

# PRODUCT DATASHEET OTe 18/220...240/500 PC

OPTOTRONIC® Phase-cut OTE | Compact constant current LED drivers



### 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

# **TECHNICAL DATA**

# Electrical data

Nominal output power         18 W ¹¹           Nominal voltage         220240 V           Nominal output voltage         1836 V ²²           Input voltage AC         198264 V ³³           U-OUT (working voltage)         60 V           Nominal output current         500 mA ⁴¹           Inrush current         5 A ⁵¹           Output current tolerance         ±10 %           Output ripple current (100 Hz)         < 35 % ⁵¹           Mains frequency         50/60 Hz           Total harmonic distortion         15 %           Power factor λ         0.95 ⁻²           ECG efficiency         86 % ⁶¹           Device power loss         3,0 W ໑¹           Max. ECG no. on circuit breaker 10 A (B)         53           Max. ECG no. on circuit breaker 16 A (B)         84           Max. ECG no. on circuit breaker 25 A (B)         -           Surge capability (L/N-Ground)         1 kV           Surge capability (L-N)         1 kV           Galvanic isolation         SELV           Flickering metric (Pst LM)         ≤1	Nominal wattage	18.00 W
Nominal output voltage         1836 V 2)           Input voltage AC         198264 V 3)           U-OUT (working voltage)         60 V           Nominal output current         500 mA 4)           Inrush current         5 A 5)           Output current tolerance         ±10 %           Output ripple current (100 Hz)         < 35 % 6)	Nominal output power	18 W <sup>1)</sup>
Input voltage AC         198264 V ³)           U-OUT (working voltage)         60 V           Nominal output current         500 mA ⁴)           Inrush current         5 A ⁵)           Output current tolerance         ±10 %           Output ripple current (100 Hz)         < 35 % ⁶)	Nominal voltage	220240 V
U-OUT (working voltage)         60 V           Nominal output current         500 mA <sup>4</sup> )           Inrush current         5 A <sup>5</sup> )           Output current tolerance         ±10 %           Output ripple current (100 Hz)         < 35 % <sup>6</sup> )           Mains frequency         50/60 Hz           Total harmonic distortion         15 %           Power factor λ         0.95 <sup>7</sup> )           ECG efficiency         86 % <sup>8</sup> )           Device power loss         3,0 W <sup>9</sup> )           Max. ECG no. on circuit breaker 10 A (B)         53           Max. ECG no. on circuit breaker 16 A (B)         84           Max. ECG no. on circuit breaker 25 A (B)         -           Surge capability (L/N-Ground)         1 kV           Surge capability (L-N)         1 kV           Galvanic isolation         SELV	Nominal output voltage	1836 V <sup>2)</sup>
Nominal output current         500 mA 4)           Inrush current         5 A 5)           Output current tolerance         ±10 %           Output ripple current (100 Hz)         < 35 % 6)	Input voltage AC	198264 V <sup>3)</sup>
Inrush current         5 A 5)           Output current tolerance         ±10 %           Output ripple current (100 Hz)         <35 % 6)	U-OUT (working voltage)	60 V
Output current tolerance±10 %Output ripple current (100 Hz)< 35 % 6)	Nominal output current	500 mA <sup>4)</sup>
Output ripple current (100 Hz)< 35 % 6)Mains frequency50/60 HzTotal harmonic distortion15 %Power factor λ0.95 7)ECG efficiency86 % 8)Device power loss3,0 W 9)Max. ECG no. on circuit breaker 10 A (B)53Max. ECG no. on circuit breaker 16 A (B)84Max. ECG no. on circuit breaker 25 A (B)-Surge capability (L/N-Ground)1 kVSurge capability (L-N)1 kVGalvanic isolationSELV	Inrush current	5 A <sup>5)</sup>
Mains frequency50/60 HzTotal harmonic distortion15 %Power factor λ0.95 7)ECG efficiency86 % 8)Device power loss3,0 W 9)Max. ECG no. on circuit breaker 10 A (B)53Max. ECG no. on circuit breaker 16 A (B)84Max. ECG no. on circuit breaker 25 A (B)-Surge capability (L/N-Ground)1 kVSurge capability (L-N)1 kVGalvanic isolationSELV	Output current tolerance	±10 %
Total harmonic distortion  15 %  Power factor λ  0.95 <sup>7</sup> )  ECG efficiency  86 % <sup>8</sup> )  Device power loss  3,0 W <sup>9</sup> )  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)  Surge capability (L/N-Ground)  1 kV  Surge capability (L-N)  1 kV  Galvanic isolation	Output ripple current (100 Hz)	< 35 % <sup>6)</sup>
Power factor $\lambda$ 0.95 $^{7}$ ECG efficiency 86 $^{8}$ 80  Device power loss 3,0 W 9)  Max. ECG no. on circuit breaker 10 A (B) 53  Max. ECG no. on circuit breaker 16 A (B) 84  Max. ECG no. on circuit breaker 25 A (B) -  Surge capability (L/N-Ground) 1 kV  Surge capability (L-N) 1 kV  Galvanic isolation SELV	Mains frequency	50/60 Hz
ECG efficiency  86 % 8)  Device power loss  3,0 W 9)  Max. ECG no. on circuit breaker 10 A (B)  53  Max. ECG no. on circuit breaker 16 A (B)  84  Max. ECG no. on circuit breaker 25 A (B)  Surge capability (L/N-Ground)  1 kV  Surge capability (L-N)  1 kV  Galvanic isolation  SELV	Total harmonic distortion	15 %
Device power loss 3,0 W 9)  Max. ECG no. on circuit breaker 10 A (B) 53  Max. ECG no. on circuit breaker 16 A (B) 84  Max. ECG no. on circuit breaker 25 A (B) -  Surge capability (L/N-Ground) 1 kV  Surge capability (L-N) 1 kV  Galvanic isolation SELV	Power factor $\lambda$	0.95 7)
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)  Surge capability (L/N-Ground)  1 kV  Surge capability (L-N)  1 kV  Galvanic isolation  SELV	ECG efficiency	86 % <sup>8)</sup>
Max. ECG no. on circuit breaker 16 A (B)  Max. ECG no. on circuit breaker 25 A (B)  Surge capability (L/N-Ground)  1 kV  Surge capability (L-N)  1 kV  Galvanic isolation  SELV	Device power loss	3,0 W <sup>9)</sup>
Max. ECG no. on circuit breaker 25 A (B)  Surge capability (L/N-Ground)  1 kV  Surge capability (L-N)  1 kV  Galvanic isolation  SELV	Max. ECG no. on circuit breaker 10 A (B)	53
Surge capability (L/N-Ground)  1 kV  Surge capability (L-N)  1 kV  Galvanic isolation  SELV	Max. ECG no. on circuit breaker 16 A (B)	84
Surge capability (L-N) 1 kV Galvanic isolation SELV	Max. ECG no. on circuit breaker 25 A (B)	-
Galvanic isolation SELV	Surge capability (L/N-Ground)	1 kV
	Surge capability (L-N)	1 kV
Flickering metric (Pst LM) ≤1	Galvanic isolation	SELV
	Flickering metric (Pst LM)	≤1

<sup>1)</sup> Partial load 9...18 W

# Photometrical data

Flickering metric (Pst LM)	≤1
Stroboscope effect metric (SVM)	≤0.6

# Dimensions & Weight

<sup>2)</sup> Maximum < 48 V

<sup>3)</sup> Permitted voltage range

<sup>4) &</sup>lt;sub>±10%</sub>

<sup>5)</sup>  $t_{width} = 100 \mu s$  (measured at 50 % beak)

<sup>6) &</sup>lt;sub>Typical</sub>

<sup>7)</sup> Full load at 230 V/Minimum load at 230 V

<sup>8)</sup> At full load and 230  $\rm V$ 

<sup>9)</sup> Maximum

Length	95.00 mm
Width	53.00 mm
Height	30.00 mm
Cable cross-section, input side	0.751.5 mm <sup>2</sup> 1)
Cable cross-section, output side	0.51.5 mm <sup>2</sup> 1)
Wire preparation length, input side	8.09.0 mm
Wire preparation length, output side	8.09.0 mm
Product weight	93.00 g

<sup>1)</sup> Flexible / Solid leads

# Colors & materials

Casing material	Plastic
Body material	Plastic

# Temperatures & operating conditions

Ambient temperature range	-20+55 °C
Maximum temperature at tc test point	75 °C <sup>1)</sup>
Max.housing temperature in case of fault	110 °C
Permitted rel. humidity during operation	585 % <sup>2)</sup>

<sup>1)</sup> Maximum at the Tc-point

# Lifespan

CG lifetime	50000 h <sup>1)</sup>
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<sup>1)</sup> At  $T_{case} = 70$ °C at  $T_{c}$  point / 10% failure rate

# Additional product data

Encapsulated	No

# Capabilities

Dimmable	Yes
Dimming interface	Phase Cut 1)
Dimming range	10100 %
Overheating protection	Automatic reversible
Overload protection	Automatic reversible
No-load proof	Yes
Short-circuit protection	Automatic reversible
Max. cable length to lamp/LED module	2,0 m

<sup>2)</sup> Maximum 56 days/year at 85 %

Suitable for fixtures with prot. class	1/11
Type of connection, output side	Push terminal

<sup>1)</sup> Leading edge / Trailing edge

# Certificates & Standards

Approval marks – approval	CE / ENEC 10 / VDE / CB	
Standards	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 61547	
Protection class	II	
Type of protection	IP20	

# LOGISTICAL DATA

Temperature range at storage	-2575 °C
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# Accessories Optional

Product image	Product name	EAN
	OT CABLE CLAMP E-STYLE	4052899167896

# DOWNLOAD DATA

	Documents and certificates	Document name	
POF	User instruction / safety instructions	544631_OT PC dimmer list	
PDF	User instruction / safety instructions	501495_OTe 18/220-240/500 PC	
PDF	Declarations of conformity	EU Declaration of Conformity 3365230	
PDF	Certificates	VDE EMC Certificate 40038482	
PDF	Certificates	503096_CB report OTe 25 700 PC - OTe 18 350 PC - OTe 18 500	
PDF	Certificates	VDE ENEC Certificate 40038447	

# LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4052899105362	Unpacked 1		110.00 g	
4052899105379	Shipping box 20	284 mm x 207 mm x 100 mm	2478.00 g	5.88 dm <sup>3</sup>

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.