# Light is OSRAM

# OT FIT 150/220-240/12 P

12 V Constant Voltage LED driver

## Benefits

Small housing design for target application installation. Versatile scope of application due to output power range of up to 150W.

Robust and durable design for outdoor application.

### Applications

Signage lighting, channel letter lighting, backlighting, etc... Suitable for indoor and outdoor SELV installations

### Approvals



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

# Contraction of the second seco

Housing material: natural anodized aluminum \* image for information purpose only

OSRAM

| L  | 202 mm  |  |  |  |
|----|---------|--|--|--|
| L1 | 188 mm  |  |  |  |
| В  | 53 mm   |  |  |  |
| Н  | 31,5 mm |  |  |  |

# **Product Features**

- Suitable for Class I luminaire
- SELV, Vout: 12,5 V
- Wide t<sub>a</sub> range -40°C ... +70°C
- Driver with output power range to 150 W
- High efficiency up to 91%
- Smart Power Supply
- THD <5% at full load
- High IP protection (IP66 / IP67)

\*10% cumulated failure,

- High surge protection: up to 6 kV (L-N),
  6 kV (L/N-PE)
- Mains voltage: 220 240 V<sub>AC</sub>
- Overload protection
- Over temperature protection
- Short circuit protection
- 50'000 h lifetime at t<sub>c</sub> 90°C
- 5 years guarantee\*



# **Electrical specification**

|               | Item  | Value         | Unit   | Remarks   |
|---------------|---|---------------|--------|---|
|               | Nominal voltage                               | 220 - 240     | V      |   |
|               | Mains frequency                               | 50 / 60       | Hz     |   |
|               | Input voltage AC                              | 198 - 264     | V      |   |
|               | Nominal current                               | 0.85          | А      | Full load, 230 V <sub>AC</sub> , 50 Hz / 60 Hz                                    |
|               | Total Harmonic Distortion (THD)               | < 5           | %      | Full load, 230 V <sub>AC</sub> , 50 Hz / 60 Hz                                    |
|               | Power factor λ                                | 0.93C0.98     |        | 50-100 % load, 230 Vac, 50 Hz. See graphs   |
|               | Efficiency in full load                       | 91            | %      | Typical, Full load, 230 V <sub>AC</sub> , 50 Hz                                   |
|               | Device power loss                             | 14.8          | W      |   |
| UT            | Intended for no-load application              | No            |        | Secondary switching not allowed   |
| INPUT         | Protection class                              | 1             |        |   |
|               | Suitable for fixtures with prot. Class        | Ι             |        |   |
|               | Inrush current                                | 55            | А      | At Full Load ,240 V <sub>AC</sub> , Cold Start<br>Duration=250 μs 50% lpk—50% lpk |
|               | Max. ECG no. on circuit breaker 10 A (B)      | 4             |        |   |
|               | Max. ECG no. on circuit breaker 16 A (B)      | 7             |        |   |
|               | Max. ECG no. on circuit breaker 25 A (B)      | 10            |        |   |
|               | Max. ECG no. on circuit breaker 10 A (C)      | 9             |        |   |
|               | Max. ECG no. on circuit breaker 16 A (C)      | 16            |        |   |
|               | Max. ECG no. on circuit breaker 25 A (C)      | 23            |        |   |
|               | Nominal output voltage                        | 12,5          | V      |   |
|               | Voltage accuracy                              | +/- 3         | %      |   |
| F             | Voltage ripple                                | < 3           | %      | Vpk-pk at 100 Hz; Full load   |
| OUTPUT        | Nominal output power                          | 150           | VV     |   |
| .no           | Maximum output power                          | 150           | VV     | At steady state   |
|               | Capacitive load                               | 20            | μF/A   | Linear modules allowed  |
|               | Galvanic isolation                            | SELV          |        |   |
|               | U-OUT (working voltage)                       | 13            | V      |   |
|               | Ambient temperature range                     | -40+50        | °C     | At full load, t <sub>c</sub> not exceeded   |
|               | ·   | +50+70        |        | Load derating, $t_c$ not exceeded. See graphs                                     |
|               | Max. temperature at t <sub>c</sub> test point | 90            | °C     | Measured on $t_c$ point, $t_a$ not exceeded                                       |
|               | Storage temperature range                     | -40+85        | °C     |   |
|               | Permitted rel. humidity during operation      | 5 85          | %      | Not condensing  |
| AL            | Surge capability (L/N)                        | 6             | kV     | L/N acc to. EN 61547  |
| ENT           | Surge capability (L-N/PE)                     | 6             | kV     | L-N/PE acc to. EN 61547   |
| IMN           | Environmental rating                          | Outdoor       |        |   |
| ENVIRONMENTAL | IP protection class                           | IP 66 / IP 67 |        |   |
| ENV           | Mains switching cycles                        | > 100'000     | cycles | At $t_a = 25^{\circ}C$  |
|               | Expected ECG lifetime                         | 50'000        | h      | t <sub>c</sub> = 90°C - 0,2% / 1'000 h failure rate                               |
|               | No-load proof                                 | Yes           |        | Auto recovery   |
|               | Intended for no-load operation                | No            |        |   |
|               | Overheating protection                        | Yes           |        | Auto recovery   |
|               | Overload protection                           | Yes           |        | Auto recovery   |
|               | Short-circuit protection                      | Yes           |        | Auto recovery   |
| Z             | Height  | 31.5          | mm     |   |
| ISIO          | Length  | 202           | mm     | Includes mounting hangers   |
| DIMENSION     | Width   | 53            | mm     |   |
| DIN           | Casing material                               | Metal         |        | natural anodized aluminum   |
|               | Mounting hole spacing, length                 | 188           | mm     |   |

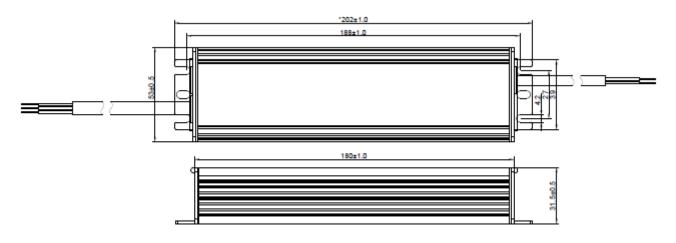
### **OPTOTRONIC® LED Power Supply**

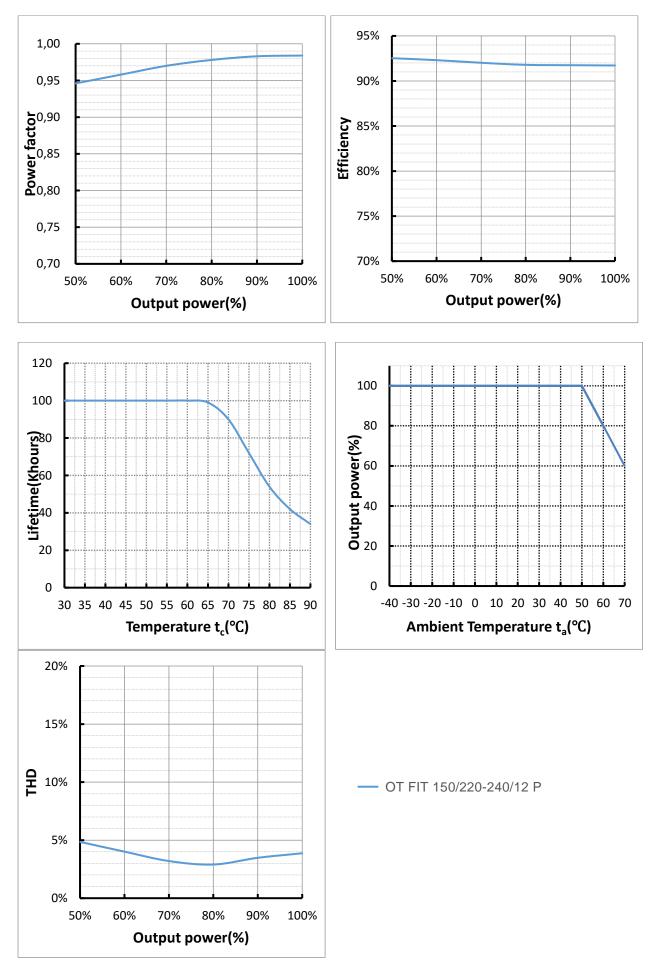
|      | Net weight              | 920                               | g   |                               |
|------|-------------------------|-----------------------------------|-----|-------------------------------|
|      | Colour L / N / GND      | Blue / Brown/<br>Yellow and Green |     |                               |
| Ŭ    | Cable cross selection   | 1,0                               | mm² | H05RN-F/3x1.0 mm <sup>2</sup> |
| INPI | Wire preparation length | 60                                | mm  |                               |
|      | Wire peeling length     | 10                                | mm  |                               |
|      | Lead length             | 300                               | mm  |                               |
|      | Colour + and -          | Red / Black                       |     |                               |
| 5    | Cable cross selection   | 1,0                               | mm² | H05RN-F/2x1.0 mm <sup>2</sup> |
| OUTP | Wire preparation length | 60                                | mm  |                               |
| D    | Wire peeling length     | 10                                | mm  |                               |
|      | Lead length             | 300                               | mm  |                               |

# Protection

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

# **Dimensions:**

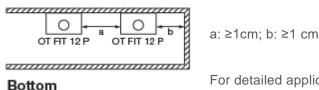




### Remarks

- Output short circuit protection: self-restoring.
- Output overload protection: auto reversible when fault removed.
- Over temperature protection: the unit is protected against temporary overheating by hiccup protection, auto reversible when temperature decreases. Temperature on t<sub>c</sub> point must not exceed t<sub>c</sub> max. Derating for LED load is necessary if t<sub>a</sub> is higher than 50°C.
- No load operation: please take care to switch off the driver via L. Hot plug-in or secondary switching of LEDs is not permitted.
- 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.
- Waterproof: the driver is designed for outdoor installation with IP66 / IP67 protection grade. Input and output cables must be connected by means of a sealed cable clamp.
- LED wire length: 10 m EMI verified. Max cable length of 10 m recommended. EMI may be interfered by on site installation condition with longer cable. For longer cable (> 10 m), cable with larger cross section area is needed to cover voltage drop.
- Exit cables: the supplied, internally wired cables cannot be replaced; if the cord is damaged, the LED driver must be replaced.
- Keep enough distance from the ceiling corner or other drivers to avoid overheat. The driver must not be covered by flammable materials. At critical conditions showed by below picture (full load, t<sub>a</sub> = 50°C, driver on the corner of ceiling), refer to below distances. At normal installation, distance can be shorter but temperature at t<sub>c</sub> point must be within t<sub>c</sub> max.

### Тор



For detailed application notes, please refer to user instructions.

# 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 150/220-240/12 P | 4062172133500 | 4062172133517 | 15           |

### OSRAM GmbH

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