

OPTOTRONIC ECO

Compact Constant Current LED Drivers – Non dimmable



Areas of application

- Suitable for use in luminaires with flexible current setting (Tri-Tap)
- Suitable for indoor SELV installations
- Suitable for luminaires of protection classes I and II
- Suitable for downlights, spotlights and LED panels
- Independent mounting via Cable Clamp Kit possible

Product family benefits

- Versatile scope of application due to output power range of up to 54 W
- Efficient and reliable

Product family features

- Supply voltage: 220...240 V
- Line frequency: 50 Hz | 60 Hz
- Line voltage: 198...264 V
- According to EN 61347-1, 61347-2-13, 62384
- RI suppression according to EN 55015:2007+A1:2007/CDN
- Line harmonics according to EN 61000-3-2
- Immunity according to EN 61547
- Lifetime: up to 50,000 h
- Independent connection via through-looping (depending on version of product)



Technical data

Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Total harmonic distortion	Power factor λ	ECG efficiency
OTe 25/220...240/420 CS	220...240 V	50/60 Hz	198...264 V ¹⁾	< 20 %	0.95 ²⁾	85 % ³⁾
OTe 50/220...240/1A0 CS FAN	220...240 V	50/60 Hz	198...264 V ¹⁾	< 20 %	0.95 ⁹⁾	≥88 % ¹⁰⁾
OTe 25/220...240/700 CS	220...240 V	50/60 Hz	198...264 V ¹⁾	< 20 %	0.95 ²⁾	85 % ³⁾
OTe 35/220...240/1A0 CS	220...240 V	50/60 Hz	195...264 V ¹⁾	< 20 %	0.95 ²⁾	87 % ³⁾
OTe 50/220...240/1A0 CS	220...240 V	50/60 Hz	198...264 V ¹⁾	< 20 %	0.95 ²⁾	87 % ³⁾
OTe 50/220...240/1A4 CS	220...240 V	50/60 Hz	198...264 V ¹⁾	< 20 %	0.95 ²⁾	87 % ³⁾
Product description	Device power loss	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 25/220...240/420 CS	4.0 W ⁴⁾	16 A ⁵⁾	30	50	-	
OTe 50/220...240/1A0 CS FAN	8.1 W ¹¹⁾	16 A ⁵⁾	15	25	-	
OTe 25/220...240/700 CS	4.4 W ¹³⁾	16 A ⁵⁾	30	50	-	
OTe 35/220...240/1A0 CS	5.5 W ¹⁶⁾	16 A ⁵⁾	15	25	-	
OTe 50/220...240/1A0 CS	7.5 W ¹⁶⁾	16 A ⁵⁾	15	25	-	
OTe 50/220...240/1A4 CS	7.5 W ¹⁶⁾	16 A ⁵⁾	15	25	-	
Product description	Surge capability (L/N-Ground)		Surge capability (L-N)	Nominal output voltage	U-OUT (working voltage)	Nominal output current
OTe 25/220...240/420 CS	1 kV		1 kV	27...54 V ⁶⁾	60 V	290 / 350 / 420 mA ⁷⁾
OTe 50/220...240/1A0 CS FAN	1 kV		1 kV	27...54 V ⁶⁾	60 V	700 / 900 / 1050 mA ⁷⁾
OTe 25/220...240/700 CS	1 kV		1 kV	18...36 V ¹⁴⁾	50 V	500 / 600 / 700 mA ⁷⁾
OTe 35/220...240/1A0 CS	1 kV		1 kV	17...34 V ¹⁴⁾	50 V	800 / 925 / 1050 mA ⁷⁾
OTe 50/220...240/1A0 CS	1 kV		1 kV	27...54 V ⁶⁾	60 V	800 / 925 / 1050 mA ⁷⁾
OTe 50/220...240/1A4 CS	1 kV		1 kV	18...36 V ¹⁴⁾	50 V	1150 / 1250 / 1400 mA ⁷⁾
Product description	Output current tolerance	Output ripple current (100 Hz)		Nominal output power	Galvanic isolation	
OTe 25/220...240/420 CS	±5 %	20 %		23 W ⁸⁾	SELV	
OTe 50/220...240/1A0 CS FAN	±5 %	< 35 %		50 W ¹²⁾	SELV	
OTe 25/220...240/700 CS	±5 %	25 %		25 W ¹⁵⁾	SELV	
OTe 35/220...240/1A0 CS	±5 %	< 35 %		36 W ¹⁷⁾	SELV	
OTe 50/220...240/1A0 CS	±5 %			50 W ¹⁸⁾	SELV	
OTe 50/220...240/1A4 CS	±5 %	< 25 %		50 W ¹⁹⁾	SELV	

Product family datasheet

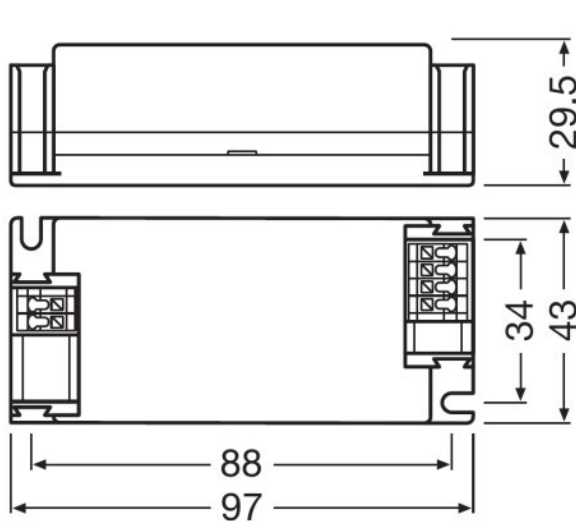
- 1) Permitted voltage range
- 2) Full load at 230 V/50 Hz
- 3) At full load and 230 V
- 4) At 230 V, Input power 27 W max.
- 5) $t_{width} = 100 \mu s$ (measured at 50 % I_{peak})
- 6) Maximum 60 V
- 7) $\pm 5\%$
- 8) Partial load 8...23 W
- 9) Full load at 230 V
- 10) Typical / At full load and 230 V
- 11) Maximum
- 12) Partial load 19...56 W
- 13) At 230 V, Input power 29.4 W max.
- 14) Maximum 50 V
- 15) Partial load 9...25 W
- 16) At 230 V
- 17) Partial load 14...36 W
- 18) Partial load 22...56 W
- 19) Partial load 21...50 W

Dimensions & weight

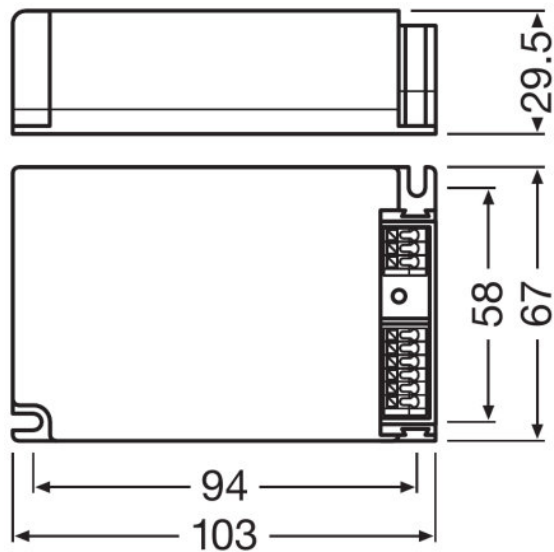
Product description	Mounting hole spacing, length	Mounting hole spacing, width	Product weight	Cable cross-section, input side	Cable cross-section, output side
OTe 25/220...240/420 CS	88.0 mm	34.0 mm	90.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²
OTe 50/220...240/1A0 CS FAN	94.0 mm	58.0 mm	188.00 g	0.5...1.5 mm ² 1)	0.5...1.5 mm ² 2)
OTe 25/220...240/700 CS	88.0 mm	34.0 mm	90.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²
OTe 35/220...240/1A0 CS	94.0 mm	58.0 mm	165.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²
OTe 50/220...240/1A0 CS	94.0 mm	58.0 mm	183.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²
OTe 50/220...240/1A4 CS	94.0 mm	58.0 mm	183.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²
Product description	Wire preparation length, input side	Wire preparation length, output side	Length	Height	Width
OTe 25/220...240/420 CS	6.5...7.5 mm	6.5...7.5 mm	97.0 mm	29.5 mm	43.0 mm
OTe 50/220...240/1A0 CS FAN	8.0...9.0 mm	8.0...9.0 mm 3)	103.0 mm	29.5 mm	67.0 mm
OTe 25/220...240/700 CS	6.5...7.5 mm	6.5...7.5 mm	97.0 mm	29.5 mm	43.0 mm
OTe 35/220...240/1A0 CS	8.0...9.0 mm	8.0...9.0 mm	103.0 mm	29.5 mm	67.0 mm
OTe 50/220...240/1A0 CS	8.0...9.0 mm	8.0...9.0 mm	103.0 mm	29.5 mm	67.0 mm
OTe 50/220...240/1A4 CS	8.0...9.0 mm	8.0...9.0 mm	103.0 mm	29.5 mm	67.0 mm

- 1) Solid leads
- 2) Solid leads / FAN only 0.2...0.5 mm²
- 3) FAN output 4.0...5.0 mm

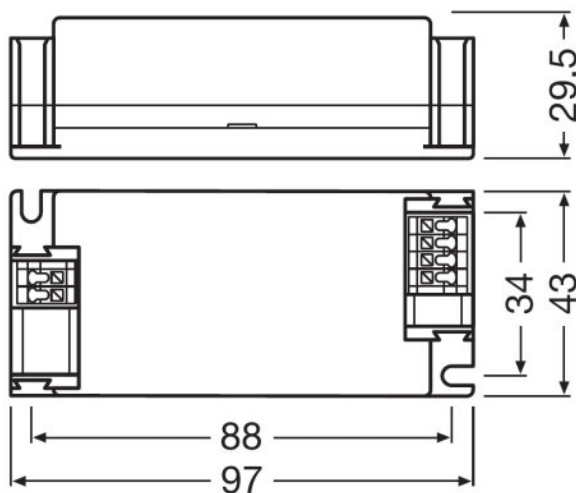
Product line drawing



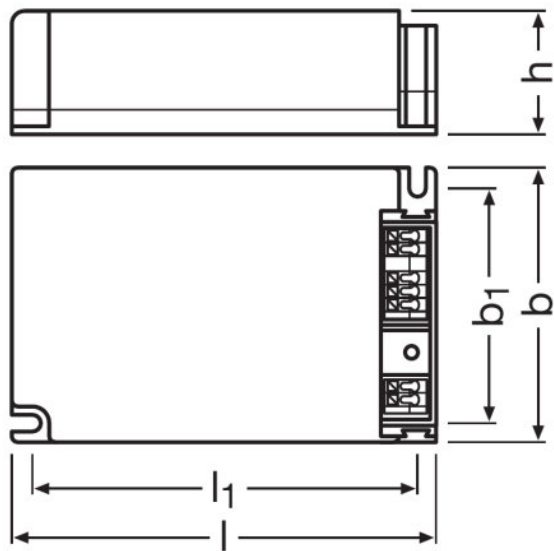
OTe 25/220...240/420 CS



OTe 50/220...240/1A0 CS FAN



OTe 25/220...240/700 CS



OTe 35/220...240/1A0 CS, OTe 50/220...240/1A0 CS, OTe 50/220...240/1A4 CS

Colors & materials

Product description	Casing material
OTe 25/220...240/420 CS	Plastic
OTe 50/220...240/1A0 CS FAN	Plastic
OTe 25/220...240/700 CS	Plastic
OTe 35/220...240/1A0 CS	Plastic
OTe 50/220...240/1A0 CS	Plastic
OTe 50/220...240/1A4 CS	Plastic

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point	Max.housing temperature in case of fault	Temperature range at storage
OTe 25/220...240/420 CS	-20...+50 °C	75 °C ¹⁾	110 °C	-25...75 °C
OTe 50/220...240/1A0 CS FAN	-20...+50 °C	85 °C ¹⁾	110 °C	-20...70 °C
OTe 25/220...240/700 CS	-20...+50 °C	80 °C ¹⁾	110 °C	-25...75 °C
OTe 35/220...240/1A0 CS	-20...+50 °C	80 °C ¹⁾	110 °C	-25...75 °C
OTe 50/220...240/1A0 CS	-20...+50 °C	80 °C ¹⁾	110 °C	-25...75 °C
OTe 50/220...240/1A4 CS	-20...+50 °C	80 °C ¹⁾	110 °C	-25...75 °C

Product description	Permitted rel. humidity during operation
OTe 25/220...240/420 CS	5...85 % ²⁾
OTe 50/220...240/1A0 CS FAN	5...85 % ³⁾
OTe 25/220...240/700 CS	5...85 % ²⁾
OTe 35/220...240/1A0 CS	5...85 % ²⁾
OTe 50/220...240/1A0 CS	5...85 % ²⁾
OTe 50/220...240/1A4 CS	5...85 % ²⁾

¹⁾ Maximum at the Tc-point

²⁾ Non-condensing

³⁾ Maximum 56 days/year at 85 %

Lifespan

Product description	ECG lifetime
OTe 25/220...240/420 CS	50000 / 35000 h ¹⁾
OTe 50/220...240/1A0 CS FAN	50000 / 35000 h ²⁾
OTe 25/220...240/700 CS	50000 / 35000 h ³⁾
OTe 35/220...240/1A0 CS	50000 / 35000 h ³⁾
OTe 50/220...240/1A0 CS	50000 / 35000 h ³⁾
OTe 50/220...240/1A4 CS	50000 / 35000 h ³⁾

¹⁾ T_c = 70°C, with max. 10% failure rate / T_c = 75°C, with max. 10% failure rate

²⁾ T_c = 80°C, with max. 10% failure rate / T_c = 85°C, with max. 10% failure rate

³⁾ T_c = 75°C, with max. 10% failure rate / T_c = 80°C, with max. 10% failure rate

Expected Lifetime

Product name				
OTe 25/220...240/420 CS	ECG ambient temperature [ta]	-	-	-
	Temperature at tc-point [°C]	70	75	-
	Lifetime [h]	50000	35000	-
OTe 50/220...240/1A0 CS FAN	ECG ambient temperature [ta]	-	-	-
	Temperature at tc-point [°C]	80	85	-
	Lifetime [h]	50000	35000	-
OTe 25/220...240/700 CS	ECG ambient temperature [ta]	-	-	-
	Temperature at tc-point [°C]	75	80	-
	Lifetime [h]	50000	35000	-
OTe 35/220...240/1A0 CS	ECG ambient temperature [ta]	-	-	-
	Temperature at tc-point [°C]	75	80	-
	Lifetime [h]	50000	35000	-
OTe 50/220...240/1A0 CS	ECG ambient temperature [ta]	-	-	-
	Temperature at tc-point [°C]	75	80	-
	Lifetime [h]	50000	35000	-
OTe 50/220...240/1A4 CS	ECG ambient temperature [ta]	-	-	-
	Temperature at tc-point [°C]	75	80	-
	Lifetime [h]	50000	35000	-

Additional product data

Product description	Encapsulated
OTe 25/220...240/420 CS	No
OTe 50/220...240/1A0 CS FAN	No
OTe 25/220...240/700 CS	No
OTe 35/220...240/1A0 CS	No
OTe 50/220...240/1A0 CS	No
OTe 50/220...240/1A4 CS	No

Capabilities

Product description	Dimmable	Overheating protection	Overload protection
OTe 25/220...240/420 CS	No	Automatic reversible	Automatic reversible
OTe 50/220...240/1A0 CS FAN	No	Automatic reversible	Automatic reversible
OTe 25/220...240/700 CS	No		
OTe 35/220...240/1A0 CS	No	Automatic reversible	Automatic reversible
OTe 50/220...240/1A0 CS	No	Automatic reversible	Automatic reversible
OTe 50/220...240/1A4 CS	No	Automatic reversible	Automatic reversible

Product description	Short-circuit protection	No-load proof	Max. cable length to lamp/LED module	Suitable for fixtures with prot. class
OTe 25/220...240/420 CS	Automatic reversible	Yes	2.0 m	I / II
OTe 50/220...240/1A0 CS FAN	Automatic reversible		2.0 m	I / II
OTe 25/220...240/700 CS		Yes	2.0 m	I / II
OTe 35/220...240/1A0 CS	Automatic reversible	Yes	2.0 m	I / II
OTe 50/220...240/1A0 CS	Automatic reversible	Yes	2.0 m	I / II
OTe 50/220...240/1A4 CS	Automatic reversible	Yes	2.0 m	I / II

Product description	Type of connection, output side
OTe 25/220...240/420 CS	Push terminal
OTe 50/220...240/1A0 CS FAN	Push terminal
OTe 25/220...240/700 CS	Push terminal
OTe 35/220...240/1A0 CS	Push terminal
OTe 50/220...240/1A0 CS	Push terminal
OTe 50/220...240/1A4 CS	Push terminal

Programming

Product description	Programming device	Tuner4TRONIC	Tuner4TRONIC Field App
OTe 25/220...240/420 CS	DIPswitch	No	No
OTe 50/220...240/1A0 CS FAN	DIPswitch	No	No
OTe 25/220...240/700 CS	DIPswitch	No	No
OTe 35/220...240/1A0 CS	DIPswitch	No	No
OTe 50/220...240/1A0 CS	DIPswitch	No	No
OTe 50/220...240/1A4 CS	DIPswitch	No	No

Product family datasheet

Certificates & standards

Product description	Approval marks – approval
OTe 25/220...240/420 CS	ENEC 10 / VDE / CE
OTe 50/220...240/1A0 CS FAN	ENEC 10 / CE / RCM
OTe 25/220...240/700 CS	ENEC 10 / VDE / CE
OTe 35/220...240/1A0 CS	ENEC 10 / VDE / CE
OTe 50/220...240/1A0 CS	ENEC 10 / VDE / CE
OTe 50/220...240/1A4 CS	ENEC 10 / VDE / CE

Product description	Standards	Type of protection
OTe 25/220...240/420 CS	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	IP20
OTe 50/220...240/1A0 CS FAN	Acc. to EN 61347-1/Acc. to EN 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	IP20
OTe 25/220...240/700 CS	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	IP20
OTe 35/220...240/1A0 CS	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	IP20
OTe 50/220...240/1A0 CS	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	IP20
OTe 50/220...240/1A4 CS	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	IP20

Logistical data

Product description	Commodity code
OTe 25/220...240/420 CS	850440829000
OTe 50/220...240/1A0 CS FAN	850440829000
OTe 25/220...240/700 CS	850440829000
OTe 35/220...240/1A0 CS	850440829000
OTe 50/220...240/1A0 CS	850440829000
OTe 50/220...240/1A4 CS	850440829000

Application advice

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

Sales and Technical Support

Product family datasheet

Sales and Technical Support www.osram.com

Download Data

File
 Brochures Poster OPTOTRONIC LED drivers (EN)
 Brochures 538836_Light is universal - OPTOTRONIC LED drivers (GB)
 Certificates VDE ENEC Certificate 40038384
 Certificates VDE EMC Certificate 40038482
 Declarations of conformity OTe CS CE 3365227 121119
 CAD data 351052_OTe 25 CS-cable clamp-3D drawing
 CAD data 3-dim 351053_OTe 25 CS-housing-3D drawing
 CAD data 3-dim 351054_OTe 25 CS-housing with cable clamp-3D drawing
 Product Datasheet 350840_OT Technical DS OTe 50220-2401A0 CS FAN
 CAD data 3-dim 615643_OTe 50220-2401A0 CS FAN IGS
 CAD data 3-dim 615644_OTe 50220-2401A0 CS FAN STEP
 CAD data 3-dim 351090_OTe 35 CS-cable clamp-3D drawing
 CAD data 3-dim 351091_OTe 35 CS-housing-3D drawing
 CAD data 3-dim 351094_OTe 50 CS-cable clamp-3D drawing
 CAD data 3-dim 351095_OTe 50 CS-housing-3D drawing
 CAD data 3-dim 351096_OTe 50 CS-housing with cable clamp-3D drawing

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899917538	OTe 25/220...240/420 CS	Shipping carton box 20	228 mm x 208 mm x 78 mm	3.70 dm ³	1906.00 g

Product family datasheet

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899919396	OTe 50/220...240/1A0 CS FAN	Shipping carton box 20	357 mm x 222 mm x 96 mm	7.61 dm ³	4011.00 g
4052899917545	OTe 25/220...240/700 CS	Shipping carton box 20	228 mm x 208 mm x 78 mm	3.70 dm ³	1906.00 g
4052899917668	OTe 35/220...240/1A0 CS	Shipping carton box 20	357 mm x 222 mm x 96 mm	7.61 dm ³	3551.00 g
4052899917576	OTe 50/220...240/1A0 CS	Shipping carton box 20	357 mm x 222 mm x 96 mm	7.61 dm ³	3911.00 g
4052899917583	OTe 50/220...240/1A4 CS	Shipping carton box 20	357 mm x 222 mm x 96 mm	7.61 dm ³	3911.00 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 25/220...240/420 CS	OT CABLE CLAMP D-STYLE	▶ 4052899077904
OTe 50/220...240/1A0 CS FAN	OT CABLE CLAMP B-STYLE	▶ 4052899077881
OTe 50/220...240/1A0 CS FAN	OT CABLE CLAMP B-STYLE TL	▶ 4052899948051
OTe 25/220...240/700 CS	OT CABLE CLAMP D-STYLE	▶ 4052899077904
OTe 35/220...240/1A0 CS	OT CABLE CLAMP B-STYLE	▶ 4052899077881
OTe 35/220...240/1A0 CS	OT CABLE CLAMP B-STYLE TL	▶ 4052899948051
OTe 50/220...240/1A0 CS	OT CABLE CLAMP B-STYLE	▶ 4052899077881
OTe 50/220...240/1A0 CS	OT CABLE CLAMP B-STYLE TL	▶ 4052899948051
OTe 50/220...240/1A4 CS	OT CABLE CLAMP B-STYLE	▶ 4052899077881
OTe 50/220...240/1A4 CS	OT CABLE CLAMP B-STYLE TL	▶ 4052899948051

Disclaimer

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