## Light is OSRAM



# Product data sheet: OT FIT 55/220-240/1050 CS L G2

Constant Current LED Power Supply SELV

800mA - 900mA - 975mA- 1050mA

OPTOTRONIC® LED Power Supply is the reliable Choice for linear and area fixtures for office – Industrial – shop lighting

## **Benefits:**

Flexibility with 1 driver with 4 output currents High quality of light with very low ripple Small, slim white metal housing 30x21mm Long lasting and high reliability

### Applications

Linear and area lighting Office – industrial – shop

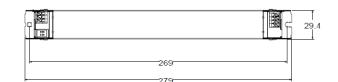
## Approval marks and Symbols

CE, VDE-ENEC, VDE-EMC, RCM, <sup>110</sup>, EL In preparation, if not already printed on product label

## **Product Features**

- Output currents: 800/900/975/1050 mA
- Output voltage: 27V<sub>DC</sub> 51V<sub>DC</sub>
- Output power: 21.6 W 53.6 W
- Typ. Efficiency: up to 89%
- Suitable for emergency lighting

- Low ripple, Low THD
- Overload & -temperature protection
- 100`000 h lifetime at  $t_c = 65^{\circ}C$
- T<sub>c</sub> max = 80°C
- Wide t<sub>a</sub> range -25...+50°C



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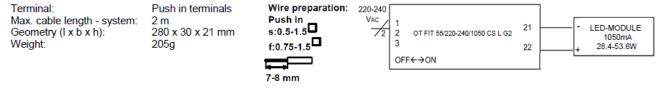
## **Electrical Specifications**

|             | Item                                     | Value            | Unit            | Remarks   |
|-------------|--|------------------|-----------------|---|
|             | Nominal Voltage                          | 220 - 240        | V <sub>AC</sub> |   |
|             | Nominal frequency                        | 0/ 50 / 60       | Hz              |   |
|             | AC voltage range                         | 198 – 264        | V               | AC or RAC   |
|             | DC voltage range                         | 176 - 276        | V               | DC  |
|             | Maximum voltage                          | 300              | $V_{\text{AC}}$ | 1 h   |
|             | Nominal current                          | 265              | mA              | 230V, Refer to table 1 for details                            |
| Ħ           | Total Harmonic Distortion (THD)          | < 10             | %               | Full load, 230 V, 50 Hz / see graphs                          |
| Input       | Power factor                             | 0.98             |                 | Full load, 230 V, 50 Hz / see graphs                          |
|             | Efficiency                               | 89               | %               | Full load, 230 V, 50 Hz / typical/ see graphs                 |
|             | Stand-by power                           | NA               | W               |   |
|             | Power losses                             | 7                | W               | At 230 V Input power 60.6 W max. refer to table 1 for details |
|             | Protection class                         | 1                |                 | Suitable for class I and II luminaires                        |
|             | Inrush current                           | 20               | А               | Th = 200 µs typical (measured at 50% lpeak)                   |
|             | Max. units per circuit breaker           | B16: 25 B10: 15  |                 | Grid impedance 1000mOhm                                       |
|             | Leakage current                          | < 0.5            | mA              | Through PE, output floating                                   |
|             | Nominal voltage range                    | 27 – 51          | V <sub>DC</sub> | Refer to table 1 for details                                  |
|             | Maximum voltage                          | 60               | Vdc             | Open Circuit  |
| ¥           | Nominal current range                    | 800/900/975/1050 | mA              |   |
| nd          | Current accurancy                        | +/- 7.5          | %               |   |
| Output      | Current ripple                           | < 5              | %               | Ripple / average @ 100 Hz                                     |
| 0           | Nominal power range                      | 21.6 – 53.6      | W               | Partial Load. Refer to table 1 for details                    |
|             | Maximum power                            | 53.6             | W               | Refer to table 1 for details                                  |
|             | Galvanic isolation                       | SELV             |                 | Output to mains – touch current < 0.5 mA                      |
|             | Ambient temperature range t <sub>a</sub> | -25+50           | °C              | Refer to table 1 for details                                  |
| Ŀ           | Maximum case temperature $t_{\rm c}$     | 80               | °C              | Measured on $t_c$ point indicated of the product label        |
| ů.          | Max. case temp. in fault condition       | 110              | °C              |   |
| Ĕ           | Storage temperature range                | -25+80           | °C              | Cool down before operating                                    |
| <u> </u>    | Relative humidity                        | 80               | %               | Not condensing  |
| Environment | Surge transient protection               | 1/2              | kV              | L/N /LN/PE acc to IEC 61547                                   |
| 2           | Environmental rating                     | Indoor           |                 |   |
| ш           | IP rating                                | IP 20            |                 |   |
|             | Mains switching cycles                   | > 100'000        |                 |   |
|             | Expected lifetime                        | 50`000           | hrs             | $t_c = 80^{\circ}C$ , 10% failure rate                        |

## Protections

| Over temperature  | Input overvoltage                          |
|---|--|
| Automatic, reversible   | Maximum allowed input voltage 300V AC/ 1hr |
| Overload  | Output overvoltage                         |
| Non-reversible, mains switchover is needed to re-power the load | Yes, limitation of Output voltage < 60V    |
| No load   | Output under voltage                       |
| Yes, switches off   | NA   |
| Short-circuit   | LED load protection                        |
| Non-reversible, mains switchover is needed to re-power the load | NA   |
|   |  |

## Wiring Diagram

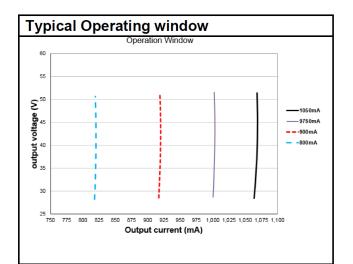


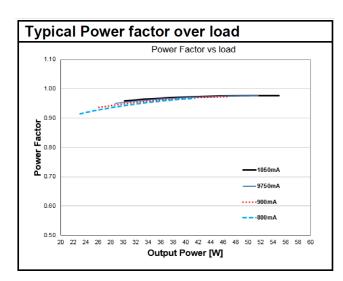
Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

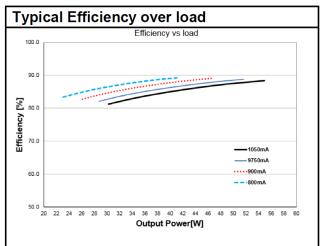
DIPswitches provide basic insulation only.

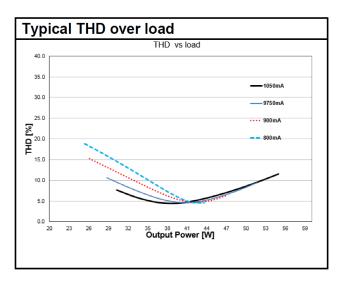
Therefore changes in the position of the DIPswitches should be realized only in state of zero potential.

DIPswitches must be installed touch protected inside the luminaire.









| Table 1 - Rated output power and current sets |      |      |      |      |
|---|------|------|------|------|
| lout (mA)                                     | 800  | 900  | 975  | 1050 |
| U min [V]                                     | 27   | 27   | 27   | 27   |
| U max [V]                                     | 51   | 51   | 51   | 51   |
| P min [W]                                     | 21.6 | 24.3 | 26.3 | 28.4 |
| P max [W]                                     | 40.8 | 45.9 | 49.7 | 53.6 |
| <b>Ta [</b> °C ]                              | 50   | 50   | 50   | 50   |
| <b>Tc [</b> °C ]                              | 80   | 80   | 80   | 80   |
| Line Current, nominal@230V mA                 | 220  | 230  | 250  | 265  |
| Max Power Loss@230V [W]                       | 5.0  | 5.7  | 6.5  | 7.0  |
| Input Power @230V [W]                         | 45.8 | 51.6 | 56.2 | 60.6 |

| Pin1 | Pin2 | Current |
|------|------|---------|
| ON   | ON   | 1050    |
| ON   | OFF  | 975     |
| OFF  | ON   | 900     |
| OFF  | OFF  | 800     |

Current selection by DIP-switch

### Remarks

- Input over voltage protection: mains up to 300 Vac, for one hour maximum, will not destroy both the unit and the load; shut down of load might occur in this condition.
- **Dipswitch:** don't change the current by Dipswitch during driver operation.
- Output short circuit / undervoltage protection: shut down of load might happens if Vout is out of operating range
- Output overload protection: the unit is intrinsically protected against over loading because the output voltage is limited.
- Output over voltage protection: shut down of load happens if Vout exceeds 60V
- No load operation: the unit automatically switches off. Mains switchover is needed to re-power the load.
- Over temperature protection: the unit is protected against temporary overheating by automatic reduction of the output current when tc > 80°C
- Switchover time: lower than 0.5 s, both AC and DC mains.
- **Output power hold time**: > 4 ms, in case of mains dips.
- Emergency lighting: this LED power supply is suitable for emergency lighting fixtures acc. to EN 60598-2-22; according to IEC 61347-2-13 Annex J.
- Emergency Escape Lighting: this LED power supply is suitable for emergency escape lighting systems acc. to EN 50172

#### Standards

IEC 61347-1 IEC 61347-2-13 IEC 62384 IEC 61000-3-2 IEC 61000-3-3 IEC 61547

| Product name                   | EAN10         | EAN40         | Pieces / box |
|--------------------------------|---------------|---------------|--------------|
| OT FIT 55/220-240/1050 CS L G2 | 4052899522558 | 4052899522565 | 20           |

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