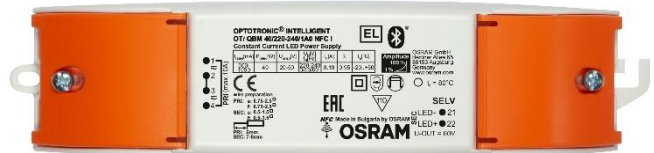


Light is OSRAM

OSRAM

Product data sheet: OPTOTRONIC® OTi QBM 40/220-240/1A0 NFC I

Wireless compact constant current LED drivers
 Qualified Bluetooth Mesh enabled by Silvair
 Works with OSRAM Hubsense
 Wide operating area, 1...100% dimmable



Compact SELV Bluetooth driver

Benefits

Super compact SELV wireless LED driver 40W
 Fast programming / current set via NFC*
 Suitable for emergency lighting units
 Amplitude dimming 1...100%
 For independent installation
 Through-looping of mains

Applications

Spots and downlights
 Office – Shop - Hospitality

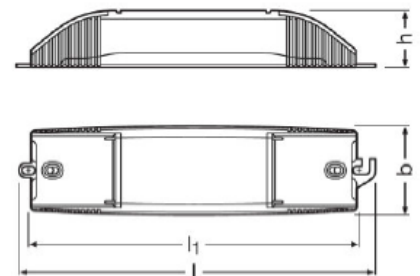
Approbations & Certifications

CE, ENEC, VDE-EMC, RCM, EL, CCC, EAC, BIS
 In preparation, if not already printed on the label

*For more information please refer to Tuner4TRONIC

Housing material: plastic, white.

L	204 mm
L1	186,5 mm
B	50 mm
H	32 mm



Preliminary

Product Features

- Output current range 500-1050mA
- NFC Interface
- Amplitude dimming 1-100%
- Low stand-by consumption <0.15 W
- Through-looping of mains
- Low LF-ripple < 5%
- 100'000 h lifetime at $t_c = 70^\circ\text{C}$
- $t_c \text{ max} = 80^\circ\text{C}$
- 2.5mm² screw terminals (PRI side)
- 5 years guarantee

Electrical Specifications

	Item	Value	Unit	Remarks
INPUT	Nominal voltage	220 – 240	V	
	Nominal frequency	0 / 50 / 60	Hz	
	AC voltage range	198 – 264	V	
	DC voltage range	176 – 276	V	DC or RAC
	Maximum voltage	320	Vac	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.2	A	
	Total Harmonic Distortion (THD)	< 10	%	Full load
	Power factor	≥ 0.95		Full load, 220 – 240 V, 50 Hz / see graphs
	Efficiency	91	%	Full load, 220 – 240 V, 50 Hz / see graphs
	Stand-by power	< 0.15	W	
	Protection class	II		
	Inrush current	20	A pk	th = 200 µs
OUTPUT	Max. units per circuit breaker	B16: 30 B10: 20		
	Nominal voltage range	20 – 50	V	
	Maximum voltage	< 60	Vdc	w/ Open Circuit
	Nominal current range	500 – 1050	mA	Default current 700mA
	Current accuracy	+/- 5	%	
	Current ripple 100Hz	< 5	%	
	Nominal power range	20 – 40	W	
	Maximum power	40	W	
QBM / Dimming	Galvanic isolation	SELV		
	Dimming control	yes		DALI (via Bluetooth)
	Dimming method	Analog dimming		
	Dimming range	1...100	%	
	Dimming Standard	DALI 2		
	Radio Frequency	2.4	GHz	
	Max TX power	+4	dBm	
	Wireless protocol			Qualified Bluetooth Mesh enabled by Silvair
ENVIRONMENT	Wireless range	10	m	Line of sight
	Ambient temperature range t _a	-25 ... +50	°C	
	Maximum case temperature t _c	80	°C	Measured on t _c point indicated of the product label
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-25 ... +85	°C	
	Relative humidity	5 ... 85	%	Not condensing
	Surge transient protection	1 2	kV	L/N LN/PE acc to. EN 61547 Clause 5.7
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 150'000		
	Expected lifetime	50'000 100'000	h	t _c = 80°C, 0.2% / 1'000 h failure rate, 24h ON t _c = 70°C, 0.1% / 1'000 h failure rate, 24h ON

NFC compatible with MD SIG standard

Additional Features

Driver Guard – Tuning Factor – Dim to Dark
Configuration Lock

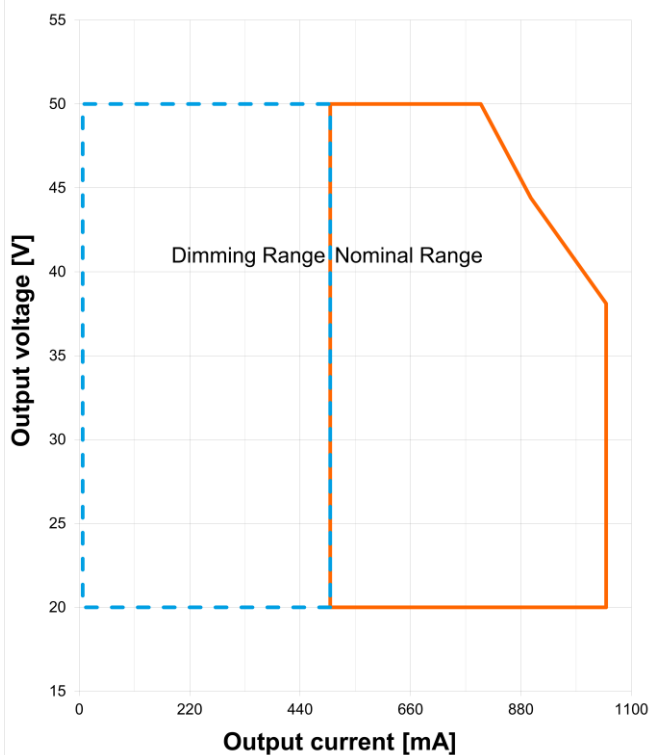
Protections

Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage
See remarks on page 4.

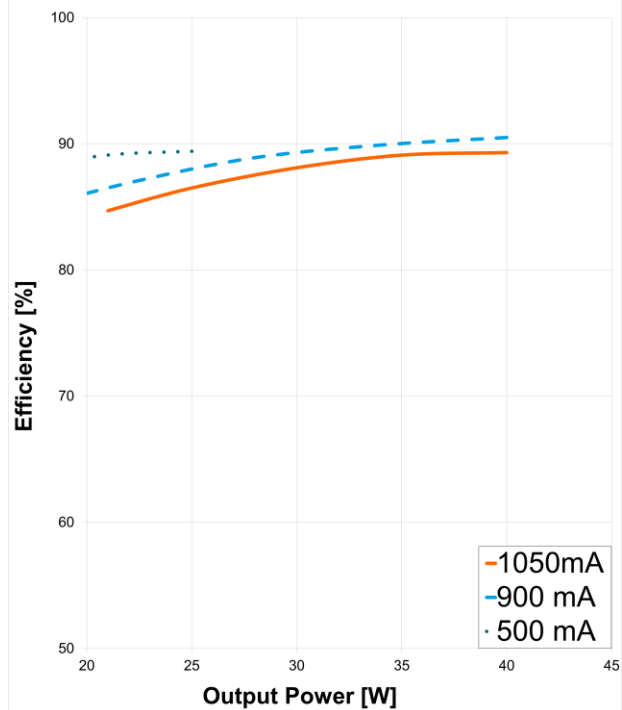
Reset

Bluetooth Network Reset : (1) Power off device and disconnect from mains, apply short circuit between LED+ and LED-, (2) connect device to mains and power on for at least 2 seconds, (3) power off device, disconnect from mains and remove short circuit. Reset completed.

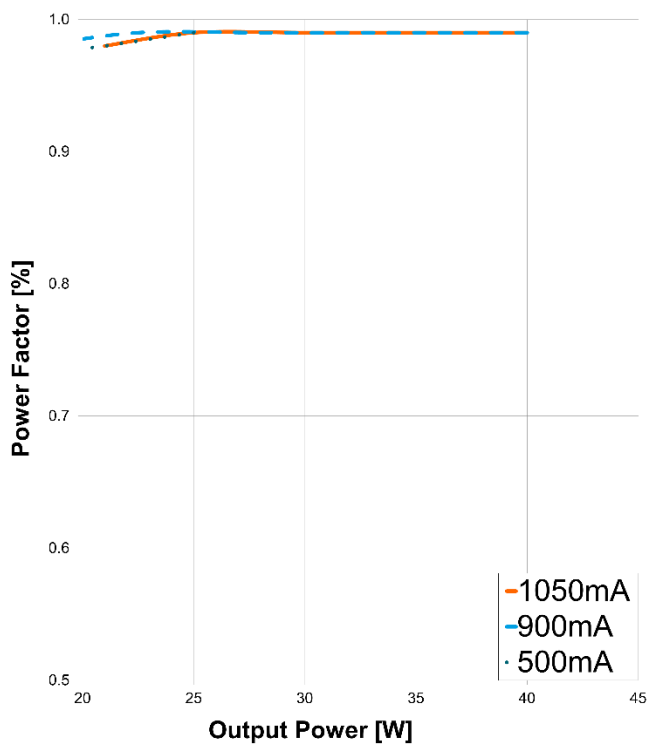
Typical Operating window



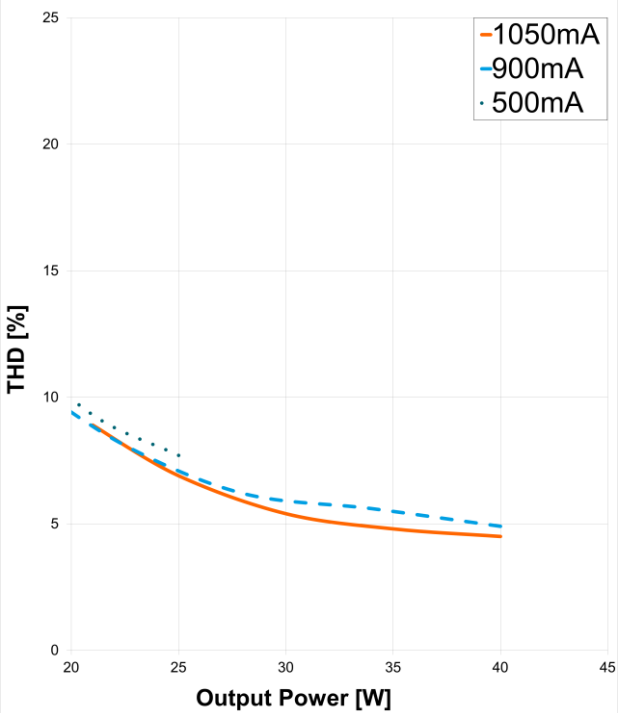
Typical Efficiency vs Load (230V/ 50Hz,)



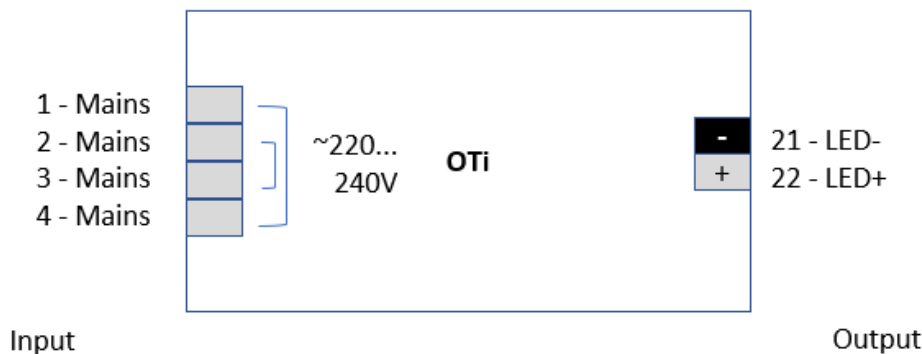
Typical Powerfactor vs Load



Typical THD vs Load



Wiring Diagram



Input wires

Wire cross-section: 0.75-2.5 mm²

Wire peeling length: 6 mm

Load wires length: 2m max.

Wire cross-section: 0.5-1.5 mm²

Wire peeling length: 7-8 mm

Product type	EAN10
OTI QBM 40/220-240/1A0 NFC I	4062172115063

Remarks

- **Input over voltage protection:** mains up to 320 Vac, for 2 hours maximum, will not destroy both the unit and the load; shut down of load might occur in this condition.
- **Output short circuit / under voltage protection:** shut down of load happens if U_{rated} is below 20V. The unit automatically tries to switch on the load again every 4-5 sec for 0.1 sec the selected nominal current.
- **Output overload protection:** the unit automatically reduces the output current to keep the output power below the max limit.
- **Output over voltage protection:** the unit tries to stabilize the voltage by reducing the current as necessary down to 50%; if U_{rated} still exceeds 50V shutdown will occur; the unit tries to automatically switch on the load again every 4-5 sec for 0.1 sec delivering the selected nominal output current.
- **No load operation:** the unit tries to automatically switch on the load again every 4-5 sec for 0.1 sec delivering the selected nominal output current; this operation mode is safe for the unit but is not recommended. Do not put a switch between load and unit.
- **Over temperature protection:** the unit is protected against temporary overheating by automatic reduction of the output current (up to a complete power off) when $t_c > t_{c max}$. The protection is self-restoring.
- **Touch current:** lower than 0.7 mA, according to EN 60598-1 ann. G and EN 61347-1 annex A
- **Emergency lighting:** this LED power supply is suitable for emergency lighting fixtures acc. to EN 60598-2-22., with emergency output factor $EOF_1=0.15$ (default value, can be programmed up to $EOF_1=1$) and related duration time of 1h at least. Function in emergency is ensured up to $t_a=80^\circ\text{C}$.
- By integration the device into a casing the wireless range could be affected, in particular by metal surfaces. Therefore, the wireless range needs to be verified after integration.
- The device can be put into operation using the OSRAM HubSense Commissioning Tool (<https://platform.hubsense.eu>), subject to prior acceptance of the Terms of Use and the Privacy Policy.
- OSRAM may terminate or suspend the use of the HubSense Commissioning Tool at any time and for any or no reason in its sole discretion, even if access and use is continued to be allowed to others.
- The device complies with Bluetooth Mesh Standard v1.0. It can also be used in 3rd party Bluetooth Mesh network that complies with this standard and that supports the mesh models of this device. In order to ensure correct interoperability a verification with the 3rd party network components is necessary in advance. Please contact OSRAM (support@hubsense.eu) to receive the actual list of supported mesh models for this device.

Standards

IEC 61347-1; IEC 61347-2-13; IEC 62384; EN 55015; IEC 62386; IEC 61000-3-2; IEC 61000-3-3
IEC 61547; CISPR 15; ETSI EN 300 328; ETSI EN 301 489-1; ETSI EN 301 489-17; EN 62479

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