Light is OSRAM

Product data sheet: OT 165/170-240/1A0 4DIMLT2 G2 CE

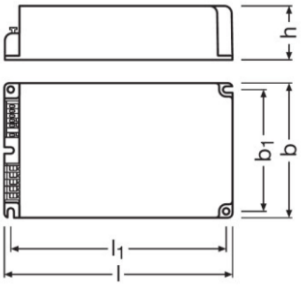
NFC Programmable Constant Current LED Driver

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

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



l	170,0 mm
l1	160,0 mm
b	100,0 mm
b1	90,0 mm
h	40,0 mm

Approvals

In preparation, if not already printed on product label

Housing material: plastic material, black

Product Features

- Output current range 200-1050mA
- Output power up to 165W
- NFC programming interface
- Uout: 130 – 260 V_{DC}
- High surge capability up to 10kV
- 4DIM functionality
- Constant lumen function
- Full analog dimming
- Wide t_a range -40 – +55°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	164 – 276	V	External DC fuse necessary
	Maximum voltage	300	V_{AC}	Above 270V the load might switch off
	Nominal current	0.52	A	
	Total Harmonic Distortion (THD)	< 10	%	Full load 230V, 50Hz
	Power factor	> 0.98		Full load 230V, 50Hz
	Efficiency	93.5	%	Full load 230V, 50Hz
	Power losses	11.5	W	Maximum, full load
	No-load power	n/a	W	Load switching on output side is not permitted
	Stand-by power	< 250	mW	
	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	< 80	A pk	Max, th = 175 µs
	Max. units per circuit breaker	B10: 6 B16: 9 B25: 15		
OUTPUT	Nominal voltage range	130 – 260	V	
	Maximum voltage	300	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 350mA
	Current ripple	< 5	%	Ripple / average @ 100 Hz
	Nominal power range	26 – 165	W	
	Maximum power	165	W	LED output
	Galvanic isolation	Double		
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…+55	°C	
	Maximum case temperature t_c	90	°C	Measured on t_c point indicated of the product label, tc 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 acc to EN 61547 L/N – PE acc to EN 61547 6kV/6kV for use in DALI installations
	Environmental rating	Outdoor		
	IP rating	IP 20		
	Mains switching cycles	> 100’000		10 sec on, 10 sec off
	Expected lifetime	50`000	hrs	t_c = 90°C, 0.2% / 1`000 h failure rate
		100`000		t_c = 75°C, 0.1% / 1`000 h failure rate

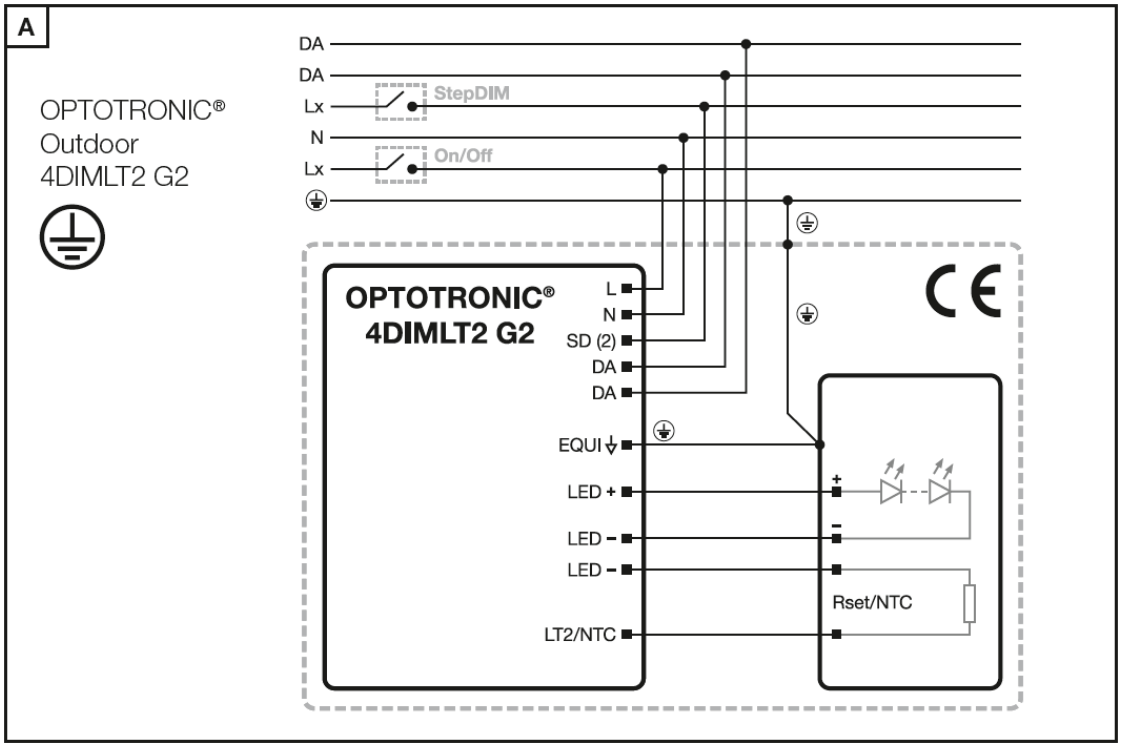
Protections

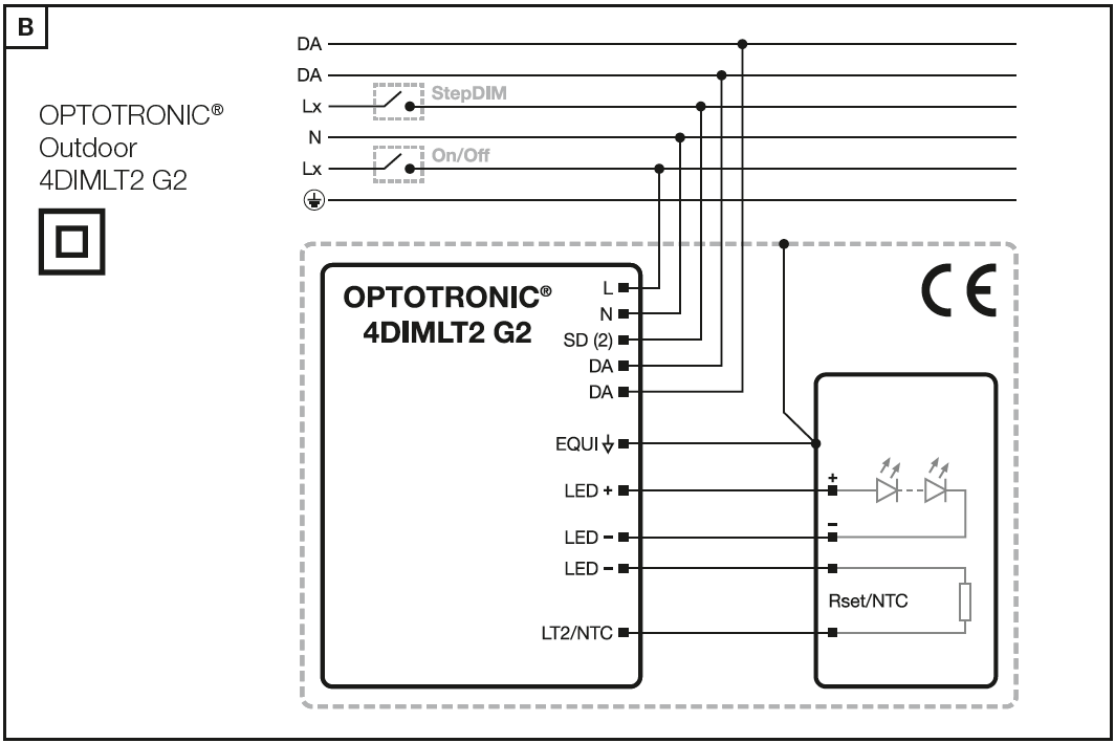
Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage

See remarks on page 4.

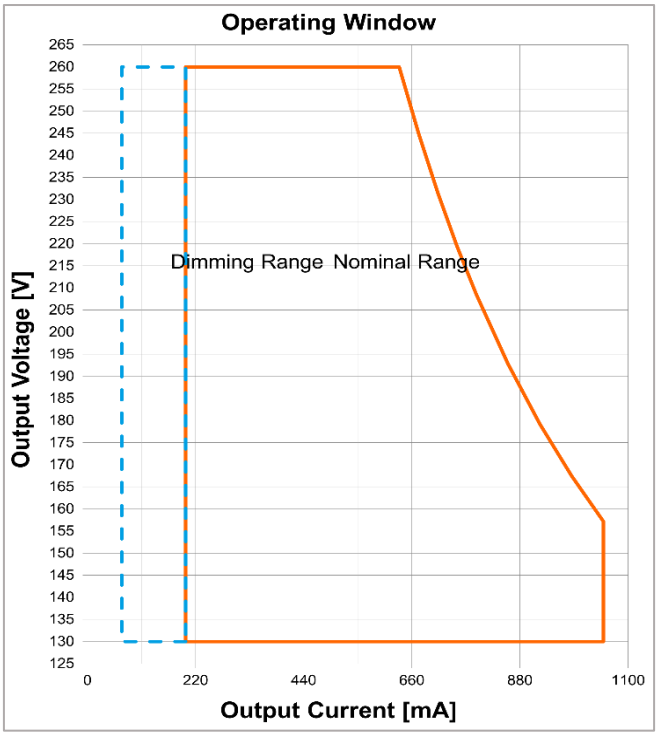
Wiring Diagram

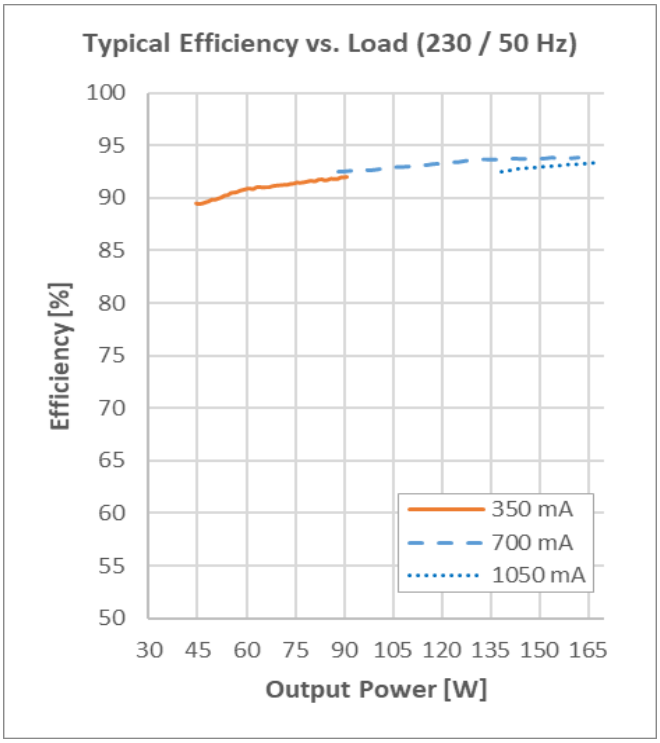
Wires cross section: 0,2 - 1,5 mm^2
Wire peeling length: 8.5 - 9.5 mm

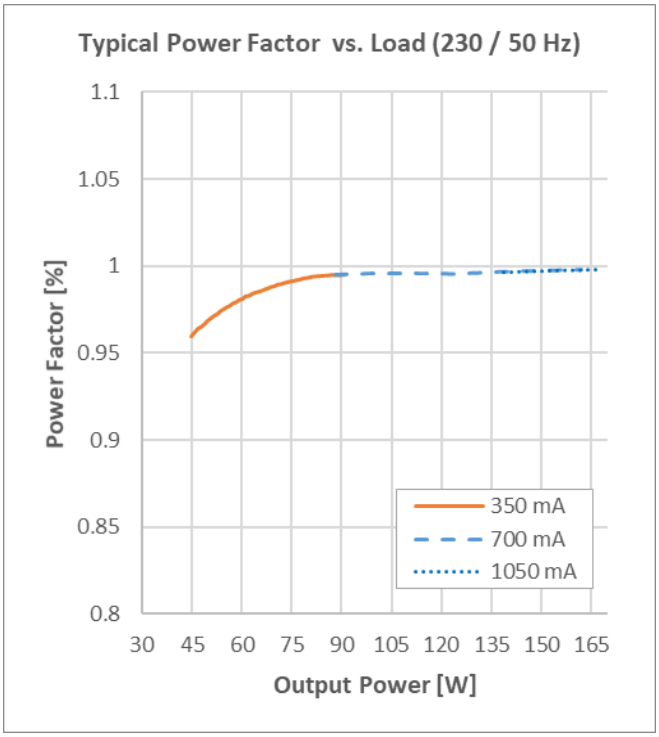


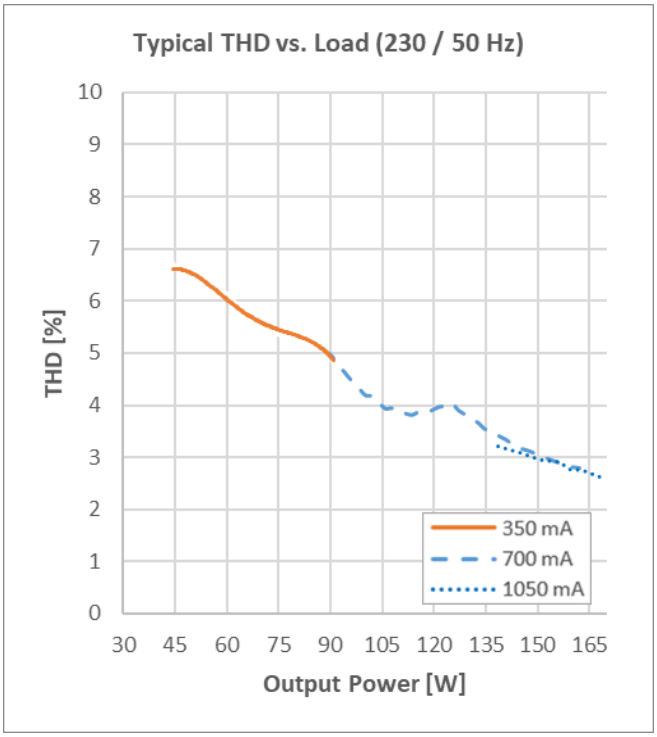


Electrical characteristics









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 not within the nominal output voltage range of the driver. 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 adjusts the output voltage to the maximum output voltage if no load is connected and switches off the load after some seconds. Hot-plug of the load or external switching on the secondary side is not allowed.
- 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 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.

Standards

EN 61347-1
EN 61347-2-13
EN 55015
EN 61547
EN 61000-3-2
EN 62384
EN 62386

Ordering information

Product name	Type	EAN10	EAN40	NAED	Pieces / box
OT 165/170-240/1A0 4DIMLT2 G2 CE	AM27202	4062172053952	4062172053969	n/a	10

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