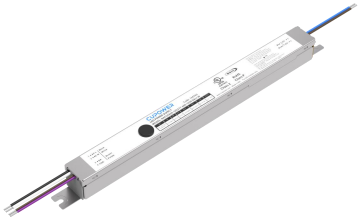
NAFSCB50-120277-600-1200 DALI-W

Art. 168385

Product features

- Slim body design constant current LED driver
- Supports DALI-2 dimming
- Supports i-Data function (DALI part 251, 252, 253)
- Programmable parameters via 2-wire QuickSet
- Standby power < 0.5 W
- Lifetime 50,000 h
- Flicker-free, meets requirements of IEEE 1789-2015
- Complies with ENERGY STAR, DLC & CA Title 24 requirements



Product specifications

168385 NAFSCB50-120277-600-1200 DALI-W

Output current	Input voltage	Output voltage	Efficiency @ full load	Current accuracy	Power factor
600 … 1,200 mA	120 … 277 VAC	15 … 52 VDC	90 % (@ 277 VAC) 88.5 % (@ 120 VAC)	± 5 % (typical)	0.9 (Output Power > 29 W)

Electrical specifications

Mains voltage supply	
Rated input voltage range	120 … 277 VAC; performance range
Max. input voltage range	108 … 305 VAC; operational safety range
Rated frequency range	50/60 Hz
Performance/Operational safety	47 … 63 Hz
Max. input current	0.5 A @ 120 VAC
Standby power	< 0.5 W
Starting time	0.54 … 0.66 s

Protection against voltage peaks	
Withstand voltage	I/p-O/p: 1.6 kVac, < 5 mA 60 s, I/p-earth: 1.5 kVac, < 5 mA 60 s, O/p-earth: 0.5 kVac, < 5 mA 60 s
Mains surge immunity	L-N 1 kV, L/N-earth 2 kV 2.5 kV ring wave

Total harmonic distortion (THD)	
At rated input voltage range @ full load	≤ 15 %

Output data	
Output current tolerance	± 5 % at rated input voltage performance range (600 … 1,200 mA)
No load output voltage	≤ 60 VDC
Ripple output current	5 % (ripple = peak/average total 120 Hz); Compliant with IEEE 1789-2015

Hunan Xiezhen Electronics Co., Ltd.
Block A&B, Building 11, Innovation Park Linyi Road,
Bailutang Town Suxian District, Chenzhou, Hunan - China

CUPOWER Europe GmbH
Ahornweg 5a
58675 Hemer - Germany

CUPOWER North America, Inc.
655 Raco Dr. Suite A,
Lawrenceville, GA 30046 - USA

Version: 20261110

www.cupower.com

Errors excepted. We reserve the right to make alterations in the interest of improving our products.

Protection functions output side	
Overvoltage protection	The output voltage is less than or equal to 60 V
Overpower protection	The output power is less than or equal to 55 W
Short-circuit protection	Hiccup mode. Protection device will trigger when short-circuit and will auto recover after the fault mode is removed.

Dimming operation and interface	
Dimming mode	DALI-2 (The voltage at the DALI port is less than 25 V)
Dimming method	Amplitude dimming
Dimming current range	0.1 … 100 % (1.2 … 1,200 mA)

Wiring	
Main input wire	UL1332, 18 AWG, 300 V, 200℃, black L, white N, wire exposed 5.9 + 0.39 in (150 + 10 mm), tinplating length 0.39 ± 0.04 in (10 ± 1 mm).
Main output wire	UL1332, 20 AWG, 300 V, 200℃, brown LED+, blue LED-, wire exposed 5.9 + 0.39 in (150 + 10 mm), tinplating length 0.39 ± 0.04 in (10 ± 1 mm).
DIM control wire	UL1332, 22 AWG, 300 V, 200℃, purple DA, brown DA, wire exposed 5.9 + 0.39 in (150 + 10 mm), tinplating length 0.39 ± 0.04 in (10 ± 1 mm).

Degree of protection	
Protection rating	IP20

Operating data	
Output current range	600 … 1,200 mA (programmable)
Default output current	1,200 mA
Output voltage range	15 … 52 VDC
Noise level	< 20 dB(A) at full load @ 100 cm distance

Supplementary instructions

- The luminaire manufacturer is responsible for measuring and verifying the EMI compliance of the complete luminaire, as the level of radio interference will vary depending on the luminaire construction. Especially primary and secondary cable lengths and their routing may have a significant effect on radio interference.
- If the dimming depth is set too deeply, please make sure that all the LED bulbs are in sync to prevent the situation where some LED bulbs fail to light up properly at lower brightness levels.

Hunan Xiezhen Electronics Co., Ltd.
Block A&B, Building 11, Innovation Park Linyi Road,
Bailutang Town Suxian District, Chenzhou, Hunan - China

CUPOWER Europe GmbH
Ahornweg 5a
58675 Hemer - Germany

CUPOWER North America, Inc.
655 Raco Dr. Suite A,
Lawrenceville, GA 30046 - USA

Version: 20261110

www.cupower.com

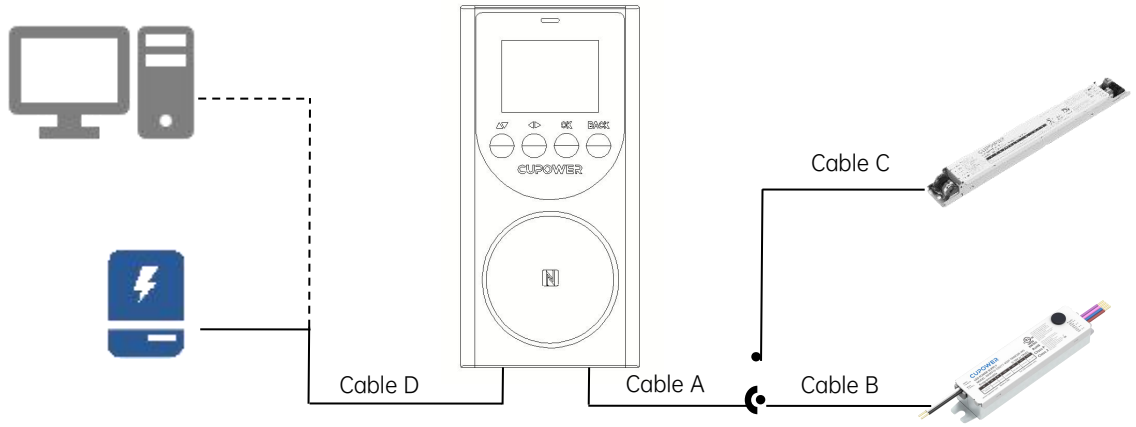
Errors excepted. We reserve the right to make alterations in the interest of improving our products.

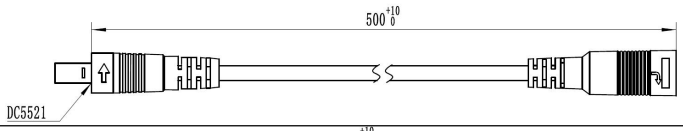
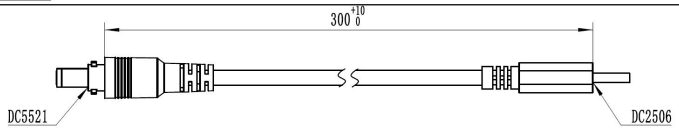
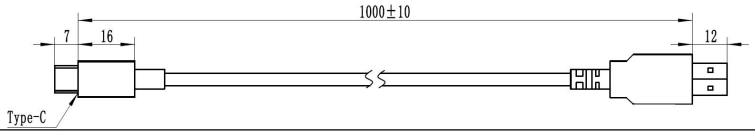
Introduction to Programmable Functions

The driver can be programmed by inserting one end of the programmer into the driver and the other end into the USB port of the computer. The driver does not need to be powered on during the programming process. When ordering drivers, make sure you order the appropriate programmer.

No.	Item
1	Program via 2-wire QuickSet
2	Support for reading product information, operating time, firmware version, number of failures
3	Dimming limit
4	DALI setting
5	DALI address
6	CLO (Constant Lumen Output)
7	Modify the DALI dimming curve: Linear, Logarithmic (Default: Logarithmic)

2-wire QuickSet



Cable A		Cable A is an adapter cable; its left side connects to the MP02-USB, and its right side connects to either cable B or C.
Cable B		Cable B is the programming cable; its left side connects to cable A, and its right side connects to the product to be programmed.
Cable C		Cable C is the programming cable; its left side connects to cable A, and its right side connects to the product to be programmed.
Cable D		The D cable is the power and communication cable, used to connect the MP02-USB to a USB power source or a computer.

Hunan Xiezhen Electronics Co., Ltd.
Block A&B, Building 11, Innovation Park Linyi Road,
Bailutang Town Suxian District, Chenzhou, Hunan - China

CUPOWER Europe GmbH
Ahornweg 5a
58675 Hemer - Germany

CUPOWER North America, Inc.
655 Raco Dr. Suite A,
Lawrenceville, GA 30046 - USA

Version: 20261110

www.cupower.com

Errors excepted. We reserve the right to make alterations in the interest of improving our products.

Environmental specifications

Operating temperature	-20 … +50 °C
Storage temperature	-25 … +85 °C
Working humidity	10 … 90 %
Storage humidity	5 … 95 %
Lifetime	at Tc 80 °C: 50,000 h @ performance range (0.2 % / 1,000 h failure rate)
Maximum Tc temperature	90 °C

Safety & EMC compliance

UL (Cert. No.: E467833)
UL 8750
Class P
CSA C22.2 No. 250.13
UL1310-CLASS 2

FCC
FCC 47 CFR Part 15 Subpart B
ICES-005 Issue 5

DALI-2 Acc. to EN 62386
Acc. to IEC 62386-101:Ed2
Acc. to IEC 62386-102:Ed2
Acc. to IEC 62386-207:Ed1
Acc. to IEC 62386-251:Ed2
Acc. to IEC 62386-252:Ed2
Acc. to IEC 62386-253:Ed2

Hunan Xiezhen Electronics Co., Ltd.
Block A&B, Building 11, Innovation Park Linyi Road,
Bailutang Town Suxian District, Chenzhou, Hunan - China

CUPOWER Europe GmbH
Ahornweg 5a
58675 Hemer - Germany

CUPOWER North America, Inc.
655 Raco Dr. Suite A,
Lawrenceville, GA 30046 - USA

Version: 20261110

www.cupower.com

Errors excepted. We reserve the right to make alterations in the interest of improving our products.

NAFSCB50-120277-600-1200 DALI-W

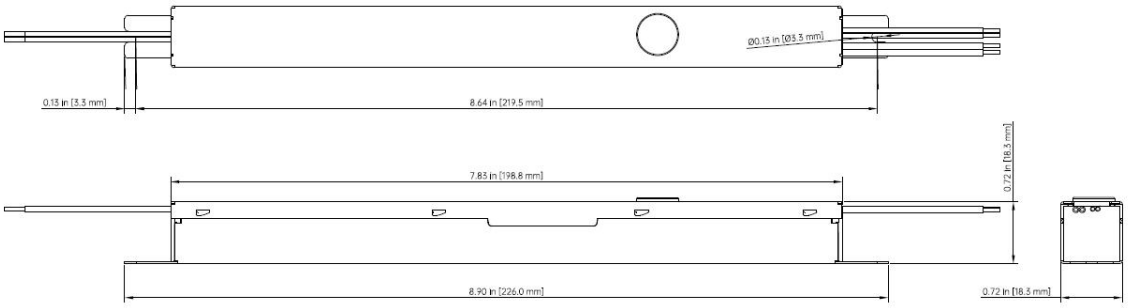
Art. 168385

Dimensions

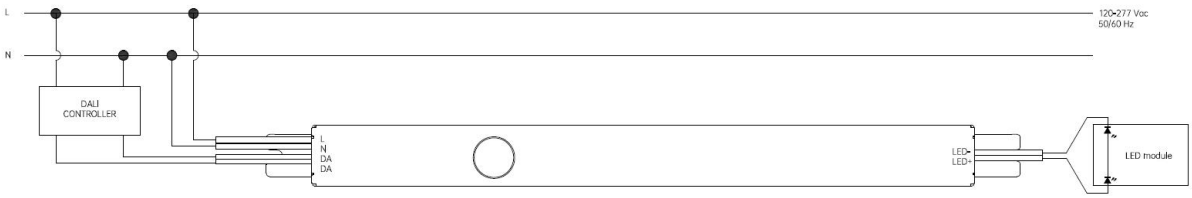
Housing dimensions	
Length (L)	8.90 in (226 mm)
Width (W)	0.72 in (18.25 mm)
Height (H)	0.72 in (18.25 mm)

For all dimensions: values in inches and millimeters; tolerances: ± 0.5 mm

Packaging details	
Packing units	50 pcs
Carton size	12.60 x 9.72 x 6.81 in (320 x 247 x 173 mm)
Carton weight	7.7 kg
Product weight	0.135 kg



Wiring diagram



- All connections must be as short as possible to ensure good EMI performance.
- The luminaire wire should keep a certain distance from the LED power supply and other wires (5 … 10 cm is preferred).
- No secondary switches are allowed.
- Incorrect wiring can damage the LED.
- The wire must be well protected against short circuits.
- The product is grounded through the casing.

Hunan Xiezhen Electronics Co., Ltd.
Block A&B, Building 11, Innovation Park Linyi Road,
Bailutang Town Suxian District, Chenzhou, Hunan - China

CUPOWER Europe GmbH
Ahornweg 5a
58675 Hemer - Germany

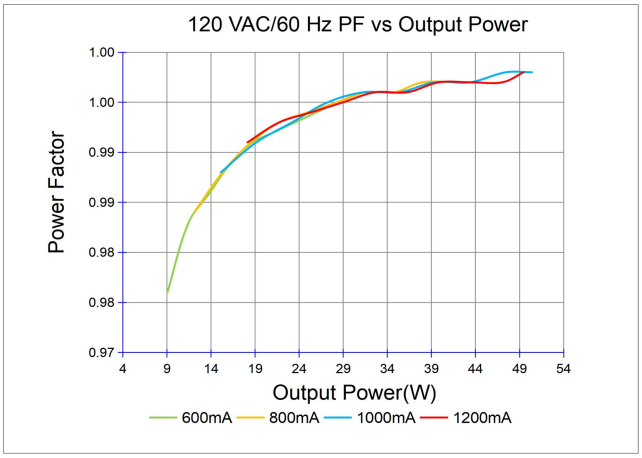
CUPOWER North America, Inc.
655 Raco Dr. Suite A,
Lawrenceville, GA 30046 - USA

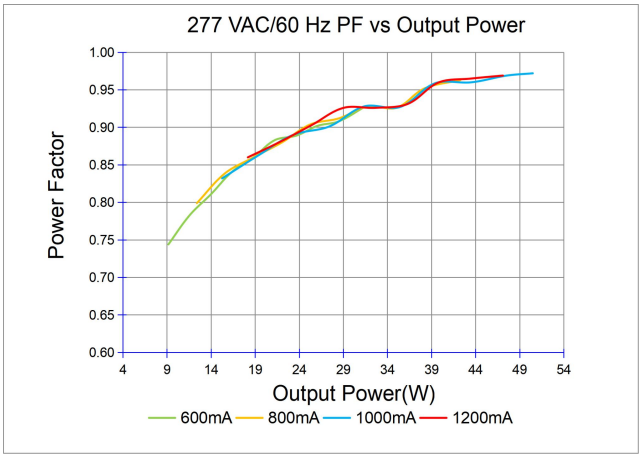
Version: 20261110

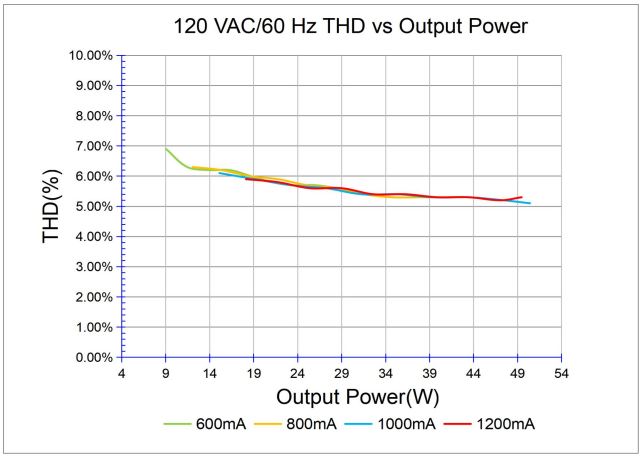
www.cupower.com

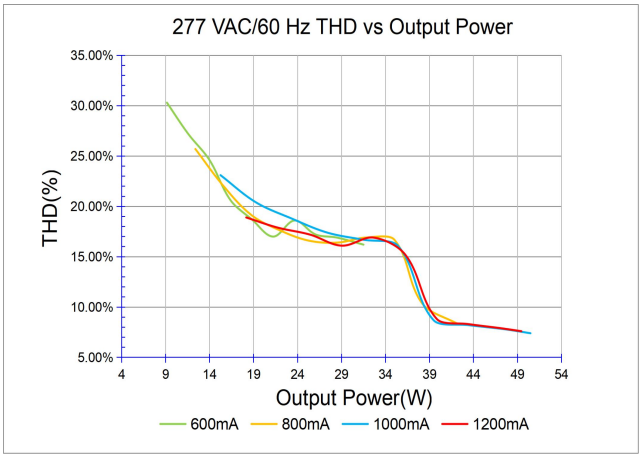
Errors excepted. We reserve the right to make alterations in the interest of improving our products.

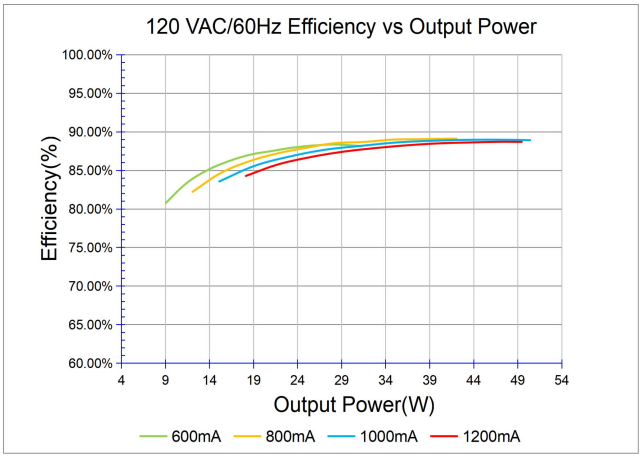
Technical information

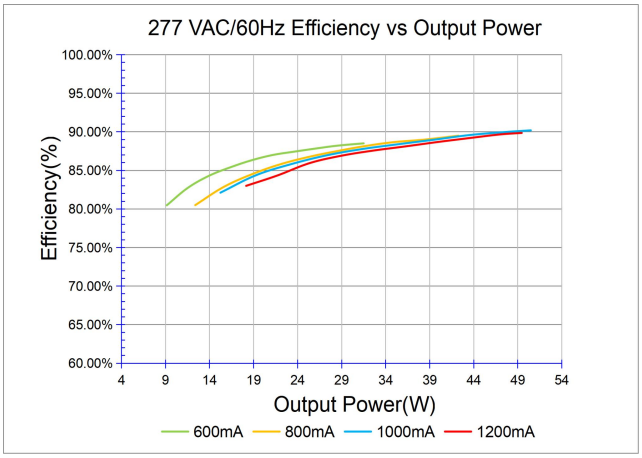












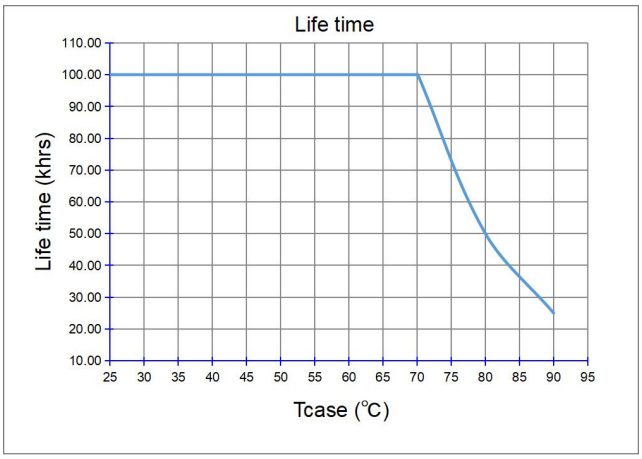
Hunan Xiezhen Electronics Co., Ltd.
Block A&B, Building 11, Innovation Park Linyi Road,
Bailutang Town Suxian District, Chenzhou, Hunan - China

CUPOWER Europe GmbH
Ahornweg 5a
58675 Hemer - Germany

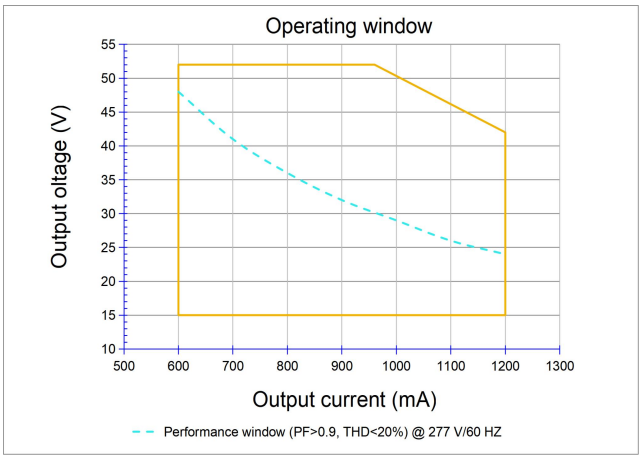
CUPOWER North America, Inc.
655 Raco Dr. Suite A,
Lawrenceville, GA 30046 - USA

Version: 20261110

Errors excepted. We reserve the right to make alterations in the interest of improving our products.



at Tc 80 °C (0.2 % / 1,000 h failure rate)



It's important to set the output current (AOC value) according to the LED voltage and make sure the power is within 50 W + 5 %.

Example of AOC settings

V LED (VDC)	AOC max	Pout (W)
42	1,200 mA	50.4
50	1,000 mA	50
52	961 mA	50

Hunan Xiezhen Electronics Co., Ltd.
Block A&B, Building 11, Innovation Park Linyi Road,
Bailutang Town Suxian District, Chenzhou, Hunan - China

CUPOWER Europe GmbH
Ahornweg 5a
58675 Hemer - Germany

CUPOWER North America, Inc.
655 Raco Dr. Suite A,
Lawrenceville, GA 30046 - USA

Version: 20261110

www.cupower.com

Errors excepted. We reserve the right to make alterations in the interest of improving our products.