

PRODUCT FAMILY DATASHEET POWERTRONIC INTELLIGENT PTi I

ECG for HID lamps, with cable clamp



AREAS OF APPLICATION

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

PRODUCT BENEFITS

- Extended terminal section enables mains looping
- Screw-down cable clamps for reliable strain relief
- Long reliable life at maximum permitted temperatures
- Automatic safety shutdown of lamps in the event of a defect or at end of life (EoL)

PRODUCT 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 20/220...240 I	20 W	0.11 A ¹⁾	3.0 kVp	0.100...0.120 kHz	23.00 W	87 %
PTi 35/220...240 I	39 W	0.19 A ¹⁾	4.5 kVp	0.200...0.240 kHz	43.00 W	91 %
PTi 50/220...240 I	50 W	0.24 A ¹⁾	4.5 kVp	0.200...0.240 kHz	54.50 W	92 %
PTi 70/220...240 I	73 W	0.36 A ¹⁾	4.5 kVp	0.200...0.240 kHz	79.00 W	92 %
PTi 100/220...240 I	100 W	0.49 A ¹⁾	4.5 kVp	0.165 kHz	107.00 W	92 %
PTi 150/220...240 I	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 20/220...240 I	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	12 A ³⁾	22 ⁴⁾
PTi 35/220...240 I	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	30 A ⁵⁾	15 ⁴⁾
PTi 50/220...240 I	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	45 A ⁶⁾	7 ⁴⁾
PTi 70/220...240 I	198...264 V	220...240 V	50...60 Hz	0.95 ²⁾	45 A ⁶⁾	7 ⁴⁾
PTi 100/220...240 I	198...254 V	220...240 V	50...60 Hz	0.95 ²⁾	60 A ⁶⁾	5 ⁴⁾
PTi 150/220...240 I	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	Maximum current for mains looping	U-OUT (working voltage)	Max. working voltage between LH and LL	Max. working voltage betw. LL/LH & earth
PTi 20/220...240 I	33 ⁴⁾	82 ⁴⁾	16 A	250 V	250 V	250 V
PTi 35/220...240 I	26 ⁴⁾	65 ⁴⁾	16 A	250 V	250 V	250 V
PTi 50/220...240 I	13 ⁴⁾	32 ⁴⁾	16 A	250 V	250 V	250 V
PTi 70/220...240 I	13 ⁴⁾	32 ⁴⁾	16 A	250 V	250 V	250 V
PTi 100/220...240 I	8 ⁴⁾	20 ⁴⁾		250 V	250 V	250 V
PTi 150/220...240 I	7 ⁴⁾	17 ⁴⁾		250 V	250 V	250 V

Product description	Max. capacitance of wire ECG/lamp
PTi 20/220...240 I	120 pF
PTi 35/220...240 I	120 pF
PTi 50/220...240 I	120 pF
PTi 70/220...240 I	120 pF
PTi 100/220...240 I	120 pF
PTi 150/220...240 I	120 pF

¹⁾ At 230 V_{AC}

²⁾ Minimum

³⁾ t_{width} = 210 μs (measured at 50 % I_{peak})

⁴⁾ Type B

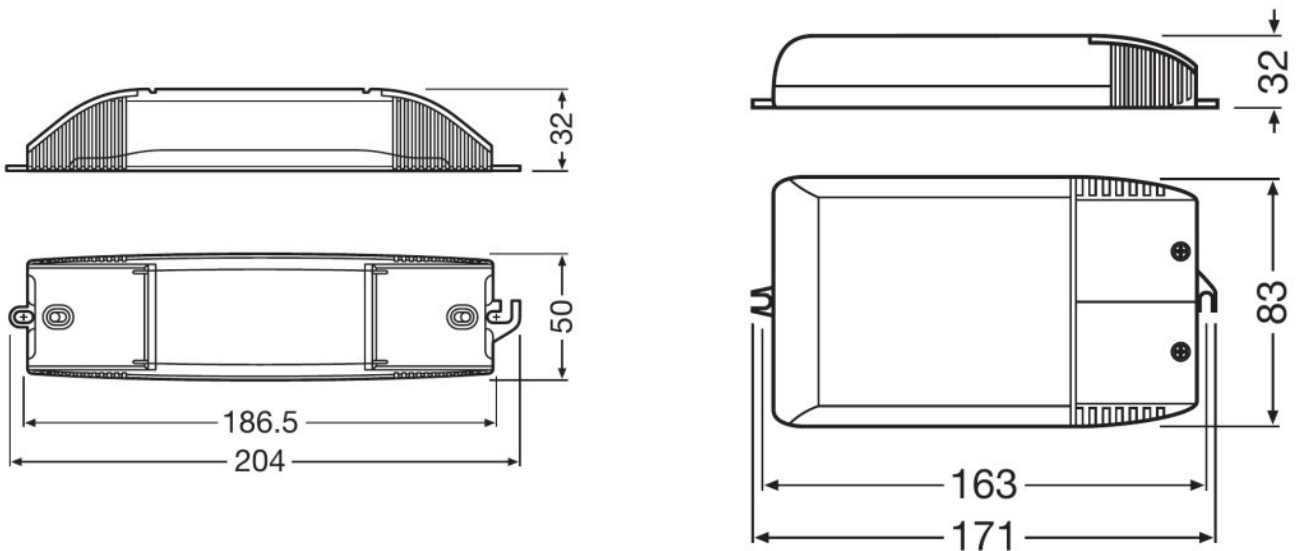
5) $t_{width} = 150 \mu s$ (measured at 50 % I_{peak})
 6) $t_{width} = 250 \mu s$ (measured at 50 % I_{peak})

Dimensions & weight

Product description	Length	Width	Height	Mounting hole spacing, length	Cable cross-section, input side	Cable cross-section, output side
PTi 20/220...240 I	204.0 mm	50.0 mm	32.0 mm	186.5 mm	0.75...2.5 mm ²	0.75...2.5 mm ²
PTi 35/220...240 I	171.0 mm	83.0 mm	32.0 mm	163.0 mm	0.75...2.5 mm ²	0.75...2.5 mm ²
PTi 50/220...240 I	171.0 mm	83.0 mm	32.0 mm	163.0 mm	0.75...2.5 mm ²	0.75...2.5 mm ²
PTi 70/220...240 I	171.0 mm	83.0 mm	32.0 mm	163.0 mm	0.75...2.5 mm ²	0.75...2.5 mm ²
PTi 100/220...240 I	212.0 mm	95.0 mm	33.0 mm	203.0 mm	0.75...2.5 mm ²	0.75...2.5 mm ²
PTi 150/220...240 I	212.0 mm	93.0 mm	33.0 mm	203.0 mm	0.75...2.5 mm ²	0.75...2.5 mm ²

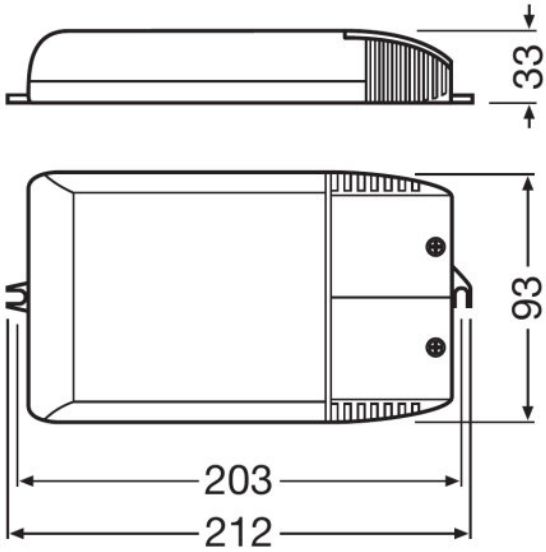
Product description	Wire preparation length, input side	Wire preparation length, output side	Product weight
PTi 20/220...240 I	10...11 mm	10...11 mm	160.00 g
PTi 35/220...240 I	10...11 mm	10...11 mm	285.00 g
PTi 50/220...240 I	10...11 mm	10...11 mm	290.00 g
PTi 70/220...240 I	10...11 mm	10...11 mm	290.00 g
PTi 100/220...240 I	10...11 mm	10...11 mm	400.00 g
PTi 150/220...240 I	10...11 mm	10...11 mm	420.00 g

Product line drawing



PTi 20/220...240 I

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



PTi 100/220...240 I, PTi 150/220...240 I

Colors & materials

Product description	Casing material
PTi 20/220...240 I	Plastic
PTi 35/220...240 I	Plastic
PTi 50/220...240 I	Plastic
PTi 70/220...240 I	Plastic
PTi 100/220...240 I	Plastic
PTi 150/220...240 I	Plastic

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point
PTi 20/220...240 I	-25...+60 °C	75 °C
PTi 35/220...240 I	-25...+65 °C	80 °C
PTi 50/220...240 I	-25...+55 °C	80 °C
PTi 70/220...240 I	-25...+50 °C	80 °C
PTi 100/220...240 I	-25...+55 °C	70 °C
PTi 150/220...240 I	-25...+50 °C	75 °C

Lifespan

Product description	ECG lifetime
PTi 20/220...240 I	50000 h ¹⁾
PTi 35/220...240 I	50000 h ¹⁾
PTi 50/220...240 I	50000 h ¹⁾
PTi 70/220...240 I	50000 h ¹⁾
PTi 100/220...240 I	50000 h ¹⁾
PTi 150/220...240 I	40000 h ¹⁾

¹⁾ At maximum T_c / 10% failure rate

Additional product data

Product description	Design / version
PTi 20/220...240 I	With cable clamp
PTi 35/220...240 I	With cable clamp
PTi 50/220...240 I	With cable clamp
PTi 70/220...240 I	With cable clamp
PTi 100/220...240 I	With cable clamp
PTi 150/220...240 I	With cable clamp

Capabilities

Product description	Max. cable length to lamp/LED module	Overheating protection	ECG reset time	Cable/wire types, input side	Cable/wire types, output side	Dimmable
PTi 20/220...240 I	1.5 m	Switch off at T > 75 °C at the tc point	> 0.5 s	NYM-J 3x1.5 / NYM-J 3x2.5 / H05VV-F 3x1.5 / NHXMH-J 3x1.5 mm ²	SIHF-J 3x1.5 / SIHF-J 3x2.5 / SIHSI 3x1.0 mm ²	No
PTi 35/220...240 I	1.5 m	Power reduction and switch off at T > 80 °C at the tc point	> 0.5 s	NYM-J 3x1.5 / NYM-J 3x2.5 / H05VV-F 3x1.5 / NHXMH-J 3x1.5 mm ²	SIHF-J 3x1.5 / SIHF-J 3x2.5 / SIHSI 3x1.0 mm ²	No
PTi 50/220...240 I	1.5 m	Power reduction and switch off at T > 80 °C at the tc point	> 0.5 s	NYM-J 3x1.5 / NYM-J 3x2.5 / H05VV-F 3x1.5 / NHXMH-J 3x1.5 mm ²	SIHF-J 3x1.5 / SIHF-J 3x2.5 / SIHSI 3x1.0 mm ²	No
PTi 70/220...240 I	1.5 m	Power reduction and switch off at T > 80 °C at the tc point	> 0.5 s	NYM-J 3x1.5 / NYM-J 3x2.5 / H05VV-F 3x1.5 / NHXMH-J 3x1.5 mm ²	SIHF-J 3x1.5 / SIHF-J 3x2.5 / SIHSI 3x1.0 mm ²	No
PTi 100/220...240 I	1.5 m	Power reduction and switch off at T > 70 °C at the tc point	> 0.5 s	NYM-J 3x1.5 / NYM-J 3x2.5 / H05VV-F 3x1.5 / NHXMH-J 3x1.5 mm ²	SIHF-J 3x1.5 / SIHF-J 3x2.5 / SIHSI 3x1.0 mm ²	No
PTi 150/220...240 I	1.5 m	Power reduction and switch off at T > 75 °C at the tc point	> 0.5 s	NYM-J 3x1.5 / NYM-J 3x2.5 / H05VV-F 3x1.5 / NHXMH-J 3x1.5 mm ²	SIHF-J 3x1.5 / SIHF-J 3x2.5 / SIHSI 3x1.0 mm ²	No

Product description	Restriction on ignition time	Suitable for fixtures with prot. class	Overvoltage protection at 275...300 V	Overvoltage protection at 300...320 V
PTi 20/220...240 I	20 min	I		
PTi 35/220...240 I	20 min	I	48 h ¹⁾	2 h ¹⁾
PTi 50/220...240 I	20 min	I	48 h ¹⁾	2 h ¹⁾
PTi 70/220...240 I	20 min	I	48 h ¹⁾	2 h ¹⁾
PTi 100/220...240 I	20 min	I		
PTi 150/220...240 I	20 min	I		

Product description	Overvoltage protection at 320...350 V
PTi 20/220...240 I	
PTi 35/220...240 I	5 min ²⁾

Product description	Overvoltage protection at 320...350 V
PTi 50/220...240 I	5 min ²⁾
PTi 70/220...240 I	5 min ²⁾
PTi 100/220...240 I	
PTi 150/220...240 I	

¹⁾ Control gear switches off after 40 s

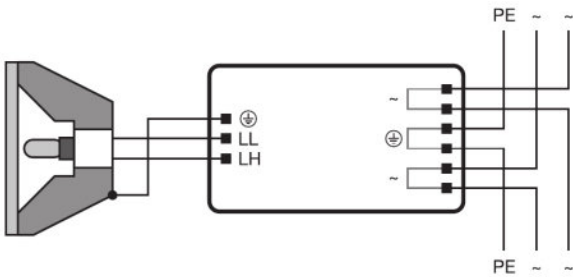
²⁾ Control gear switches off or does not start

Certificates & standards

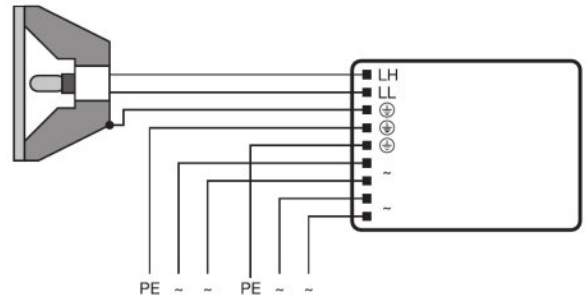
Product description	Approval marks – approval	Type of protection	EEI – Energy Label
PTi 20/220...240 I	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 35/220...240 I	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 50/220...240 I	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 70/220...240 I	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 100/220...240 I	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2
PTi 150/220...240 I	ENEC 10 / VDE / VDE-EMC / EAC / C-Tick	IP20	A2

Product description	Standards
PTi 20/220...240 I	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547/Acc. to EN 62493
PTi 35/220...240 I	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547/Acc. to EN 62493
PTi 50/220...240 I	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547/Acc. to EN 62493
PTi 70/220...240 I	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547/Acc. to EN 62493
PTi 100/220...240 I	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547/Acc. to EN 62493
PTi 150/220...240 I	Acc. to EN 61347-2-12/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61547/Acc. to EN 62493

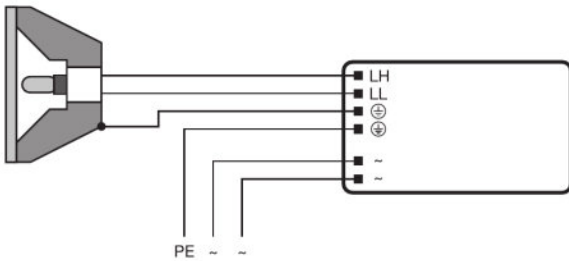
Wiring Diagram



PTi 20/220...240 I



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



PTi 100/220...240 I, PTi 150/220...240 I

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.











SALES AND TECHNICAL SUPPORT













Sales and Technical Support www.ledvance.com

COUNTRY SPECIFIC INFORMATION

Product description	Product code	METEL code	SEG-No.	STK number	UK Org
PTi 20/220...240 I	4008321404763	OSRPTI20I	-	4030006	-
PTi 35/220...240 I	4008321099488	OSRPTI35I	7980178	4030180	-
PTi 50/220...240 I	4008321955869	-	7980542	-	-
PTi 70/220...240 I	4008321099501	OSRPTI70I	7980179	4030184	-
PTi 100/220...240 I	4008321926654	OSRPTI100I	7980547	4031301	-
PTi 150/220...240 I	4008321915535	OSRPTI150I	7980292	4030189	-

DOWNLOAD DATA

File	
	Tender documents 339884_Tender Document for POWERTRONIC EVG.eng
	Certificates 554891_EAC PT family
	Certificates 335121_EMCC-Marks approval
	Certificates 346461_PTi - PTo - PTg VDE-ENEC-Cert
	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 590731_EAC - PTi I PT-FIT I
	CAD data 3-dim 320676_PTi 20 I
	CAD data 3-dim 320677_PTi 20 I

	CAD data 3-dim 320678_PTi 20 I
	CAD data PDF 320672_PTi 20 I
	Declarations of conformity 341229_VDE Declaration
	CAD data 3-dim 313448_155x83x32 9900003
	CAD data 3-dim 313472_155x83x32 9900003
	CAD data 3-dim 313492_155x83x32 9900003
	CAD data PDF 313385_155x83x32 9900003
	Addon Technical Information 323171_ATI PTi 70220-240 I
	CAD data 3-dim 315659_PTi 100150 I 9900048
	CAD data 3-dim 315660_PTi 100150 I 9900048
	CAD data 3-dim 315661_PTi 100150 I 9900048
	CAD data PDF 315656_PTi 100150 I 9900048

LOGISTICAL DATA

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4008321404763	PTi 20/220...240 I	Shipping carton box 20	428 mm x 87 mm x 263 mm	9.79 dm ³	3603.00 g
4008321099488	PTi 35/220...240 I	Shipping carton box 20	437 mm x 100 mm x 365 mm	15.95 dm ³	6230.00 g
4008321955869	PTi 50/220...240 I	Shipping carton box 20	436 mm x 374 mm x 110 mm	17.94 dm ³	6582.00 g
4008321099501	PTi 70/220...240 I	Shipping carton box 20	436 mm x 110 mm x 374 mm	17.94 dm ³	6207.00 g
4008321926654	PTi 100/220...240 I	Shipping carton box 20	488 mm x 100 mm x 453 mm	22.11 dm ³	9440.00 g
4008321915535	PTi 150/220...240 I	Shipping carton box 20	488 mm x 100 mm x 453 mm	22.11 dm ³	9440.00 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.