

OPTOTRONIC

Compact constant current LED drivers – Dimmable phase-cut



Areas of application

- Optional cable clamp E-style for independent mounting
- Suitable for indoor installations
- Suitable for indoor SELV installations

Product benefits

- Compact housing for mounting in very tight spaces
- Compatible with the most common leading-edge and trailing-edge phase dimmers

Product features

- Dimmable via leading edge/trailing edge
- Type of protection: IP20

Product family datasheet

Technical data

Electrical data

Product description	Nominal voltage	Mains frequency	Input voltage AC	Power factor λ	ECG efficiency	Device power loss
OTe 9/220...240/700 PC	220...240 V	50...60 Hz	195...264 V ¹⁾	0.85/> 0.75 ²⁾	≥ 77 % ³⁾	3.0 W ⁴⁾
OTe 10/220...240/700 PC	220...240 V	50...60 Hz	198...264 V ¹⁾	0.95/0.90 ²⁾	79 % ³⁾	2.8 W ⁴⁾
OTe 13/220...240/350 PC	220...240 V	50...60 Hz	198...264 V ¹⁾	0.95/0.90 ²⁾	84 % ³⁾	2.6 W ⁴⁾
OTe 18/220...240/500 PC	220...240 V	50...60 Hz	198...264 V ¹⁾	0.95/0.90 ²⁾	86 % ³⁾	3.0 W ⁴⁾
OTe 18/220...240/350 PC	220...240 V	50...60 Hz	198...264 V ¹⁾	0.95/0.90 ²⁾	86 % ³⁾	3.0 W ⁴⁾
OTe 25/220...240/700 PC	220...240 V	50...60 Hz	198...264 V ¹⁾	0.95/0.90 ²⁾	86 % ³⁾	3.9 W ⁴⁾
OTe 35/220...240/700 PC	220...240 V	50...60 Hz	195...264 V ¹⁾	0.95/0.90 ²⁾	87 % ³⁾	5.25 W ⁴⁾

Product description	Inrush current	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (B)	Max. ECG no. on circuit breaker 25 A (B)
OTe 9/220...240/700 PC	10 A ⁵⁾	150	160	-
OTe 10/220...240/700 PC	5 A ⁹⁾	110	160	-
OTe 13/220...240/350 PC	5 A ⁹⁾	80	130	-
OTe 18/220...240/500 PC	5 A ⁹⁾	52	84	-
OTe 18/220...240/350 PC	5 A ⁹⁾	52	84	-
OTe 25/220...240/700 PC	7 A ⁹⁾	40	65	-
OTe 35/220...240/700 PC	< 10 A ⁵⁾	30	50	-

Product description	Surge capability (L/N-Ground)	Surge capability (L-N)	Nominal output voltage	Nominal output current	Output current tolerance
OTe 9/220...240/700 PC	1 kV	1 kV	7.5...14 V ⁶⁾	700 mA ⁷⁾	± 5 %
OTe 10/220...240/700 PC	1 kV	1 kV	7...14 V	700 mA ¹⁰⁾	± 10 %
OTe 13/220...240/350 PC	1 kV	1 kV	18...38 V ¹²⁾	350 mA ¹⁰⁾	± 10 %
OTe 18/220...240/500 PC	1 kV	1 kV	18...36 V ¹²⁾	500 mA ¹⁰⁾	± 10 %
OTe 18/220...240/350 PC	1 kV	1 kV	27...54 V ¹⁵⁾	350 mA ¹⁰⁾	± 10 %
OTe 25/220...240/700 PC	2 kV	1 kV	18...36 V ¹²⁾	700 mA ¹⁰⁾	± 10 %
OTe 35/220...240/700 PC	2 kV	1 kV	27...50 V ¹⁸⁾	700 mA ⁷⁾	± 5 %

Product description	Nominal output power	Galvanic isolation	Total harmonic distortion	U-OUT (working voltage)
OTe 9/220...240/700 PC	10 W ⁸⁾	SELV equivalent		
OTe 10/220...240/700 PC	10 W ¹¹⁾	SELV	< 20 %	25 V
OTe 13/220...240/350 PC	13 W ¹³⁾	SELV	< 20 %	50 V
OTe 18/220...240/500 PC	18 W ¹⁴⁾	SELV	15 %	60 V
OTe 18/220...240/350 PC	19 W ¹⁶⁾	SELV	15 %	50 V
OTe 25/220...240/700 PC	25 W ¹⁷⁾	SELV	15 %	50 V
OTe 35/220...240/700 PC	35 W ¹⁹⁾	SELV		58 V

Product family datasheet

Product description	Output ripple current (100 Hz)
OTe 9/220...240/700 PC	
OTe 10/220...240/700 PC	35 %
OTe 13/220...240/350 PC	25 %
OTe 18/220...240/500 PC	< 35 %
OTe 18/220...240/350 PC	< 35 %
OTe 25/220...240/700 PC	< 35 %
OTe 35/220...240/700 PC	< 35 %

- 1) Permitted voltage range
 2) Full load at 230 V/Minimum load at 230 V
 3) At full load and 230 V
 4) Maximum
 5) $t_{width} = 250 \mu s$ (measured at 50 % I_{peak})
 6) Maximum 20 V
 7) $\pm 5\%$
 8) Partial load 6...10W
 9) $t_{width} = 100 \mu s$ (measured at 50 % I_{peak})
 10) $\pm 10\%$
 11) Partial load 5...10 W
 12) Maximum <48 V
 13) Partial load 6.5...13.5 W
 14) Partial load 9...18 W
 15) Maximum 60 V
 16) Partial load 9.5...19 W
 17) Partial load 12.5...25 W
 18) Maximum <58 V
 19) Partial load 19...35 W

Dimensions & weight

Product description	Length	Width	Height	Mounting hole spacing, length	Product weight	Cable cross-section, input side
OTe 9/220...240/700 PC	109.0 mm	53.0 mm	33.0 mm	-	100.00 g	0.75...2.5 mm ^{2 1)}
OTe 10/220...240/700 PC	95.0 mm	53.0 mm	25.0 mm	-	81.00 g	0.75...1.5 mm ^{2 1)}
OTe 13/220...240/350 PC	95.0 mm	53.0 mm	25.0 mm	-	81.00 g	0.75...1.5 mm ^{2 1)}
OTe 18/220...240/500 PC	95.0 mm	53.0 mm	30.0 mm	-	93.00 g	0.75...1.5 mm ^{2 1)}
OTe 18/220...240/350 PC	95.0 mm	53.0 mm	30.0 mm	-	93.00 g	0.75...1.5 mm ^{2 1)}
OTe 25/220...240/700 PC	95.0 mm	53.0 mm	30.0 mm	-	93.00 g	0.75...1.5 mm ^{2 1)}
OTe 35/220...240/700 PC	153.0 mm	54.0 mm	36.0 mm	146.0 mm	165.00 g	0.75...2.5 mm ^{2 1)}

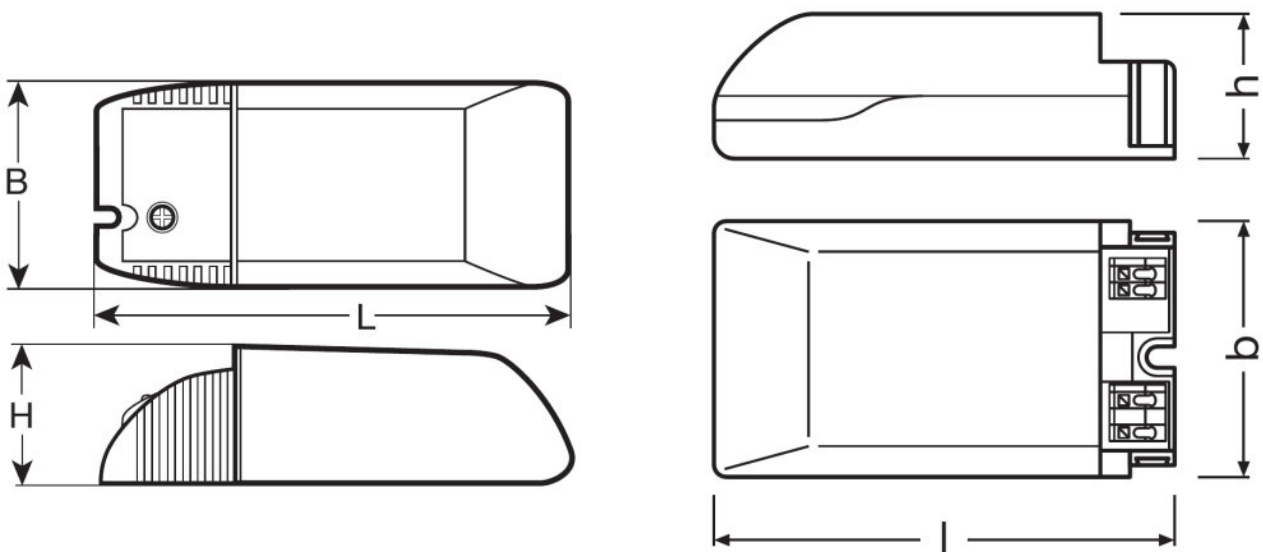
Product description	Cable cross-section, output side	Wire preparation length, input side	Wire preparation length, output side
OTe 9/220...240/700 PC	0.5...2.5 mm ^{2 1)}	5.0 mm	5.0 mm
OTe 10/220...240/700 PC	0.5...1.5 mm ^{2 1)}	8.0...9.0 mm	8.0...9.0 mm

Product family datasheet

Product description	Cable cross-section, output side	Wire preparation length, input side	Wire preparation length, output side
OTe 13/220...240/350 PC	0.5...1.5 mm ² ¹⁾	8.0...9.0 mm	8.0...9.0 mm
OTe 18/220...240/500 PC	0.5...1.5 mm ² ¹⁾	8.0...9.0 mm	8.0...9.0 mm
OTe 18/220...240/350 PC	0.5...1.5 mm ² ¹⁾	8.0...9.0 mm	8.0...9.0 mm
OTe 25/220...240/700 PC	0.5...1.5 mm ² ¹⁾	8.0...9.0 mm	8.0...9.0 mm
OTe 35/220...240/700 PC	0.5...2.5 mm ² ¹⁾	5.0 mm	5.0 mm

¹⁾ Flexible

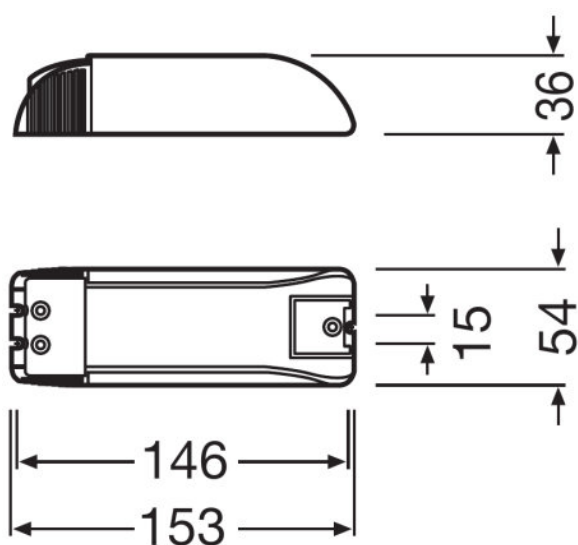
Product line drawing



OTe 9/220...240/700 PC

OTe 10/220...240/700 PC, OTe 13/220...240/350 PC, OTe 18/220...240/500 PC, OTe 18/220...240/350 PC, OTe 25/220...240/700 PC

Product family datasheet



OTe 35/220...240/700 PC

Colors & materials

Product description	Casing material
OTe 9/220...240/700 PC	Plastic
OTe 10/220...240/700 PC	Plastic
OTe 13/220...240/350 PC	Plastic
OTe 18/220...240/500 PC	Plastic
OTe 18/220...240/350 PC	Plastic
OTe 25/220...240/700 PC	Plastic
OTe 35/220...240/700 PC	Plastic

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point	Max.housing temperature in case of fault	Permitted rel. humidity during operation
OTe 9/220...240/700 PC	-20...+50 °C	70 °C ¹⁾	110 °C	5...85 % ²⁾
OTe 10/220...240/700 PC	-20...+55 °C	80 °C ¹⁾	110 °C	5...85 % ²⁾
OTe 13/220...240/350 PC	-20...+55 °C	85 °C ¹⁾	110 °C	5...85 % ²⁾
OTe 18/220...240/500 PC	-20...+55 °C	75 °C ¹⁾	110 °C	5...85 % ²⁾
OTe 18/220...240/350 PC	-20...+50 °C	75 °C ¹⁾	110 °C	5...85 % ²⁾
OTe 25/220...240/700 PC	-20...+50 °C	75 °C ¹⁾	110 °C	5...85 % ²⁾
OTe 35/220...240/700 PC	-20...+45 °C	75 °C ¹⁾	110 °C	5...85 % ²⁾

¹⁾ Maximum at the Tc-point

²⁾ Maximum 56 days/year at 85 %

Product family datasheet

Lifespan

Product description	ECG lifetime
OTe 9/220...240/700 PC	50000 h ¹⁾
OTe 10/220...240/700 PC	50000 h ¹⁾
OTe 13/220...240/350 PC	50000 h ²⁾
OTe 18/220...240/500 PC	50000 h ¹⁾
OTe 18/220...240/350 PC	50000 h ¹⁾
OTe 25/220...240/700 PC	50000 h ¹⁾
OTe 35/220...240/700 PC	50000 h ³⁾

¹⁾ At T_{case} = 70°C at T_c point / 10% failure rate

²⁾ At T_{case} = 75°C at T_c point / 10% failure rate

³⁾ At T_{case} = 65°C at T_c point / 10% failure rate

Additional product data

Product description	Encapsulated
OTe 9/220...240/700 PC	No
OTe 10/220...240/700 PC	No
OTe 13/220...240/350 PC	No
OTe 18/220...240/500 PC	No
OTe 18/220...240/350 PC	No
OTe 25/220...240/700 PC	No
OTe 35/220...240/700 PC	No

Capabilities

Product description	Dimmable	Dimming interface	Dimming range	Dimming method
OTe 9/220...240/700 PC	Yes	Phase Cut ¹⁾	10...100 %	Amplitude Modulation / Pulse Width Modulation
OTe 10/220...240/700 PC	Yes	Phase Cut ¹⁾	10...100 %	Amplitude Modulation / Pulse Width Modulation
OTe 13/220...240/350 PC	Yes	Phase Cut ²⁾	10...100 %	Amplitude Modulation / Pulse Width Modulation
OTe 18/220...240/500 PC	Yes	Phase Cut ²⁾	10...100 %	Amplitude Modulation / Pulse Width Modulation
OTe 18/220...240/350 PC	Yes	Phase Cut ²⁾	10...100 %	Amplitude Modulation / Pulse Width Modulation
OTe 25/220...240/700 PC	Yes	Phase Cut ²⁾	10...100 %	Amplitude Modulation / Pulse Width Modulation
OTe 35/220...240/700 PC	Yes	Phase Cut ²⁾	10...100 %	Amplitude Modulation / Pulse Width Modulation

Product description	Overheating protection	Overload protection	Short-circuit protection	No-load proof
OTe 9/220...240/700 PC	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTe 10/220...240/700 PC	Automatic reversible	Automatic reversible	Automatic reversible	Yes

Product family datasheet

Product description	Overheating protection	Overload protection	Short-circuit protection	No-load proof
OTe 13/220...240/350 PC	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTe 18/220...240/500 PC	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTe 18/220...240/350 PC	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTe 25/220...240/700 PC	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTe 35/220...240/700 PC	Automatic reversible	Automatic reversible	Automatic reversible	Yes

Product description	Max. cable length to lamp/LED module	Suitable for fixtures with prot. class	Type of connection, output side
OTe 9/220...240/700 PC	2.0 m	II	Push terminal
OTe 10/220...240/700 PC	2.0 m	I / II	Push terminal
OTe 13/220...240/350 PC	2.0 m	I / II	Push terminal
OTe 18/220...240/500 PC	2.0 m	I / II	Push terminal
OTe 18/220...240/350 PC	2.0 m	I / II	Push terminal
OTe 25/220...240/700 PC	2.0 m	I / II	Push terminal
OTe 35/220...240/700 PC	2.0 m	I / II	Push terminal

1) Trailing edge

2) Leading edge

Certificates & standards

Product description	Approval marks – approval
OTe 9/220...240/700 PC	CE / ENEC 10 / VDE / CB / C-Tick
OTe 10/220...240/700 PC	CE / ENEC 10 / VDE / CB
OTe 13/220...240/350 PC	CE / ENEC 10 / VDE / CB
OTe 18/220...240/500 PC	CE / ENEC 10 / VDE / CB
OTe 18/220...240/350 PC	CE / ENEC 10 / VDE / CB
OTe 25/220...240/700 PC	CE / ENEC 10 / VDE / CB
OTe 35/220...240/700 PC	CE / ENEC 10 / VDE / CB / C-Tick

Product description	Standards	Protection class
OTe 9/220...240/700 PC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to CISPR 15/Acc. to IEC 61000-3-2/Acc. to IEC 61547/Acc. to IEC 61000-3-3	II
OTe 10/220...240/700 PC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to CISPR 15/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	II
OTe 13/220...240/350 PC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to CISPR 15/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	II
OTe 18/220...240/500 PC	Acc. to IEC 61347/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to CISPR 15/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	II
OTe 18/220...240/350 PC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to CISPR 15/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	II
OTe 25/220...240/700 PC	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 62384/Acc. to CISPR 15/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61347	II
OTe 35/220...240/700 PC	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to CISPR 15/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547	II

Product family datasheet

Product description	Type of protection
OTe 9/220...240/700 PC	IP20
OTe 10/220...240/700 PC	IP20
OTe 13/220...240/350 PC	IP20
OTe 18/220...240/500 PC	IP20
OTe 18/220...240/350 PC	IP20
OTe 25/220...240/700 PC	IP20
OTe 35/220...240/700 PC	IP20

Logistical data

Product description	Temperature range at storage
OTe 9/220...240/700 PC	-40...85 °C
OTe 10/220...240/700 PC	-25...75 °C
OTe 13/220...240/350 PC	-25...75 °C
OTe 18/220...240/500 PC	-25...75 °C
OTe 18/220...240/350 PC	-25...75 °C
OTe 25/220...240/700 PC	-25...75 °C
OTe 35/220...240/700 PC	-40...85 °C

Application advice

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

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
OTe 9/220...240/700 PC	4008321688842	-	-	4030159	-
OTe 13/220...240/350 PC	4052899105324	-	-	4030292	-
OTe 18/220...240/350 PC	4052899105348	-	-	4030293	-

Download Data

Product family datasheet

File	
	Product Datasheet OPTOTRONIC OTe 9220-240700 PC (GB)
	Declarations of conformity 727841_Declaration OTe 9
	Installation/Operation notice Dimmer Compatibility List_ OTe 9_15_20220-240350700 PC
	Product Datasheet 496532_OT Technical DS OTe 10 700 PC
	Certificates VDE Cetrificate 40038482
	Certificates 489247_ENEC Certification_OT FIT CS
	Certificates 496535_CB report OTe 10 700 PC and OTe 13 350 PC
	Certificates 496536_VDE approval OTe 10_700 PC and OTe 13_350 PC
	Declarations of conformity 496534_EC-DoC OTe PC ZCI 3015365-DOC-00
	Installation/Operation notice 544631_OT PC dimmer list
	Installation guide 501498_OTe 10220-240700 PC
	CAD data 3-dim 377012_OTe 10-13 PC -cable clamp
	CAD data 3-dim 377013_OTe 10-13 PC -housing
	CAD data 3-dim 377014_OTe 10-13 PC -housing with cable clamp
	Product Datasheet 496533_OT Technical DS OTe 13 350 PC
	Installation guide 501497_OTe 13220-240350 PC
	Certificates 503096_CB report OTe 25 700 PC - OTe 18 350 PC - OTe 18 500
	Installation guide 501495_OTe 18220-240500 PC
	CAD data 3-dim 377015_OTe 18-25 PC -cable clamp
	CAD data 3-dim 377016_OTe 18-25 PC -housing
	CAD data 3-dim 377017_OTe 18-25 PC -housing with cable clamp
	Installation guide 501496_OTe 18220-240350 PC

Product family datasheet

	Installation guide 501494_OTe 25220-240700 PC
	Product Datasheet 342830_Datasheet OTe 35220-240700 PC
	Declarations of conformity 727840_Declaration OTe 35
	Installation/Operation notice 343883_Dimmer Compatibility List_OTe 35220-240700 PC
	CAD data 3-dim 343465_CAD OTe 35220-240700 PC

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4008321688842	OTe 9/220...240/700 PC	Shipping carton box 20	274 mm x 106 mm x 229 mm	6.65 dm ³	2308.00 g
4052899105300	OTe 10/220...240/700 PC	Shipping carton box 20	284 mm x 207 mm x 90 mm	5.29 dm ³	2270.00 g
4052899105324	OTe 13/220...240/350 PC	Shipping carton box 20	284 mm x 207 mm x 90 mm	5.29 dm ³	2270.00 g
4052899105362	OTe 18/220...240/500 PC	Shipping carton box 20	284 mm x 207 mm x 100 mm	5.88 dm ³	2478.00 g
4052899105348	OTe 18/220...240/350 PC	Shipping carton box 20	284 mm x 207 mm x 100 mm	5.88 dm ³	2478.00 g
4052899105386	OTe 25/220...240/700 PC	Shipping carton box 20	284 mm x 207 mm x 100 mm	5.88 dm ³	2478.00 g
4008321825520	OTe 35/220...240/700 PC	Shipping carton box 10	276 mm x 98 mm x 166 mm	4.49 dm ³	1812.00 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.

Accessories Optional

Product description	Accessory name	Accessory code
OTe 10/220...240/700 PC	OPTOTRONIC Cable Clamp, E-STYLE	▶ 4052899095861
OTe 13/220...240/350 PC	OPTOTRONIC Cable Clamp, E-STYLE	▶ 4052899095861
OTe 18/220...240/500 PC	OPTOTRONIC Cable Clamp, E-STYLE	▶ 4052899095861
OTe 18/220...240/350 PC	OPTOTRONIC Cable Clamp, E-STYLE	▶ 4052899095861
OTe 25/220...240/700 PC	OPTOTRONIC Cable Clamp, E-STYLE	▶ 4052899095861

Disclaimer

Product family datasheet

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.