

**Constant current linear dimmable LED drivers - DALI Series suffix d (DALI-2+pushDIM)
 30W-80W LED drivers suitable for DALI-2+pushDIM dimming interface**



Features

- DALI-2+pushDIM dimming interface
- 16-level current output can be realised by DIP-switch
- Soft dimming and flicker-free at any brightness, meets the new requirements of ErP certification
- Using HPC patented technology at any dimming level, the brightness between lights is same
- Dimming range 1~100%, output current accuracy 2%
- Standby power input<0.5.W, meets the requirements of ERP certification
- Standby power input<0.5.W, meets the requirements of ErP certification
- High PF, high efficiency, low THD
- Intelligent LED hot-plug protection function
- SELV and Class I design, suitable for use inside of the light
- Compliance with CE, ENEC, UKCA, RCM, CCC, EL, DALI-2 and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5-year guarantee

Interfaces

- DALI-2 (DALI-2 DT6)
- PUSH (pushDIM)

Functions

- Support central emergency application (dimming normal in DC input)
- Support self-contained emergency application
- Protective features (short-circuit), overload, no-load, hot plug-in protection)

Suitable for lights

- Suitable for linear lights, tri-proof lights, floor lights, bracket lights and other linear or ultra-thin lights etc.

Typical applications

- LED indoor lighting
- LED office lighting
- LED commercial lighting



Model list

Model	Input Voltage	Output power	Output Voltage	Output current	Dimensions	Certifications
JN-DALI030-B0800Ad	200-240 VAC/DC	30.4W MAX.	6-38/40/42VDC	0.275-0.8A	L245*W30*H21mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2
JN-DALI040-B1050Ad	200-240 VAC/DC	39.9W MAX.	6-38/40/42VDC	0.4-1.05	L285*W30*H21mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2
JN-DALI050-B1300Ad	200-240 VAC/DC	49.4W MAX.	6-38/40/42VDC	0.55-1.3A	L285*W30*H21mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2
JN-DALI060-B1650Ad	200-240 VAC/DC	62.7W MAX.	6-38/40/42VDC	0.9-1.65A	L355*W30*H21mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2
JN-DALI080-B2000-Ad	200-240 VAC/DC	80W MAX.	6-38/40/42VDC	1.25-2A	L355*W30*H21mm	CE, ENEC, UKCA, RCM, CCC, EL, DALI-2

Function list

Model	Suffix	Wired dimming	
		DALI-2	pushDIM
JN-DALI030-B0800Ad	d	✓	✓
JN-DALI040-B1050Ad			
JN-DALI050-B1300Ad			
JN-DALI060-B1650Ad			
JN-DALI080-B2000-Ad			

Technical data

Product model	JN-DALI030-B0800Ad
Output parameters	
Regulation Method	Constant Current
Rated output current range	0.275-0.8A
Rated output voltage range	6-38/ 40/ 42VDC
Rated output power	30.4W Max
Output current adjustment	DIP S.W (16 levels)
Output current ripple LF	±2%
Output current accuracy	±2%
Linear regulation	±1%
Load regulation	±2%
No load output voltage	50VDC
Flicker-free (typical)	Flickering percent (IEEE 1789) =0.15%, Flicker index (IEEE 1789) =0.000, Pst LM = 0.009, SVM = 0.003, (The above parameters are obtained from testing panel lights)
Input parameters	
Rated input voltage range	200-240 VAC 200-240VDC
Input voltage range	180-264VAC 200-264VDC
Input voltage shock	<380 V AC
Input current	<0.19A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF	PF: 0.98, DF:0.98, see the electrical values below for details
Input THD	6%, see the electrical values below for details
Efficiency (Max)	88.5%, see the electrical values below for details
In-rush current	3.554A peak ,188 us duration (50% Ipeak), see the description below for details
Start/Switchover/Turn off	<0.8s(AC start), <0.8s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)
Switching cycles	>50,000 switching cycles
Power consumption	Full load (Pin):34.4W, No load (Pno): N/A, On stand-by (Psb): <0.5W, Network stand-by (Pnet): N/A
Safety	
Withstand voltage	I/P-O/P:3750 VAC, I/P-FG:1750 VAC, O/P-FG:500 VAC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.
Mains surge capability	L-N: 2KV, L-FG/ N-FG: 2KV (Performance criterion: A)
Leakage current	0.61mA (230V AC & Full load)
Isolation resistance	I/P-O/P: 100MQ/ 500Vdc/ 25°C/ 70% RH
Control interface	
Wired dimming	Dali-2/ PushDIM
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA
pushDIM dimming port	Voltage range: 180-264V 47/63Hz
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	1%-100%
Dimming drive mode	AM (amplitude modulation)

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

Technical data

Emergency support	
Central emergency system	Supported (dimming normal in DC input)
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
IP grade	IP20
MTBF	500,000H, MIL-HDBK-217F (25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12 min./ 1 cycle, period for 72 min. each along X, Y, Z axes
Acoustic noise	<25dB (30cm, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE, ENEC, UKCA, RCM, EL, DALI-2, CCC
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN 61000-3-2 , EN 61000-3-3, EN 61000-4-2, 3, 4, 5, 6, 8, 11, EN 61547
DALI-2	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

Product model	JN-DALI040-B0800Ad
Output parameters	
Regulation Method	Constant Current
Rated output current range	0.4-1.05A
Rated output voltage range	6-38/ 40/ 42VDC
Rated output power	39.9W Max
Output current adjustment	DIP S.W (16 levels)
Output current ripple LF	±2%
Output current accuracy	±2%
Linear regulation	±1%
Load regulation	±2%
No load output voltage	50VDC
Flicker-free (typical)	Flickering percent (IEEE 1789) =0.15%, Flicker index (IEEE 1789) =0.000, Pst LM = 0.009, SVM = 0.003, (The above parameters are obtained from testing panel lights)
Input parameters	
Rated input voltage range	200-240 VAC 200-240VDC
Input voltage range	180-264VAC 200-264VDC
Input voltage shock	<380 V AC

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

Technical data

Input current	<0.24A (Rated input voltage)	
Input frequency	0/50/60Hz	
Input PF/Input DF	PF: 0.98, DF:0.98, see the electrical values below for details	
Input THD	6%, see the electrical values below for details	
Efficiency (Max)	88.5%, see the electrical values below for details	
In-rush current	3.75A peak ,190us duration (50% Ipeak), see the description below for details	
Start/Switchover/Turn off	<0.8s(AC start), <0.8s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)	
Switching cycles	>50,000 switching cycles	
Power consumption	Full load (Pin):45.1W, No load (Pno): N/A, On stand-by (Psb): <0.5W, Network stand-by (Pnet): N/A	
Safety		
Withstand voltage	I/P-O/P:3750 VAC, I/P-FG:1750 VAC, O/P-FG:500 VAC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.	
Mains surge capability	L-N: 2KV, L-FG/ N-FG: 2KV (Performance criterion: A)	
Leakage current	0.67mA (230V AC & Full load)	
Isolation resistance	I/P-O/P: 100MQ/ 500Vdc/ 25°C/ 70% RH	
Control interface		
Wired dimming	Dali-2/ PushDIM	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA	
pushDIM dimming port	Voltage range: 180-264V 47/63Hz	
1-10V 3in1 dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	1%-100%	
Dimming drive mode	AM (amplitude modulation)	
Emergency support		
Central emergency system	Supported (dimming normal in DC input)	
Self-contained emergency	Supported	
Environment & Life time		
Operating temperature	Ta=-20-60°C	
Case temperature	Tc=90°C	
Operating humidity	5-85% RH, non-condensing	
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing	
IP grade	IP20	
MTBF	500,000H, MIL-HDBK-217F (25°C)	
Life-time	Nominal life-time up to 100,000 h, see the description below for details	
Vibration resistant	10~500Hz,5G 12 min./ 1 cycle, period for 72 min. each along X, Y, Z axes	
Acoustic noise	<25dB (30cm, Normal operation)	
Environmental protection	RoHS	
Certifications and standards		
Certification	CE, ENEC, UKCA, RCM, EL, DALI-2, CCC	
Safety	EN61347-1, EN61347-2-13, EN62384	
EMC	EN55015, EN 61000-3-2 , EN 61000-3-3, EN 61000-4-2, 3, 4, 5, 6, 8, 11, EN 61547	
DALI-2	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)	
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172	
RF	N/A	
Product model	JN-DALI050-B0800Ad	
Output parameters		

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

Technical data

Regulation Method	Constant Current	
Rated output current range	0.55-1.3A	
Rated output voltage range	6-38/ 40/ 42VDC	
Rated output power	49.4W Max	
Output current adjustment	DIP S.W (16 levels)	
Output current ripple LF	±2%	
Output current accuracy	±2%	
Linear regulation	±1%	
Load regulation	±2%	
No load output voltage	50VDC	
Flicker-free (typical)	Flickering percent (IEEE 1789) =0.15%, Flicker index (IEEE 1789) =0.000, Pst LM = 0.009, SVM = 0.003, (The above parameters are obtained from testing panel lights)	
Input parameters		
Rated input voltage range	200-240 VAC 200-240VDC	
Input voltage range	180-264VAC 200-264VDC	
Input voltage shock	<380 V AC	
Input current	<0.29A (Rated input voltage)	
Input frequency	0/50/60Hz	
Input PF/Input DF	PF: 0.98, DF:0.98, see the electrical values below for details	
Input THD	7%, see the electrical values below for details	
Efficiency (Max)	90%, see the electrical values below for details	
In-rush current	4.125A peak ,174 us duration (50% Ipeak), see the description below for details	
Start/Switchover/Turn off	<0.8s(AC start), <0.8s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)	
Switching cycles	>50,000 switching cycles	
Power consumption	Full load (Pin):34.4W, No load (Pno): N/A, On stand-by (Psb): <0.5W, Network stand-by (Pnet): N/A	
Safety		
Withstand voltage	I/P-O/P:3750 VAC , I/P-FG:1750 VAC, O/P-FG:500 VAC , I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.	
Mains surge capability	L-N: 2KV, L-FG/ N-FG: 2KV (Performance criterion: A)	
Leakage current	0.65mA (230V AC & Full load)	
Isolation resistance	I/P-O/P: 100MΩ/ 500Vdc/ 25°C/ 70% RH	
Control interface		
Wired dimming	Dali-2/ PushDIM	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA	
pushDIM dimming port	Voltage range: 180-264V 47/63Hz	
1-10V 3in1 dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	1%-100%	
Dimming drive mode	AM (amplitude modulation)	
Emergency support		
Central emergency system	Supported (dimming normal in DC input)	
Self-contained emergency	Supported	

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

Technical data

Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
IP grade	IP20
MTBF	500,000H, MIL-HDBK-217F (25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12 min./ 1 cycle, period for 72 min. each along X, Y, Z axes
Acoustic noise	<25dB (30cm, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE, ENEC, UKCA, RCM, EL, DALI-2, CCC
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN 61000-3-2 , EN 61000-3-3, EN 61000-4-2, 3, 4, 5, 6, 8, 11, EN 61547
DALI-2	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

Product model	JN-DALI060-B0800Ad
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Output parameters	
Regulation Method	Constant Current
Rated output current range	0.9-1.65A
Rated output voltage range	6-38/ 40/ 42VDC
Rated output power	62.7W Max
Output current adjustment	DIP S.W (16 levels)
Output current ripple LF	±2%
Output current accuracy	±2%
Linear regulation	±1%
Load regulation	±2%
No load output voltage	50VDC
Flicker-free (typical)	Flickering percent (IEEE 1789) =0.15%, Flicker index (IEEE 1789) =0.000, Pst LM = 0.009, SVM = 0.003, (The above parameters are obtained from testing panel lights)

Input parameters	
Rated input voltage range	200-240 VAC 200-240VDC
Input voltage range	180-264VAC 200-264VDC
Input voltage shock	<380 V AC
Input current	<0.38A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF	PF: 0.98, DF:0.98, see the electrical values below for details

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

Technical data

Input THD	6%, see the electrical values below for details	
Efficiency (Max)	90%, see the electrical values below for details	
In-rush current	5.125A peak ,188 us duration (50% Ipeak), see the description below for details	
Start/Switchover/Turn off	<0.8s(AC start), <0.8s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)	
Switching cycles	>50,000 switching cycles	
Power consumption	Full load (Pin):34.4W, No load (Pno): N/A, On stand-by (Psb) : <0.5W, Network stand-by (Pnet): N/A	
Safety		
Withstand voltage	I/P-O/P:3750 VAC, I/P-FG:1750 VAC, O/P-FG:500 VAC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.	
Mains surge capability	L-N: 2KV, L-FG/ N-FG: 2KV (Performance criterion: A)	
Leakage current	0.68mA (230V AC & Full load)	
Isolation resistance	I/P-O/P: 100MΩ/ 500Vdc/ 25°C/ 70% RH	
Control interface		
Wired dimming	Dali-2/ PushDIM	
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA	
pushDIM dimming port	Voltage range: 180-264V 47/63Hz	
1-10V 3in1 dimming port	N/A	
Auxiliary power supply	N/A	
Dimming range	1%-100%	
Dimming drive mode	AM (amplitude modulation)	
Emergency support		
Central emergency system	Supported (dimming normal in DC input)	
Self-contained emergency	Supported	
Environment & Life time		
Operating temperature	Ta=-20-60°C	
Case temperature	Tc=90°C	
Operating humidity	5-85% RH, non-condensing	
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing	
IP grade	IP20	
MTBF	500,000H, MIL-HDBK-217F (25°C)	
Life-time	Nominal life-time up to 100,000 h, see the description below for details	
Vibration resistant	10~500Hz,5G 12 min./ 1 cycle, period for 72 min. each along X, Y, Z axes	
Acoustic noise	<25dB (30cm, Normal operation)	
Environmental protection	RoHS	
Certifications and standards		
Certification	CE, ENEC, UKCA, RCM, EL, DALI-2, CCC	
Safety	EN61347-1, EN61347-2-13, EN62384	
EMC	EN55015, EN 61000-3-2 , EN 61000-3-3, EN 61000-4-2, 3, 4, 5, 6, 8, 11, EN 61547	
DALI-2	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)	
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172	
RF	N/A	

Product model	JN-DALI080-B0800Ad	
Output parameters		
Regulation Method	Constant Current	
Rated output current range	1.25-02A	

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

Technical data

Rated output voltage range	6-40/ 41/ 42VDC
Rated output power	80W Max
Output current adjustment	DIP S.W (16 levels)
Output current ripple LF	±2%
Output current accuracy	±2%
Linear regulation	±1%
Load regulation	±2%
No load output voltage	50VDC
Flicker-free (typical)	Flickering percent (IEEE 1789) =0.15%, Flicker index (IEEE 1789) =0.000, Pst LM = 0.009, SVM = 0.003, (The above parameters are obtained from testing panel lights)
Input parameters	
Rated input voltage range	200-240 VAC 200-240VDC
Input voltage range	180-264VAC 200-264VDC
Input voltage shock	<380 V AC
Input current	<0.47A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF	PF: 0.98, DF:0.98, see the electrical values below for details
Input THD	6%, see the electrical values below for details
Efficiency (Max)	90.5%, see the electrical values below for details
In-rush current	3.554A peak ,188 us duration (50% Ipeak), see the description below for details
Start/Switchover/Turn off	<0.8s(AC start), <0.8s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)
Switching cycles	>50,000 switching cycles
Power consumption	Full load (Pin):34.4W, No load (Pno): N/A, On stand-by (Psb) : <0.5W, Network stand-by (Pnet): N/A
Safety	
Withstand voltage	I/P-O/P:3750 VAC, I/P-FG:1750 VAC, O/P-FG:500 VAC, I/P-DALI: 1500V AC, O/P-DALI: 1500V AC.
Mains surge capability	L-N: 2KV, L-FG/ N-FG: 2KV (Performance criterion: A)
Leakage current	0.64mA (230V AC & Full load)
Isolation resistance	I/P-O/P: 100MΩ/ 500Vdc/ 25°C/ 70% RH
Control interface	
Wired dimming	Dali-2/ PushDIM
DALI dimming port	Voltage range: 9.5-22.5V, typical 16V, interface current consumption: 1.8mA
pushDIM dimming port	Voltage range: 180-264V 47/63Hz
1-10V 3in1 dimming port	N/A
Auxiliary power supply	N/A
Dimming range	1%-100%
Dimming drive mode	AM (amplitude modulation)
Emergency support	
Central emergency system	Supported (dimming normal in DC input)
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

Technical data

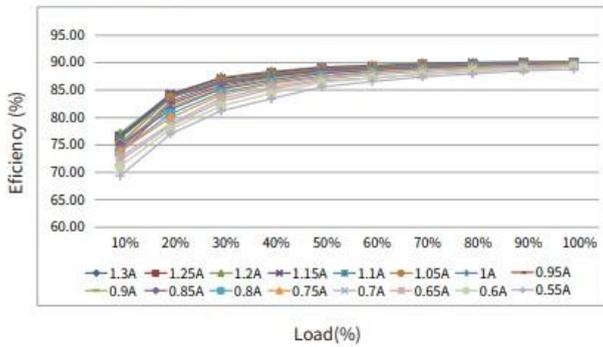
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
IP grade	IP20
MTBF	500,000H, MIL-HDBK-217F (25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12 min./ 1 cycle, period for 72 min. each along X, Y, Z axes
Acoustic noise	<25dB (30cm, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE, ENEC, UKCA, RCM, EL, DALI-2, CCC
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN 61000-3-2 , EN61000-3-3, EN 61000-4-2, 3, 4, 5, 6, 8, 11, EN 61547
DALI-2	IEC 62386-101(DALI-2), IEC 62386-102(DALI-2), IEC 62386-207(DALI-2)
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

Remarks 1. By default, all parameters are measured at 230 VAC input, full load and 25°C of ambient temperature.

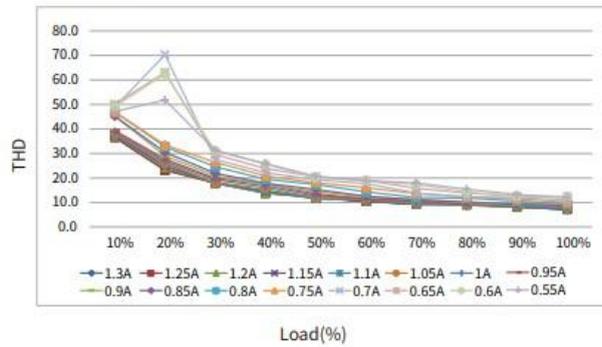
Electrical values

JN-DAL030-B0800Ad

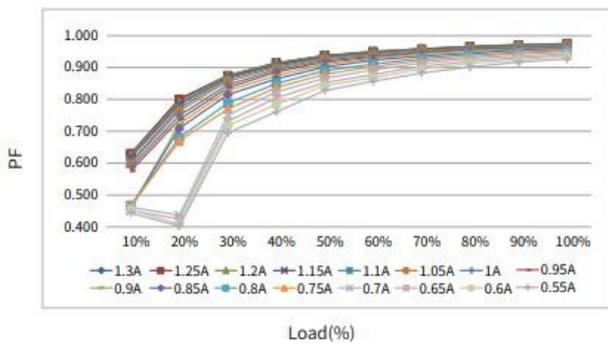
Efficiency vs Load



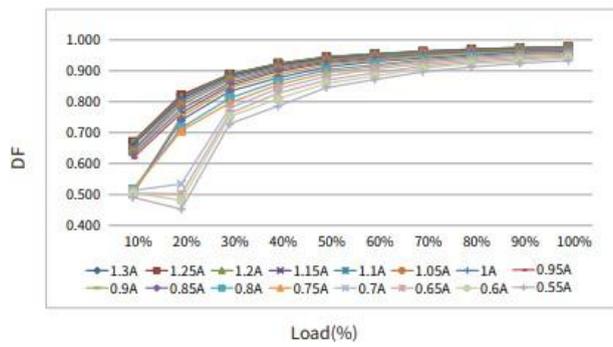
THD vs. Load



Power factor vs. Load

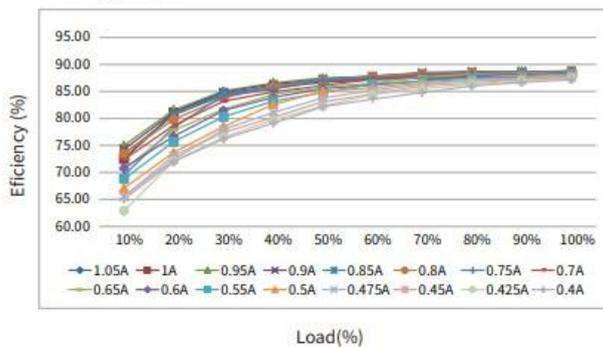


Displacement factor vs. Load

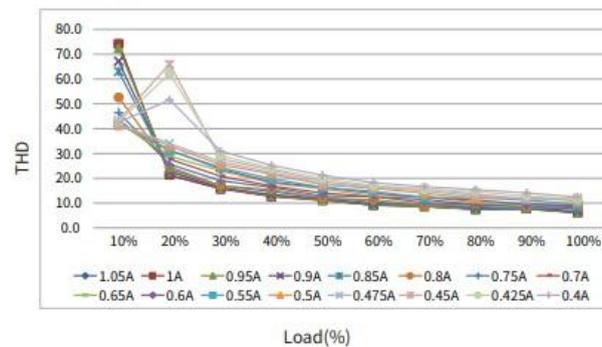


JN-DAL040-B1500Ad

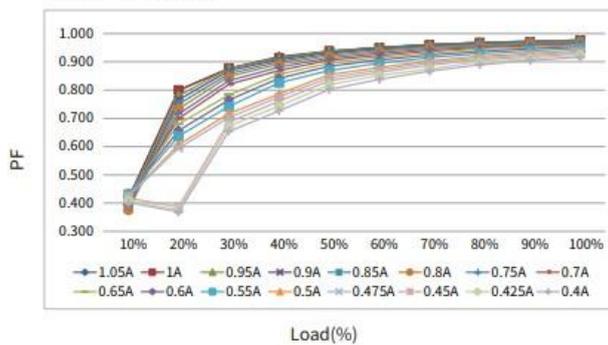
Efficiency vs Load



THD vs. Load



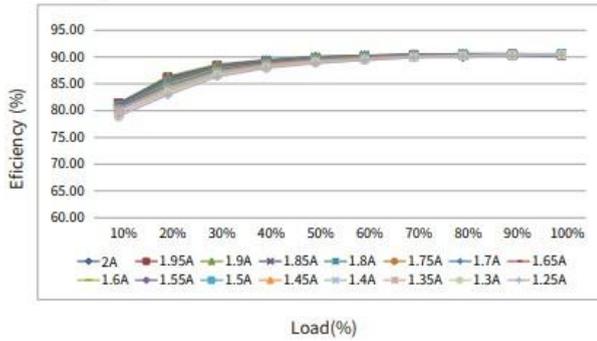
Power factor vs. Load



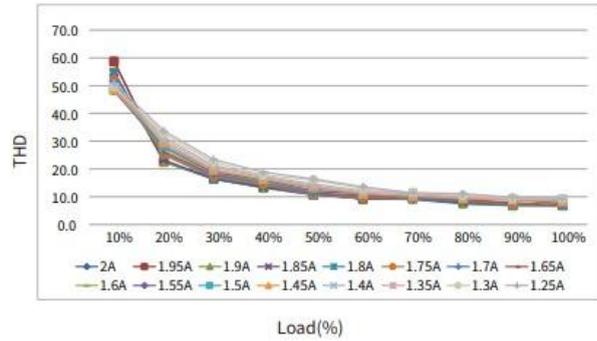
Electrical values

JN-DAL-080-B2000Ad

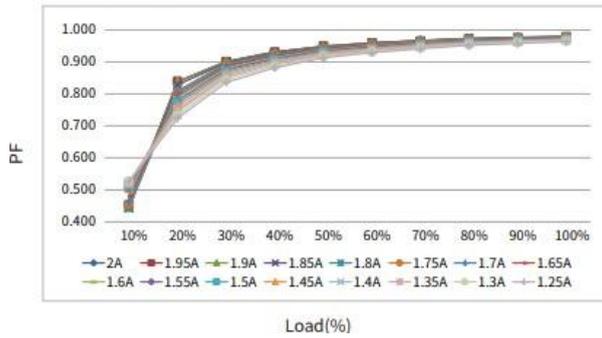
Efficiency vs Load



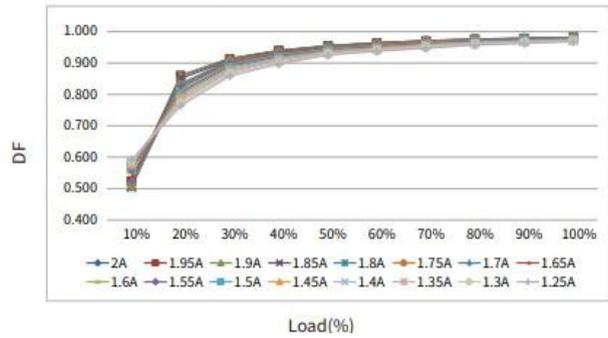
THD vs. Load



Power factor vs. Load



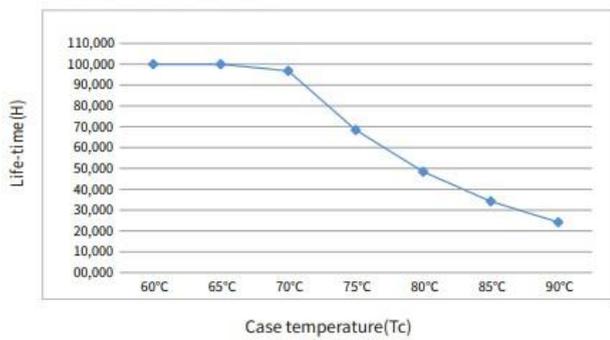
Displacement factor vs. Load



Expected life-time

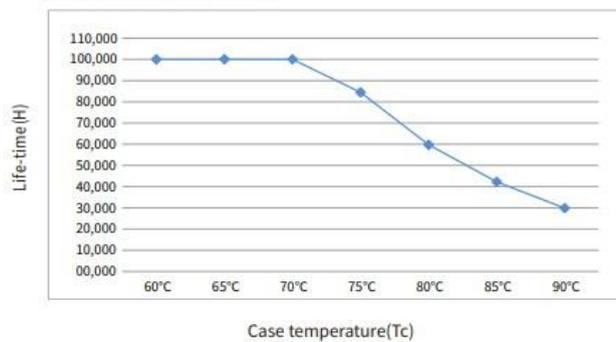
JN-DALI030-B0800Ad

Life-time vs. case temperature



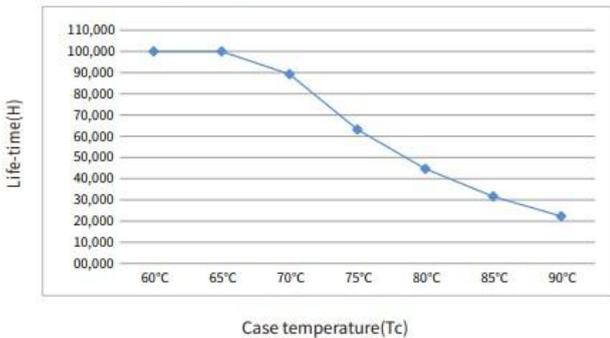
JN-DALI040-B1050Ad

Life-time vs. case temperature



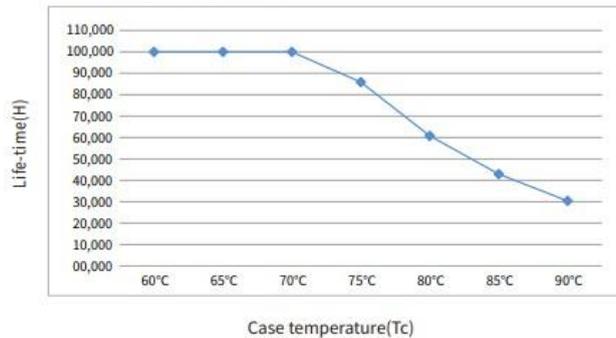
JN-DALI050-B1300Ad

Life-time vs. case temperature



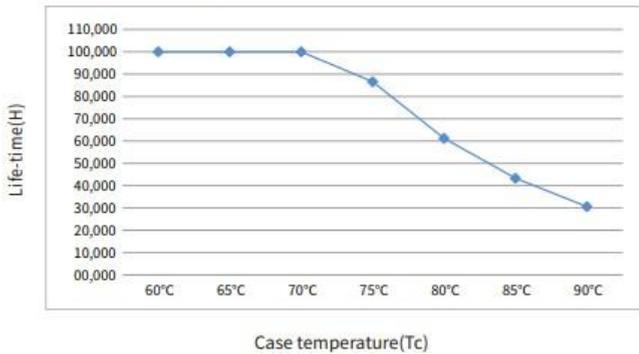
JN-DALI060-B1650Ad

Life-time vs. case temperature



JN-DALI080-B2000Ad

Life-time vs. case temperature

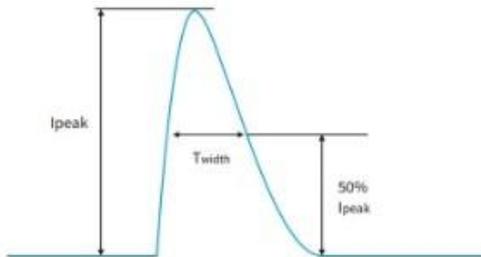


-The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

- The relation of t_c to t_a temperature depends also on the luminaire design.

Surge

Model	I _{peak}	T _{width}	Condition	Relative number of MCB/pcs														
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
JN-DALI030-B0800Ad	3.55A	188us	AC 230V, Full load, Cold start, $T_a \leq 30^\circ\text{C}$, MCB is not installed side by side	44	57	70	88	110	44	57	70	88	110	44	57	70	88	110
JN-DALI040-B1050Ad	3.75A	190us		33	43	53	66	83	33	43	53	67	83	33	43	53	67	83
JN-DALI050-B1300Ad	4.125A	174us		27	36	44	55	69	27	36	44	55	69	27	36	44	55	69
JN-DALI060-B1650Ad	5.125A	214us		22	28	35	43	54	22	28	35	43	54	22	28	35	43	54
JN-DALI080-B2000Ad	7A	194us		17	22	27	34	43	17	22	27	34	43	17	22	27	34	43



Output short-circuit behaviour

- Output short-circuit will not damage the driver. After removing the short circuit fault, the driver will automatically resume output

Output no-load operation

- Output no-load will not damage the driver. Please turn off the driver first if you need to connect the LED load.

Output overload protection

- The LED driver turns off the output if the output voltage range is exceeded. The output will be activated again after restarting the LED driver.

Output hot plug-in

In the following two cases, the LED driver will automatically turn off the output to protect the LED :

- When the driver is powered on first and the LED is connected later.
- When the driver is powered on, disconnected and connected again. The output will be activated again after restart of the LED driver.

Driver restart method

There are two ways to restart the driver:

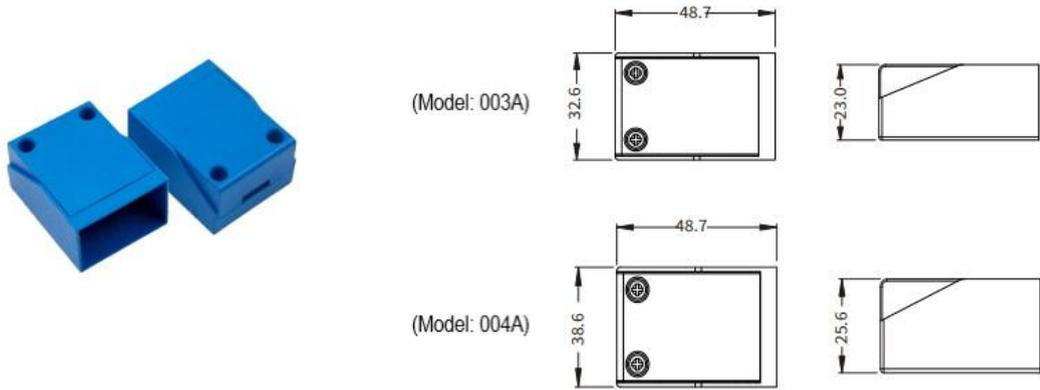
- Through the AC input: disconnect the AC of the driver and power it again.

- Through the dimming interface. DALI: send "OFF" command first, then send "MAX" command. pushDIM:short press pushbutton two times, then long press pushbutton

Insulation between circuits

Isolation	Input	Output	Case	DALI	PUSH
Input	-	Double	Basic	Basic	-
Output	Double	-	Basic	Double	Double
Case	Basic	Basic	-	Basic	Basic

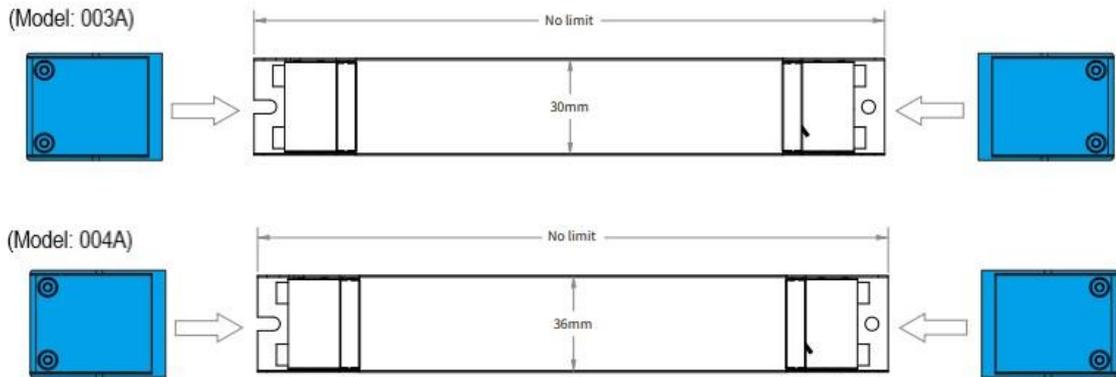
Optional accessories



Remark: Model 003A (JN-DALI030, DALI040, DALI050, DALI060)
Model 004A (JN-DALI080)

Unit: mm

Installation diagram of accessories



DIP-switch & output current

JN-DALI030-B0800Ad

Prated(w)	Output		1	2	3	4	Dimming depth
	Irated(mA)	Voltage(Vdc)					
11.55	275	6-42	ON	ON	ON	ON	1%
12.60	300	6-42	--	ON	ON	ON	1%
13.65	325	6-42	ON	--	ON	ON	1%
14.70	350	6-42	--	--	ON	ON	1%
15.75	375	6-42	ON	ON	--	ON	1%
16.80	400	6-42	--	ON	--	ON	1%
17.85	425	6-42	ON	--	--	ON	1%
18.90	450	6-42	--	--	--	ON	1%
19.95	475	6-42	ON	ON	ON	--	1%
21.00	500	6-42	--	ON	ON	--	1%
23.10	550	6-42	ON	--	ON	--	1%
25.20	600	6-42	--	--	ON	--	1%
27.30	650	6-42	ON	ON	--	--	1%
29.40	700	6-42	--	ON	--	--	1%
30.00	750	6-40	ON	--	--	--	1%
30.40	800 ★	6-38	--	--	--	--	1%

JN-DALI040-B1050Ad

Prated(w)	Output		1	2	3	4	Dimming depth
	Irated(mA)	Voltage(Vdc)					
16.80	400	6-42	ON	ON	ON	ON	1%
17.85	425	6-42	--	ON	ON	ON	1%
18.90	450	6-42	ON	--	ON	ON	1%
19.95	475	6-42	--	--	ON	ON	1%
21.00	500	6-42	ON	ON	--	ON	1%
23.10	550	6-42	--	ON	--	ON	1%
25.20	600	6-42	ON	--	--	ON	1%
27.30	650	6-42	--	--	--	ON	1%
29.40	700	6-42	ON	ON	ON	--	1%
31.50	750	6-42	--	ON	ON	--	1%
33.60	800	6-42	ON	--	ON	--	1%
35.70	850	6-42	--	--	ON	--	1%
37.80	900	6-42	ON	ON	--	--	1%
39.90	950	6-42	--	ON	--	--	1%
40.00	1000	6-40	ON	--	--	--	1%
39.90	1050 ★	6-38	--	--	--	--	1%

JN-DALI050-B1300Ad

Prated(w)	Output		1	2	3	4	Dimming depth
	Irated(mA)	Voltage(Vdc)					
23.10	550	6-42	ON	ON	ON	ON	1%
25.20	600	6-42	--	ON	ON	ON	1%
27.30	650	6-42	ON	--	ON	ON	1%
29.40	700	6-42	--	--	ON	ON	1%
31.50	750	6-42	ON	ON	--	ON	1%
33.60	800	6-42	--	ON	--	ON	1%
35.70	850	6-42	ON	--	--	ON	1%
37.80	900	6-42	--	--	--	ON	1%
39.90	950	6-42	ON	ON	ON	--	1%
42.00	1000	6-42	--	ON	ON	--	1%
44.10	1050	6-42	ON	--	ON	--	1%
46.20	1100	6-42	--	--	ON	--	1%
48.30	1150	6-42	ON	ON	--	--	1%
50.40	1200	6-42	--	ON	--	--	1%
50.00	1250	6-40	ON	--	--	--	1%
49.40	1300 ★	6-38	--	--	--	--	1%

JN-DALI060-B1650Ad

Prated(w)	Output		1	2	3	4	Dimming depth
	Irated(mA)	Voltage(Vdc)					
37.80	900	6-42	ON	ON	ON	ON	1%
39.90	950	6-42	--	ON	ON	ON	1%
42.00	1000	6-42	ON	--	ON	ON	1%
44.10	1050	6-42	--	--	ON	ON	1%
46.20	1100	6-42	ON	ON	--	ON	1%
48.30	1150	6-42	--	ON	--	ON	1%
50.40	1200	6-42	ON	--	--	ON	1%
52.50	1250	6-42	--	--	--	ON	1%
54.60	1300	6-42	ON	ON	ON	--	1%
56.70	1350	6-42	--	ON	ON	--	1%
58.80	1400	6-42	ON	--	ON	--	1%
60.90	1450	6-42	--	--	ON	--	1%
63.00	1500	6-42	ON	ON	--	--	1%
62.00	1550	6-40	--	ON	--	--	1%
60.80	1600	6-38	ON	--	--	--	1%
59.40	1650 ★	6-38	--	--	--	--	1%

JN-DALI080-B2000Ad

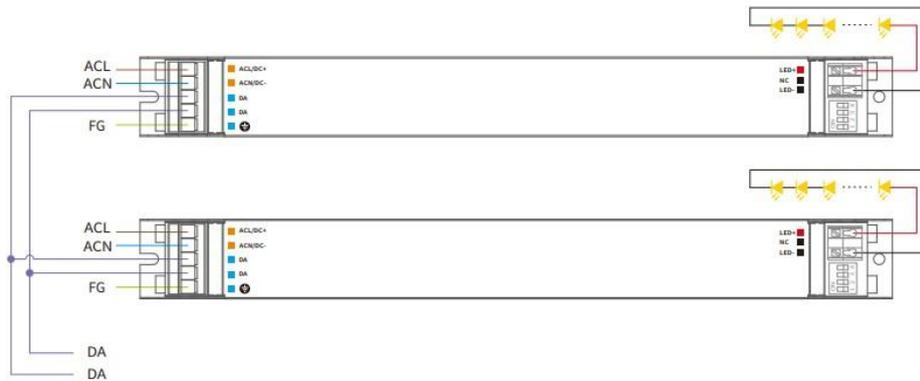
Prated(w)	Output		1	2	3	4	Dimming depth
	Irated(mA)	Voltage(Vdc)					
52.50	1250	6-42	ON	ON	ON	ON	1%
54.60	1300	6-42	--	ON	ON	ON	1%
56.70	1350	6-42	ON	--	ON	ON	1%
58.80	1400	6-42	--	--	ON	ON	1%
60.90	1450	6-42	ON	ON	--	ON	1%
63.00	1500	6-42	--	ON	--	ON	1%
65.10	1550	6-42	ON	--	--	ON	1%
67.20	1600	6-42	--	--	--	ON	1%
69.30	1650	6-42	ON	ON	ON	--	1%
71.40	1700	6-42	--	ON	ON	--	1%
73.50	1750	6-42	ON	--	ON	--	1%
75.60	1800	6-42	--	--	ON	--	1%
77.70	1850	6-42	ON	ON	--	--	1%
79.80	1900	6-42	--	ON	--	--	1%
80.00	1950	6-41	ON	--	--	--	1%
80.00	2000 ★	6-40	--	--	--	--	1%

Remarks:

- ★ It means that this item is the factory default current.
- It means that this channel is OFF.

DALI dimming application

Wiring diagram



Switch to the DALI dimming mode

- After installation according to the wiring diagram of DALI dimming application, the driver will automatically switch to the DALI control mode after receiving any DALI command. **Remarks:**
- Standard DALI control line voltage range: 9.5V to 22.5V, type 16V.
- The two DALI control lines are polarity-reversible.
- Max. 64 DALI drivers per DALI control line.
- The maximum distance length of the DALI control line is 300m at 2×1.5mm
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.
- The configuration parameters of the driver can be set through the DALI configuration tool or DALI application controller during installation, such as setting device address, group address, power-on level, bus-failure level, scene level, fade time, dimming curve, etc.

Power-on level:

When the driver is in DALI- dimming mode, the factory default level after each power-on is the brightest.

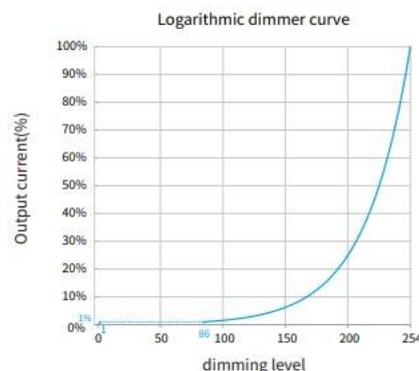
The power-on level can be set through the DALI configuration tool or DALI application controller during installation, and can be set to memory or fixed any brightness (such as off, darkest, 50%, etc.).

Note: The recommended setting for the default factory power-on level of the DALI-2 driver is the brightest in the DALI-2 standard.

Cable sizes and Dimming curve

Please refer to the table below

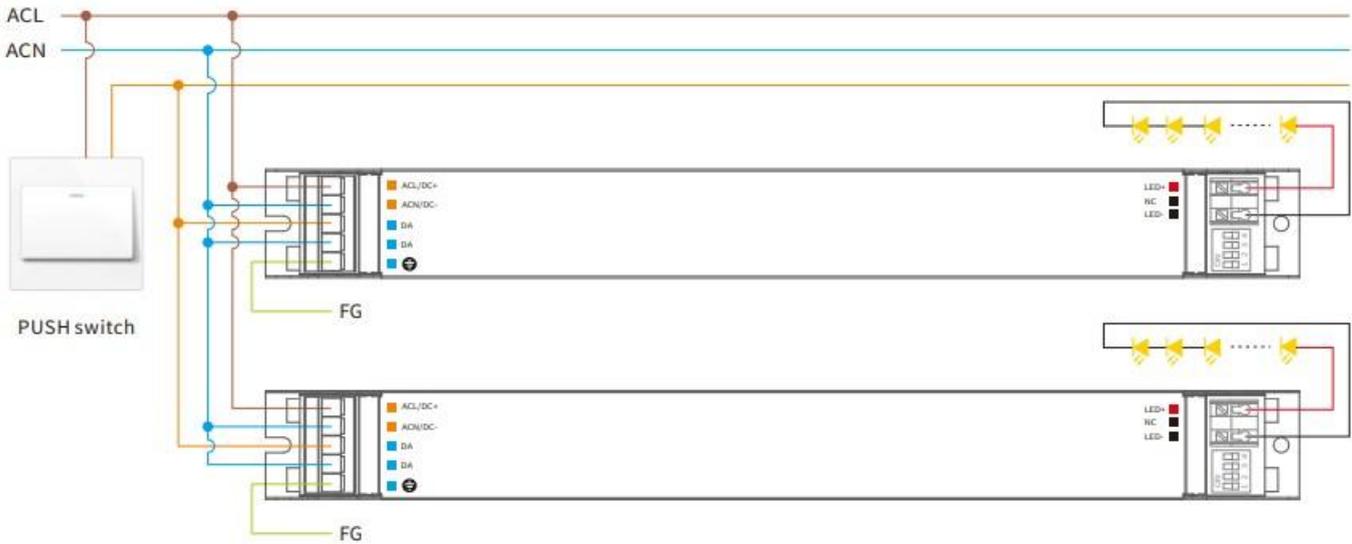
Cable size	Distance
2×0.50mm ²	max.100m
2×0.75mm ²	max.150m
2×1.00mm ²	max.200m
≥2×1.50mm ²	max.300m



Remarks: The dimming curve can be selected by DALI configuration.
The default is logarithmic dimming curve.

pushDIM dimming application

Wiring diagram

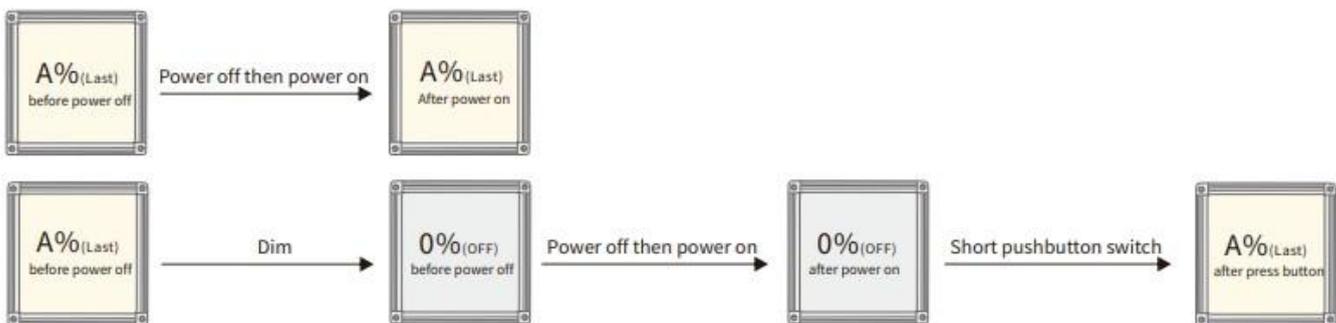


Switch to the pushDIM dimming mode

After installation according to the wiring diagram of pushDIM dimming application, long press the pushbutton 3 seconds, the driver will automatically switch to the pushDIM dimming mode.

- Max. 50 drivers per pushDIM control line.
- Turn on or turn off: short press pushbutton for 0.2-1s.
- Dimming: long press pushbutton for 1-5s.
- Power on status: after power on, the light state will be the same as the lighting on state.

If the light is on before power on, the light will be on after power on again, brightness will be the same as the last lighting on brightness.
If the light is off before power off, the light will be off after power on again, short press the pushbutton, then the light will be on, the brightness will be the same as the last brightness.



Multiple lights synchronise control operation

Method 1:

- Step 1: long press the pushbutton, confirm each light is on.
- Step 2: short press the pushbutton, confirm each light is off.
- Step 3: long press the pushbutton, confirm each light is from darkest to brightest and all the lights are synchronous.

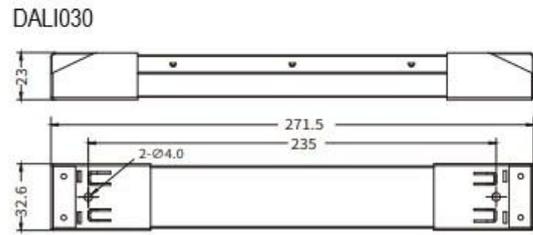
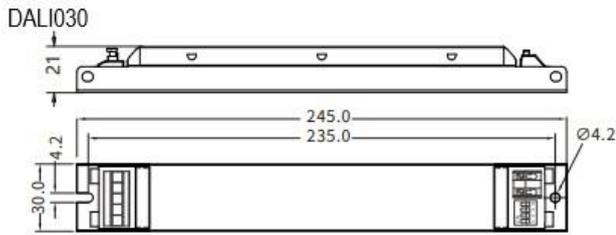
Method 2:

- Long press the pushbutton 15s, all lights output to the brightest state.

Installation

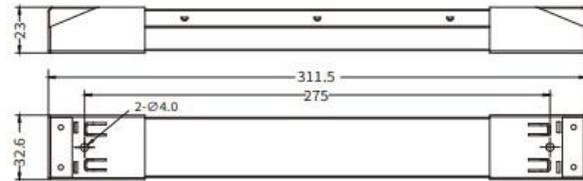
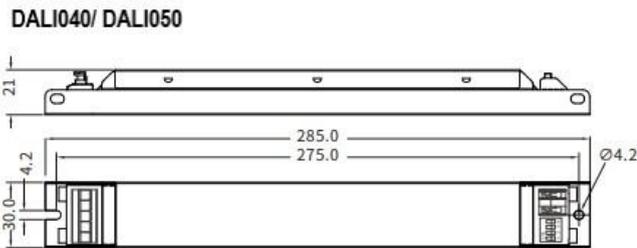
Mechanical dimensions

Unit:mm



Mechanical dimensions

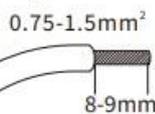
Unit:mm



INPUT

Pin Numbering	function	colour
1	ACL/DC+	orange
2	ACN/DC-	orange
3	DA	blue
4	DA	blue
5	FG	blue

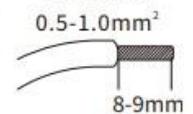
Input wire



OUTPUT

Pin Numbering	function	colour
1	LED-	black
2	NC	black
3	LED+	red

Output wire

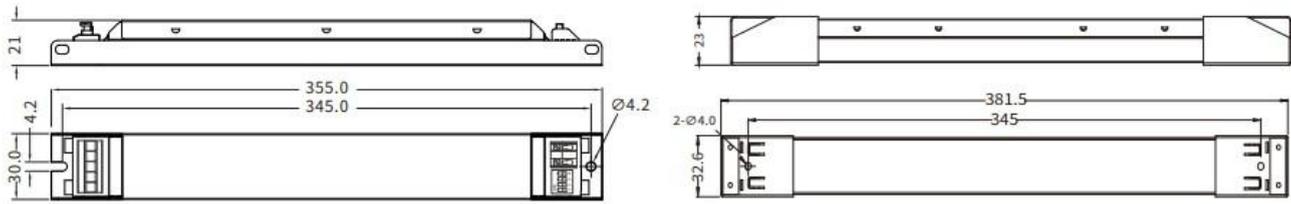


Installation

Mechanical dimensions

Unit:mm

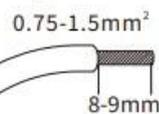
DALI060



INPUT

Pin Numbering	function	colour
1	ACL/DC+	orange
2	ACN/DC-	orange
3	DA	blue
4	DA	blue
5	FG	blue

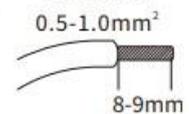
Input wire



OUTPUT

Pin Numbering	function	colour
1	LED-	black
2	NC	black
3	LED+	red

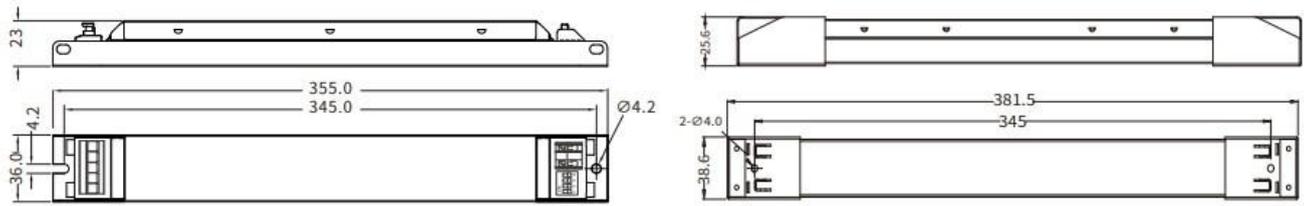
Output wire



Mechanical dimensions

Unit:mm

DALI080



Installation note

Hot plug-in

- Hot plug-in is not supported due to residual output voltage of > 0 V. - If an LED load is connected the device has to be restarted.
- This can be done via mains reset or via interface (DALI, pushDIM).

Wiring guidelines

- All connections must be kept as short as possible to ensure good EMI behaviour. - Mains leads should be kept apart from LED Driver and other leads (ideally 5–10 cm distance) - Max. length of output wires is 2m.
- Incorrect wiring can damage LED modules.

Mounting screw specifications and torque

- Max. torque at the clamping screw: 0.5 Nm / M4

Replace LED module

1. Mains off
2. Remove LED module
3. Wait for 5 seconds
4. Connect LED module again

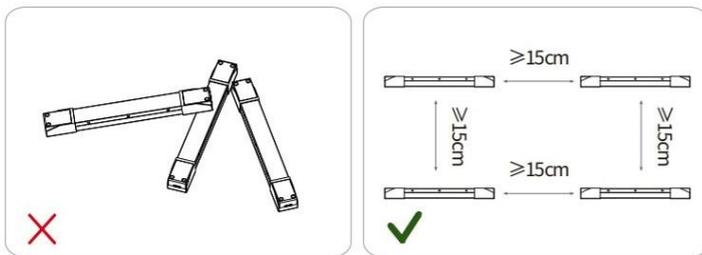


Figure 1

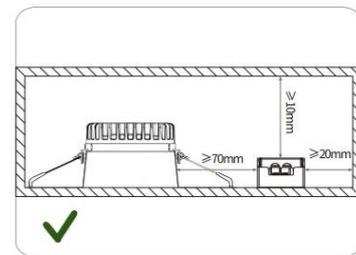


Figure 2

Installation requirements

- The driver should be installed in a dry, acid-free, oil-free, fat-free environment.
- The installation ambient temperature of the drive shall not exceed the value of Ta at any time.
- The temperature of the mounting surface of the driver should be lower than 40°C.
- The driver should keep a certain distance from the heating stuff (such as the luminaire radiator).
- If the driver is used externally (it needs to be used with the accessories), the installation of the driver should also meet the following conditions:

- 1.The driver should be a certain distance between the drivers, as shown in Figure 1.
- 2.The driver keeps a certain distance from surrounding objects, as shown in Figure 2.



Model	Product size	Weight	Pearl wool	Carton size	Qty/ carton	N.W.	G.W.
JN-DALI030-B0800Ad	L245*W30*H21mm	166g	L340*W75*H29mm	L355*285*H205mm	42pcs (7pcs*6 layers)	6.97KG	8.27KG
JN-DALI040-B1050Ad	L285*W30*H21mm	206g	L340*W75*H29mm	L355*W325*H170mm	35pcs (7pcs*5 layers)	7.21KG	8.53KG
JN-DALI050-B1300Ad	L285*W30*H21mm	223g	L340*W75*H29mm	L355*W325*H170mm	35pcs (7pcs*6 layers)	7.81KG	9.02KG
JN-DALI060-B1650Ad	L355*W30*H21mm	281g	L340*W75*H29mm	L395*W355*H140mm	28pcs (7pcs*4 layers)	7.87KG	9.08KG
JN-DALI080-B2000-Ad	L355*W30*H21mm	370g	L340*W75*H33mm	L395*W355*H160mm	24pcs (6pcs*4 layers)	8.88KG	10.1KG



