FICHE PRODUIT
OT 60/170…240/1A0 4DIMLT2 E

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

Zones d'application

- 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

Avantages du produit

- 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 ± 3 %
- Great flexibility due to wide operating temperature range of -40…55 °C or 60 °C
- Protection through double isolation between mains input and LED output

Caractéristiques du produit

- 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

DONNÉES TECHNIQUES

DONNÉES ÉLECTRIQUES

Puissance nominale	60,00 W
Puissance de sortie	60 W [1]
Tension nominale	220…240 V
Tension de sortie	30…115 V [2]
Tension à l'entrée	170…264 V [3]
U-OUT	120 V
Intensité nominale	0,3 A
Intensité de sortie	70…1050 mA [4]
Courant d'appel	53 A
Tolérance sur le courant de sortie	±3 % [5]
Courant d'ondulation de sortie (100 Hz)	15 %
Fréquence du réseau	50/60 Hz
Distorsion harmonique totale	10 % [6]
Facteur de puissance λ	0,95 [7]
Efficacité du BE	90,5 % [8]
Puissance dissipée	7,4 W [9]
Nbre max. de BE sur disjoncteur 10 A (B)	8 [10]
Nbre max. de BE sur disjoncteur 16 A (B)	12 [10]
Nbre max. de BE sur disjoncteur 25 A (B)	20 [10]
Tension max. entre Phase/Neutre et Terre	10 kV [11]
Tension maximum entre Phase/Neutre	6 kV [12]
Isolation galvanisée	SELV
Consommation en veille	< 0.5 W

1) Charge partielle 11…60 W / Non gradé

2) 35…115 V pour courant de sortie > 700 mA

3) Plage de tension autorisée

4) ±5% (350…1050 mA)

5) Dans la plage de courant de sortie nominal

6) Puissance de sortie maximale de 230 V V_{AC}

7) Charge minimale/pleine à 230 V/demi-charge à 230 V

8) A pleine charge et 230 V

9) Maximum

10) Type B

11) Impulsion seule 10kV / 12 Ohm (1/2/50µs)

12) @ 2 ohms, selon. à EN61547

DIMENSIONS ET POIDS

Longueur	133,00 mm
Entraxe de fixation, longueur	122,5 mm
Largeur	77,00 mm
Largeur (y compris les luminaires ronds)	77.00 mm
Hauteur	40,00 mm
Hauteur (luminaires cycliques inclus)	40.00 mm
Section du câble au primaire	0,25…2,5 mm^2 1)
Section du câble au secondaire	0.2…1.5 mm^2 2)
Longueur à dénuder, côté primaire	10…11 mm 3)
Longueur à dénuder, côté secondaire	8.5…9.5 mm
Poids du produit	280,00 g

1) Flexible / Conducteurs rigides / Pôle équipotentiel seulement 0,2...1,5 mm^2.

2) Flexible / Conducteurs rigides

3) Borne équipotentielle 8,5…9,5

COULEURS ET MATÉRIAUX

Matériau du boîtier	Métal
Matériau de corps	Métal

TEMPÉRATURES ET CONDITIONS DE FONCTIONNEMENT

Plage de température ambiante	-40…+60 °C
Température maximale au point de test	85 °C 1)
Temp. max. admissible en cas d'anomalie	120 °C
Humidité relative	5…85 % 2)

1) Maximum au point Tc

2) Pas de condensation, taux d'humidité absolu: 36g/m^3

Durée de vie

Vie ECG	85000 h 1)

1) A tcase = 75 °C au point Tc / taux de défaillance de 10 %

CAPACITÉS

Gradable	Oui
Gradateur	4DIM / DALI / StepDIM / AstroDIM / MainsDIM
Plage de gradation	10…100 % 1)
protection contre la surchauffe	Automatique et réversible
Protection contre la surcharge	Automatique et réversible
Charge à vide	Oui
Protection contre les courts-circuits	Automatique et réversible

Longueur max. entre ballast et lampe REM	2,0 m
Pour appareil avec classe de protec	I / II
Type de raccordement, côté sortie	Bornier automatique

1) Pour une sortie de courant nominal de 700 mA

CERTIFICATS ET NORMES

Labels et agréments	CE / ENEC 10 / VDE / VDE-EMC / CQC
Normes	Conformément à EN 61347-1 / Conformément à EN 61347-2-13 / Conformément à EN 62384 / Conformément à EN 55015:2006 + A1:2007 + A2:2009 / Conformément à EN 61547 / Conformément à IEC 61000-3-2 / Conformément à IEC 61000-3-3 / Conformément à IEC 62386-101 / Conformément à IEC 62386-102 / Conformément à IEC 62386-207
Classe de protection	II
Type de protection	IP20

DONNÉES LOGISTIQUES

Plage de température de stockage	-25…80 °C

ÉQUIPEMENT / ACCESSOIRES

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

INFORMATIONS SUPPLÉMENTAIRES SUR LE PRODUIT

- 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 actived 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 actived 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

TÉLÉCHARGEMENTS

	Documents et certificats	Nom du document
PDF	Déclarations de conformité	OT 4DIMLT2E CE 3667769 211119
PDF	Déclarations de conformité	607414_Synergrid Conformity 4DIMLT2
PDF	Déclarations de conformité	712567_Declaration of Conformity OT 4 DIM LT2 E
PDF	Certificats	724033_INOTEC Requirements for control gears DALI V1 OT60 4DIMLT2E
PDF	Certificats	725972_Certificate OT60 4 DIM
PDF	Certificats	724029_EATON (CEAG) requirements for DALI control gears LED V2.11 OT 60 4DIM LT2E
PDF	Certificats	VDE EMC Certificate 40038827

DONNÉES LOGISTIQUES

Code produit	Unité d'emballage (Pièces/Unité)	Dimensions (longueur x largeur x hauteur)	Poids approximatif	' Volume
4052899925199	Sans emballage individuel 1		280.00 g	
4052899925236	Carton de regroupement 20	500 mm x 335 mm x 150 mm	6634.00 g	25.13 dm^3

Le code produit mentionné décrit la petite quantité d'unité qui peut être commandée. Une unité peut contenir un ou plusieurs produits. Lorsque vous passez la commande, merci de bien vouloir entrer une unité ou un multiple d'une unité.

AVERTISSEMENT

Sous réserve de modifications. Sauf erreur ou omission. Veillez à toujours utiliser la version la plus récente.