Light is OSRAM

OT 20/220-240/24 DIM P

Dimmable range 1% - 100%

Benefits

Dimmable output range from 1 to 10V DC functionality Suitable for installation under Sunlight Salt mist resistant

Applications

In areas as hotels, luminous Signage, cruises ship, Public squares and architecture lighting Suitable for indoor and outdoor SELV installations

Approvals



In preparation, if not already printed on product label

Product Features

- Suitable for Class I/II luminaires
- SELV
- Wide t_a range -30 ... +55 °C
- Driver with output power range of up to 20 W
- High efficiency up to 83 %
- Dimmable via fully isolated 1...10V interface
- Very low dimming: 1%
- High surge protection: up to 4 kV (L-N)

- Mains voltage:
 220 240 VAC / 176 250 VDC
- Overload protection
- Over temperature protection
- Short circuit protection
- tc max = 85 °C
- 50'000 h lifetime at tc
- 5 years guarantee*
- High IP protection (IP66)

*10% cumulated failure



178 mm

169 mm

43 mm

25 mm

L

L1

В

Н

Electrical specification

	Item	Value	Unit	Remarks
Input	Nominal voltage	220 - 240	V	
	Mains frequency	50 / 60	Hz	
	Input voltage AC	198 - 264	V	
	Input voltage DC	176 - 250	V	
	Nominal current	0.10	А	Full load, 230 Vac, 50 Hz
	Maximum input current	0.14	А	Full load, 198 Vac, 50 Hz
	Total Harmonic Distortion (THD)	< 15	%	Full load, 230 Vac, 50 Hz,
	Power factor λ	0,95		Full load, 230 Vac, 50 Hz,
	Efficiency in full load	83	%	Typical, Full load, 230Vac, 50Hz,
	Device power loss	4.1	W	Full load, 230 Vac, 50 Hz
	Protection class	Ш		
	Suitable for fixtures with prot. Class	1711		
	Inrush current	20	А	Full Load, 240 Vac, Cold Start Duration = 100uS, 50%lpk—50%lpk
	Max. ECG no. on circuit breaker 10 A (B)	48		
	Max. ECG no. on circuit breaker 16 A (B)	77		
	Max. ECG no. on circuit breaker 25 A (B)	120		
	Max. ECG no. on circuit breaker 10 A (C)	88		
	Max. ECG no. on circuit breaker 16 A (C)	115		
	Nominal output voltage	24,2	V	
	Voltage accuracy	+/- 5	%	
t.	Voltage ripple	< 10	%	Vpk-pk at 100 Hz; Full load
Output	Nominal output power	2 - 20	W	
õ	Maximum output power	20	W	At steady state
	Capacitive load	1	uF/A	Linear modules allowed
	Galvanic isolation	SELV		
	U-OUT (working voltage)	30	V	
	Dimming interface	1-10	V	Built-in internal 100uA current source
5	Dimming range	1 – 100	%	
Dimming	Dimming method	PWM		
Dim	PWM frequency	500	Hz	
	Galvanic Isolation	Basic /		Basic Dim to Primary /
		Supplementary		Supplementary Dim to Secondary
	Ambient temperature range	-30+55	°C	
	Max. temperature at tc test point	+85	°C	Measured on t_c point indicated of the prod label, t_a not exceeded
	Storage temperature range	-40+85	°C	
_	Permitted rel. humidity during operation	5 – 85	%	Not condensing
entă	Surge capability (L/N)	4	kV	acc to. EN 61547
Environmental	Environmental rating	Outdoor		
	IP protection class	IP 66		
	Mains switching cycles	> 100'000	cycles	At ta = 25℃
	Expected ECG lifetime	50'000	h	At ta = 55℃ at 10% failure rate
	No-load proof	Yes		
	Intended for no-load operation	No		
	Overheating protection	Yes		Auto recovery
	Nov 2022 Vor: 1.2 Status: Final	Dogo 2/		arinta and taphaical changes expected

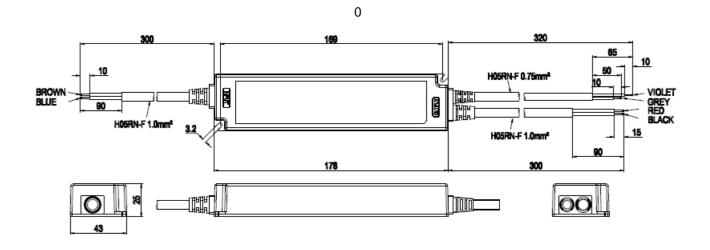
OPTOTRONIC[®] LED Power Supply

OT 20/220-240/24 DIM P

	Overload protection	Yes		Recovery with mains switch off-on
	Short-circuit protection	Yes		Auto recovery
	Type of connection	Cables		
Dimension	Height	25	mm	
	Length	178	mm	
	Width	43	mm	
	Weight	315	g	
	Casing material	Plastic		
	Mounting hole spacing, length	169	mm	
	Colour L and N	Blue / Brown		
	Cable cross selection	1.0	mm ²	H05RN-F/2x1.0 mm ²
Input	Wire preparation length	90	mm	
-	Wire peeling length	10	mm	
	Lead length	300	mm	
	Colour + and -	Red / Black		
Ŧ	Cable cross selection	1,0	mm ²	H05RN-F/2x1.0 mm ²
Output	Wire preparation length	90	mm	
Ō	Wire peeling length	15	mm	
	Lead length	300	mm	
Dimming	Colour dim+ and dim-	Violet / Grey		
	Cable cross selection	0,75	mm ²	H05RN-F/2x0.75 mm ²
	Wire preparation length	50 / 65	mm	
	Wire peeling length	10	mm	
	Lead length	320	mm	

Protection

Over temperature, Overload, Short-circuit, open-circuit. Reversible!



Remarks

- Output under power operation: the output setting is still effective if the load is below the minimum output power without any safety issue, but normal performance such as THD, EMI, etc.. is not guaranteed. See typical operation window graph for details.
- Output short circuit protection: short circuit current is limited without damage to the unit. Be sure the load is designed to withstand the short circuit current as well. See typical operation window graph for details. The protection is self-restoring.
- Output overload protection: In case of heavy output power of the load (higher than about 120% of full load), the unit switches off. Recovery with mains switch off-on.
- **No load operation:** In DC condition, do not to switch on/off the load from the secondary side.
- 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.
- Over temperature protection: the driver is protected against temporary overheating when Tc exceeds. The protection is self-restoring.
- Touch current: lower than 0.7 mA, according to EN 60598-1 ann. G and EN 61347-1 ann. A.
- **Dimming:** The output power of the LED drivers can be adjusted by a 1...10 V interface and an external controller or external resistor. Dimming current range 1-100 % at fixed 500 Hz frequency. When dimming below 1 %, the output is off. Dimming in DC condition is not recommended due to EMI, or additional controlled is needed, however there is not functional and safety issue if dimming in DC condition.

Dimmer shall be basic insolated with mains supply.

- Startup time: The startup time to reach the set output current is less than 1 s at full load.
- External flexible cable or cord: The external flexible cable or cord of the LED driver cannot be replaced; if the cord is damaged, the LED driver shall be destroyed.
- Waterproof: the driver is designed for outdoor installation with IP66 waterproof, during and after installation, the connection of input terminal and output terminal should be enclosed to far away from water source. Terminal block need provide IP67 waterproof if IP67 application needed.

- Installation: The wire connection should be installed by professional person, to provide reinforced insulation between L/N terminal block and accessible part, suggest to use terminal block which conform to EN60998-2-1 or EN60998-2-2, and with effective fixing, such as buckle. The terminal block for the supply can be:
 - Screw or crewless;
 - Two terminals
 - Min. 250 V, 0.75 mm² 2.5 mm²;
 - Skinning about 10 mm at the ends of all conductors.
- WEEE: Electrical products must not be thrown out with domestic waste. They must be taken to a communal collecting point for environmentally friendly disposal in accordance with local regulations. Contact your local authorities or stockiest for advice on recycling. The packaging material is recyclable. Dispose of the packaging in an environmentally friendly manner and make it available for the recyclable material collection-service.

Ecodesign regulation information:

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

- For further details please consult the application note.

Standards Ordering information

Droduct nome

Product name	EAN 10	EAN 40	Pieces / Box
OT 20/220-240/24 DIM P	4052899545809	4052899545816	20

OSRAM GmbH

EN 61347-1 EN 61347-2-13 EN 55015 EN 61547 EN 61000-3-2 EN 61000-3-3 EN 60598-1 EN 62384

Head Office:

Marcel-Breuer-Strasse 6 80807 Munich, Germany Phone +49 89 6213-0 Fax +49 89 6213-XXXX www.osram.com

