POWERTRONIC INTELLIGENT PTi S

ECG for HID lamps, for installation in luminaires



Areas of application

- Shop lighting
- Health and fitness areas (in luminaires with protection class IP66 or higher)
- Effect and accent lighting

Product family benefits

- Long reliable life at maximum permitted temperatures
- Compact dimensions and low weight for small luminaire designs
- Excellent thermal behavior for very high limit temperatures t_c and t_a
- Automatic safety shutdown of lamps in the event of a defect or at end of life (EoL)

Product family features

- Energy Efficiency Index EEI: A2
- Supply voltage: 220…240 V
- Line frequency: 50…60 Hz
- RI suppression: to EN 55015/CISPR 15
- Safety: to EN 61347-2-12
- Line harmonics according to EN 61000-3-2
- Immunity according to EN 61547

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Technical data

Electrical data

Product description	Lamp wattage	Maximum output power	Line current	Ignition voltage	Operating frequency
PTi 35/220…240 S	39 W	39 W	0.19 A [1]	4.5 kVp	0.200…0.240 kHz
PTi 35/220…240 S MINI	39 W	39 W	0.19 A [1]	3.0 kVp	0.100…0.120 kHz
PTi 70/220…240 S	73 W	73 W	0.36 A [1]	4.5 kVp	0.200…0.240 kHz
PTi 150/220…240 S	147 W	147 W	0.72 A [1]	4.5 kVp	0.165 kHz

Product description	System wattage	Efficiency in full-load	Input voltage AC	Nominal voltage	Mains frequency
PTi 35/220…240 S	43.00 W	91 %	198…264 V	220…240 V	50…60 Hz
PTi 35/220…240 S MINI	43.00 W	90 %	198…264 V	220…240 V	50…60 Hz
PTi 70/220…240 S	79.00 W	92 %	198…264 V	220…240 V	50…60 Hz
PTi 150/220…240 S	160.00 W	92 %	198…254 V	220…240 V	50…60 Hz

Product description	Power factor λ	Inrush current	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (B)	Max. no. of ECGs on 16A MCB with EBN-OS	U-OUT (working voltage)
PTi 35/220…240 S	0.95 [2]	30 A [3]	15 [4]	26 [4]	65 [4]	250 V
PTi 35/220…240 S MINI	0.95 [2]	20 A [5]	17 [4]	28 [4]	70 [4]	250 V
PTi 70/220…240 S	0.95 [2]	45 A [6]	7 [4]	13 [4]	32 [4]	250 V
PTi 150/220…240 S	0.95 [2]	70 A [6]	4 [4]	7 [4]	17 [4]	250 V

Product description	Max. working voltage between LH and LL	Max. working voltage betw. LL/LH & earth	Max. capacitance of wire ECG/lamp
PTi 35/220…240 S	250 V	250 V	120 pF
PTi 35/220…240 S MINI	250 V	250 V	40 pF
PTi 70/220…240 S	250 V	250 V	120 pF
PTi 150/220…240 S	250 V	250 V	120 pF

[1] At 230 V_{AC}

[2] Minimum

[3] t_{width} = 150 µs (measured at 50 % I_{peak})

[4] Type B

[5] t_{width} = 170 µs (measured at 50 % I_{peak})

[6] t_{width} = 250 µs (measured at 50 % I_{peak})

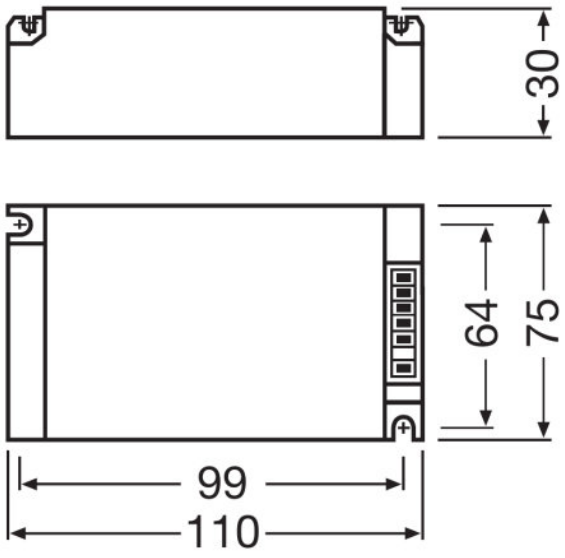
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Dimensions & weight

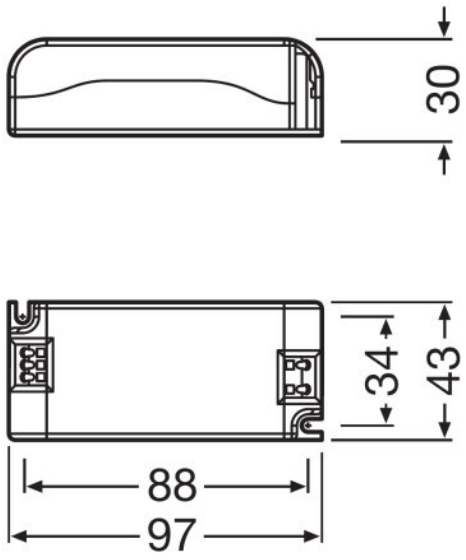
Product description	Length	Width	Height	Mounting hole spacing, length	Mounting hole spacing, width	Cable cross-section, input side
PTi 35/220…240 S	110.0 mm	75.0 mm	30.0 mm	99.0 mm	64.0 mm	0.5…2.5 mm²
PTi 35/220…240 S MINI	97.0 mm	43.0 mm	30.0 mm	88.0 mm	34.0 mm	0.5…1.5 mm²
PTi 70/220…240 S	110.0 mm	75.0 mm	30.0 mm	99.0 mm	64.0 mm	0.5…2.5 mm²
PTi 150/220…240 S	150.0 mm	85.0 mm	31.0 mm	139.0 mm	74.0 mm	0.5…2.5 mm²

Product description	Cable cross-section, output side	Wire preparation length, input side	Wire preparation length, output side	Product weight
PTi 35/220…240 S	0.5…2.5 mm²	10…11 mm	10…11 mm	250.00 g
PTi 35/220…240 S MINI	0.5…1.5 mm²	8.5…9.5 mm	8.5…9.5 mm	105.00 g
PTi 70/220…240 S	0.5…2.5 mm²	10…11 mm	10…11 mm	255.00 g
PTi 150/220…240 S	0.5…2.5 mm²	10…11 mm	10…11 mm	370.00 g

Product line drawing

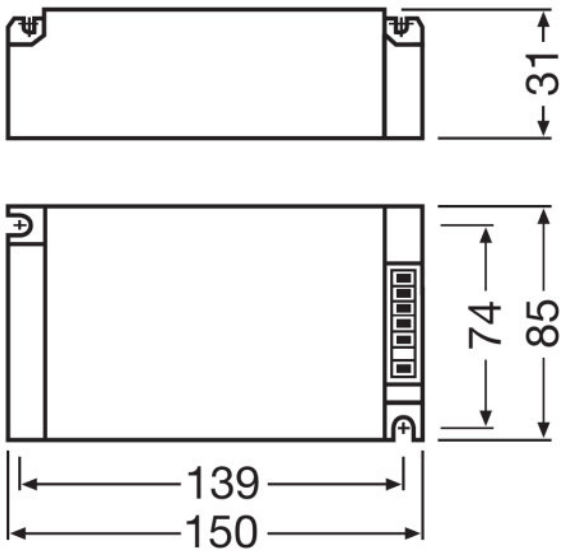


PTi 35/220…240 S, PTi 70/220…240 S



PTi 35/220…240 S MINI

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PTi 150/220...240 S

Colors & materials

Product description	Casing material
PTi 35/220...240 S	Metal
PTi 35/220...240 S MINI	Plastic
PTi 70/220...240 S	Metal
PTi 150/220...240 S	Metal

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point
PTi 35/220...240 S	-25...+65 °C	85 °C
PTi 35/220...240 S MINI	-25...+50 °C	80 °C
PTi 70/220...240 S	-25...+55 °C	85 °C
PTi 150/220...240 S	-25...+55 °C	85 °C

Lifespan

Product description	ECG lifetime
PTi 35/220...240 S	50000 h [1)]
PTi 35/220...240 S MINI	50000 h [1)]
PTi 70/220...240 S	50000 h [1)]
PTi 150/220...240 S	40000 h [1)]

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[1] At maximum T_c / 10% failure rate

Additional product data

Product description	Design / version
PTi 35/220…240 S	Built-in unit
PTi 35/220…240 S MINI	Built-in unit
PTi 70/220…240 S	Built-in unit
PTi 150/220…240 S	Built-in unit

Capabilities

Product description	Max. cable length to lamp/LED module	Overheating protection	Overvoltage protection at 275…300 V	Overvoltage protection at 300…320 V
PTi 35/220…240 S	1.5 m	Power reduction and switch off at T > 85 °C at the tc point	48 h [1]	2 h [1]
PTi 35/220…240 S MINI	0.5 m	Power reduction and switch off at T > 80 °C at the tc point		
PTi 70/220…240 S	1.5 m	Power reduction and switch off at T > 85 °C at the tc point	48 h [1]	2 h [1]
PTi 150/220…240 S	1.5 m	Power reduction and switch off at T > 85 °C at the tc point		

Product description	Overvoltage protection at 320…350 V	ECG reset time	Dimmable	Restriction on ignition time	Suitable for fixtures with prot. class
PTi 35/220…240 S	5 min [2]	> 0.5 s	No	20 min	I
PTi 35/220…240 S MINI		> 0.5 s	No	20 min	I / II
PTi 70/220…240 S	5 min [2]	> 0.5 s	No	20 min	I
PTi 150/220…240 S		> 0.5 s	No	20 min	I

[1] Control gear switches off after 40 s

[2] Control gear switches off or does not start

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Certificates & standards

Product description	Approval marks – approval	Type of protection	EEI – Energy Label	Standards
PTi 35/220...240 S	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2	Acc. to EN 61547/Acc. to EN 61000-3-2/IEC 1000-3-2/Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547
PTi 35/220...240 S MINI	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547
PTi 70/220...240 S	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547
PTi 150/220...240 S	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547

Logistical data

Product description	Commodity code
PTi 35/220...240 S	85041080900
PTi 35/220...240 S MINI	85041080900
PTi 70/220...240 S	85041080900
PTi 150/220...240 S	85041080900

Environmental information
Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)

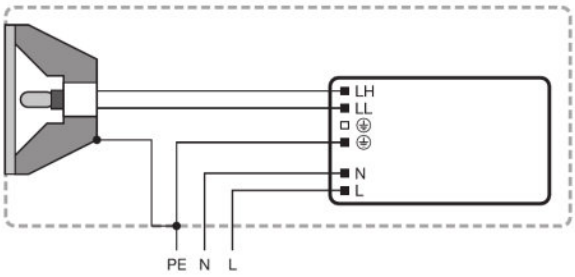
Product description	Date of Declaration	Primary Article Identifier	Candidate List Substance 1
PTi 35/220...240 S	26-05-2023	4008321073112	Lead
PTi 35/220...240 S MINI	19-05-2023	4008321955906	Lead
PTi 70/220...240 S	26-05-2023	4008321049629	Lead
PTi 150/220...240 S	26-05-2023	4008321188090	Lead

Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
PTi 35/220...240 S	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	08ba73c3-774a-44b6-ad92-2341e3613ca0
PTi 35/220...240 S MINI	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	bcd731d9-6096-4f94-95cc-8d9340b26161

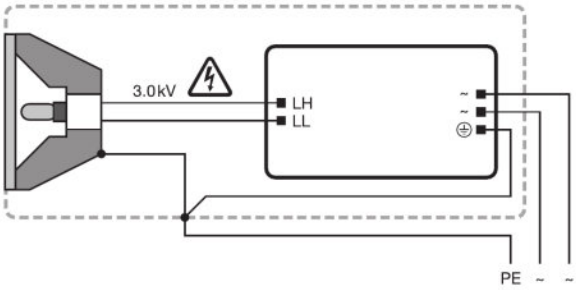
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Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
PTi 70/220…240 S	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	0b818340-d638-4445-9933-2ebbeaa7f5be
PTi 150/220…240 S	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	94ca8af6-0f97-42b5-adf8-02db34b3d045

Wiring Diagram



PTi 35/220…240 S, PTi 70/220…240 S, PTi 150/220…240 S



PTi 35/220…240 S MINI

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!
Any conductive material must have a minimum distance of 4 mm to the front of the terminal block.
Installation by qualified electrician only.
Terminals for protective earth not suitable for any through connection.

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Application advice

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

Additional product information

- 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

Country specific information

Product description	Product code	METEL code	SEG-No.	STK number	UK Org
PTi 35/220...240 S	4008321073112	OSRPTI35S	-	4030182	-
PTi 35/220...240 S	4008321073112	OSRPTI35S	-	4030182	-
PTi 35/220...240 S MINI	4008321955906	OSRPTI35SM	-	4030087	-
PTi 35/220...240 S MINI	4008321955906	OSRPTI35SM	-	4030087	-
PTi 70/220...240 S	4008321049629	OSRPTI70S	-	4030139	-
PTi 70/220...240 S	4008321049629	OSRPTI70S	-	4030139	-
PTi 150/220...240 S	4008321188090	OSRPTI150S	-	4030190	-
PTi 150/220...240 S	4008321188090	OSRPTI150S	-	4030190	-

Download Data

	File
	User instruction POWERTRONIC PTi S PT FIT S
	Addon Technical Information 58001_ADDON TECHNICAL INFORMATION PTi 35 S, PTi 70 S (GB)
	Tender documents 339884_Tender Document for POWERTRONIC EVG.eng
	Certificates 554891_EAC PT family
	Certificates PTO PTI ENEC 40035813 020623

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	Declarations of conformity Powertronic UK DoC 4278196 150222
	Declarations of conformity PT_FIT PTi PTo CE 3363432 020823
	Declarations of conformity Pti Pto PT-FIT EMC 280722
	Operating instructions 590729_EAC - PTI S PT-FIT S
	CAD data 3-dim 313434_110x75x30 9900004
	CAD data 3-dim 313482_110x75x30 9900004
	CAD data 3-dim 313512_110x75x30 9900004
	CAD data PDF 313407_110x75x30 9900004
	Addon Technical Information 47616_ADDON TECHNICAL INFORMATION POWERTRONIC PTi 70 S (GB)
	CAD data 3-dim 315662_PTi 100150 S ASSEMBLY 9900047
	CAD data 3-dim 315663_PTi 100150 S ASSEMBLY 9900047
	CAD data 3-dim 315664_PTi 100150 S ASSEMBLY 9900047
	CAD data PDF 315657_PTi 100150 S ASSEMBLY 9900047

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
4008321073112	PTi 35/220...240 S	Shipping carton box 20	412 mm x 136 mm x 186 mm	10.42 dm^3	5169.89 g
4008321955906	PTi 35/220...240 S MINI	Shipping carton box 20	228 mm x 208 mm x 78 mm	3.70 dm^3	2303.00 g

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Logistical Data

4008321049629	PTi 70/220…240 S	Shipping carton box 20	412 mm x 152 mm x 136 mm	8.52 dm^3	5370.00 g
4008321188090	PTi 150/220…240 S	Shipping carton box 20	403 mm x 205 mm x 191 mm	15.78 dm^3	8011.00 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.

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