

OT FIT 50/220-240/1A0 CS L

Constant current LED driver

800 mA – 925 mA – 1050 mA

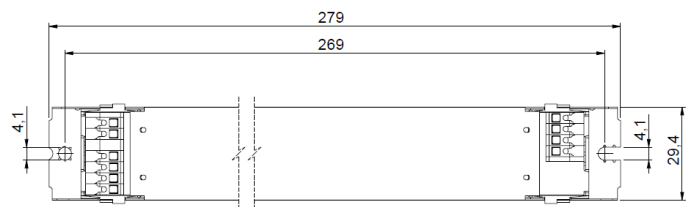
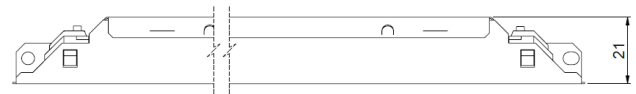
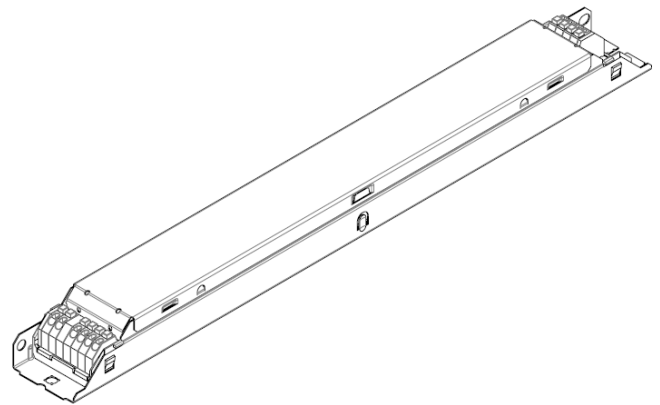
The reliable choice for the essential lighting:
based on the well tested Quicktronic® core and flat
metal housing 30 x 21 mm fits in all linear and area
light fixtures for office - industrial - shop lighting.

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

Released by August 2013

Product Features

- 3 output currents 800/925/1050 mA
- Default output current is 1050 mA
- Wire bridge to select the current
- SELV equivalent 27 – 54 V
- Output power up to 55 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	Incl. DC or pulse DC
	AC voltage range	198 – 264	V	
	DC voltage range	176 – 276	V	DC or pulse DC
	Maximum voltage	320	Vac	2 h maximum, unit might not operate in this abnormal condition
	Nominal current	0.28	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	8.9	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	800 / 925 / 1050	mA	1050 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	23 – 55	W	
	Maximum power	55	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 $t_c = 65^\circ C, 0.1\% / 1'000 h$ failure rate

Protections

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

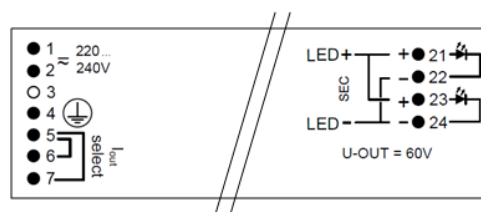
See remarks on page 4.

Wiring Diagram

Input:

- Gray 1 – Mains
- Gray 2 – Mains
- Gray 3 – n/a
- Gray 4 – PE
- White 5 – CS common
- White 6 – CS 925 mA
- White 7 – CS 800 mA

CS wire length: 30 cm max



Output:

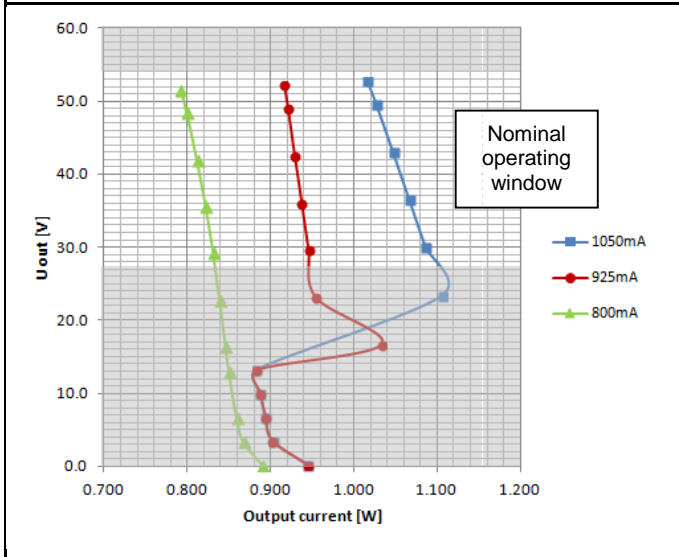
- Red 21 – LED +
- Black 22 – LED –
- Red 23 – LED +
- Black 24 – LED –

**21 & 23 internally connected
22 & 24 internally connected**

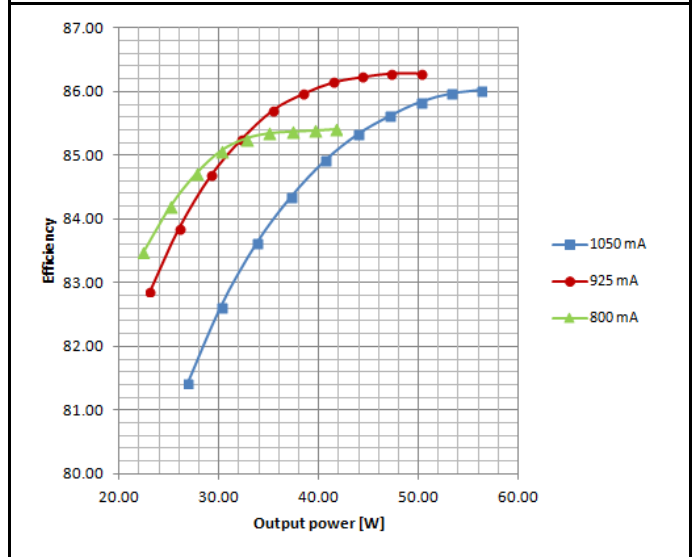
Load wires length: 2 m max

- Connectors type, both input and output: Wago 250
- Wires cross section: massive leads 0.5 – 1.5 mm² / flexible leads 0.5 – 1.0 mm²
- Wires peeling length: 8.5 – 9.5 mm

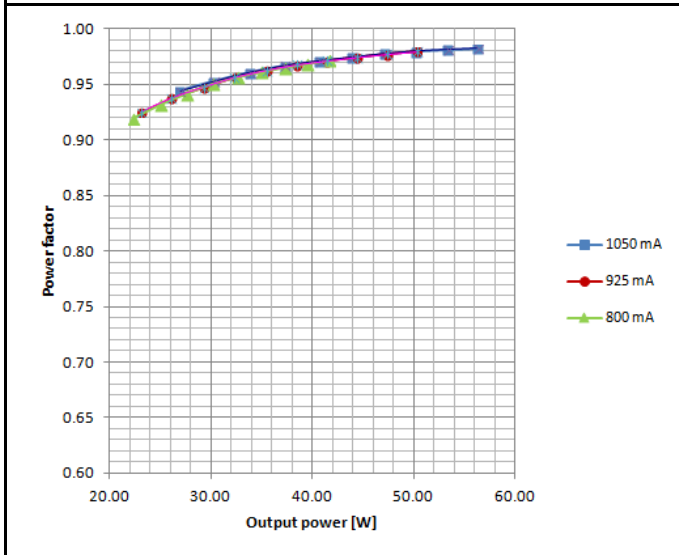
Typical Operating window



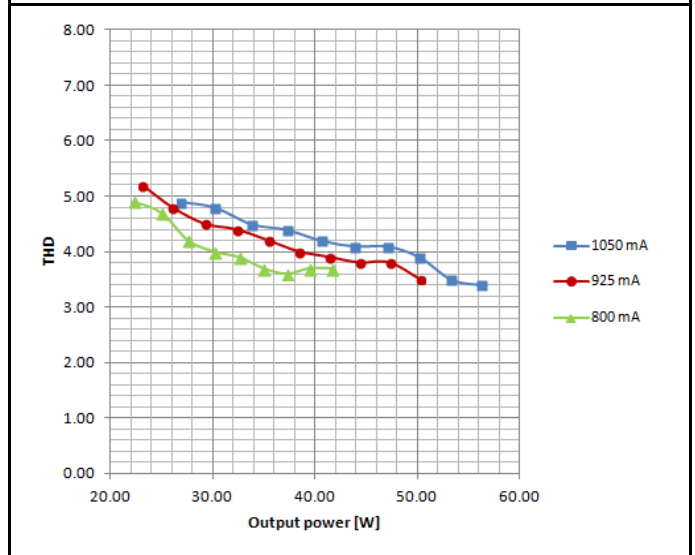
Typical Efficiency over load



Typical Power factor over load



Typical THD over load



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Remarks

- **Input over voltage protection: mains up to 320 Vac**, for 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. 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 tc exceed 85°C approx. the output current is reduced to the lowest nominal value (500 mA); If tc 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 lighting luminaires acc. to EN 60598-2-22, with emergency output factor of 0.75 and related duration time of 10 h at least.

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 50/220-240/700 CS L	AA43485	4052899032804	4052899032811	n/a	20

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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