

**OT FIT 35/220-240/700 CS**

Constant current LED driver

550 mA – 600 mA – 700mA

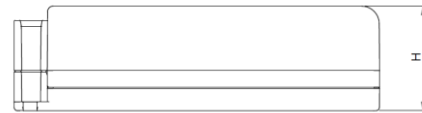
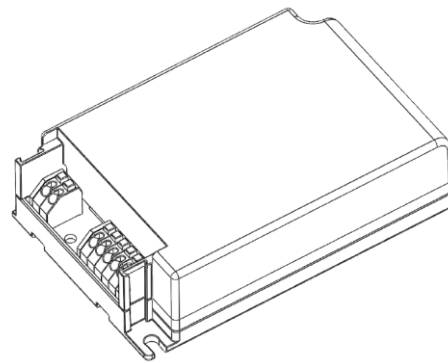
The reliable choice for the essential lighting:  
based on the well tested Quicktronic® core and  
compact housing fits in all spot and downlights  
luminaires.

**Benefits**

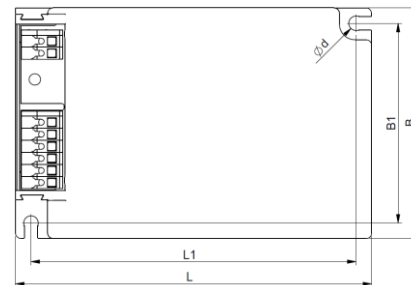
Three fixed selectable output currents  
Easy current selection using a wire bridge  
Long lasting and high reliability  
Suitable for emergency lighting units  
Built-in and independent mounting (with opt. kit)  
Suitable for class I and class II luminaires

**Applications**

Office – industrial - shop



L	103mm
B	67mm
H	29,5mm

**Approval marks**

Released by xxxxx 2013

Housing material: plastic, white.

**Product Features**

- 3 output currents 550/600/700 mA
- Default output current is 700 mA
- Wire bridge to select the current
- SELV equivalent 27 – 54 V
- Output power up to 38 W
- Mains voltage 220 – 240 V
- Suitable for emergency lighting
- Overload protection
- Overtemperature protection
- Hot plug protection
- 50'000 h lifetime at  $t_c = 75^\circ\text{C}$
- Case temperature up to  $^\circ\text{C}$
- 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	Incl. DC or pulse DC
	AC voltage range	198 – 264	V	
	DC voltage range	176 – 276	V	DC or pulse DC (>198V for starting)
	Maximum voltage	320	Vac	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.19	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	5.0	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	II		Suitable for class I and II luminaires
	Inrush current	24	A pk	Max, $t_h = 174 \mu s$
	Max. units per circuit breaker	B16: 28; B10: 17		$I_{max} = 24 A$ $T_h = 174 \mu s$
Leakage current	n/a	mA		
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	550 / 600 / 700	mA	
	Current accuracy	+/- 10	%	For each single operating points of the output characteristic
	Current ripple	< 5	%	Ripple / average @ 100 Hz, full load
	Nominal power range	15 – 37,8	W	Rated. 550mA: 14.8-29.7W; 600mA: 16.2-32.4W; 700mA: 19.8-37.8W
	Maximum power	41.5	W	
	Galvanic isolation	SELV equivalent		Output to mains - Touch current < 0.35 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	Cool down before operating
	Relative humidity	5 ... 85	%	Not condensing
	Surge transient protection	1	kV	L/N 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 $t_c = 65^\circ C, 0.1\% / 1'000 h$ failure rate

### Protections

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

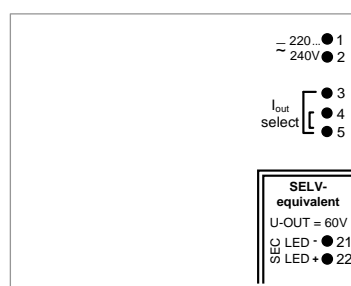
See remarks on page 4.

### Wiring Diagram

#### Input

Gray	1 - Mains
Gray	2 - Mains
White	3 – CS 550 mA
White	4 – CS 600 mA
White	5 – CS common

CS wire length: 30 cm max



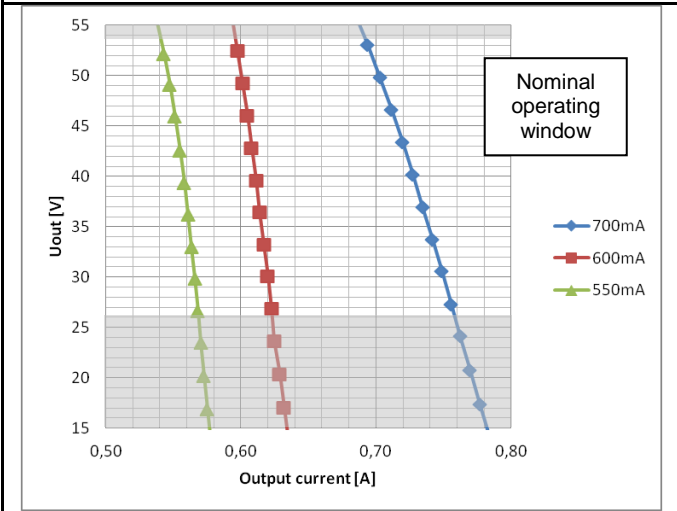
#### Output

Black	21 – LED -
Red	22 - LED +

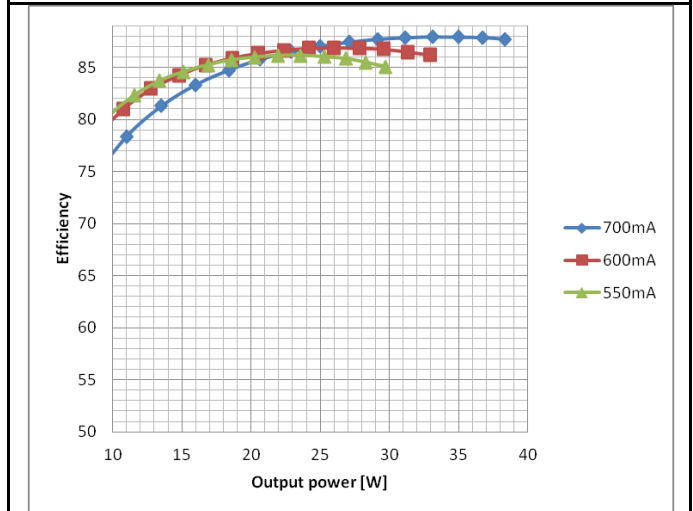
Load wires length: 2m max.

- Wires cross section: massive leads 0.2-1,5 mm<sup>2</sup> / flexible leads 0,2 – 1,5 mm<sup>2</sup>
- Wire peeling length: 8,5-9,5 mm
- **3, 4, 5 – CS not isolated from Mains**
- **Caution for CS wire bridge: mandatory use of basic insulated wire suitable for mains voltage. For safety reasons, current selection is allowed only with disconnected mains**

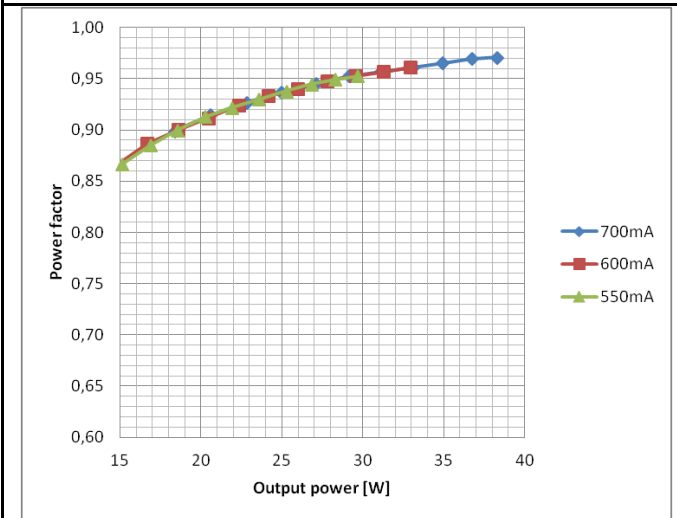
Typical Operating window



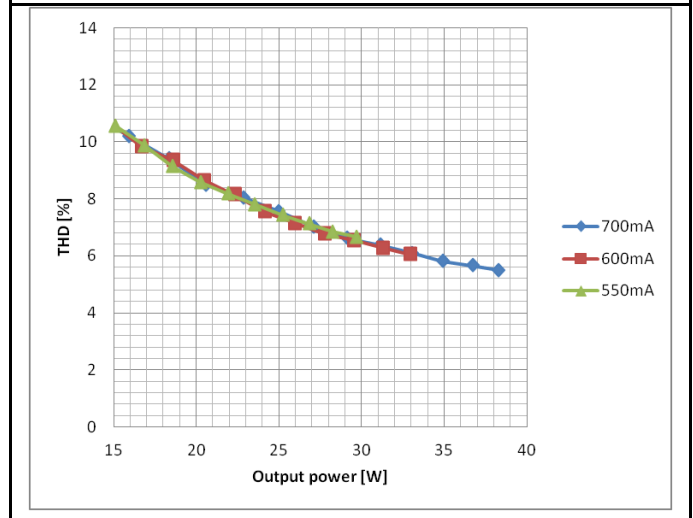
Typical Efficiency over load



Typical Power factor over load



Typical THD over load



L	103mm
L1	94mm
L2	138mm
B	67mm
B1	58mm
B2	57,7mm
H	29,5mm
d	Ø4,2

## Remarks

- **Input over voltage protection: mains up to 320 Vac**, for one hour 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. 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 60V; mains switchover is needed to restart the unit.
- **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. 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  $t_c$  exceed 85°C approx. the output current is reduced to the lowest nominal value (550 mA); If  $t_c$  exceed 105°C approx. the load is shut down; This function is to protect the system from internal failures, operation above  $T_c$  max is an operation out of specification. The protection is automatically reversible, with mains switchover.
- **Touch current:** lower than 0.35 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 lighting luminaires acc. to EN 60598-2-22, with efficiency output factor of 0.75 and duration time of 2 h at least.
- **HOT Plug:** connection of LED on output is allowed without damage of LED. LED turns on after restart.
- Not suitable to be used with a switch on the output to turn on/off the LEDs

## 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	AA58748	4052899919402	4052899919471	n/a	20
OT Cable Clamp B-style			4052899077898		

## Disclaimer (Engineering Samples: B-Samples and C-Samples)

This product is a demonstration model from our development laboratories made available for your information only. The model is not binding in respect to its fitness for use, i.e. service life, luminous flux, color temperature and performance. Prior to production the design, including dimensions, is subject to modification. You will, therefore, appreciate that at this stage of development we are unable to assume any liability also for damages which may be caused by this product. Should you urgently require binding information for the preparation of construction data for your applications, please contact our marketing department.

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