

OT FIT 35/220-240/700 CS L

Constant current LED driver

500 mA – 600 mA – 700 mA

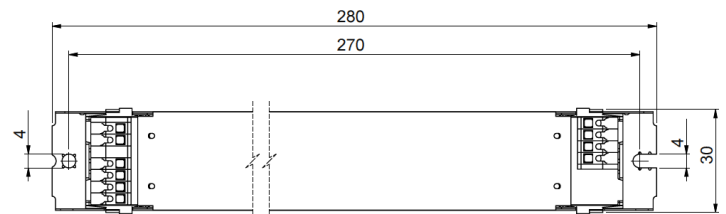
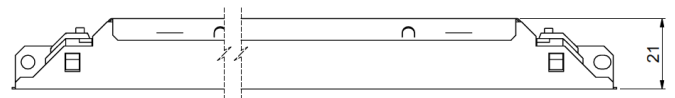
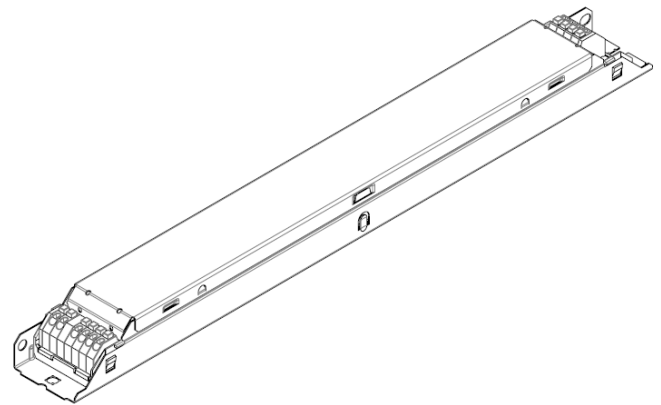
The reliable choice for the essential lighting:
based on the well tested Quicktronic® core and flat
metal housing 30 x 21 mm fits in all linear and area
light fixtures for office - industrial - shop lighting.

Benefits

Three fixed selectable output currents
Easy current selection using a wire bridge
Long lasting and high reliability
Slim metal housing
Double output connectors (parallel connection)
Suitable for emergency lighting units

Applications

Linear and area lighting
Office – industrial - shop



Housing material: metal, white painted.

Approval marks

In preparation, if not already printed on product label

Product Features

- 3 output currents 500/600/700 mA
- Default output current is 700 mA
- Wire bridge to select the current
- SELV equivalent 27 – 54 V
- Output power up to 35 W
- Mains voltage 220 – 240 V
- Suitable for emergency lighting
- Overload protection
- Overtemperature protection
- Load hot plug protection
- 100'000 h lifetime at $t_c = 65^\circ\text{C}$
- Case temperature up to 75°C
- Wide t_a range $-20 - +50^\circ\text{C}$
- 5 years guarantee

Electrical Specifications

| | Item | Value | Unit | Remarks |
|--------------------|------------------------------------|-------------------|--|--|
| INPUT | Nominal voltage | 220 – 240 | V | |
| | Nominal frequency | 0 / 50 - 60 | Hz | Incl. DC or pulse DC |
| | AC voltage range | 198 – 264 | V | |
| | DC voltage range | 176 – 276 | V | DC or pulse DC |
| | Maximum voltage | 320 | V _{ac} | 2 h maximum, unit might not operate in this abnormal condition |
| | Nominal current | 0.20 | A | |
| | Total Harmonic Distortion (THD) | < 10 | % | Full load, 220 – 240 V, 50 Hz / see graphs |
| | Power factor | > 0.95 | | Full load, 220 – 240 V, 50 Hz / see graphs |
| | Efficiency | > 86 | % | Full load, 220 – 240 V, 50 Hz / see graphs |
| | Power losses | 5.8 | W | Maximum, full load |
| | No-load power | n/a | W | Load switching on output side is safe but not permitted |
| | Stand-by power | n/a | W | Unit is not dimmable/controllable |
| | Protection class | I | | PE can be connected to terminal or housing |
| | Inrush current | 53 | A pk | Max, $t_h = 230 \mu s$ |
| | Max. units per circuit breaker | B16: 28; B10: 17 | | $I_{max} = 53 A$ $T_h = 230 \mu s$ |
| Leakage current | < 0.5 | mA | Through PE, output floating | |
| OUTPUT | Nominal voltage range | 27 – 54 | V | |
| | Maximum voltage | 60 | V | No load protection put output down to roughly 1...2 V |
| | Nominal current range | 500 / 600 / 700 | mA | 700 mA default (terminals 5-6-7 open) |
| | Current accuracy | +/- 10 | % | |
| | Current ripple | < 10 | % | Ripple / average @ 100 Hz, full load |
| | Nominal power range | 13.5 – 35 | W | |
| | Maximum power | 35.6 | W | |
| Galvanic isolation | SELV equivalent | | Output to mains - Touch current < 0.5 mA | |
| DIMMING | Dimming control | no | | Not dimmable |
| | Dimming range | n/a | | |
| | Dimming technique | n/a | | |
| | Frequency | n/a | | |
| | Galvanic isolation | n/a | | |
| ENVIRONMENT | Ambient temperature range t_a | -25 ... +50 | °C | |
| | Maximum case temperature t_c | 75 | °C | Measured on t_c point indicated of the product label |
| | Max. case temp. in fault condition | 110 | °C | |
| | Storage temperature range | -25 ... +75 | °C | |
| | Relative humidity | 5 ... 85 | % | Not condensing |
| | Surge transient protection | 1 2 | kV | L/N LN/PE acc to. EN 61547-5.7 |
| | Environmental rating | Indoor | | |
| | IP rating | IP 20 | | |
| | Mains switching cycles | > 100'000 | | |
| | Expected lifetime | 50'000 100'000 | h | $t_c = 75^\circ C, 0.2\% / 1'000 h$ failure rate, 14 h ON / 10 h Stan-by per day $t_c = 65^\circ C, 0.1\% / 1'000 h$ failure rate, 14 h ON / 10 h Stan-by per day |

Protections

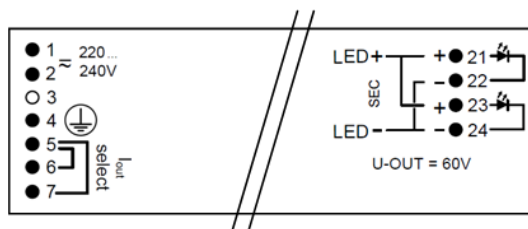
Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage

See remarks on page 4.

Wiring Diagram

Input:

- Gray 1 – Mains
- Gray 2 – Mains
- Gray 3 – n/a
- Gray 4 – PE
- White 5 – CS common
- White 6 – CS 600 mA
- White 7 – CS 500 mA



Output:

- Red 21 – LED +
- Black 22 – LED -
- Red 23 – LED +
- Black 24 – LED -

21 & 23 internally connected
22 & 24 internally connected

Load wires length: 2 m max
CS wires length: 0.3 m max

5, 6, 7 – CS not isolated from mains

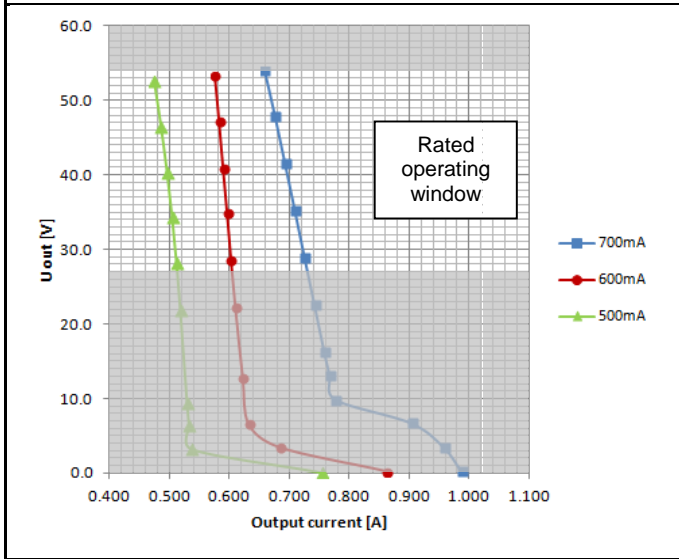
Caution for CS wire bridge:

mandatory use of basic insulated wire suitable for mains voltage.

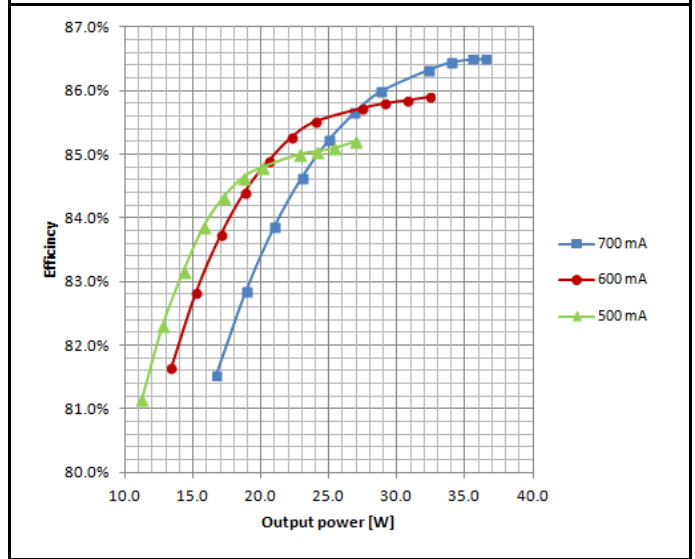
Connectors type: WAGO 250; Wires cross section both flexible and solid: 0.5 – 1.5 mm², peeling length 8.5 – 9.5 mm

Two or more units cannot be connected together on secondary side with any or more of the 21 ... 27 terminals.

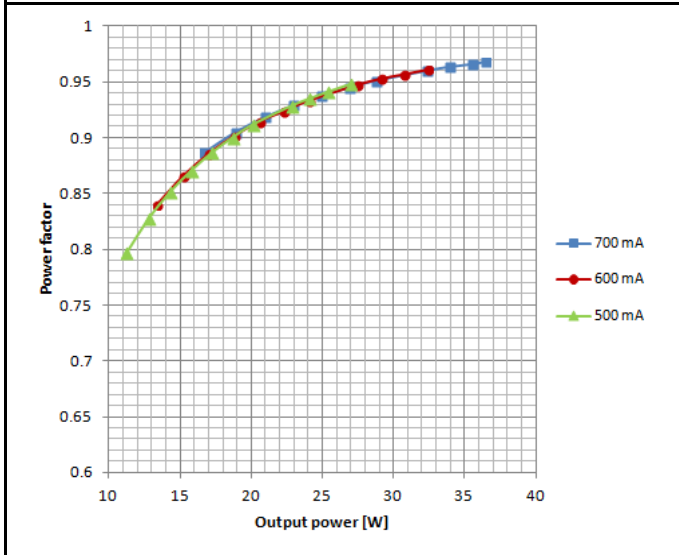
Typical Operating window



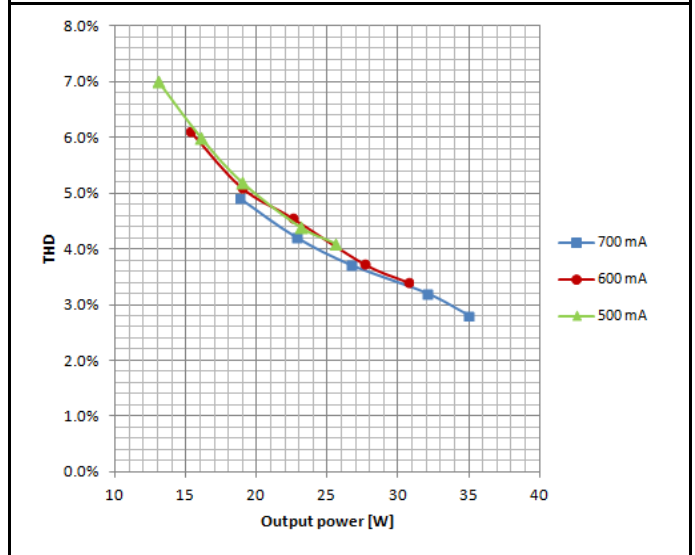
Typical Efficiency over load



Typical Power factor over load



Typical THD over load



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Remarks

- **Input over voltage protection: mains up to 320 Vac**, for two hours maximum, will not destroy both the unit and the load; shut down of load might occur in this condition.
- **Output short circuit protection:** short circuit current is limited to approx. 1 A without damage to the unit, for unlimited time. See typical operating window graph for details. Be sure the load is designed to withstand the short circuit current as well.
- **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 U out exceeds 54V; mains switchover is needed to restart the unit. To avoid unexpected power off, be sure the LED module operating voltage never exceed 54, including cold start condition.
- **Output under voltage operation:** the unit is not damaged if the load voltage is lower than 27V, but the load current increases up to the short circuit value, see typical operating window graph for details. Be sure the load is safely operated if this event might occur.
- **No load operation:** the unit is not damaged in this condition; the output voltage is lower than 2V, which enables a safe LED load connection, but mains switchover is needed to power the load.
- **Over temperature protection:** the unit is protected against temporary overheating by automatic reduction of the output power. If to exceed 85°C approx. the output current is reduced to the lowest nominal value (500 mA); If to exceed 105°C approx. the load is shut down; The protection is automatically reversible, without mains switchover.
- **Touch current:** lower than 0.2 mA, according to EN 60598-1 ann. G and EN 61347-a ann. A
- **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 light fixtures acc. to EN 60598-2-22.
- **Caution for CS wire bridge: 5, 6, 7 – terminals not isolated from mains; mandatory use of basic insulated wire suitable for mains voltage.**

Standards

EN 61347-1
EN 61347-2-13
EN 55015
EN 61547
EN 61000-3-2
EN 62384

Ordering information

| Product name | Type | EAN10 | EAN40 | NAED | Pieces / box |
|----------------------------|---------|---------------|---------------|------|--------------|
| OT-FIT 35/220-240/700 CS L | AA55838 | 4052899032828 | 4052899032835 | n/a | 20 |
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