

# PRODUCT DATASHEET PTo 150/220...240 3DIM

POWERTRONIC® OUTDOOR PTo | ECG for HID lamps, for outdoor lighting



#### Areas of application

- Suitable for luminaires of protection classes I and II
- Suitable for outdoor applications in luminaires with IP > 54

## **Product benefits**

- Energy savings up to 30 % (compared to CCG operation) thanks to 3DIM (except PTo 35)
- High surge protection: up to 3 kV (L-N) / 4 kV (L/N-PE)
- Automatic safety shutdown of lamps in the event of a defect or at end of life (EoL)
- Excellent thermal behavior for very high limit temperatures tc and ta

#### **Product features**

- 3DIM functionality (StepDIM/AstroDIM/DALI)
- Energy Efficiency Index EEI: A2
- Lightning protection: up to 10 kV
- Supply voltage: 220...240 V
- Line frequency: 50...60 Hz

- Line harmonics according to EN 61000-3-2
- Immunity according to EN 61547
- RI suppression: to EN 55015
- Safety: to EN 61347-2-12
- Luminous flux factor 1 compared with CCG operation
- Not suitable for DC operation

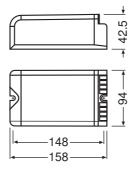
# TECHNICAL DATA

# Electrical data

Nominal wattage	160.00 W
Nominal voltage	220240 V
Nominal output voltage	250 V
Input voltage AC	198264 V
U-OUT (working voltage)	250 V
Type of current	AC
Inrush current	70 A <sup>1)</sup>
Mains frequency	50/60 Hz
Power factor $\lambda$	0.95 <sup>2)</sup>
ECG efficiency	91 %
Max. ECG no. on circuit breaker 10 A (B)	4 3)
Max. ECG no. on circuit breaker 16 A (B)	7 3)
Surge capability (L/N-Ground)	4 kV
Surge capability (L-N)	3 kV
Operating frequency	0.165 kHz
Power loss in stand-by mode	< 0.5 W

<sup>1)</sup>  $t_{width} = 250 \mu s$  (measured at 50 %  $t_{beak}$ )

# Dimensions & Weight



Length	158.00 mm
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<sup>2) &</sup>lt;sub>Minimum</sub>

<sup>3)</sup>  $_{\text{Type B}}$ 

Mounting hole spacing, length	148,0 mm
Width	94.00 mm
Height	42.50 mm
Cable cross-section, input side	0,52,5 mm <sup>2</sup>
Cable cross-section, output side	0,52,5 mm <sup>2</sup>
Wire preparation length, input side	1011 mm
Wire preparation length, output side	1011 mm
Product weight	900.00 g

#### Colors & materials

Product color	Black
Casing material	Plastic
Body material	Plastic

# Temperatures & operating conditions

Ambient temperature range	-25+55 °C
Maximum temperature at tc test point	85 °C
Max.housing temperature in case of fault	110 °C
Permitted rel. humidity during operation	585 % <sup>1)</sup>

<sup>1)</sup> Maximum 56 days/year at 85 %

# Lifespan

ECG lifetime 60000 h 1)	ECG lifetime	60000 h <sup>1)</sup>
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<sup>1)</sup> At  $T_{case} = 80^{\circ}\text{C}$  at  $T_{c}$  point / 10% failure rate

## Additional product data

Encapsulated	Yes 1)

<sup>1)</sup> PCB fully encapsulated + dust proof plastic housing

# Capabilities

Dimmable	Yes
Dimming interface	DALI / StepDIM / AstroDIM
Dimming range	60100 %
Overheating protection	Power reduction and switch off at T > 85 °C at the tc point
Max. cable length to lamp/LED module	1,5 m
Suitable for fixtures with prot. class	1/11

Suitable for emergency lighting	No
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#### Certificates & Standards

Approval marks – approval	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick
Standards	Acc. to EN 61347-2-12 / Acc. to EN 55015 / Acc. to EN 61000-3-2 / Acc. to EN 61547 / Acc. to EN 62386-101 / Acc. to EN 62386-102 / Acc. to EN 62386-103
Protection class	I
Type of protection	IP20
Energy efficiency class	A2
EEI – Energy Label	A2

#### LOGISTICAL DATA

Temperature range at storage	-40+85 °C

## Energy labelling regulation data acc EU 2019/2015

Networked standby power for CLS	< 0.50 W

# Safety advice

Ballast losses and lamp heat radiation can lead to heat accumulation in a completely closed case. Therefore it is necessary to ensure that the temperature at the measuring point t of the ECG does not exceed the maximum value.

#### Attention!

For safety reasons disconnect the device before replacing the lamp!

#### ADDITIONAL PRODUCT INFORMATION

- An external relay connected in front of the SD port is necessary in StepDIM installations. The relay needs to be selected in a way that it is not switched or hold by the occurring leakage currents in the installation.

#### DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	334206_Technical guide - POWERTRONIC for HID-lamps (GB)
POF	User instruction / safety instructions	590728_EAC-PTO
POF	Declarations of conformity	339884_Tender Document for POWERTRONIC EVG.eng

	Documents and certificates	Document name
PDF	Declarations of conformity	VD EMC Certificate 40025469
PDF	Declarations of conformity	EU Declaration of Conformity 3363432
PDF	Certificates	554891_EAC PT family
PDF	Certificates	VDE ENEC Certificate 40035813
PDF	EU Data Act	Connected Products and Related Software and Services

# LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4008321956385	Unpacked 1	159 mm x 39 mm x 90 mm	960.00 g	0.56 dm <sup>3</sup>
4008321956392	Shipping box 10	313 mm x 193 mm x 273 mm	9756.00 g	16.49 dm <sup>3</sup>

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

### **DISCLAIMER**

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.