Max.		
	Packaging requirement	Instruction+clapboard+outer carton (K=A)		
	Weight	105g	159g	209g
	Warranty	5 years warranty@Ta 230V full load		
Note: All parameters are tested at the input voltage of 230Vac and 25 degree environment unless specified.				

**2. Dimension (Unit: mm)**



**3. Wiring Diagram**

**Fig. A DALI Dimming**

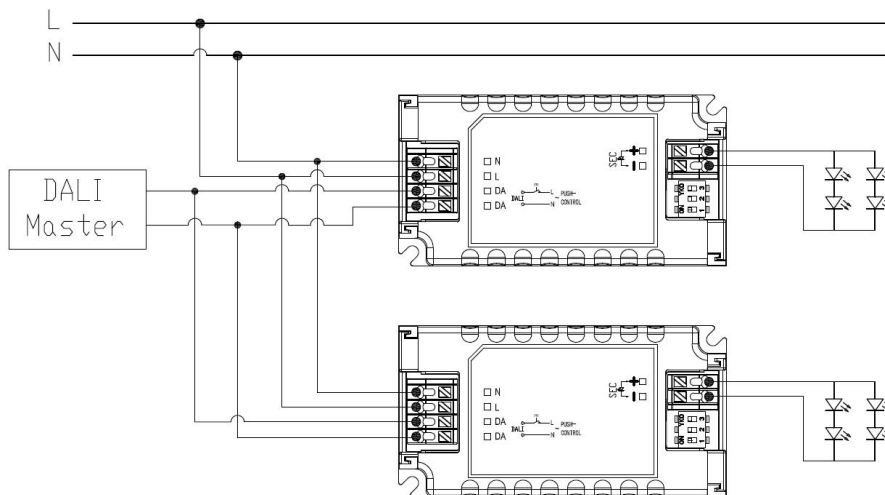
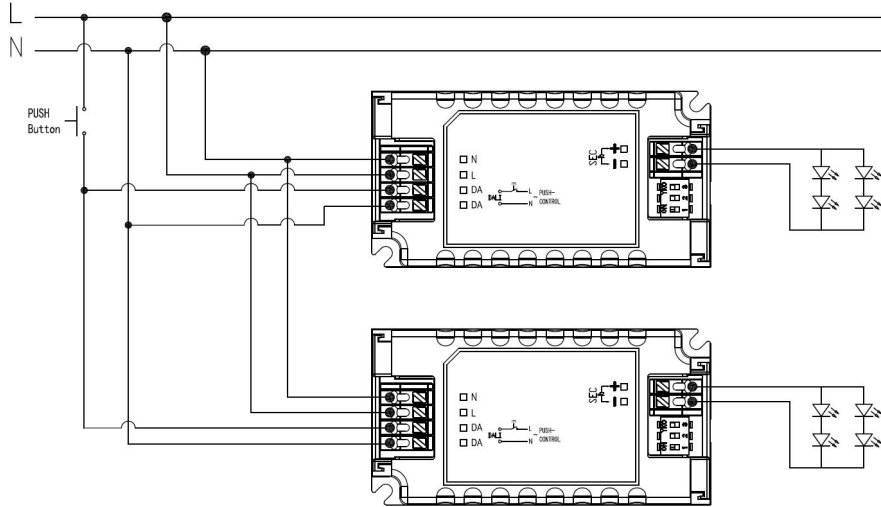
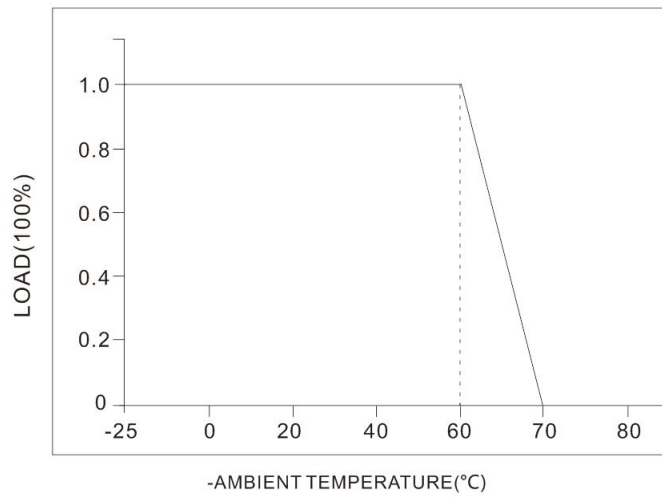


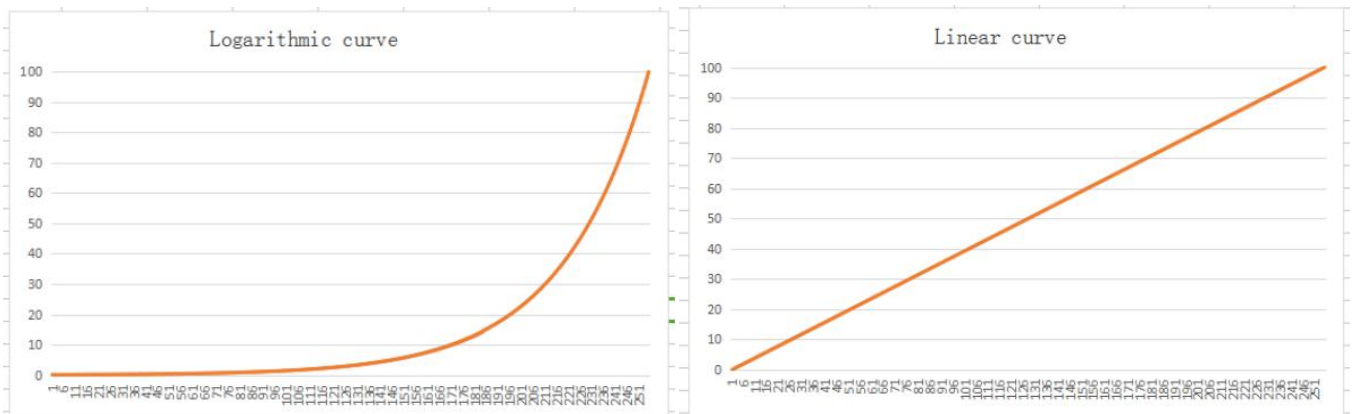
Fig.B Push Dimming



#### 4. Derating



#### 5. Dimming curve



## 6. Current gear setting

KL12C-PDii Current gear setting	J1	J2
350mA(3-24V)	☐	☐
500mA(3-24V)	■	☐
550mA(3-22V)	☐	■
700mA(3-17V)	■	■

KL20C-PDii Current gear setting	1	2	3	KL35C-PDii Current gear setting
200mA(3-45V)	-	-	-	700mA(3-40V)
250mA(3-45V)	ON	-	-	750mA(3-40V)
300mA(3-45V)	-	ON	-	800mA(3-40V)
350mA(3-45V)	ON	ON		850mA(3-40V)
400mA(3-45V)	-	-	ON	900mA(3-38V)
450mA(3-45V)	ON	-	ON	950mA(3-36V)
500mA(3-40V)	-	ON	ON	1000mA(3-35V)
550mA(3-36V)	ON	ON	ON	1050mA(3-33V)

## 7. ON/OFF & Description of Dimming Operation

- A. Short press the PUSH switch (short press time 0.1S-1S), the LED driver will turn on or off.
- B. Dimming: Press and hold the PUSH switch (1S-8S), the LED driver can achieve dimming, brightening or dimming, the dimming range is 2-100%.
- C. Memory: PUSH dimming has dimming memory function.
- D. Dimming synchronization: The power connected to the same PUSH switch can be synchronized by pressing and holding the PUSH switch for longer than 15S.
- E. DALI dimming mode: Connect the power supply to the DALI system, and it can be dimmed by the DALI host. The dimming range is 0-100%.

## 8. matters needing Attention

- 1) The LED string must be connected to the load before turning on the input power, otherwise the LED string may be damaged.
- 2) After the LED drive input is powered off, there will be a residual voltage at the output, which can be maintained for about 3 minutes.