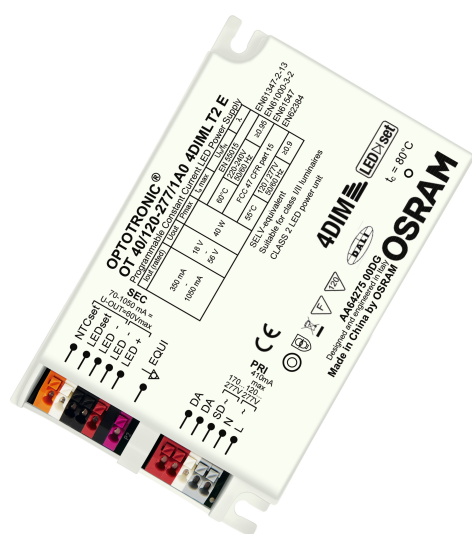


## SCHEDA TECNICA DEL PRODOTTO OT 40/120...277/1A0 4DIMLT2 E

OT 4DIM IP20 | DALI, AstroDIM, StepDIM, MainsDIM – constant current LED drivers



### Aree di applicazione

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires with IP > 54
- Suitable for use in outdoor luminaires of protection class I and II

### Vantaggi del prodotto

- 4DIM functionality in one device (StepDIM, AstroDIM, MainsDIM, DALI)
- Very high efficiency
- High surge protection: up to 10 kV (1 pulse) / 8 kV, in protection class I or II
- Low luminous efficacy tolerance through low output current tolerance of  $\pm 3\%$
- Great flexibility due to wide operating temperature range of  $-40\ldots55\text{ }^{\circ}\text{C}$  or  $60\text{ }^{\circ}\text{C}$
- Protection through double isolation between mains input and LED output

### Caratteristiche del prodotto

- Available with different wattage: 40 W, 60 W, 90 W, 165 W
- Input voltage: 120...277 V (40 W), 220...240 V (60 W, 90 W, 165 W)
- Current output range: 70...1,050 mA
- Flexible current setting with one additional wire (LEDset2)
- AstroDIM for autonomous dimming with five independent levels (astro, time mode)
- Allows for energy saving in twilight phases
- MainsDIM function for dimming via reduction of line voltage amplitude
- Isolated DALI interface for bidirectional telemanagement systems

- Standby power consumption: < 0.5 W
- Constant Lumen Output (CLO)
- Overtemperature protection via external NTC

## DATI TECNICI

## DATI ELETTRICI

|                                          |                           |
|------------------------------------------|---------------------------|
| Potenza nominale                         | 40,00 W                   |
| Potenza in uscita                        | 40 W <sup>1)</sup>        |
| Tensione nominale                        | 120...277 V               |
| Tensione in uscita                       | 15...56 V                 |
| Tensione in ingresso                     | 108...305 V <sup>2)</sup> |
| U-OUT                                    | 60 V                      |
| Corrente nominale                        | 0,2 A                     |
| Corrente in uscita                       | 70...1050 mA              |
| Corrente di innesco                      | 45 A                      |
| Tolleranza intensità corrente in uscita  | ±3 % <sup>3)</sup>        |
| Corrente in uscita (100 Hz)              | 15 %                      |
| Frequenza di rete                        | 50/60 Hz                  |
| Distorsione armonica totale              | 10 % <sup>4)</sup>        |
| Fattore di potenza $\lambda$             | 0,95 <sup>5)</sup>        |
| Efficienza ECG                           | 88,5 % <sup>6)</sup>      |
| Perdita di potenza                       | 6,5 W <sup>7)</sup>       |
| Numero max di ECG con autom. da 10 A (B) | 11 <sup>8)</sup>          |
| Numero max di ECG con autom. da 16 A (B) | 17 <sup>8)</sup>          |
| Numero max di ECG con autom. da 25 A (B) | 28 <sup>8)</sup>          |
| Resistenza ai transitori (L/N- terra)    | 10 kV <sup>9)</sup>       |
| Resistenza ai transitori (L/N)           | 6 kV <sup>10)</sup>       |
| Isolamento galvanico                     | SELV                      |
| Potenza dissipata in stand-by            | < 0.5 W                   |

1) Carico parziale 7...40 W / Non dimmerabile

2) Intervallo di tensione consentito

3) Entro l'intervallo della corrente di uscita nominale

4) Max. potenza di uscita a 230 V sub AC / sub

5) Minimo/Pieno carico a 230 V/Mezzo carico a 230 V

6) A pieno carico e 230 V

7) Massima

8) Tipo B

9) Impulso singolo 10kV / 12 Ohm (1,2 / 50 µs)

10) @ 2 Ohm, acc. to EN61547

## DIMENSIONI E PESO

|           |           |
|-----------|-----------|
| Lunghezza | 123,00 mm |
|-----------|-----------|

|                                         |                              |
|-----------------------------------------|------------------------------|
| Distanza tra fori di fissaggi-lunghezza | 111,0 mm                     |
| Larghezza                               | 79,00 mm                     |
| Larghezza (incl. Apparecchi rotondi)    | 79.00 mm                     |
| Altezza                                 | 33,00 mm                     |
| Altezza (incl. Apparecchi cilin.)       | 33.00 mm                     |
| Sezione dei cavi, lato ingresso         | 0.2...1.5 mm <sup>2</sup> 1) |
| Sezione dei cavi, lato uscita           | 0.2...1.5 mm <sup>2</sup> 2) |
| Spellatura dei cavi in ingresso         | 8.5...9.5 mm                 |
| Spellatura dei cavi in uscita           | 8.5...9.5 mm                 |
| Peso prodotto                           | 260,00 g                     |

1) Flessibile / Cavi rigidi / Polo equipotenziale solo 0,2...1,5 mm<sup>2</sup>

2) Flessibile / Cavi rigidi

## COLORI E MATERIALI

|                          |         |
|--------------------------|---------|
| Materiale dell'involucro | Metalli |
| Materiale del corpo      | Metalli |

## TEMPERATURE E CONDIZIONI DI FUNZIONAMENTO

|                                          |              |
|------------------------------------------|--------------|
| Temperatura ambiente                     | -40...+60 °C |
| t° max su punto di prova Tc              | 80 °C 1)     |
| Max temp involucro in caso di malfunzion | 120 °C       |
| Umidità relativa                         | 5...85 % 2)  |

1) Massimo a punto Tc

2) Non condensante, umidità assoluta: 36 g / m<sup>3</sup>

## Durata

|            |            |
|------------|------------|
| Durata ECG | 85000 h 1) |
|------------|------------|

1) A tcse = 70 °C al punto tc / tasso di guasto del 10 %

## CARATTERISTICHE

|                                        |                                                      |
|----------------------------------------|------------------------------------------------------|
| Dimmerabile                            | Sì                                                   |
| Interfaccia per la regolazione         | 4DIM / Mediante DALI / StepDIM / AstroDIM / MainsDIM |
| Campo di regolazione                   | 10...100 % 1)                                        |
| Protezione contro il surriscaldamento  | Reversibile automatico                               |
| Protezione contro il sovraccarico      | Reversibile automatico                               |
| Prova funzionamento a vuoto            | Sì                                                   |
| Protezione contro i corto circuiti     | Reversibile automatico                               |
| Lunghezza massima cavi ECG/lampada REM | 2,0 m                                                |

|                                          |                       |
|------------------------------------------|-----------------------|
| Idoneo per apparecchi con vetro frontale | I / II                |
| Tipo di connessione, controllo           | Terminale a pressione |

1) Corrente di uscita nominale 700 mA

## CERTIFICATI, NORME E DIRETTIVE

|                        |                                                                                                                                                                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marchi di approvazione | CE / ENEC 10 / UR / VDE / VDE-EMC / CQC                                                                                                                                                                                                                                                         |
| Norme                  | Secondo EN 61347-1 / Secondo EN 61347-2-13 / Secondo EN 62384 / Secondo EN 55015:2006 + A1:2007 + A2:2009 / Secondo EN 61547 / Secondo FCC 47 part 15 class B / Secondo IEC 61000-3-2 / Secondo IEC 61000-3-3 / Secondo IEC 62386-101 / Secondo IEC 62386-102 / Secondo IEC 62386-207 / UL-8750 |
| Classe di sicurezza    | II                                                                                                                                                                                                                                                                                              |
| Grado di protezione    | IP20                                                                                                                                                                                                                                                                                            |

## DATI LOGISTICI

|                           |             |
|---------------------------|-------------|
| Temperatura di stoccaggio | -25...80 °C |
|---------------------------|-------------|

## Apparecchiatura / Accessori

- DALI magic hardware for configuring 4DIM ECGs necessary
- Programmable via Tuner4TRONIC software

## INFORMAZIONI AGGIUNTIVE SUL PRODOTTO

- 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 350 Vac for a maximum of two hours. 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 allowed minimum output voltage of the driver. The driver automatically tries to switch on the load cyclically.
- In case the input voltage of the load exceeds the output voltage range of the driver, it automatically reduces the output current to keep the output voltage controlled to the maximum allowed output voltage.
- 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 30 % and then switches off.
- The EQUI pin shall 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. The type of NTC can be selected in the programming software in the temperature based mode. By default the resistor based mode is activated with following values: start derating: 6.3 kOhm, end derating 5.0 kOhm, shut off: 4.3 kOhm, derating level 50 %.
- The default dimming mode is StepDIM / AstroDIM / DALI (wiring selection) with following values for: - StepDIM: 100 % on, 50 % dimming level if SD port is active, fade time 180 s- AstroDIM: 100 % on, 50 % dimming level, 6 h dimming duration, start of dimming duration 2 h before the middle of the average switched-on time, fade time 180 s
- The constant lumen feature is disabled by default.
- For MainsDIM dimming mode and for 170 Vac input voltage condition the output power should not exceed 85 % of the maximum declared output power.
- 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, except for the 40 W type.
- If any output level is below the physical min level, the physical min level will be used.
- In case the 3DIM and 4DIMLT2 devices are operated on one common control phase connected to SD input the 3DIM devices needs to have a

- relay as described in the 3DIM application guide.
- The SD port is suitable for three phase systems with 220...240 Vac, for other input voltages only single phase systems are supported.
  - For further details please consult the 4DIMLT2 application guide.
  - 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 350 Vac for a maximum of two hours. 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 allowed minimum output voltage of the driver. The driver automatically tries to switch on the load cyclically.
  - In case the input voltage of the load exceeds the output voltage range of the driver, it automatically reduces the output current to keep the output voltage controlled to the maximum allowed output voltage.
  - 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 30 % and then switches off.
  - The EQUI pin shall 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. The type of NTC can be selected in the programming software in the temperature based mode.  
By default the resistor based mode is activated with following values: start derating: 6.3 kOhm, end derating 5.0 kOhm, shut off: 4.3 kOhm, derating level 50 %.
  - The default dimming mode is StepDIM / AstroDIM / DALI (wiring selection) with following values for: - StepDIM: 100 % on, 50 % dimming level if SD port is active, fade time 180 s- AstroDIM: 100 % on, 50 % dimming level, 6 h dimming duration, start of dimming duration 2 h before the middle of the average switched-on time, fade time 180 s

## DOWNLOAD

|                                                                                    | Documenti e certificati     | Nome del documento                                                                |
|------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------|
|  | Dichiarazioni di conformità | 539443_UL-Certificate OT 40/120-277/1A0 4DIMLT2 E                                 |
|  | Dichiarazioni di conformità | OT 4DIMLT2E CE 3667769 211119                                                     |
|  | Dichiarazioni di conformità | 712567_Declaration of Conformity OT 4 DIM LT2 E                                   |
|  | Dichiarazioni di conformità | 607414_Synergrid Conformity 4DIMLT2                                               |
|  | Certificati                 | 724035_INOTEC Requirements for control gears DALI V1 OT40 4DIMLT2E                |
|  | Certificati                 | VDE EMC Certificate 40038827                                                      |
|  | Certificati                 | 724028_EATON (CEAG)_requirements for DALI control gears LED V2.11 OT 40 4DIM LT2E |
|  | Certificati                 | 725971_Certificate OT40 4DIM                                                      |

## DATI LOGISTICI

| Codice prodotto | Unità di imballo (Pezzi/unità) | Dimensioni (lunghezza x profondità x altezza) | Peso lordo | Volume |
|-----------------|--------------------------------|-----------------------------------------------|------------|--------|
|-----------------|--------------------------------|-----------------------------------------------|------------|--------|

| Codice prodotto | Unità di imballo (Pezzi/unità) | Dimensioni (lunghezza x profondità x altezza) | Peso lordo | Volume   |
|-----------------|--------------------------------|-----------------------------------------------|------------|----------|
| 4052899925182   | Disimballato<br>1              |                                               | 260.00 g   |          |
| 4052899173767   | Cartone di spedizione<br>20    | 418 mm x 255 mm x 82 mm                       | 5549.00 g  | 8.74 dm³ |

Il codice prodotto indicato descrive la minore quantità che può essere ordinata. Una unità di spedizione può contenere uno o più di un singolo prodotto. Quando si inserisce un ordine, per la quantità inserire una o più unità di spedizione.

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