

CC TRACK



EASYLINE DIP SWITCH UIT-230

187773, 187774

Typical Applications

For common track systems

- Retail lighting

EasyLine DIP switch UIT-230

- **NEW DESIGN FREEDOM WITH IN-TRACK:
COMPLETE INTEGRATION OF LED DRIVER
INTO THE TRACK RAIL**
- **SELECTABLE OUTPUT CURRENT VIA DIP SWITCH**
- **HIGH EFFICIENCY: UP TO 92.5%**
- **COMPATIBLE WITH DIFFERENT
3-PHASE TRACK SYSTEMS**
- **SELV**
- **LONG SERVICE LIFE:
UP TO 100.000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**



EasyLine DIP switch UIT-230

Product features

- Adapter with integrated LED driver electronics for common 3-phase track systems (compatibility see page 5)
- Available in two different casing colours: white (similar RAL 9003) and black (similar RAL 9011)
- "Invisible design" - complete integration of LED driver into the track rail

Functions

- Selectable current output by DIP switch.

Electrical features

- Mains voltage: 220–240 V $\pm 10\%$
- Mains frequency: 50–60 Hz
- Push-in terminals: 0.2...0.75 mm²
- Power factor at full load: 0.97
- Open circuit voltage (U_{max.}): 60 V
- Secondary side switching of LED modules is not allowed.

Safety features

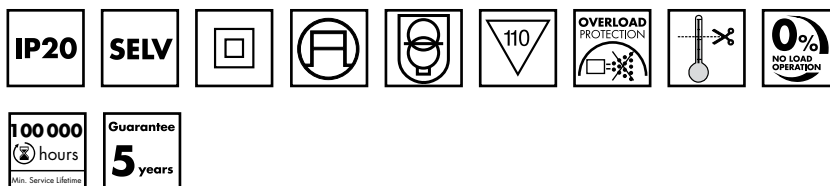
- Protection against transient main peaks up to 1 kV (between L and N)
- Electronic short-circuit protection
- Overtemperature protection
- Protection against overload
- Protection against "no load" operation
- Degree of protection: IP20
- Protection class II
- SELV

Packaging units

Type	Packaging unit		
	Pieces per box	Boxes per pallet	Weight g
ECXe 1050.854	60	4320	93

Product guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.



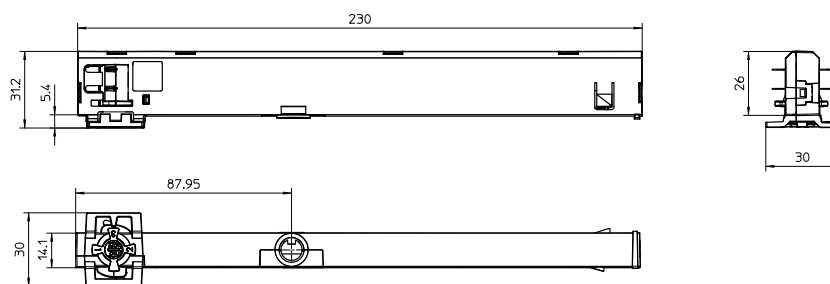
Applied standards

- EN 60570
- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN 61000-3-2
- EN 62384
- EN 55015



Dimensions

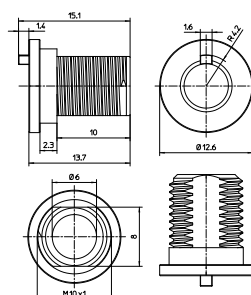
- Casing: UIT-230
- Length: 230 mm
- Width: 30 mm
- Height: 26.3 mm



Retaining collars for luminaire heads

Material: zinc-die-cast

Ref. No.: 187809 M10x1, length: 10 mm



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LED Drivers – EasyLine DIP switch UIT-230

Electrical characteristics

Max. output W	Type	Ref. No.	Casing colour	Voltage 50–60 Hz V	Mains current mA	Inrush current A / μ s	Current output DC mA ($\pm$ 7.5%)	Voltage output DC (V)	THD at full load % (230 V)	Efficiency at full load % (230 V)	Ripple 100 Hz %
40	ECXe 1050.854	187773	white (similar RAL 9003)	220–240	195–180	14 / 25	300–1050	see table DIP settings	< 6	> 92.5	< 3
		187774	black (similar RAL 9011)								

Maximum ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the drivers.

Type	Ambient temperature range		Operation humidity range		Storage temperature range		Storage humidity range		Max. operation temperature at t_c point °C	Degree of protection
	°C min.	°C max.	% min.	% max.	°C min.	°C max.	% min.	% max.		
ECXe 1050.854	–20	+35	10	90	–30	+80	5	85	+65	IP20

Expected service life time

at operation temperatures at t_c point

Operation current	Type ECXe 1050.854	
All	55 °C	65 °C
hrs.	100.000	50.000

Product labels

Vossloh-Schwabe Deutschland GmbH Stuttgarter Straße 61/1, 73614 Schorndorf Electronic Converter for LED Type ECXe 1050.854 Ref.No. 187773		PRI ULtraz 230...340V~ $I_{n\max}$ = 210 mA $f_{n\max}$ = 50/60 Hz λ = 0.42C...0.99 $U_{in\max}$ = 29 V	Power[W]	Output[W]	Input[mA]	1	2	3	4	Power[W]	Output[W]	Input[mA]	1	2	3	4	t_c = 65°C t_a = 20...35°C	0.5...1.5 mm ² 8...9 mm
12.6	300	–	–	–	29.4	700	–	–	–	–	–	–	–	–	–	–	–	60mm
14.7	350	ON	–	–	31.5	542	750	ON	–	–	–	–	–	–	–	–	–	60mm
16.8	400	–	ON	–	32.0	800	–	–	–	–	–	–	–	–	–	–	–	60mm
18.9	450	ON	ON	–	34.0	850	ON	ON	–	–	–	–	–	–	–	–	–	60mm
21.0	500	–	–	ON	36.0	900	–	–	–	–	–	–	–	–	–	–	–	60mm
23.1	550	ON	–	–	38.0	950	ON	ON	–	–	–	–	–	–	–	–	–	60mm
25.2	600	ON	ON	–	40.0	1000	–	–	–	–	–	–	–	–	–	–	–	60mm
27.3	650	ON	ON	ON	40.0	538	1050	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	60mm

Vossloh-Schwabe Deutschland GmbH Stuttgarter Straße 61/1, 73614 Schorndorf Electronic Converter for LED Type ECXe 1050.854 Ref.No. 187774		PRI ULtraz 230...340V~ $I_{n\max}$ = 210 mA $f_{n\max}$ = 50/60 Hz λ = 0.42C...0.99 $U_{in\max}$ = 29 V	Power[W]	Output[W]	Input[mA]	1	2	3	4	Power[W]	Output[W]	Input[mA]	1	2	3	4	t_c = 65°C t_a = 20...35°C	0.5...1.5 mm ² 8...9 mm
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14.7	350	ON	–	–	31.5	542	750	ON	–	–	–	–	–	–	–	–	–	60mm
16.8	400	–	ON	–	32.0	800	–	–	–	–	–	–	–	–	–	–	–	60mm
18.9	450	ON	ON	–	34.0	850	ON	ON	–	–	–	–	–	–	–	–	–	60mm
21.0	500	–	–	ON	36.0	900	–	–	–	–	–	–	–	–	–	–	–	60mm
23.1	550	ON	–	–	38.0	950	ON	ON	–	–	–	–	–	–	–	–	–	60mm
25.2	600	ON	ON	–	40.0	1000	–	–	–	–	–	–	–	–	–	–	–	60mm
27.3	650	ON	ON	ON	40.0	538	1050	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	60mm

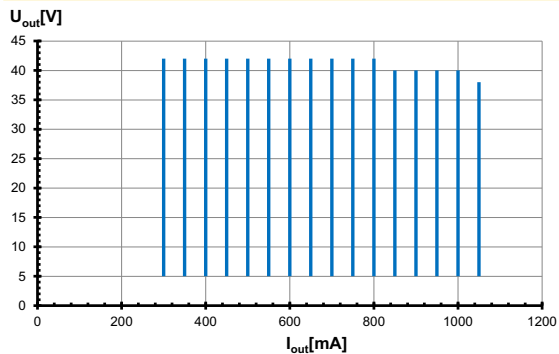
DIP switch settings

ECXe 1050.854							
Pin	1	2	3	4	Output W	Current mA	Voltage V
OFF	OFF	OFF	OFF	OFF	12.6	300	5-42
OFF	OFF	OFF	OFF	OFF	14.7	350	
OFF	OFF	OFF	OFF	OFF	16.8	400	
OFF	OFF	OFF	OFF	OFF	18.9	450	
OFF	ON	ON	ON	ON	21.0	500	5-40
OFF	ON	ON	ON	ON	23.1	550	
OFF	ON	ON	ON	ON	25.2	600	
OFF	ON	ON	ON	ON	27.3	650	
ON	OFF	OFF	OFF	OFF	29.4	700	5-38
ON	OFF	OFF	OFF	OFF	31.5	750	
ON	OFF	OFF	OFF	OFF	33.6	800	
ON	OFF	OFF	OFF	OFF	34.0	850	
ON	ON	ON	ON	ON	36.0	900	5-38
ON	ON	ON	ON	ON	38.0	950	
ON	ON	ON	ON	ON	40.0	1000	
ON	ON	ON	ON	ON	40.0	1050	

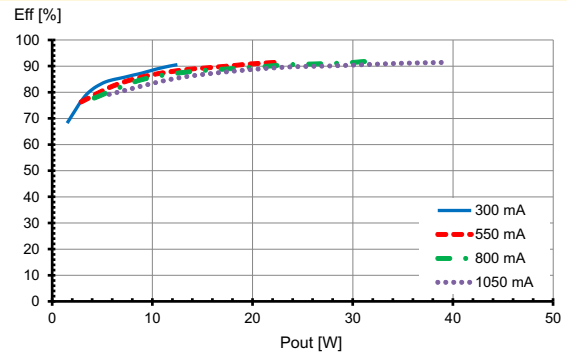
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Typ. performance graphs for 187773, 187774 / Type ECXe 1050.854

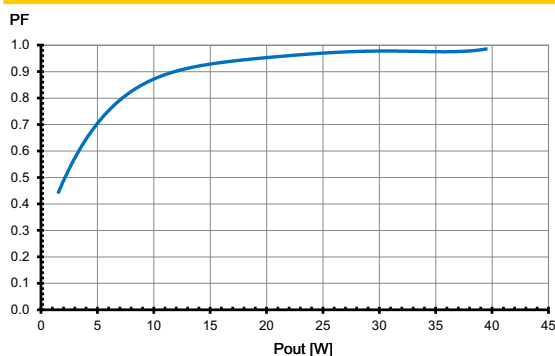
Working area



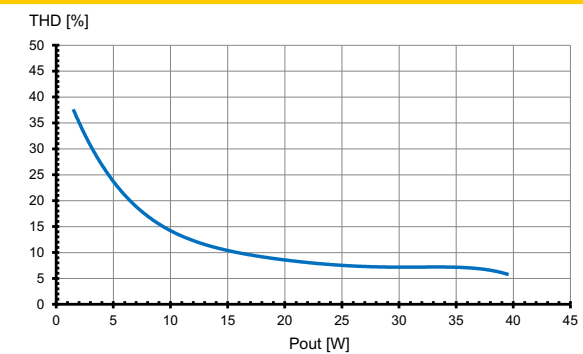
Efficiency



Power factor



Total harmonic factor (THD)



Safety functions

- Transient mains peaks protection:
Values are in compliance with EN 61547 (interference immunity).
Surges between L-N: up to 1 kV
- Short-circuit protection: The control gear is protected against permanent short-circuit with automatic restart function.
- Overload protection: The control gear only works in range of rated output power and voltage problemfree.
Please check before switch-on mains power supply that the selected LED load is suitable (see electrical characteristics on data sheet).
- Overheating: The control gear has overheating protection acc. to IEC 61347-1 C 5a).
In case of overheating the control gear will shut down and protect the control gear.
The control gear switches on again automatically within the permissible temperatures.
- No load operation: The control gear is protected against no load operation (open load).
- If any of the above mentioned safety functions will be triggered, disconnect the control gear from the power supply then find and eliminate the cause of the problem.

Compatibility of track rails

Suitable for following tracks

- GLOBAL
- STUCCHI

Vossloh-Schwabe does not guarantee the compatibility of the tracks and the track-adaptor, because manufacturing tolerances of the tracks or changes made at the tracks by the manufacturer could affect the compatibility between the tracks and the adaptor.

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Assembly and Safety Information

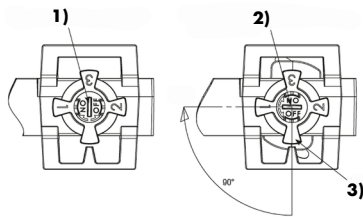
Installation must be carried out under observation of the relevant regulations and standards. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advices must be observed; non-observance can result in the destruction of the LED drivers, fire and/or other hazards.

Mandatory regulations

- DIN VDE 0100
- EN 60598-1

Mechanical mounting

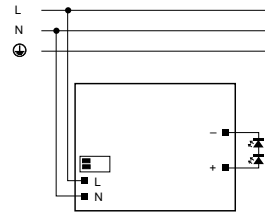
- Mounting position and location:
Common track system; for vertical wall mounting an additional component must be used to prevent the sliding of the adapter in the rail.
Before inserting the adapter into the track rail, ensure that the electrical contacts are in the OFF position **(1)**. Insert the adapter into the track rail and gently press the mechanical locking side into place. After insertion, rotate the locking switch by 90° until it clicks into place **(2)**. This extends the electrical contacts and establishes a secure electrical connection with the conductors of the track rail. Finally, select the required phase by rotating the outer phase selector switch to the desired position **(3)**.
NOTE: Use a 0.8 x 4.0 mm flat-blade screwdriver to operate the rotary switch. Improper tools may damage the plastic mechanism.
Please check the diagram below for safe and proper installation into the track rail:
- 3-phase option: 3 phases are selectable with a rotary switch.
- Degree of protection: IP20
- Inserting into rail: The track adapter features a rotatable locking mechanism on the current collector side and a mechanical locking device on the opposite side.



- Load vertical: max. up to 50 N

Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of 0.2-0.75 mm²
- Polarity: Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Through-wiring: Is not allowed.
- Secondary load: The sum of forward voltages of LED loads has to be within the tolerances which are mentioned in the table "Electrical Characteristics" in this data sheet.
- Wiring diagram:



Selection of automatic cut-outs for VS LED drivers

- Dimensioning automatic cut-outs
High transient currents occur when an LED driver is switched on because the capacitors have to load. Ignition of LED modules occurs almost simultaneously. This also causes a simultaneous high demand for power. These high currents when the system is switched on put a strain on the automatic conductor cut-outs, which must be selected and dimensioned to suit.
- Release reaction
The release reaction of the automatic conductor cut-outs comply with VDE 0641, part 11, for B, C characteristics. The values shown in the following tables are for guidance purposes only and are subject to system-dependent change.
- No. of LED drivers
The maximum number of VS LED drivers applies to cases where the devices are switched on simultaneously. Specifications apply to single-pole fuses. The number of permissible drivers must be reduced by 20% for multi-pole fuses. The considered circuit impedance equals 400 mΩ (approx. 20 m [2.5 mm²] of conductor from the power supply to the distributor and a further 15 m to the luminaire).

Type	Ref. No.	Automatic cut-out type and possible no. of VS drivers pcs.		
Automatic cut-out type B		B 10 A	B 13 A	B 16 A
ECXe 1050.854	187773, 187774	45	59	72
Automatic cut-out type C		C 10 A	C 13 A	C 16 A
ECXe 1050.854	187773, 187774	45	59	72

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