

## CV Power supplies 24 V



### Product family features

- Type of protection: IP20
- Wide operating temperature range: -20...+50 °C
- Lifetime: up to 50,000 h (temperature at max.  $t_c$ )

### Product family benefits

- Installation in cold and hot environments
- Very stable output power
- High electrical reversible short-circuit, overload, overtemperature protection
- Independent installation possible

### Areas of application

- Facades, public squares, cruise ships
- Signage
- Suitable for indoor and outdoor installations

## Product family datasheet

### Technical data

Product description	Electrical data					
	Nominal input voltage	Mains frequency	Input voltage AC	Input voltage DC	Total harmonic distortion	Power factor $\lambda$
OT 20/220...240/24	220...240 V	50...60 Hz	198...264 V <sup>1)</sup>	-	150 %	0.50 <sup>2)</sup>
OT 50/220...240/24	220...240 V	50...60 Hz	198...264 V <sup>9)</sup>	176...274 V <sup>1)</sup>	< 20 %	0.95/0.90 <sup>10)</sup>
OT 75/220...240/24	220...240 V	50...60 Hz	198...264 V <sup>1)</sup>		< 20 %	0.97 <sup>2)</sup>

Product description	Efficiency in full-load	Device power loss	Inrush current	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 10 A (C)	Max. ECG no. on circuit breaker 16 A (B)
OT 20/220...240/24	83 % <sup>3)</sup>	4.0 W <sup>4)</sup>	17 A	23	-	42
OT 50/220...240/24	85 % <sup>3)</sup>	8.0 W <sup>4)</sup>	45 A <sup>11)</sup>	12		19
OT 75/220...240/24	90 % <sup>3)</sup>	9.0 W <sup>17)</sup>	41 A <sup>18)</sup>	7		11

Product description	Max. ECG no. on circuit breaker 16 A (C)	Max. ECG no. on circuit breaker 25 A (B)	Surge capability (L-N)	Nominal output voltage	U-OUT (working voltage)
OT 20/220...240/24	-	-	1 kV	24 / 24 V <sup>5)</sup>	24 V
OT 50/220...240/24		-	1 kV	24 V <sup>12)</sup>	24 V
OT 75/220...240/24		-	1 kV	24 / 24 V <sup>5)</sup>	24 V

Product description	Nominal output power	Maximum output power	Galvanic isolation	Galvanic isolation primary/secondary	Output ripple Voltage (100 Hz)
OT 20/220...240/24	20 W <sup>6)</sup>	20 W <sup>7)</sup>	SELV	3 kV	-
OT 50/220...240/24	50 W <sup>13)</sup>	50 W <sup>7)</sup>	SELV	3.75 kV <sup>14)</sup>	
OT 75/220...240/24	75 W <sup>19)</sup>	75 W <sup>7)</sup>	SELV	3 kV <sup>14)</sup>	

Product description	Surge capability (L/N-Ground)	Protective conductor current	Dimensions & weight		
			Mounting hole spacing, length	Product weight	Cable cross-section, input side
OT 20/220...240/24	-		-	108.00 g	0.75...1.5 mm <sup>2</sup>
OT 50/220...240/24				290.00 g	0.75...1.5 mm <sup>2</sup> <sup>15)</sup>
OT 75/220...240/24		<2.0 mA	180.0 mm	290.00 g	0.75...1.5 mm <sup>2</sup> <sup>15)</sup>

## Product family datasheet

Product description	Cable cross-section, output side	Wire preparation length, input side	Wire preparation length, output side	Cable/wire length, input side	Cable/wire length, output side
OT 20/220...240/24	0.5...1.5 mm <sup>2</sup>	10 mm	10 mm	-	-
OT 50/220...240/24	0.5...1.5 mm <sup>2 15)</sup>	10 mm	10 mm	-	-
OT 75/220...240/24	0.5...1.5 mm <sup>2 15)</sup>	6.0 mm	6.0 mm	-	-

Product description	Length	Width	Height	Colors & materials	Temperatures & operating conditions	
				Casing material	Ambient temperature range	Maximum temperature at tc test point
OT 20/220...240/24	109.0 mm	50.0 mm	35.0 mm	Plastic	-20...+50 °C	70 °C
OT 50/220...240/24	242.0 mm	40.0 mm	16.0 mm	Plastic	-20...+45 °C	95 °C
OT 75/220...240/24	220.0 mm	47.0 mm	44.0 mm	Plastic	-20...+50 °C	80 °C

Product description	Max.housing temperature in case of fault	Temperature range at storage	Permitted rel. humidity during operation	Lifespan	Capabilities
				ECG lifetime	Dimmable
OT 20/220...240/24	90 °C	-40...+85 °C	5...85 % <sup>8)</sup>	30000 h	No
OT 50/220...240/24	110 °C	-30...85 °C	5...85 % <sup>8)</sup>	50000 h <sup>16)</sup>	No
OT 75/220...240/24	110 °C	-40...+85 °C	5...85 % <sup>8)</sup>	50000 h <sup>16)</sup>	No <sup>20)</sup>

Product description	Dimming interface	Dimming range	Overheating protection	Overload protection
OT 20/220...240/24	-	-	Automatic reversible	Automatic reversible
OT 50/220...240/24			Automatic reversible	Automatic reversible
OT 75/220...240/24			Automatic reversible	Automatic reversible

Product description	Short-circuit protection	No-load proof	Intended for no-load operation	Suitable for fixtures with prot. class
OT 20/220...240/24	Automatic reversible	Yes	No	II
OT 50/220...240/24	Automatic reversible	Yes	No	II
OT 75/220...240/24	Automatic reversible	Yes	No	II

## Product family datasheet

Product description	Type of connection, output side	Number of channels	Certificates & standards	
			Approval marks – approval	Standards
OT 20/220...240/24	Screw terminal	1	CE / ENEC 10 / VDE / VDE-EMC / RCM	Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to EN 55015/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61547
OT 50/220...240/24	Screw terminal		CE / CB / RCM / ENEC 18	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
OT 75/220...240/24	Screw terminal		CE / ENEC 10 / VDE / VDE-EMC / RCM	Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to EN 55015/Acc. to IEC 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 61547

Product description	Protection class	Type of protection	Logistical data	Environmental information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)
			Commodity code	Date of Declaration
OT 20/220...240/24	II	IP20	850440829000	14-04-2022
OT 50/220...240/24	II	IP20	850440829000	14-04-2022
OT 75/220...240/24	II	IP20	850440829000	14-04-2022

Product description	Primary Article Identifier	Candidate List Substance 1	CAS No. of substance 1	Safe Use Instruction
OT 20/220...240/24	4050300618111	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.
OT 50/220...240/24	4052899905566	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.

## Product family datasheet

Product description	Primary Article Identifier	Candidate List Substance 1	CAS No. of substance 1	Safe Use Instruction
OT 75/220...240/24	4050300817477	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.

Product description	Declaration No. in SCIP database
OT 20/220...240/24	bbe50d75-fd0a-4476-b0c2-34d70d2132b2
OT 50/220...240/24	736fa75f-f2e4-436b-8036-7f708a5ed7b5
OT 75/220...240/24	2338189f-f222-448b-b850-28e86aa37650

1) Permitted voltage range

2) Minimum

3) at 230 V, 50 Hz

4) Maximum

5)  $\pm 1.0$  V

6) Partial load 0.5...20 W

7) at steady state

8) Maximum 56 days/year at 85 %

9)  $V_{AC}$

10) Full load at 230 V/Half load at 230 V

11)  $t_{width} = 80 \mu s$  (measured at 50 %  $I_{peak}$ )

12)  $+0.9/-0.5$  V

13) Partial load 0...50 W

14) SELV

15) Solid or flexible leads

16) At  $T_{case} = 80^\circ C$  at  $T_c$  point / 10% failure rate

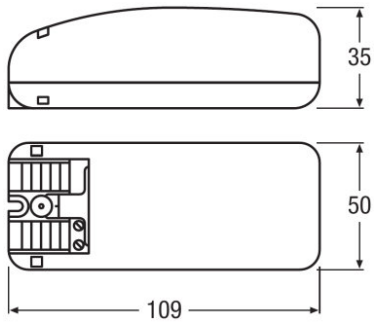
17) Maximum at 230 V  $V_{AC}$ ,  $P_{out}$  = maximum,  $T_a = 25^\circ C$ , steady state

18)  $t_{width} = 200 \mu s$  (measured at 50 %  $I_{peak}$ )

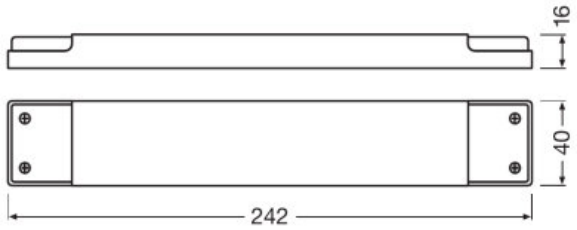
19) Partial load 0...75 W

20) With OPTOTRONIC dimmers

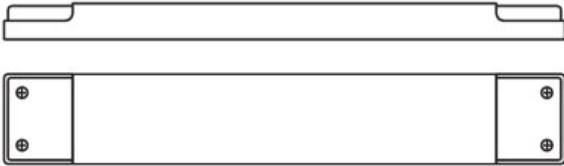
Product family datasheet



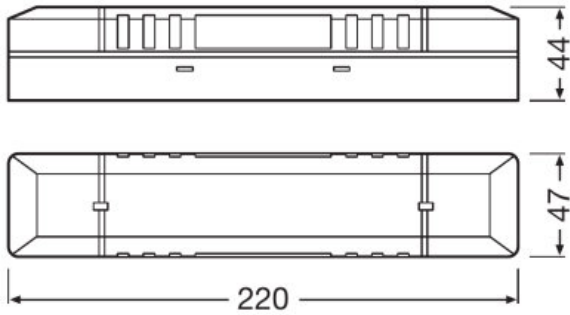
340540\_OT 20220-24024



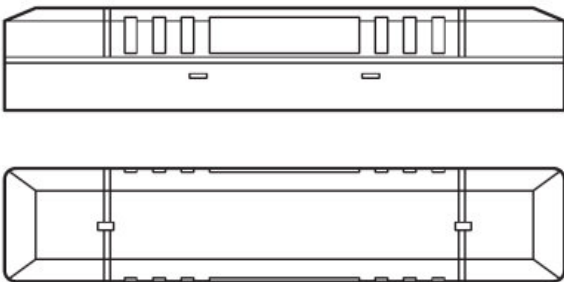
502054\_OT 50220-24024



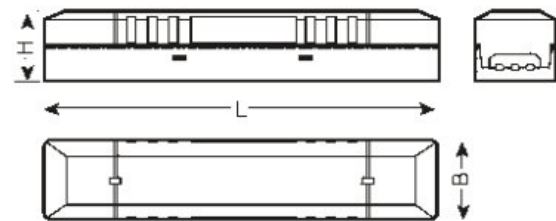
340656\_OPTOTRONIC OT 50220-24024



502930\_OT 75220-24024



502947\_OT 75220-24024



323945\_OPTOTRONIC OT 50220-24024

## Product family datasheet

### Application advice

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

### Additional product information

- EMI pass verified with wire length of 2 m, from the ECG to the LED module at full load.
- Wiring longer than 2 m from ECG to LED module is possible, but site installation conditions may interfere with EMI with these longer cables. EMI is therefore not verified in this condition.
- For wires longer than 2 m, the appropriate cable cross section must be carefully selected to reduce voltage drop.








### Sales and Technical Support

Sales and Technical Support [www.osram.com](http://www.osram.com)












### Country specific information

Product description	Product code	METEL code	SEG-No.	STK number	UK Org
OT 20/220...240/24	4050300618111	OSROT2024	-	4031160	-
OT 20/220...240/24	4050300618111	OSROT2024	-	4031160	-
OT 50/220...240/24	4052899905566	-	-	4030200	-
OT 50/220...240/24	4052899905566	-	-	4030200	-
OT 75/220...240/24	4050300817477	OSROT7524	-	4031164	-
OT 75/220...240/24	4050300817477	OSROT7524	-	4031164	-

### Download Data

File
 User instruction OPTOTRONIC LED Power Supply
 Addon Technical Information 313233_ADDON TECHNICAL INFORMATION OT 20230-24024 VS20 OSRAM (GB)
 Brochures OPTOTRONIC constant-voltage LED power supplies and controls (EN)
 Certificates OT ENEC 40038447 130722
 Declarations of conformity 334871_Declaration of conformity &#150; OT 20220-24024
 Declarations of conformity EU Declaration of Conformity 3578669
 CAD data 3-dim OT 20 220-240 24V Indoor-3D stp file

## Product family datasheet

	Certificates 664760_CEAG OT50
	Certificates 664761_ENEC mark approval_OT 5024
	Declarations of conformity 728507_EU Declaration OT
	Declarations of conformity 3540710_EU Declaration of conformity OT 50220-24024
	Installation/Operation notice 343028_Instruction Sheet OT 50220-24024
	Addon Technical Information 313226_ADDON TECHNICAL INFORMATION OT 75220-24024 VS10 OSRAM (GB)
	Declarations of conformity 334875_Declaration of conformity OT 75220-24024
	CAD data 3-dim 313470_220x47x44 9900016
	CAD data 3-dim 313501_220x47x44 9900016
	CAD data 3-dim 314272_220x47x44 9900016
	CAD data PDF 313401_220x47x44 9900016

### Ecodesign regulation information:

Intended for use with LED modules.

The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

### Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4050300618111	OT 20/220...240/24	Shipping carton box 20	270 mm x 105 mm x 229 mm	6.49 dm <sup>3</sup>	2396.00 g
4052899905566	OT 50/220...240/24	Shipping carton box 20	288 mm x 134 mm x 248 mm	9.57 dm <sup>3</sup>	4758.00 g



## Product family datasheet

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### Logistical Data

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4050300817477	OT 75/220...240/24	Shipping carton box 10	252 mm x 118 mm x 246 mm	7.32 dm <sup>3</sup>	3135.50 g
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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.

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### Disclaimer

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