POWERTRONIC OUTDOOR PTo

ECG for HID lamps, for outdoor lighting

Product family 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

Product family 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

Areas of application

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

Technical data

	Electrical data				
Product description	**Lamp wattage**	**Maximum output power**	**Line current**	**Ignition voltage**	**Operating frequency**
PTo 100/220...240 3DIM	97 W	97 W	0.48 A [1)]	4.5 kVp	0.165 kHz
PTo 150/220...240 3DIM	147 W	147 W	0.71 A [1)]	4.5 kVp	0.165 kHz

Product description	**System wattage**	**Efficiency in full-load**	**Input voltage AC**	**Nominal voltage**	**Nominal input voltage (SD port)**
PTo 100/220...240 3DIM	106.00 W	91 %	198...264 V	220...240 V	220...240 V [2)]
PTo 150/220...240 3DIM	160.00 W	91 %	198...264 V	220...240 V	220...240 V [2)]

Product description	**Mains frequency**	**Power factor λ**	**Inrush current**	**Max. ECG no. on circuit breaker 10 A (B)**	**Max. ECG no. on circuit breaker 16 A (B)**	**U-OUT (working voltage)**
PTo 100/220...240 3DIM	50...60 Hz	0.95 [3)]	60 A [4)]	4 [5)]	7 [5)]	250 V
PTo 150/220...240 3DIM	50...60 Hz	0.95 [3)]	70 A [4)]	4 [5)]	7 [5)]	250 V

				Dimensions & weight			
Product description	**Max. working voltage between LH and LL**	**Max. working voltage betw. LL/LH & earth**	**Max. capacitance of wire ECG/lamp**	**Length**	**Width**	**Height**	**Mounting hole spacing, length**
PTo 100/220...240 3DIM	250 V	250 V	120 pF	158.0 mm	94.0 mm	42.5 mm	148.0 mm
PTo 150/220...240 3DIM	250 V	250 V	120 pF	158.0 mm	94.0 mm	42.5 mm	148.0 mm

Product description	**Cable cross-section, input side**	**Cable cross-section, output side**	**Wire preparation length, input side**	**Wire preparation length, output side**	**Product weight**
PTo 100/220...240 3DIM	0.5...2.5 mm²	0.5...2.5 mm²	10...11 mm	10...11 mm	900.00 g
PTo 150/220...240 3DIM	0.5...2.5 mm²	0.5...2.5 mm²	10...11 mm	10...11 mm	900.00 g

	Colors & materials	**Temperatures & operating conditions**		**Lifespan**	**Additional product data**
Product description	**Casing material**	**Ambient temperature range**	**Maximum temperature at tc test point**	**ECG lifetime**	**Design / version**
PTo 100/220...240 3DIM	Plastic	-25...+55 °C	75 °C	60000 h [6)]	ECG outdoor
PTo 150/220...240 3DIM	Plastic	-25...+55 °C	85 °C	60000 h [7)]	ECG outdoor

	Capabilities			
Product description	**Dimming interface**	**Max. cable length to lamp/LED module**	**Overheating protection**	**ECG reset time**
PTo 100/220...240 3DIM	DALI / StepDIM / AstroDIM	1.5 m	Power reduction and switch off at T > 75 °C at the tc point	> 0.5 s
PTo 150/220...240 3DIM	DALI / StepDIM / AstroDIM	1.5 m	Power reduction and switch off at T > 85 °C at the tc point	> 0.5 s

					Certificates & standards
Product description	**Dimmable**	**Restriction on ignition time**	**Suitable for fixtures with prot. class**	**Lightning stroke protection**	**Approval marks – approval**
PTo 100/220...240 3DIM	Yes	20 min	I / II	With connected equipotentiality-terminal 10 surges with 10 kV acc. to IEC 61000-4-5	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick
PTo 150/220...240 3DIM	Yes	20 min	I / II	With connected equipotentiality-terminal 10 surges with 10 kV acc. to IEC 61000-4-5	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick

				Logistical data
Product description	**Type of protection**	**EEI – Energy Label**	**Standards**	**Commodity code**
PTo 100/220...240 3DIM	IP20	A2	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	85041080900
PTo 150/220...240 3DIM	IP20	A2	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	85041080900

	Environmental information Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)			
Product description	**Date of Declaration**	**Primary Article Identifier**	**Candidate List Substance 1**	**CAS No. of substance 1**
PTo 100/220...240 3DIM	26-05-2023	4008321956361	Lead	7439-92-1
PTo 150/220...240 3DIM	26-05-2023	4008321956385	Lead	7439-92-1

Product description	**Safe Use Instruction**	**Declaration No. in SCIP database**
PTo 100/220...240 3DIM	The identification of the Candidate List substance is sufficient to allow safe use of the article.	10f1e037-01ef-4172-9116-4160239b4dd0
PTo 150/220...240 3DIM	The identification of the Candidate List substance is sufficient to allow safe use of the article.	eb7b8c7c-7483-4cb5-b5a0-3efaac249b6d

1) At 230 V_{AC}

2) In relation to L/N

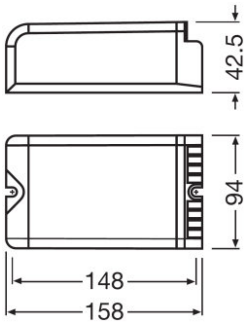
3) Minimum

4) t_{width} = 250 µs (measured at 50 % I_{peak})

5) Type B

6) At maximum T_c / 8% failure rate

7) At T_{case} = 80°C at T_c point / 10% failure rate



511950_PTo 100, PTo 150 3DIM

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!

Application advice

For more detailed application information and graphics please see product datasheet.

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.
- In order to achieve good radio interference suppression:1. Keep the cable between ECG and lamp as short as possible.2. The single lamp wires must be routed as close as possible to each other.

Sales and Technical Support

Sales and Technical Support www.osram.com

Download Data

	File

	User instruction POWERTRONIC PTo
	Tender documents 339884_Tender Document for POWERTRONIC EVG.eng
	Certificates 554891_EAC PT family
	Certificates PTO PTI ENEC 40035813 020623
	Declarations of conformity PT_FIT PTi PTo CE 3363432 020823
	Declarations of conformity Pti Pto PT-FIT EMC 280722
	Operating instructions 590728_EAC-PTO
	CAD data 3-dim 341253_CAD data 3-dim – PTo100_150 IGS
	CAD data 3-dim 341254_CAD data 3-dim – PTo100_150.STEP

Ecodesign regulation information:

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4008321956361	PTo 100/220…240 3DIM	Shipping carton box 10	313 mm x 273 mm x 193 mm	16.49 dm^3	9756.00 g
4008321956385	PTo 150/220…240 3DIM	Shipping carton box 10	313 mm x 273 mm x 193 mm	16.49 dm^3	10450.00 g

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.