

Light is OSRAM

OSRAM**ELEMENT 42/220-240/1050 G3****Constant Current LED Power Supply
1050mA**

Element LED Power Supply fits in light fixtures for office, shop lighting or other indoor applications that require high quality light

Approval marks Features

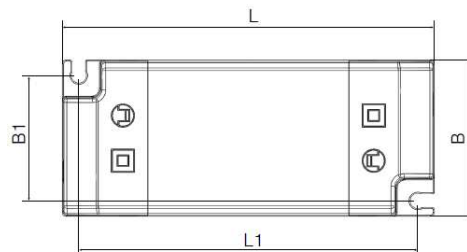
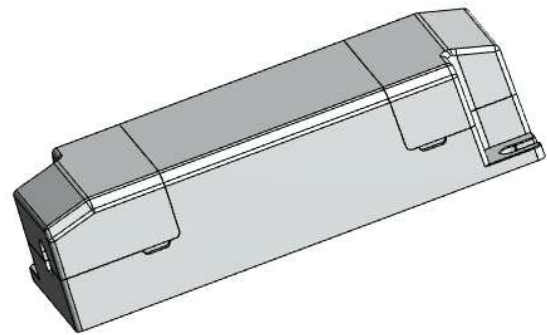
High compatibility with COBs and discrete LEDs;
High quality of light with ripple current < 5%
Safe and reliable

Applications

Spotlight;
Downlight;
Panel light
Other Indoor LED luminaires

Approval marks

(Under preparation if on label)



| | |
|----|--------|
| L | 103mm |
| L1 | 94mm |
| B | 43mm |
| B1 | 34.7mm |
| H | 29mm |

Product Features

- Output currents: 1050mA
- Output voltage: 21V_{DC} – 40V_{DC}
- Output power: 22.05W – 42W
- Input voltage : 220 – 240 V_{AC}
- Suitable for class I and II luminaires
- 30'000 h lifetime at tc max
- Fixed Output (i.e. no dimming)
- Typ. Efficiency: 90%
- SELV
- Ambient temp range, ta: -20°C to +50°

Electrical Specifications

| | Item | Value | Unit | Remarks |
|-------------|--|--|-----------------|--|
| Input | Nominal Voltage | 220 – 240 | Vac | |
| | Nominal frequency | 50/60 | Hz | |
| | AC voltage range | 198 – 264 | Vac | Permitted voltage range |
| | DC voltage range | NA | V | |
| | Maximum voltage | 300 | V | 2hrs |
| | Nominal current | 212 | mA | 220V, Refer to Table 1 for details |
| | Total Harmonic Distortion (THD) | < 20 | % | Full load, 230 V, 50 Hz / see graphs |
| | Power factor | 0.95 | | Full load, 230 V, 50 Hz / see graphs |
| | Efficiency | >90 | % | Full load, 230 V, 50 Hz, typical / see graphs |
| | No-load power | < 0.5 | W | 230V, typical |
| | Power loss | 4.67 | W | @230V, Input power 46.67W max. Refer to Table 1 for details |
| | Protection class | I/II | | Suitable for class I and class II luminaires |
| | Inrush current | <3 | A | t _{width} = 100 μs typical (measured at 50% I _{peak}) |
| | Max. units per circuit breaker | B16: 70; B10: 44 C16: TBD C10: TBD | | |
| | Leakage current | < 0.7 | mA | Output floating |
| Output | Nominal voltage range | 21 – 40 | V _{dc} | Refer to Table 1 for details |
| | Maximum voltage | 60 | V _{dc} | Open circuit |
| | Nominal current range | 1050 | mA | |
| | Current accuracy | 7.5 % | | |
| | Current ripple | < 5% | | Ripple / average @ 100 Hz |
| | Nominal power range | 22.05 - 42 | W | Partial Load. Refer to Table 1 for details |
| | Maximum power | 42 | W | T _a ≤ 50°C, Refer to Table 1 for details |
| | Galvanic isolation | SELV | | 3, 75 kVrms. Output to mains - Touch current < 0.7 mA |
| Dim | Dimming control | No | | Not dimmable |
| | Dimming range | NA | % | |
| | Dimming technique | NA | | |
| | Frequency | NA | Hz | |
| | Galvanic isolation | NA | | |
| Environment | Ambient temperature range t _a | -20 ...+50 | °C | Refer to Table 1 for details |
| | Max. case temperature t _c max | 80 | °C | Measured on t _c point indicated of the product label. |
| | Max. case temp. in fault condition | 110 | °C | |
| | Storage temperature range | -40 ...+85 | °C | Cool down before operating |
| | Relative humidity | 5 ... 85 | % | Not condensing |
| | Surge transient protection | 1 2 | kV | L/N LN/PE acc. IEC 61547 Clause 5.7 |
| | Environmental rating | Indoor | | |
| | IP rating | IP 20 | | |
| | Mains switching cycles | > 100'000 | | |
| | Expected lifetime | 30'000 | hrs | @t _{cmax} = 80°C, max. 10% failure rate |
| 50'000 | | @t _{cmax} = 70°C, max. 10% failure rate | | |

Protections

Overload

Automatic, reversible

No load

Automatic, reversible

Short-circuit

Automatic, reversible

Input overvoltage

Maximum allowed input voltage 300V AC/ 2hr

Output overvoltage

Yes, limitation of Output voltage < 60V

Output under voltage

NA

Wiring Diagram

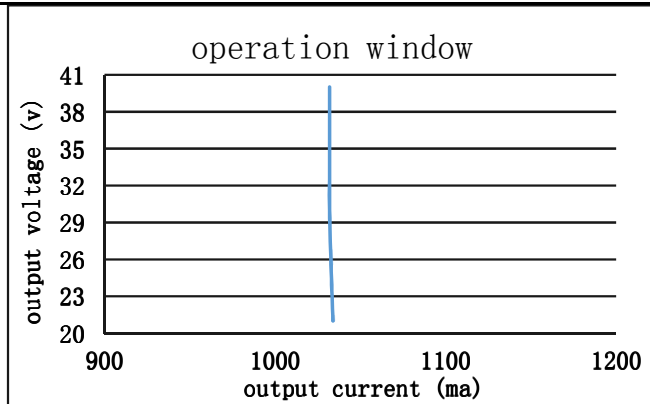
Terminal: Push in terminals
 Max. cable length: 2 m
 Weight: 99.5g

| | Wire preparation (push in) | |
|------------|-------------------------------|-------------------------------|
| | Built-in | Independent |
| Input/PRI | s: 0.5 - 1.5 mm ² | s: 0.75 - 1.5 mm ² |
| | f: 0.75 - 1.5 mm ² | |
| Output/SEC | s: 0.5 - 1.5 mm ² | |
| | f: 0.75 - 1.5 mm ² | |

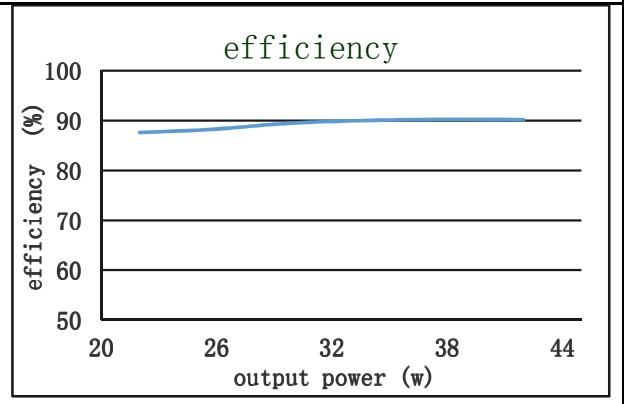


Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

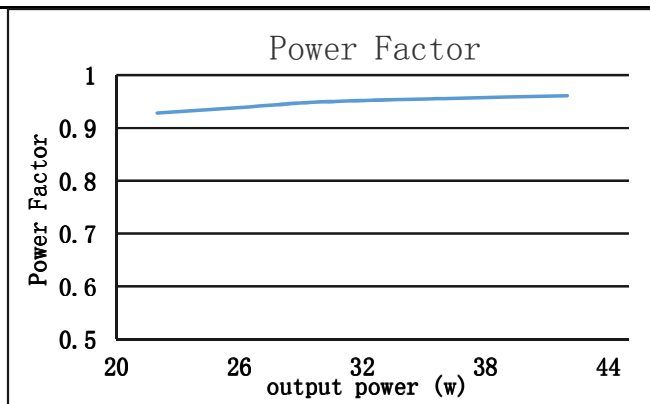
Typical Operating window



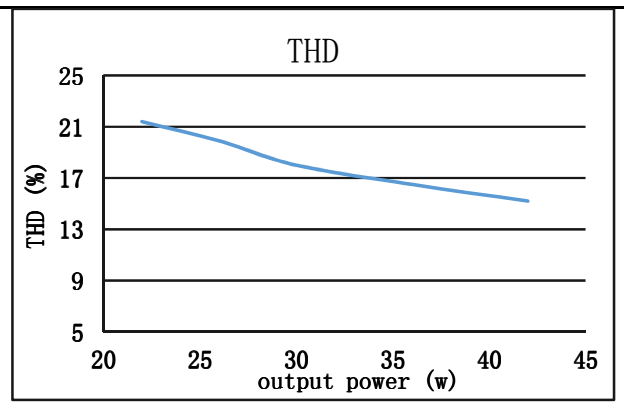
Typical Efficiency Vs load



Typical Power factor Vs load



Typical THD Vs load



Standards

Safety: IEC 61347-1, IEC 61347-2-13

Performance: IEC 62384

Harmonic content: IEC 61000-3-2

Immunity: IEC 61547

IEC 61000-3-3

| EAN10 | Product name | Pcs/ box |
|---------------|------------------------------|----------|
| 4062172167611 | ELEMENT 42/220...240/1050 G3 | 50 |

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