

OT FIT 80/220-240/1A6 CS L

Constant current LED driver

1200 mA – 1400 mA – 1550 mA

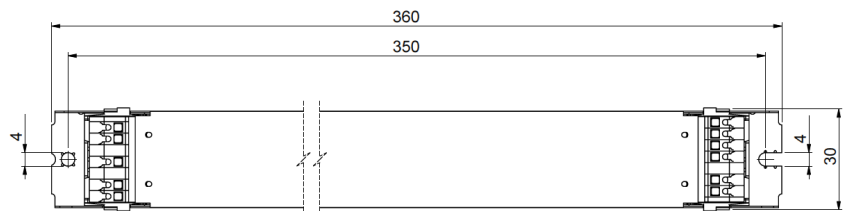
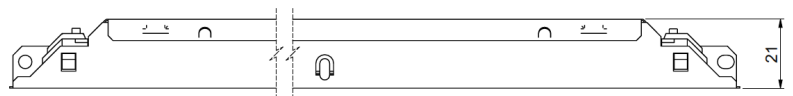
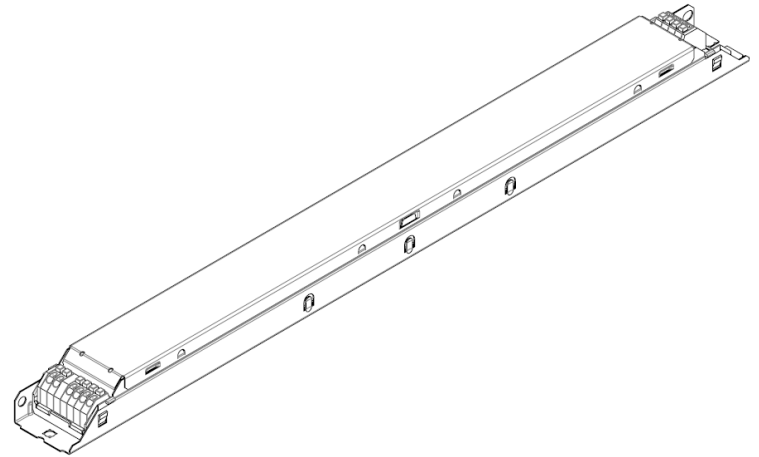
The reliable choice for the essential lighting:
based on the well tested Quicktronic® core and flat
metal housing 30 x 21 mm fits in all linear and area
light fixtures for office - industrial - shop lighting.

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 1200/1400/1550 mA
- Default output current is 1550 mA
- Wire bridge to select the current
- SELV equivalent 27 – 54 V
- Output power up to 83 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 $-25 - +50^\circ\text{C}$
- 5 years guarantee

Electrical Specifications

	Item	Value	Unit	Remarks
INPUT	Nominal voltage	220 – 240	V	
	Nominal frequency	0 / 50 - 60	Hz	DC not implemented in this Engineering Samples
	AC voltage range	198 – 264	V	
	DC voltage range	176 – 276	V	DC not implemented in this Engineering Samples
	Maximum voltage	320	Vac	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.40	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	> 87	%	Full load, 220 – 240 V, 50 Hz / see graphs
	Power losses	13.4	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, th = 230 µs
Max. units per circuit breaker	B16: 28; B10: 17		I max = 53 A Th = 230 µs	
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	1200 / 1400 / 1550	mA	1550 mA default (terminals 5-6-7 open)
	Current accuracy	+/- 7	%	For each single operating points of the output characteristic
	Current ripple	< 10	%	Ripple / average @ 100 Hz, full load
	Nominal power range	32 – 83	W	
	Maximum power	96	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 Clause 5.7
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
	Expected lifetime	50'000 100'000	h	$t_c = 75^\circ\text{C}$, 0.2% / 1'000 h failure rate $t_c = 65^\circ\text{C}$, 0.1% / 1'000 h failure rate

Protections

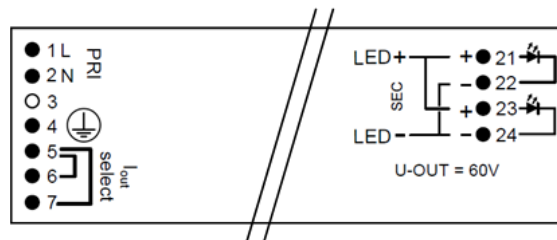
Overtemperature, Overload, No load, Short-circuit, Input overvoltage, Output overvoltage, Output undervoltage

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 1400 mA
 White 7 – CS 1200 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

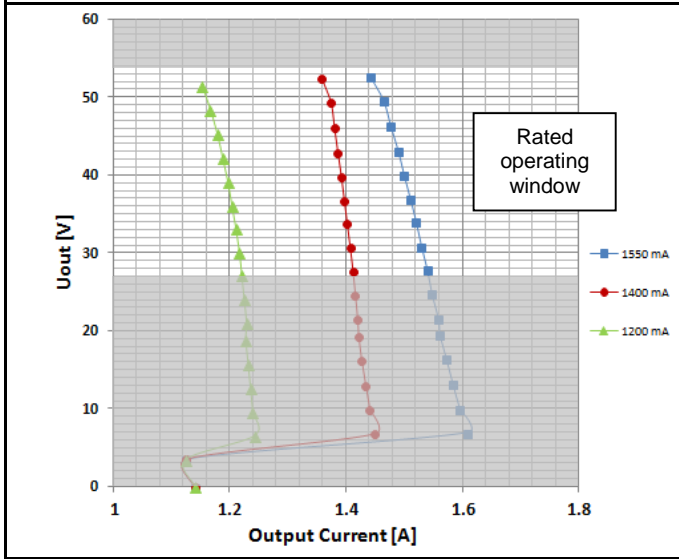
Caution for CS wire bridge:

mandatory use of basic insulated wire suitable for mains voltage.

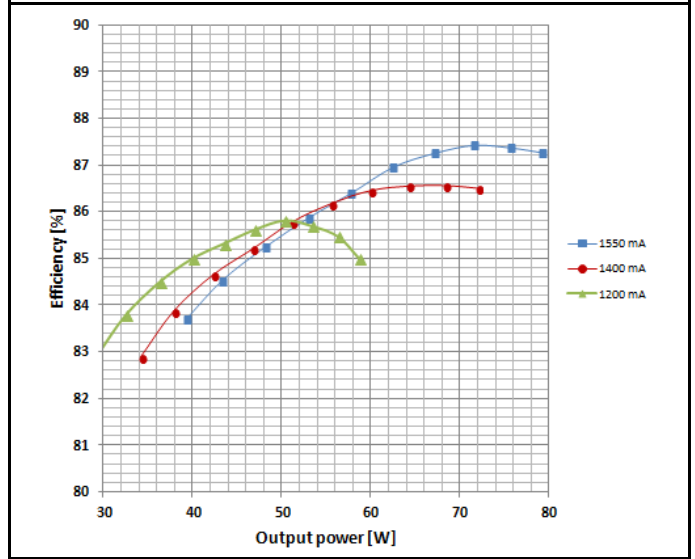
Connectors type: WAGO 250; Wires cross section both flexible and solid: 0.5 – 1.5 mm², peeling length 8.5 – 9.5 mm

Two or more units cannot be connected together on secondary side with any or more of the 21 ... 24 terminals.

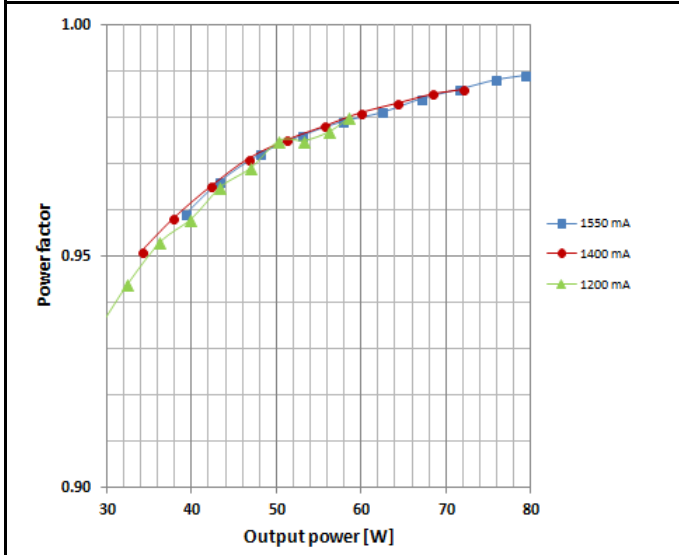
Typical Operating window



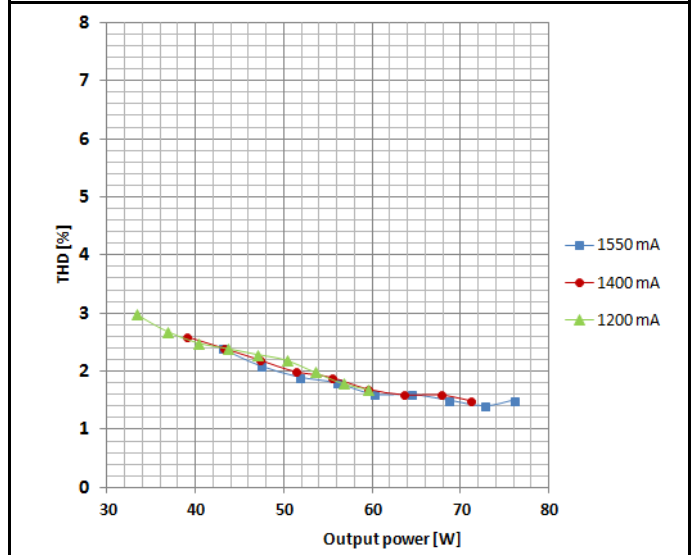
Typical Efficiency over load



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. EN 60598-1 ann. G and EN 61347-a ann. A
- **Output under voltage operation:** the unit is not damaged if the load voltage is lower than 27 V, 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. EN 60598-1 ann. G and EN 61347-a ann. A
- **No load operation:** the unit is not damaged in this condition; the output voltage is lower than 2 V, 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 down to approximately 850 mA. If to exceed 105 °C approx. the load is shut down; The protection is automatically reversible, without mains switchover. EN 60598-1 ann. G and EN 61347-a ann. A
- **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 80/220-240/1A6 CS L	AA51635	4052899032781	4052899032798	n/a	20

Manufacturer's address:

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