PRODUCT DATASHEET
PTo 70/220…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 t_c and t_a

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

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- 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

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TECHNICAL DATA

Electrical data

Nominal wattage	80.00 W
Nominal voltage	220…240 V
Nominal output voltage	250 V
Input voltage AC	198…264 V
U-OUT (working voltage)	250 V
Type of current	AC
Inrush current	35 A [1]
Mains frequency	50/60 Hz
Power factor λ	0.95 [2]
ECG efficiency	91 % [3]
Max. ECG no. on circuit breaker 10 A (B)	7 [4]
Max. ECG no. on circuit breaker 16 A (B)	13 [4]
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

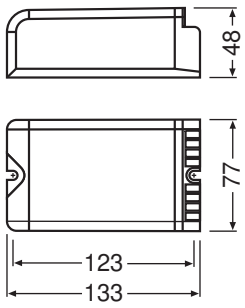
1) t_{width} = 350 µs (measured at 50 % I_{peak})

2) Minimum

3) Approximately

4) Type B

Dimensions & Weight



Length	133.00 mm

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Mounting hole spacing, length	123,0 mm
Width	77.00 mm
Height	48.00 mm
Cable cross-section, input side	0,5…2,5 mm^2
Cable cross-section, output side	0,5…2,5 mm^2
Wire preparation length, input side	10…11 mm
Wire preparation length, output side	10…11 mm
Product weight	730.00 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	75 °C
Max.housing temperature in case of fault	110 °C
Permitted rel. humidity during operation	5…85 % [1]

[1] Maximum 56 days/year at 85 %

Lifespan

ECG lifetime	60000 h [1]

[1] At maximum T_c / 8% failure rate

Additional product data

Encapsulated	Yes [1]

[1] PCB fully encapsulated + dust proof plastic housing

Capabilities

Dimmable	Yes
Dimming interface	DALI / StepDIM / AstroDIM
Dimming range	60…100 %
Overheating protection	Power reduction and switch off at T > 75 °C at the tc point
Max. cable length to lamp/LED module	1,5 m
Suitable for fixtures with prot. class	I / II

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Suitable for emergency lighting	No

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
PDF	User instruction
PDF	Declarations Of Conformity CE
PDF	Certificates

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LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4008321959355	Unpacked 1	134 mm x 49 mm x 75 mm	730.00 g	0.49 dm^3
4008321959362	Shipping box 20	483 mm x 167 mm x 285 mm	15571.00 g	22.99 dm^3

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.

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