

Light is OSRAM



## OT FIT 80/220-240/24 P

Constant Voltage LED driver for outdoor

### Benefits

- Small housing design
- Robust and reliable for outdoor applications
- UV resistant
- Salt mist resistant

### Applications

- Outdoor areas for hotels, residentials, facades
- Public squares and architecture lighting
- Suitable for indoor and outdoor SELV installations

### Approvals



Valid only if printed on product. When not printed on product label, they are under evaluation.



Housing material: metal

\* image for information purpose only

|    |             |                 |
|----|-------------|-----------------|
| L  | 167 mm      | Total length    |
| L1 | 153 / 27 mm | Holes interaxis |
| B  | 53 mm       | Width           |
| H  | 31.5 mm     | Height          |

## Product Features

- Suitable for Class I luminaires
- SELV,  $V_{out}$ : 24.2 V
- Wide  $t_a$  range -40...+50°C
- Overload/Over temperature/Short circuit protection, automatic, reversible
- Smart Power Supply
- $t_c$  max = 90°C
- Efficiency of 88.5%
- High surge protection: up to 4 kV (L-N) / 6 kV (L/N-PE)
- Low THD < 5%
- Low ripple < 2%
- Input voltage: 220–240 V<sub>AC</sub>
- 50'000 h lifetime at  $t_c$  80°C
- 5 years guarantee\*

\*10% cumulated failure

## Electrical specification

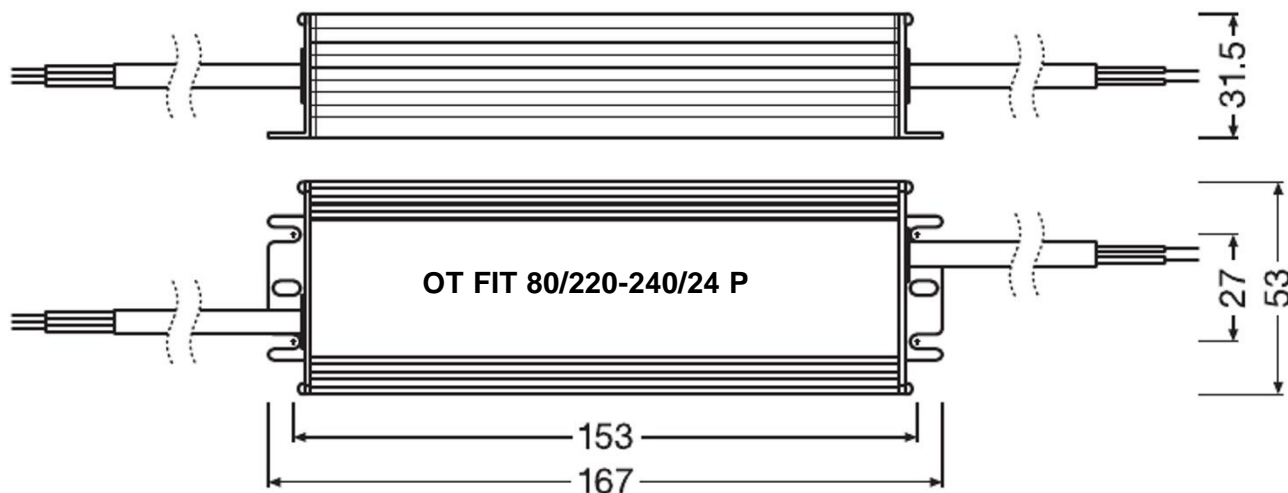
|  | Item  | Value                  | Unit            | Remarks  |
|--|---|------------------------|-----------------|--|
| INPUT                                    | Nominal line voltage                          | 220 – 240              | V <sub>ac</sub> |  |
|  | Mains line frequency                          | 50 / 60                | Hz              |  |
|  | AC voltage range                              | 198 – 264              | V               | Permitted voltage range  |
|  | Nominal current                               | 0.41                   | A               | Full load, 230 V <sub>ac</sub> , 50 Hz   |
|  | Total Harmonic Distortion (THD)               | < 5                    | %               | Full load, 230 V <sub>ac</sub> , 50 Hz, see graphs   |
|  | Power factor λ                                | 0,95                   |                 | Full load, 230 V <sub>ac</sub> , 50 Hz, see graphs   |
|  | Efficiency in full load                       | 88.5                   | %               | Typical, Full load, 230 V <sub>ac</sub> , 50 Hz, see graphs  |
|  | Device power loss                             | 10.3                   | W               | Full load, 230 Vac, 50 Hz, Typical   |
|  | Intended for no-load application              | No                     |                 | Secondary switching not allowed  |
|  | Protection class                              | I                      |                 |  |
|  | Suitable for fixtures with prot. Class        | I                      |                 |  |
|  | Inrush current                                | 50                     | A               | Full Load, 240 V <sub>ac</sub> , Cold Start<br>Duration = 250 μs, 50% / 50% I <sub>pk</sub>          |
|  | Max. units per circuit breaker:               |                        |                 |  |
|  | Max. ECG no. on circuit breaker 10 A (B)      | 17                     |                 |  |
|  | Max. ECG no. on circuit breaker 16 A (B)      | 27                     |                 |  |
|  | Max. ECG no. on circuit breaker 25 A (B)      | 60                     |                 |  |
|  | Max. ECG no. on circuit breaker 10 A (C)      | 22                     |                 |  |
| Max. ECG no. on circuit breaker 16 A (C) | 35  |                        |                 |  |
| Max. ECG no. on circuit breaker 25 A (C) | 60  |                        |                 |  |
| OUTPUT                                   | Nominal voltage                               | 24.2                   | V               |  |
|  | Voltage accuracy                              | ± 3                    | %               |  |
|  | U-OUT (working voltage)                       | <25.5                  | V               |  |
|  | Voltage ripple                                | < 2                    | %               | Ripple / average @ 100 Hz; Full load   |
|  | Nominal output power                          | 80                     | W               | Smart Power Supply   |
|  | Power range                                   | 40 – 80                | W               | EMI verified. PF (λ) and THD between 56-80 W   |
|  | Capacitive load                               | 20                     | μF/A            | Linear modules allowed   |
|  | Galvanic isolation                            | SELV                   |                 |  |
| ENVIRONMENTAL                            | Ambient temperature range                     | -40...+50<br>+50...+70 | °C              | Full load, t <sub>c</sub> not exceeded<br>Load derating, t <sub>c</sub> not exceeded, refer to graph |
|  | Max. temperature at t <sub>c</sub> test point | +90                    | °C              | Measured on t <sub>c</sub> point indicated of the prod label,<br>t <sub>a</sub> not exceeded         |
|  | Storage temperature range                     | -40...+85              | °C              |  |
|  | Permitted rel. humidity during operation      | 5 – 85                 | %               | Not condensing   |
|  | Surge capability (L / N)                      | 4                      | kV              | acc to. EN 61547   |
|  | Surge capability (L – N / PE)                 | 6                      | kV              | acc to. EN 61547   |
|  | Environmental rating                          | Outdoor                |                 |  |
|  | IP protection class                           | IP 66 & IP 67          |                 |  |
|  | Mains switching cycles                        | > 100000               | cycles          | @ t <sub>a</sub> = 25°C  |
|  | Expected ECG lifetime                         | 50000                  | h               | @ t <sub>c</sub> = 80°C – 0.2% / 1000 h failure rate   |
|  | No-load proof                                 | Yes                    |                 |  |
|  | Intended for no-load operation                | No                     |                 |  |
|  | Overheating protection                        | Yes                    |                 | Auto reversible  |
|  | Overload protection                           | Yes                    |                 | Auto reversible  |
|  | Short-circuit protection                      | Yes                    |                 | Auto reversible  |
|  | Type of connection                            | Cables                 |                 |  |
|  | Dimensions                                    | 167 x 53 x 31.5        | mm              | L x W x H  |
|  | Holes interaxis                               | 153                    | mm              |  |
|  | Weight  | 500                    | g               |  |
| Casing material                          | Metal   |                        |                 |  |

|               |                         |                                 |                 |                               |
|---------------|-------------------------|---------------------------------|-----------------|-------------------------------|
| <b>INPUT</b>  | Colour L / N / GND      | Blue / Brown / Yellow and green |                 |                               |
|               | Cable cross section     | 1.0                             | mm <sup>2</sup> | H05RN-F/3x1.0 mm <sup>2</sup> |
|               | Wire preparation length | 60                              | mm              |                               |
|               | Wire peeling length     | 10                              | mm              |                               |
| <b>OUTPUT</b> | Lead length             | 300                             | mm              |                               |
|               | Colour + and -          | Red / Black                     |                 |                               |
|               | Cable cross section     | 1.0                             | mm <sup>2</sup> | H05RN-F/2x1.0 mm <sup>2</sup> |
|               | Wire preparation length | 60                              | mm              |                               |
|               | Wire peeling length     | 10                              | mm              |                               |
|               | Lead length             | 300                             | mm              |                               |

### Led wire length

EMI pass verified with wire length from the ECG to the LED module at full load at 3 m.  
 Longer wiring is possible, with recommendation up to 10 m length. Site installation conditions may interfere with EMI with such longer cables.  
 For longer lengths than 10 m, cable cross section must be increased to reduce voltage drop. EMI not verified in this condition.

### Product drawing

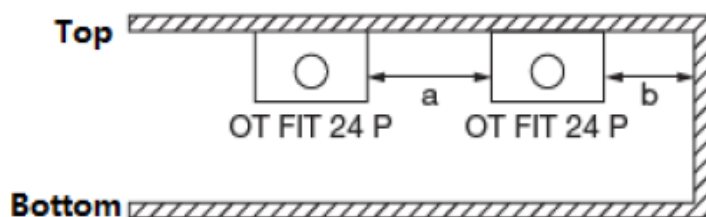


### Protection

Over temperature, Overload, Short-circuit. Auto reversible.

### Installation requirements

Keep enough distance from the ceiling corner or other drivers to avoid overheat. The driver is not allowed to be covered by flammable materials. At critical conditions showed by below picture (Full load,  $t_a=50^\circ\text{C}$ , driver on the corner of ceiling), refer to below distances. At normal installation conditions, distances can be shorter but temperature at  $t_c$  point must within  $t_c$  max.

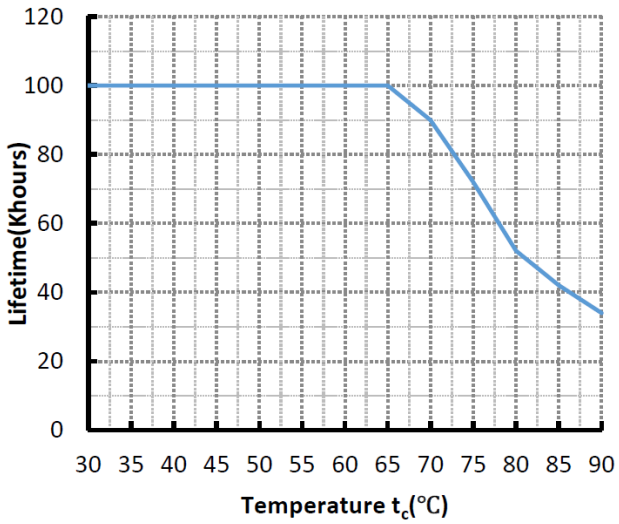
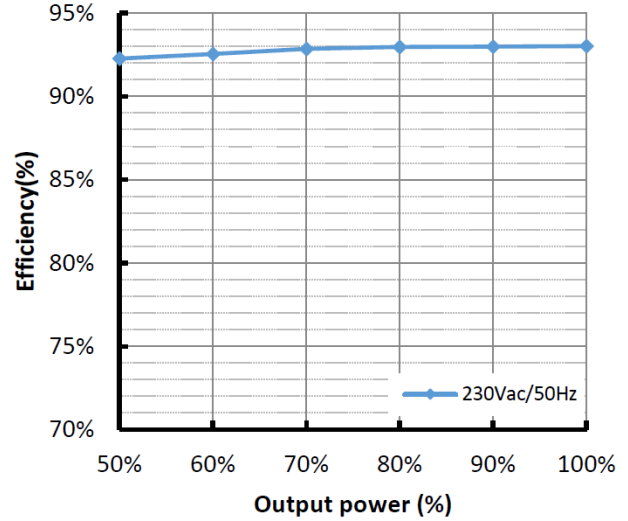
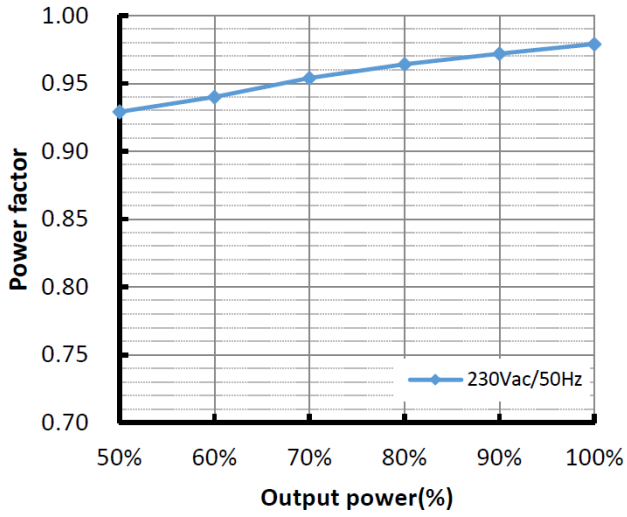


a:  $\geq 1\text{cm}$ ; b:  $\geq 1\text{cm}$

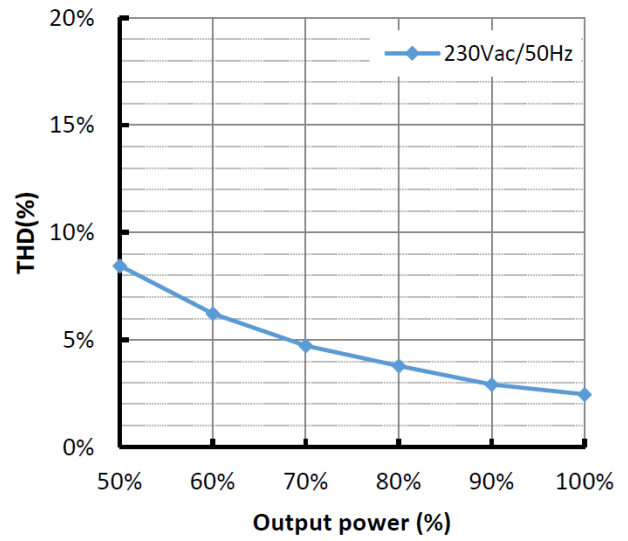
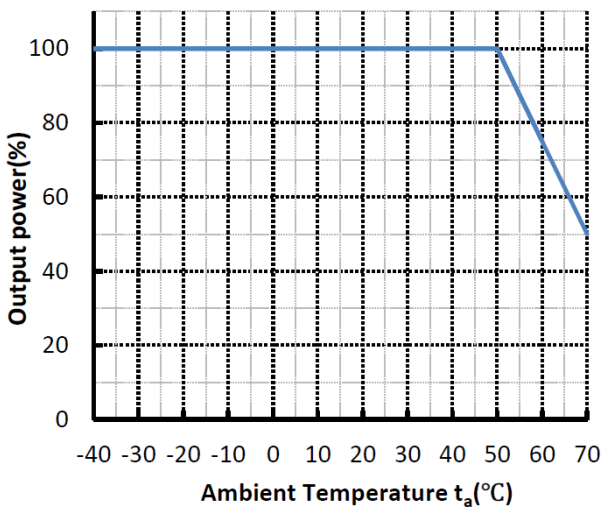
For further details on application, please refer to user instruction

OPTOTRONIC® LED Power Supply

OT FIT 80/220-240/24 P



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## Remarks

- **Output short circuit protection:** auto reversible when fault removed.
- **Output overload protection:** auto reversible when fault removed.
- **Over temperature protection:** the unit is protected against temporary overheating by shutting the unit down, auto reversible when temperature decreases.
- Temperature on  $t_c$  point must not exceed indicated  $t_c$  max. Derating for LED load is necessary if  $t_a$  is higher than 50°C.
- **Waterproofing:** use waterproof connectors (IP66&IP67) for the connection between driver and mains, driver and LED modules.
- Replacing driver cables will damage the driver
- **Dimming compatibility:** the OT FIT driver is able work with OSRAM dimmer as dimmable solution. For example: OTi DALI DIM, OT DIM, OT DMX RGBW DIM, OT BLE DIM. It is recommended to check the performance of total system in design-in stage.
- **No-load conditions:** hot plug-in or secondary switching of LEDs is not permitted. Please take care to switch the driver off via L. Do not put switch between ECG and LED load.
- 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.
- **Application:** the driver is intended for supply power to 24 V LED light sources like – but not limited to – OSRAM LINEARlight FLEX® and Tec Flex LED flexible strips, OSRAM BackLED® and BoxLED® 24 V modules, OSRAM LINEARlight® Rigid FINESSE systems.
- **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.

**Standards**

EN 61347-1

EN 61347-2-13

EN 55015

EN 61547

EN 61000-3-2

EN 61000-3-3

EN 60598-1

EN 62384

**Ordering information**

| Product name           | EAN 10        | EAN 40        | Pieces / box |
|------------------------|---------------|---------------|--------------|
| OT FIT 80/220-240/24 P | 4062172085465 | 4062172085472 | 15           |

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