CC TRACK
DIP SWITCH GEN. 3

EASYLINE DIP SWITCH UT-160 GEN. 3

187366, 187367, 187368

Typical Applications

For common track systems

- Retail lighting

EasyLine DIP switch UT-160 Gen. 3

- **SELECTABLE OUTPUT CURRENT VIA DIP SWITCH**
- **COMPATIBLE WITH DIFFERENT 3-PHASE TRACK SYSTEMS**
- **SELV**
- **LONG SERVICE LIFE: UP TO 100,000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**

5 YEARS GUARANTEE

LIGHTING SOLUTIONS

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EasyLine DIP switch UT-160 Gen. 3

IP20 · SELV · 110 · OVERLOAD PROTECTION · IEEE 1789-2015 · 50 000 hours Min. Service Lifetime · Guarantee 5 years

Product features
- Adapter with integrated LED driver electronics for common 3-phase track systems (compatibility see page 4)
- Available in three different casing colours: white (RAL 9003), black (RAL 9005) and grey (RAL 7040)

Functions
- Selectable current output by DIP switches
- The output current can be freely adjusted between 300 mA and 1050 mA

Electrical features
- Mains voltage: 220–240 V ±10%
- Mains frequency: 50–60 Hz
- Power factor at full load: > 0.95
- Open circuit voltage ($U_{max.}$): 55 V
- Secondary side switching of LED modules is not allowed.
- SVM: < 0.4
- PstLM: < 1

Safety features
- Protection against transient main peaks up to 1 kV (between L and N)
- Electronic short-circuit protection
- Overload protection
- Degree of protection: IP20
- Protection class II
- SELV

Packaging units

Type	Packaging unit		
	Pieces per box	Boxes per pallet	Weight g
ECXe 1050.646	50	36	110

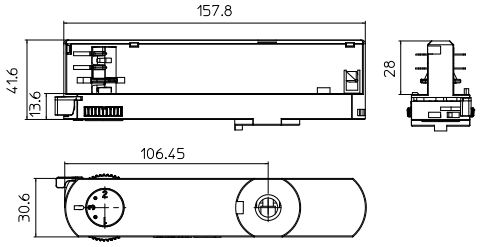
Product guarantee
- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.

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

Dimensions

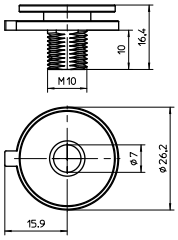
Type	Casing	Length mm	Width mm	Height (mm)	visible
ECXe 1050.646	UT-160.3	157.8	30.6	41.6	13.6

UT-160.3

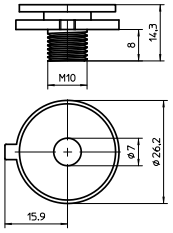


Connector nipple for track adapter

Material: zinc die-cast
Ref. No.: 187360
M10x1, length: 10 mm



Material: aluminium
Ref. No.: 187275
M10x1, length: 8 mm



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

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Electrical characteristics

Max. output W	Type	Ref. No.	Casing colour	Voltage 50–60 Hz V	Mains current mA	Inrush current A / µs	Current output DC mA (± 7%)	Voltage output DC (V)	THD at full load % (230 V)	Efficiency at full load % (230 V)	Ripple 100 Hz %
42	ECXe 1050.646	**187366**	white (RAL 9003)	220–240	220–202	7 / 28	300–1050	see table DIP settings	8	88	5
		187367	black (RAL 9005)								
		187368	grey (RAL 7040)								

Maximum ratings

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

Type	Ambient temperature range °C min.	°C max.	Operation humidity range % min.	% max.	Storage temperature range °C min.	°C max.	Storage humidity range % min.	% max.	Max. operation temperature at t_c point °C	Degree of protection
ECXe 1050.646	–20	+35	10	90	–40	+85	10	90	+75	IP20

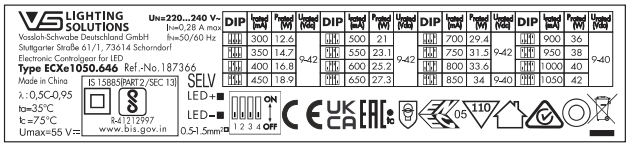
Expected service life time

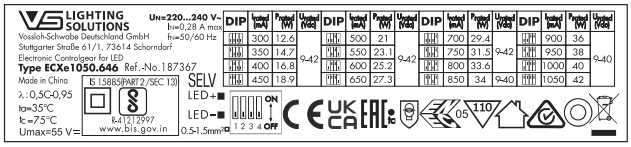
at operation temperatures at t_c point

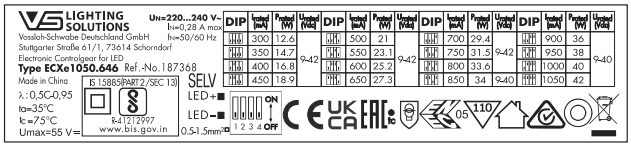
Operation current	Ref. No. 187366, 187367, 187368	
All	65 °C	75 °C
hrs.	100,000	50,000

Product labels

ECXe 1050.646







ECXe 1050.646							
Pin 1	2	3	4	Output W	Current mA	Voltage V	Factory settings (mA)
OFF	OFF	OFF	OFF	12.6	300	9-42V	1050
ON	OFF	OFF	OFF	14.7	350		
OFF	**ON**	OFF	OFF	16.8	400		
ON	**ON**	OFF	OFF	18.9	450		
OFF	OFF	**ON**	OFF	21.0	500		
ON	OFF	**ON**	OFF	23.1	550		
OFF	**ON**	**ON**	OFF	25.2	600		
ON	**ON**	**ON**	OFF	27.3	650		
OFF	OFF	OFF	**ON**	29.4	700		
ON	OFF	OFF	**ON**	31.5	750		
OFF	**ON**	OFF	**ON**	33.6	800		
ON	**ON**	OFF	**ON**	34.0	850	9-40V	
OFF	OFF	**ON**	**ON**	36.0	900		
ON	OFF	**ON**	**ON**	38.0	950		
OFF	**ON**	**ON**	**ON**	40.0	1000		
ON	**ON**	**ON**	**ON**	42.0	1050		

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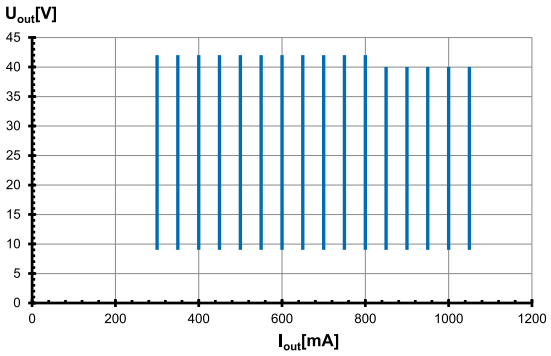
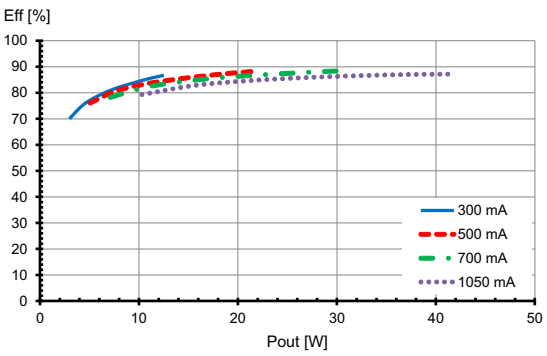
Typ. performance graphs for 187366, 187367, 187368 / Type ECXe 1050.646

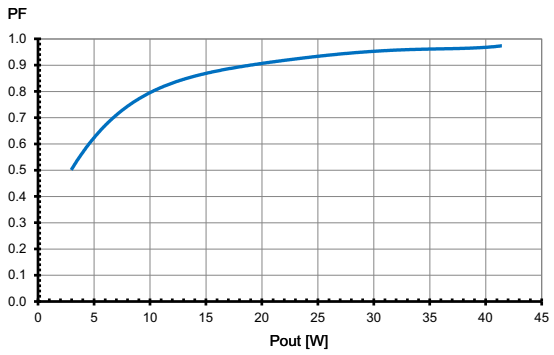
Working area



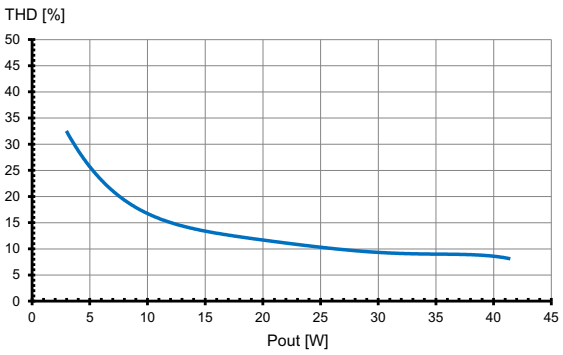
Efficiency



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 shut down 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 overheting the control gear will shut down and auto resume after temeperature problem is removed.

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 (3-phase, without DALI)

- Global
- PowerGear
- Ivela
- Stucchi
- Side
- Eutrac
- Erco
- Zumtobel

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

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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

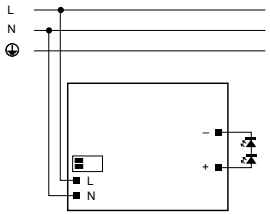
- DIN VDE 0100
- EN 60598-1

Mechanical mounting

- Mounting position and location: Common track system
- 3-phase option: 3 phases are selectable with a rotary switch. The neutral is in a fixed position in the track.
- Degree of protection: IP20
- Fastening: Double mechanical locking for pefect track fixing
- Load: max. up to 50 Nm

Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of 0.2–0.75 mm²
- Stripped length: 8.5–10 mm
- 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 16 A	B 20 A
ECXe 1050.646	**187366, 187367, 187368**	40	53	81
Automatic cut-out type C		C 10 A	C 16 A	C 20 A
ECXe 1050.646	**187366, 187367, 187368**	40	53	81

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