

PRODUCT FAMILY DATASHEET 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

TECHNICAL DATA

Electrical data

Product description	Lamp wattage	Line current	Ignition voltage	Operating frequency	System wattage [AGGR]	ECG efficiency
PTi 35/220...240 S	39 W	0.19 A ¹⁾	4.5 kVp	0.200...0.240 kHz	43.00 W	91 %
PTi 35/220...240 S MINI	39 W	0.19 A ¹⁾	3.0 kVp	0.100...0.120 kHz	43.00 W	90 %
PTi 50/220...240 S	50 W	0.24 A ¹⁾	4.5 kVp	0.200...0.240 kHz	54.50 W	92 %
PTi 70/220...240 S	73 W	0.36 A ¹⁾	4.5 kVp	0.200...0.240 kHz	79.00 W	92 %
PTi 150/220...240 S	147 W	0.72 A ¹⁾	4.5 kVp	0.165 kHz	160.00 W	92 %

Product description	Input voltage AC	Nominal voltage	Mains frequency	Power factor λ	Inrush current	Max. ECG no. on circuit breaker 10 A (B)
PTi 35/220...240 S	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	30 A ³⁾	15 ⁴⁾
PTi 35/220...240 S MINI	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	20 A ⁵⁾	17 ⁴⁾
PTi 50/220...240 S	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	45 A ⁶⁾	7 ⁴⁾
PTi 70/220...240 S	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	45 A ⁶⁾	7 ⁴⁾
PTi 150/220...240 S	198...254 V	220...240 V	50...60 Hz	0.95 ²⁾	70 A ⁶⁾	4 ⁴⁾

Product description	Max. ECG no. on circuit breaker 16 A (B)	Max. no. of ECGs on 16A MCB with EBN-OS	U-OUT (working voltage)	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	26 ⁴⁾	65 ⁴⁾	250 V	250 V	250 V	120 pF
PTi 35/220...240 S MINI	28 ⁴⁾	70 ⁴⁾	250 V	250 V	250 V	40 pF
PTi 50/220...240 S	13 ⁴⁾	32 ⁴⁾	250 V	250 V	250 V	120 pF
PTi 70/220...240 S	13 ⁴⁾	32 ⁴⁾	250 V	250 V	250 V	120 pF
PTi 150/220...240 S	7 ⁴⁾	17 ⁴⁾	250 V	250 V	250 V	120 pF

¹⁾ At 230 V_{AC}

²⁾ Minimum

³⁾ $t_{width} = 150 \mu s$ (measured at 50 % I_{peak})

⁴⁾ Type B

⁵⁾ $t_{width} = 170 \mu s$ (measured at 50 % I_{peak})

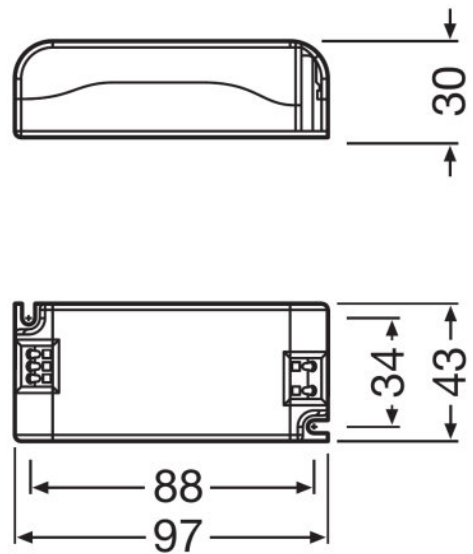
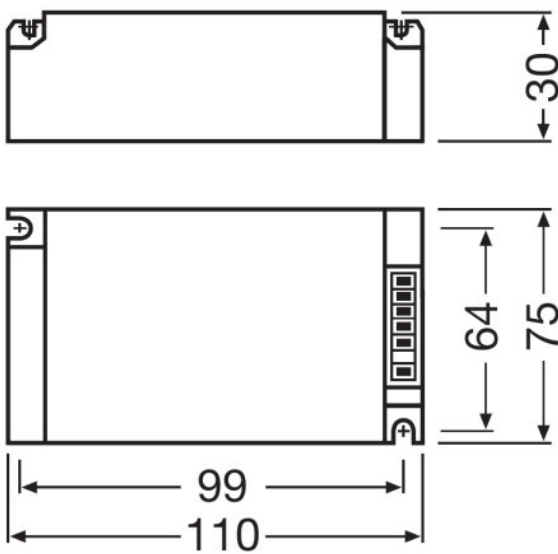
⁶⁾ $t_{width} = 250 \mu s$ (measured at 50 % I_{peak})

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 mm ²
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 mm ²
PTi 50/220...240 S	110.0 mm	75.0 mm	30.0 mm	99.0 mm	64.0 mm	0.5...2.5 mm ²
PTi 70/220...240 S	110.0 mm	75.0 mm	30.0 mm	99.0 mm	64.0 mm	0.5...2.5 mm ²
PTi 150/220...240 S	150.0 mm	85.0 mm	31.0 mm	139.0 mm	74.0 mm	0.5...2.5 mm ²

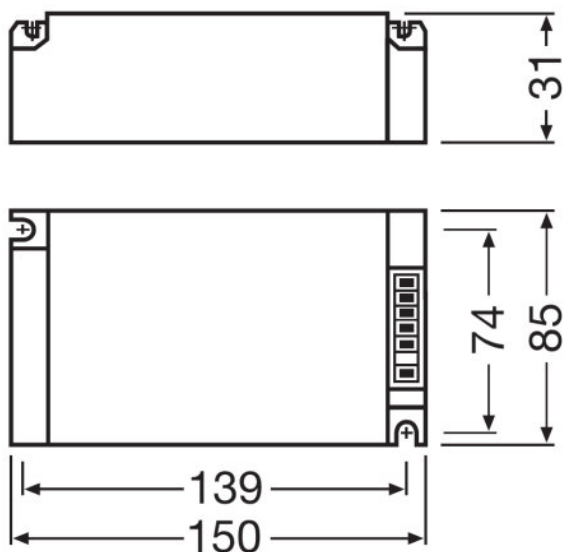
Product description	Cable cross-section, output side	Wire preparation length, input side	Wire preparation length, output side	Product weight
PTi 35/220...240 S	0.5...2.5 mm ²	10...11 mm	10...11 mm	250.00 g
PTi 35/220...240 S MINI	0.5...1.5 mm ²	8.5...9.5 mm	8.5...9.5 mm	105.00 g
PTi 50/220...240 S	0.5...2.5 mm ²	10...11 mm	10...11 mm	255.00 g
PTi 70/220...240 S	0.5...2.5 mm ²	10...11 mm	10...11 mm	255.00 g
PTi 150/220...240 S	0.5...2.5 mm ²	10...11 mm	10...11 mm	370.00 g

Product line drawing



PTi 35/220...240 S, PTi 50/220...240 S, PTi 70/220...240 S

PTi 35/220...240 S MINI



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 50/220...240 S	Metal
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 50/220...240 S	-25...+60 °C	85 °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 50/220...240 S	50000 h ¹⁾
PTi 70/220...240 S	50000 h ¹⁾
PTi 150/220...240 S	40000 h ¹⁾

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 50/220...240 S	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 50/220...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 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 50/220...240 S	5 min ²⁾	> 0.5 s	No	20 min	I
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

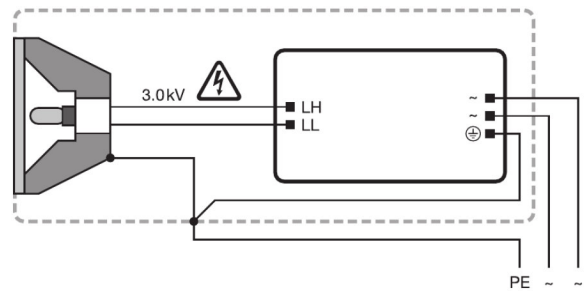
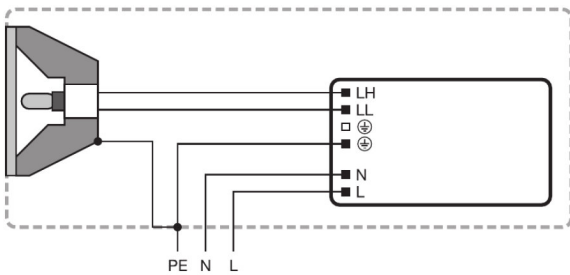
2) Control gear switches off or does not start

Certificates & standards

Product description	Approval marks – approval	Type of protection	EEL – Energy Label
PTi 35/220...240 S	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 35/220...240 S MINI	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 50/220...240 S	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 70/220...240 S	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 150/220...240 S	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2

Product description	Standards
PTi 35/220...240 S	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	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547
PTi 50/220...240 S	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	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	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547

Wiring Diagram



PTi 35/220...240 S, PTi 50/220...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.

APPLICATION ADVICE

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








SALES AND TECHNICAL SUPPORT











Sales and Technical Support www.ledvance.com

COUNTRY SPECIFIC INFORMATION

Product description	Product code	METEL code	SEG number	STK number	UK Org
PTi 35/220...240 S	4008321073112	OSRPTI35S	7980287	4030182	-
PTi 35/220...240 S MINI	4008321955906	OSRPTI35SM	7980343	4030087	-
PTi 50/220...240 S	4008321955852	-	7980521	-	-
PTi 70/220...240 S	4008321049629	OSRPTI70S	7980288	4030139	-
PTi 150/220...240 S	4008321188090	OSRPTI150S	7980291	4030190	-

DOWNLOAD DATA

File
 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 VDE ENEC Certificate 40035813
 Declarations of conformity VD EMC Certificate 40025469
 Declarations of conformity EU Declaration of Conformity 3363432
 Installation/Operation notice 334206_Technical guide - POWERTRONIC for HID-lamps (GB)

	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

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4008321074522	Shipping carton box 20	412 mm x 136 mm x 186 mm	5169.89 g	10.42 dm ³
4008321955982	Shipping carton box 20	228 mm x 78 mm x 208 mm	2106.00 g	3.70 dm ³
4008321955944	Shipping carton box 20	412 mm x 152 mm x 136 mm	5270.00 g	8.52 dm ³
4008321049636	Shipping carton box 20	412 mm x 136 mm x 194 mm	5169.89 g	10.87 dm ³
4008321188106	Shipping carton box 20	403 mm x 191 mm x 205 mm	8011.00 g	15.78 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.