

Light is OSRAM

OSRAM

Product data sheet

OT 40/170-240/1A0 4DIMLT2 G2 CE

NFC Programmable Constant Current LED Driver

Wide operating area up to 1 A - dimmable

The reliable choice for outdoor lighting applications. This driver offers the full flexibility in dimming (4DIM functionality) for outdoor application plus a wide operating range.

The NFC interface allows a quick and safe programming during the production process while enabling the possibility to easily adapt the driver settings in the field using the mobile Tuner4TRONIC Field Application.

Benefits

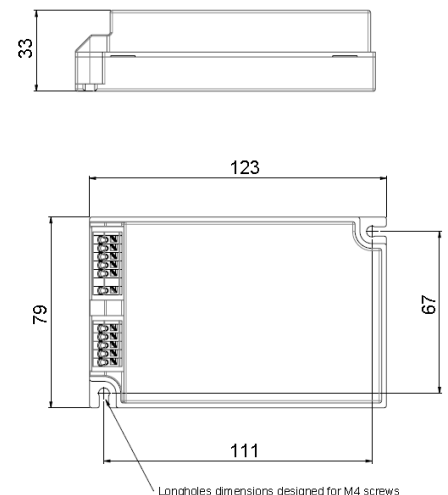
Wide operating range: 200mA – 1050mA
 High surge protection up to 10kV
 Long lasting and high reliability
 Suitable for class I/II luminaires
 DALI-2 certified DATA functionality
 (compliant to -251, -252, -253)

Applications

Street, Urban and Industrial lighting
 Suitable for outdoor applications in fixtures with IP > 54

Approvals       

In preparation, if not already printed on product label



Housing material: plastic, white

Product Features

- Output current range 200-1050mA
- Output power up to 40W
- NFC programming interface
- SELV, U_{out}: 15 - 56 V_{DC}
- High surge capability up to 10kV
- 4DIM functionality
- Constant lumen function
- Full analog dimming
- Wide t_a range -40 – +60°C
- 5 years guarantee

Electrical Specifications

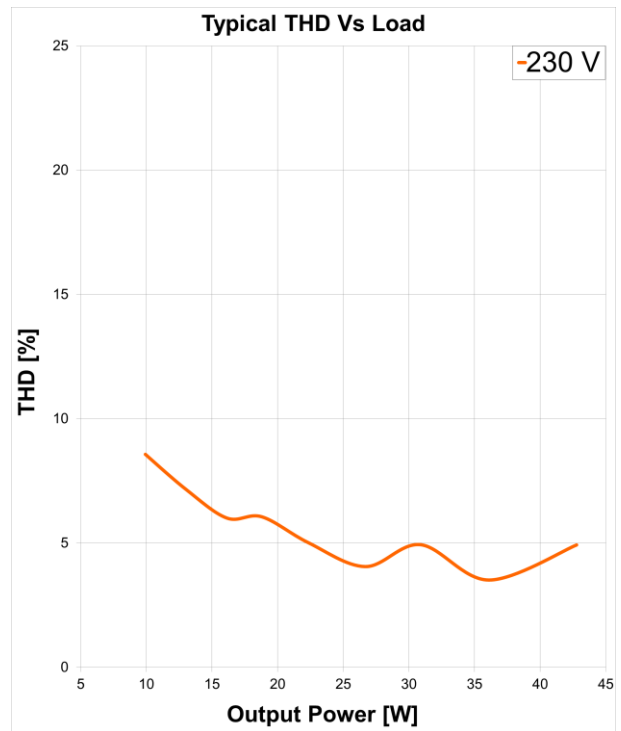
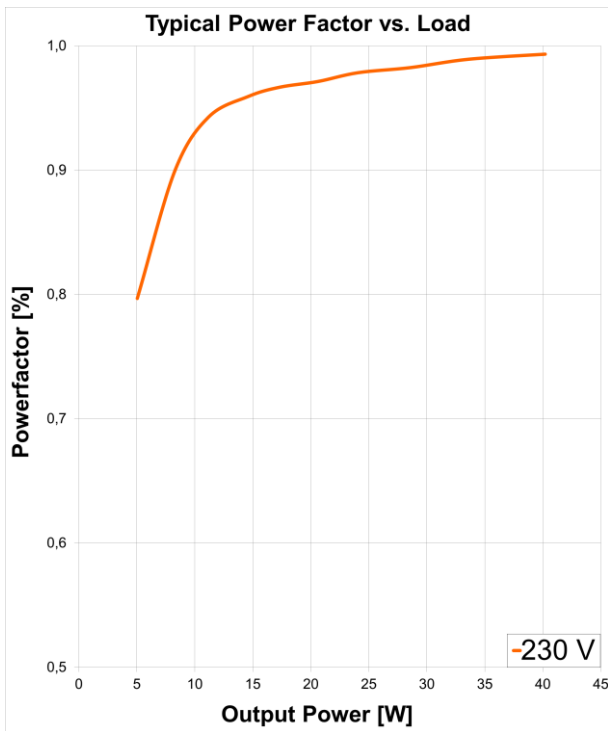
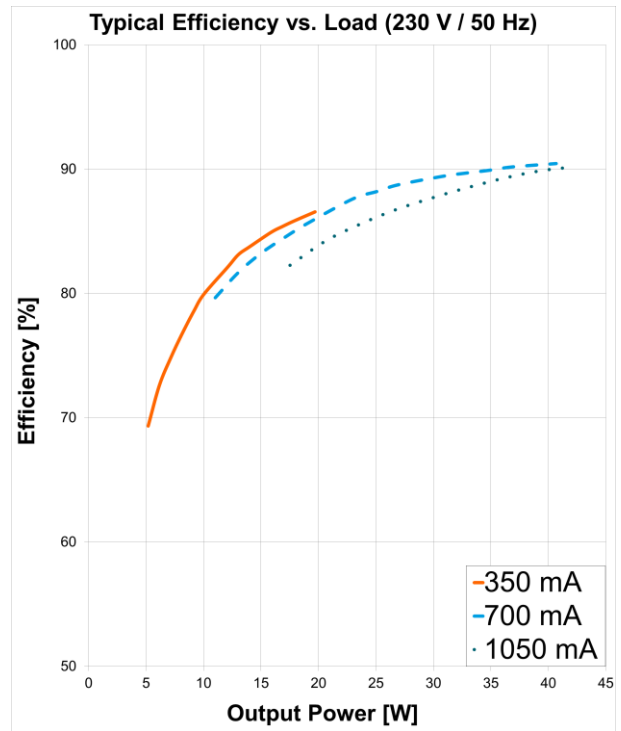
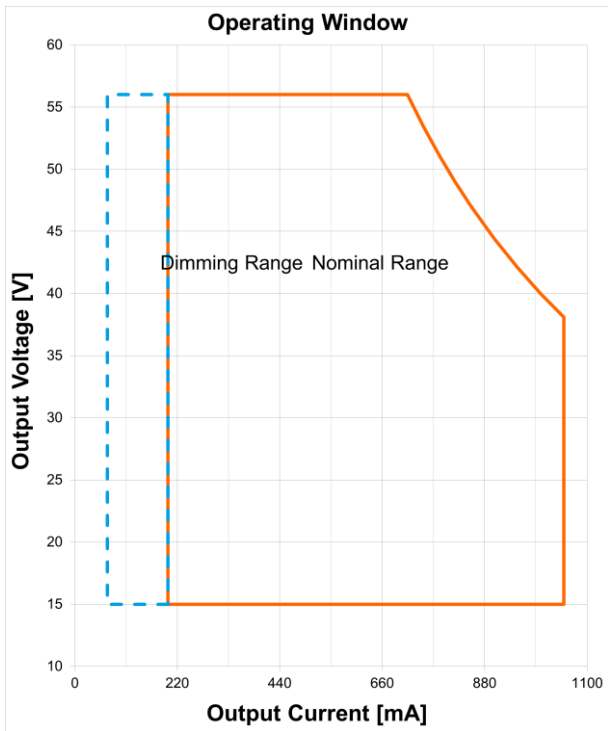
	Item	Value	Unit	Remarks
INPUT	Nominal Voltage	220 - 240	V	
	Nominal frequency	50 / 60	Hz	
	AC voltage range	170 – 264	V	
	DC voltage range	176 – 276	V	External DC fuse necessary
	Maximum voltage	300	V _{AC}	Above 270V the load might switch off
	Nominal current	0.20	A	
	Total Harmonic Distortion (THD)	< 10	%	Full load 230V, 50Hz
	Power factor	> 0.98		Full load 230V, 50Hz
	Efficiency	90	%	Full load 230V, 50Hz
	Power losses	4.5	W	Maximum, full load
	No-load power	n/a	W	Load switching on output side is not permitted
	Stand-by power	0.35	W	
	Protection class	I + II		Suitable for class I and II luminaires
	Touch Current	< 0.35	mA pk	Through Equi PIN, LED Output floating, acc. to EN 60598-1 Annex G and EN 61347-1 Annex A
	Inrush current	< 26	A pk	Max, th = 180 µs
Max. units per circuit breaker	B10: 17 B16: 28 B25: 44			
OUTPUT	Nominal voltage range	15 – 56	V	
	Maximum voltage	60	V	No load protection
	Nominal current range	200 - 1050	mA	Min. output current 70mA Default current: 700mA
	Current accuracy	+/- 3	%	+/- 5% for LEDset down to 300mA
	Current ripple	< 5	%	Ripple / average @ 100 Hz
	Nominal power range	3 – 40	W	
	Maximum power	40	W	LED output
Galvanic isolation	SELV			
DIM	Dimming control	Yes		AstroDIM, DALI ed. 2, MainsDIM, StepDIM
	Dimming range	10-100	%	
	Dimming technique	Analog		
	PWM frequency	n/a	Hz	
ENVIRONMENT	Ambient temperature range t _a	-40...+60	°C	
	Maximum case temperature t _c	80	°C	Measured on t _c point indicated of the product label, t _c not exceeded
	Max. case temp. in fault condition	120	°C	
	Storage temperature range	-25...+80	°C	
	Relative humidity	5...85	%	Not condensing
	Surge transient protection	6kV 10kV	kV	L – N, L-SD2, N-SD2 acc to EN 61547 L/N/SD2 – PE acc to EN 61547
	Environmental rating	Outdoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
Expected lifetime	50'000 100'000	hrs	t _c = 80, 0.2% / 1'000 h failure rate t _c = 68, 0.1% / 1'000 h failure rate	

Protections

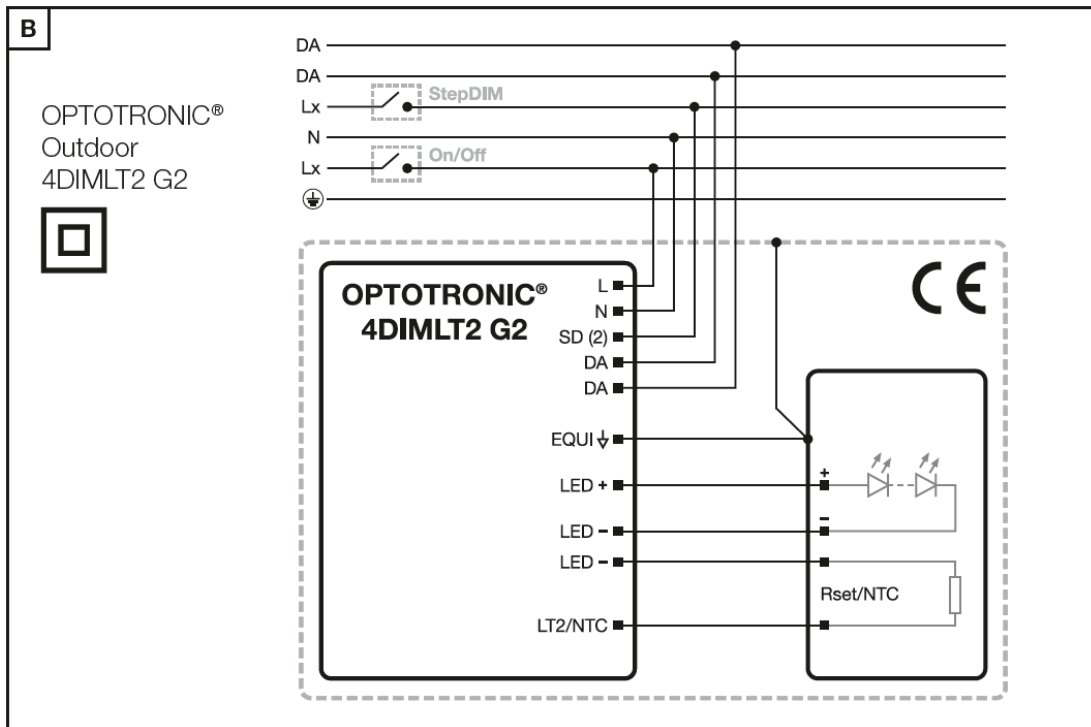
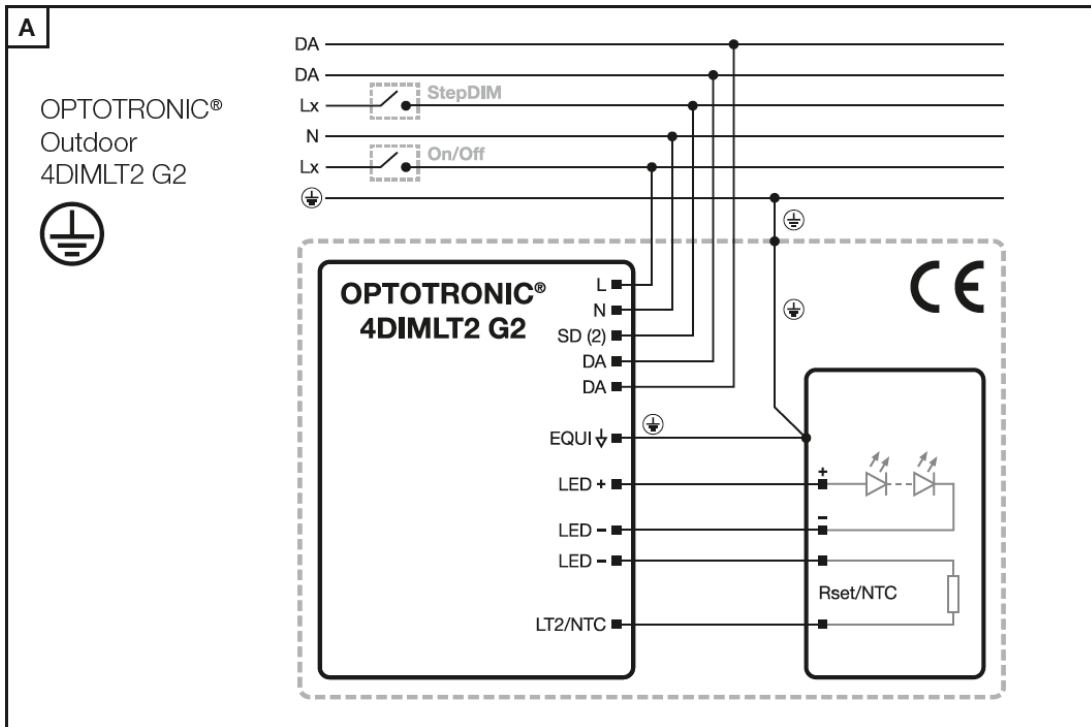
Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage

See remarks on page 3.

Electrical characterization



Wiring Diagram



- Wires cross section: 0,2 - 1,5 mm²
- Wire peeling length: 8.5 - 9.5 mm

Remarks

- Default output current is 700 mA without any resistor connected to the LEDset port. As soon as the driver detects one time a resistor value within the resistor range of 2.37 kOhm (1050 mA) and 24.9 kOhm (200 mA) for more than 3 s, the driver activates the LEDset2 mode.
- The driver withstands an input voltage of up to 300 Vac. Shut down of output load might occur in case the supply voltage exceeds the declared input voltage range.
- Shut down of output load happens if the input voltage of the load is below the minimum allowed voltage level. The driver automatically tries to switch on the load cyclically
- The driver automatically reduces the output current in case the maximum allowed output power is exceeded.
- The driver automatically reduces the output current in case the load voltage exceeds the maximum allowed voltage. The driver switches off the output in case the load voltage still remains above the maximum allowed voltage. Hot plug of the load or external switching on the secondary side is not allowed.
- The driver automatically limits the output current to keep its output power in the specified range.
- The driver is protected against temporary overheating by automatic reduction of the output current down to 55 % and then switches off.
- The EQUI pin should be connected to the heat sink of the LED module to improve the surge withstand capability of the system and EMI in critical luminaires.
- Several external NTCs are supported for temperature protection of the LED module or luminaire. By default, the following resistor values are set: start derating: 6.3 kOhm, end derating 5.0 kOhm, shut off: 4.5 kOhm, derating level 50 %. The NTC thermal protection is disabled by default.
- The dimming mode feature is disabled by default. If the dimming mode is changed via NFC while the driver is not powered, one additional power on/off cycle is needed before the new dimming mode becomes active.
- The constant lumen feature is disabled by default.
- For input voltage of 170...190 Vac, the maximum allowed output power is linear limited starting from 100 % at 190 Vac down to 85 % at 170 Vac.
- If any output level is below the physical min level, the physical min level will be used.
- LEDset and NTC functionality share the same connection terminal; Both features are not simultaneously available.
- Constant lumen feature is disabled by default.

Standards

Ordering information

	Product name	Type	EAN10	EAN40	NAED	Pieces / box
EN 61347-1						
EN 61347-2-13	OT 40/170-240/1A0 4DIMLT2 G2 CE	AM35337	4052899981935		n/a	20
EN 55015						
EN 61547						
EN 61000-3-2						
EN 62384						
EN 62386						

Disclaimer

Subject to change without notice. Errors and omission accepted. Always make sure to use the most recent release. The latest release of the datasheet is available under the following link www.osram.com

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