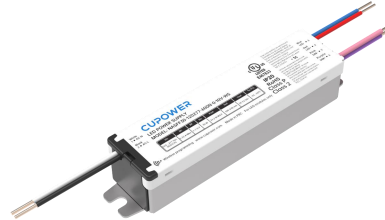


Product features

- Small-sized constant current LED driver
- Supports 0/1-10 V dimming
- Current adjustment via NFC
- Selectable dimming profile for 0/1-10 V dimming
- Standby power < 0.5 W
- Lifetime 50,000 h
- Flicker-free, meets requirements of IEEE 1789-2015

0/1-10V Class P Class 2 c  



Product specifications

680040 NASFF30-120277-600N-0-10V-WS

Output current	Input voltage	Output voltage	Efficiency @ full load	Current accuracy	Power factor
100 ... 600 mA	120 ... 277 VAC	28 ... 52 VDC	89 % (@ 277 VAC)	± 5 % (typical)	0.9 (Output Power > 15 W)
			88 % (@ 120 VAC)		

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	0.32 A @ 120 VAC
Standby power	< 0.5 W
Starting time	120 VAC: typ. 0.6 s; max. 0.75 s / 277 VAC: typ. 0.6 s; max. 0.75 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	≤ 20 %
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Output data

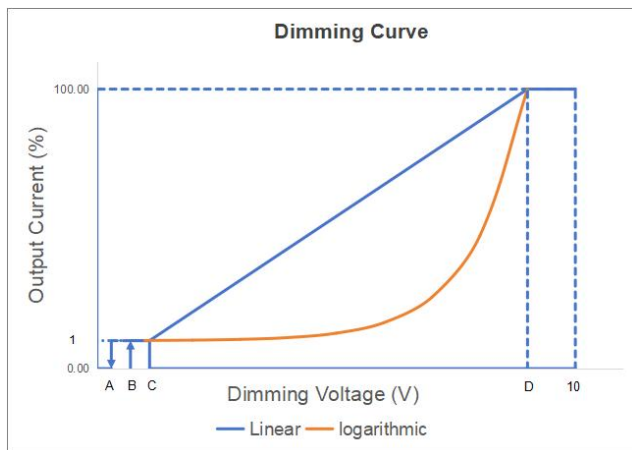
Output current tolerance	± 5 % at rated input voltage performance range (200 ... 600 mA) ± 7 mA at rated input voltage performance range (100 ... 199 mA)
No load output voltage	≤ 60 VDC
Ripple output current	5 % (ripple = peak/average total 120 Hz); Compliant with IEEE 1789-2015

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 33 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	0/1-10 V (programmable)
Dimming method	Amplitude dimming
Dimming current range	1 ... 100 % (6 ... 600 mA)
Dimming profiles	Selectable 0-10 V dimming profile (linear, logarithmic) Default: linear (1.0 V - 1 % light level, 8 V - 100 % light level)



Typical dimming voltage points

Point	Voltage
A	0.7 V
B	0.9 V
C	1.0 V
D	8.0 V

Wiring

Main input wire	UL1332, 18 AWG, 300 V, 200 °C, black L, white N, wire exposed 5.9 + 0.39 in (152 + 10 mm), tinplating length 0.39 ± 0.04 in (10 ± 1 mm).
Main output wire	UL1332, 20 AWG, 300 V, 200 °C, red LED+, blue LED-, wire exposed 5.9 + 0.39 in (152 + 10 mm), tinplating length 0.39 ± 0.04 in (10 ± 1 mm).
DIM control input wire	UL1332, 22 AWG, 300 V, 200 °C, purple DIM+, pink DIM-, wire exposed 5.9 + 0.39 in (152 + 10 mm), tinplating length 0.39 ± 0.04 in (10 ± 1 mm).

Degree of protection

Protection rating	IP20
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Operating data

Output current range	100 ... 600 mA (programmable)
Default output current	600 mA
Output voltage range	28 ... 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.
- The recommended NFC communication distance: 5 ... 15 mm.

Environmental specifications

Operating temperature	-20 ... +50 °C
Storage temperature	-25 ... +85 °C
Working humidity	10 ... 90 %
Storage humidity	5 ... 95 %
Lifetime	at Tc 75 °C: 50,000 h @ performance range (0.2 % / 1,000 h failure rate)
Maximum Tc temperature	85 °C

Safety & EMC compliance

UL (Cert. No.: E467833)	FCC	
UL8750	FCC 47 CFR Part 15 Subpart B	
CLASS P	ICES-005 Issue 5	
CSA C22.2 NO. 250.13		
CLASS 2		

Dimensions

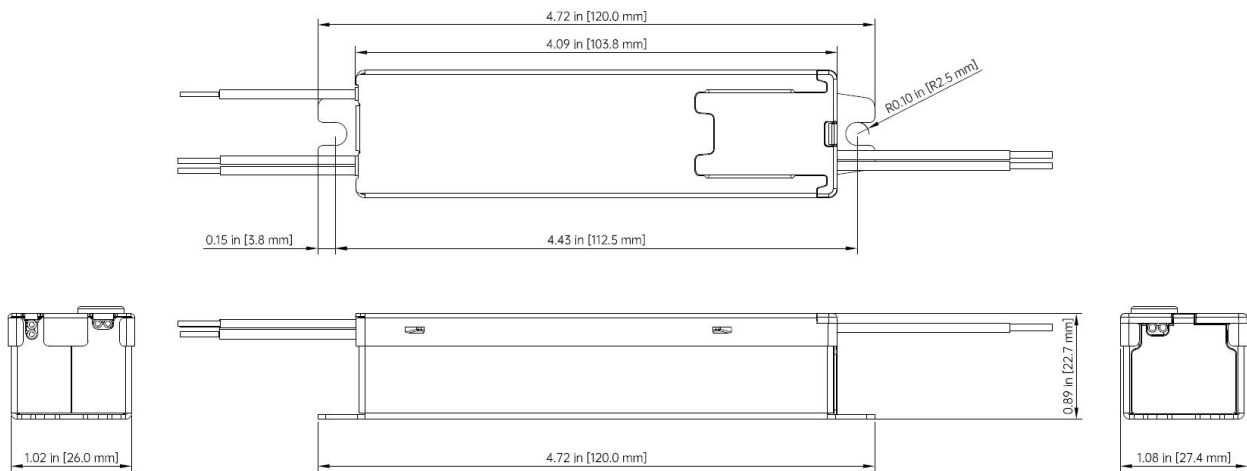
Housing dimensions

Length (L)	4.72 in (120.0 mm)
Width (W)	1.08 in (27.4 mm)
Height (H)	0.89 in (22.65 mm)

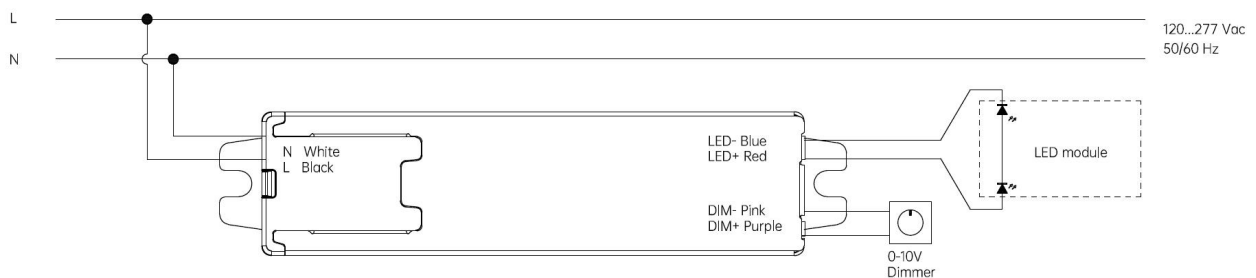
For all dimensions: values in inches and millimeters;
tolerances: ± 0.5 mm

Packaging details

Packing units	56 pcs
Carton size	11.97 x 11.26 x 6.30 in (304 x 286 x 160 mm)
Carton weight	6.97 kg
Product weight	0.106 kg

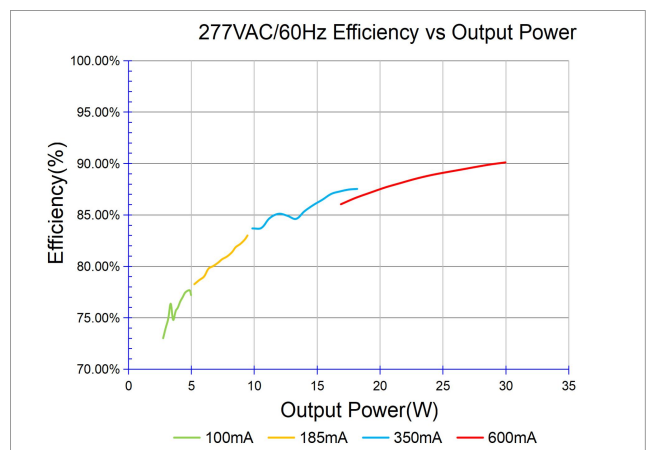
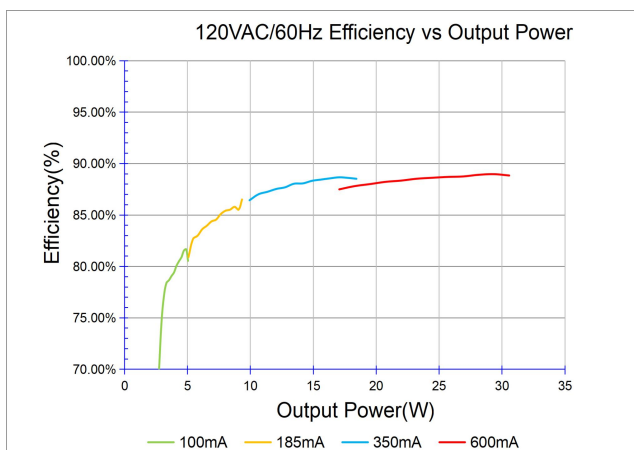
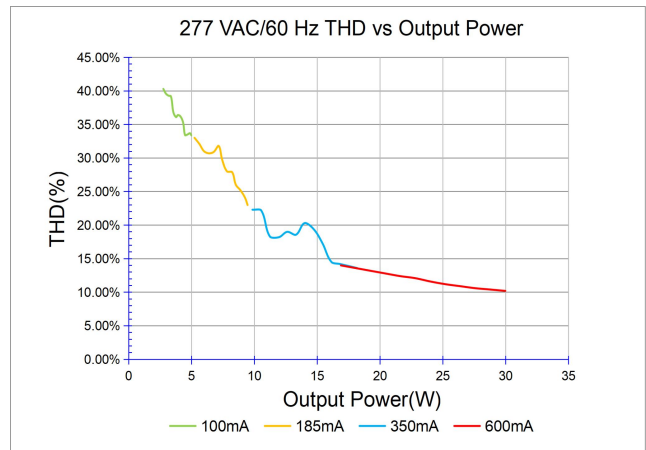
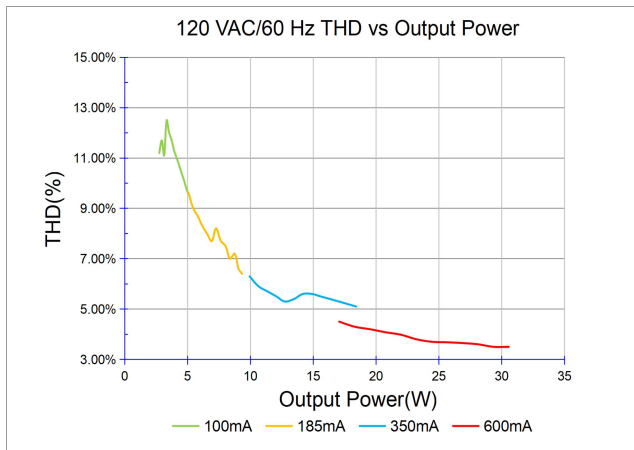
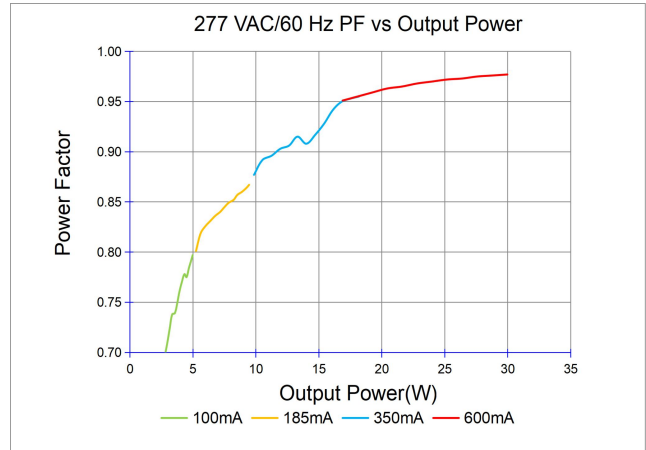
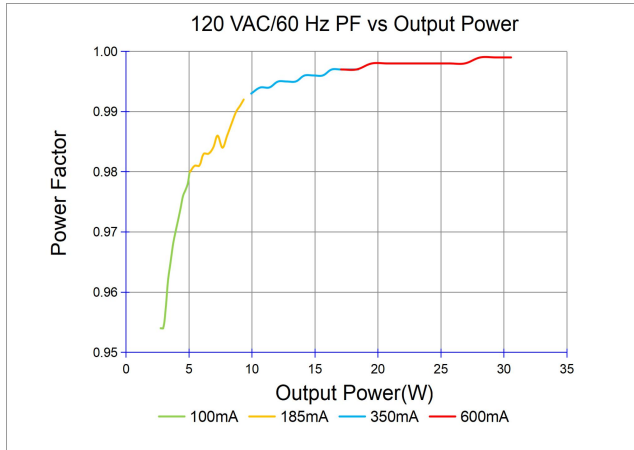


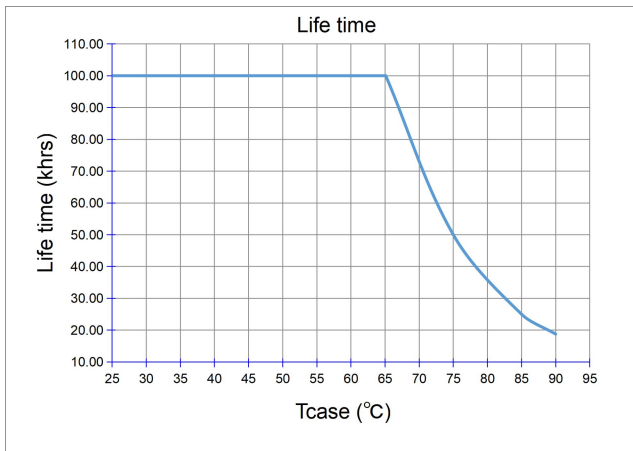
Wiring diagram



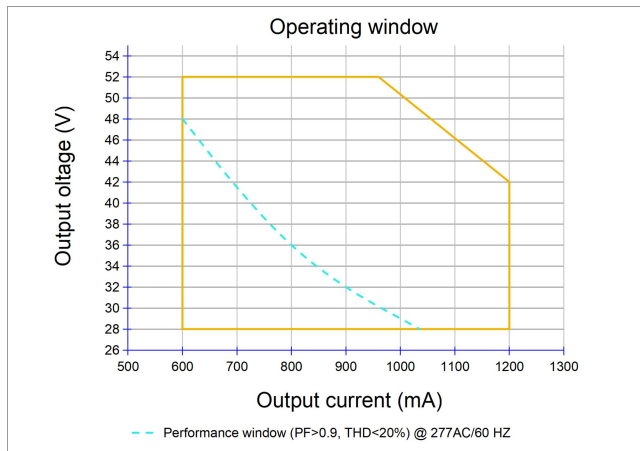
- All connections must be as short as possible to ensure good EMI performance.
- The luminaire wire should keep a certain distance from the LED power supply and other wires (5 ... 10 cm is preferred).
- No secondary switches are allowed.
- Incorrect wiring can damage the LED.
- The wire must be well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

Technical information





at Tc 75 °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 31.2 W + 5 %.

Example of AOC settings

V LED (VDC)	AOC max	Pout (W)
52	600 mA	31.2