CC TRACK
DIP SWITCH GEN. 2

EASYLINE DIP SWITCH
UT-160 GEN. 2

187314, 187315, 187316, 187317, 187318, 187319, 187320, 187321, 187322

Typical Applications

For common track systems

- Retail lighting

EasyLine DIP switch UT-160 Gen. 2

- **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. 2

Product features
- Adapter with integrated LED driver electronics for common 3-phase track systems (compatibility see page 5)
- 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 350 mA and 500 mA for 187314, 187315, 187316 or 550 mA and 700 mA for 187317, 187318, 187319 or 800 mA and 1050 mA for 187320, 187321, 187322.

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, 60 V (for 187314, 187315, 187316)
- 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 500.615	40	30	102
ECXe 700.616	40	30	111
ECXe 1050.617	40	30	111

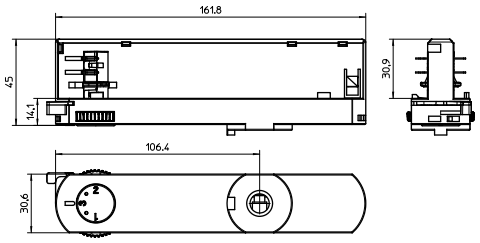
Product guarantee
- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.

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

Dimensions

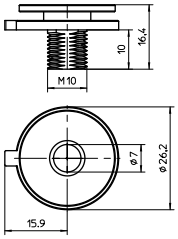
Type	Casing	Length mm	Width mm	Height (mm)	visible
ECXe 500.615	UT-160.2	162	30.6	45	13.6
ECXe 700.616	UT-160.2	162	30.6	45	13.6
ECXe 1050.617	UT-160.2	162	30.6	45	13.6

UT-160.2

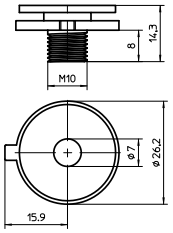


Connector nipple for track adapter

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



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



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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 %
21	ECXe 500.615	**187314**	white (RAL 9003)	220–240	115	13 / 100	350–500	20–42	9	86	< 5
		187315	black (RAL 9005)								
		187316	grey (RAL 7040)								
30	ECXe 700.616	**187317**	white (RAL 9003)	220–240	145	11 / 244	550–700	27–42	8	89	< 5
		187318	black (RAL 9005)								
		187319	grey (RAL 7040)								
42	ECXe 1050.617	**187320**	white (RAL 9003)	220–240	210	14 / 228	800–1050	27–40	10	89	< 5
		187321	black (RAL 9005)								
		187322	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 500.615	–20	+40	10	90	–20	+60	10	90	+75	IP20
ECXe 700.616		+35							+70	
ECXe 1050.617		+35							+70	

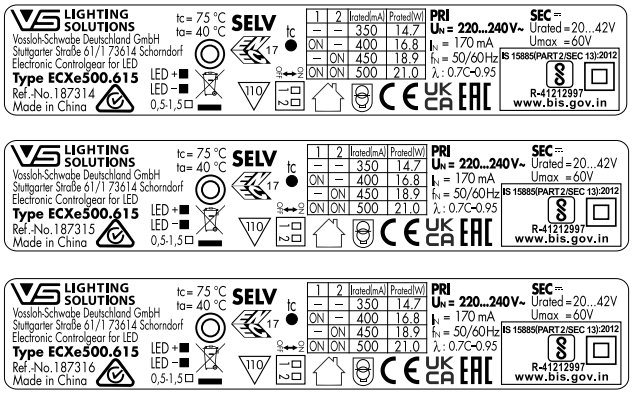
Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 187314, 187315, 187316		187317, 187318, 187319, 187320, 187321, 187322	
All	65 °C	75 °C	60 °C	70 °C
hrs.	100,000	50,000	100,000	50,000

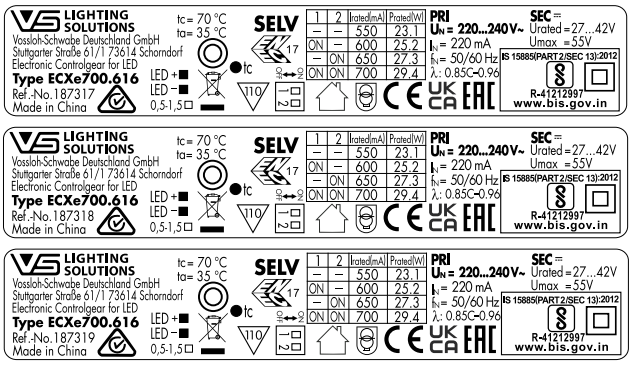
Product labels

ECXe 500.615



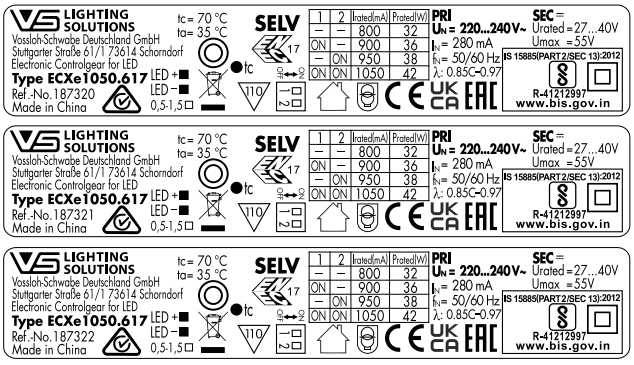
ECXe 500.615				
Pin 1	2	Output W	Current mA	Factory settings (mA)
OFF	OFF	14.7	350	500
ON	OFF	16.8	400	
OFF	**ON**	18.9	450	
ON	**ON**	21	500	

ECXe 700.516



ECXe 700.616				
Pin		Output	Current	Factory
1	2	W	mA	settings (mA)
OFF	OFF	23.1	550	700
ON	OFF	25.2	600	
OFF	**ON**	27.3	650	
ON	**ON**	29.4	700	

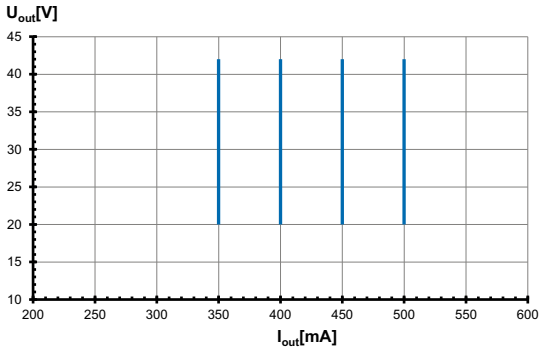
ECXe 1050.517



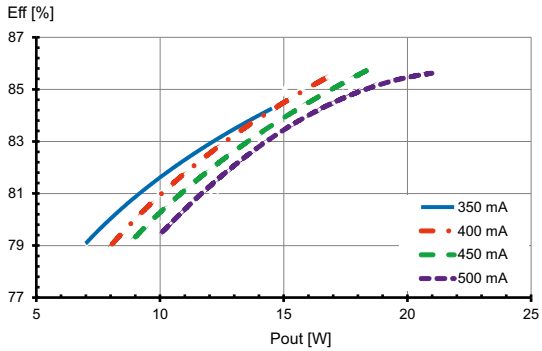
ECXe 1050.617				
Pin		Output	Current	Factory
1	2	W	mA	settings (mA)
OFF	OFF	32	800	1050
ON	OFF	36	900	
OFF	**ON**	38	950	
ON	**ON**	42	1050	

Typ. performance graphs for 187314, 187315, 187316 / Type ECXe 500.615

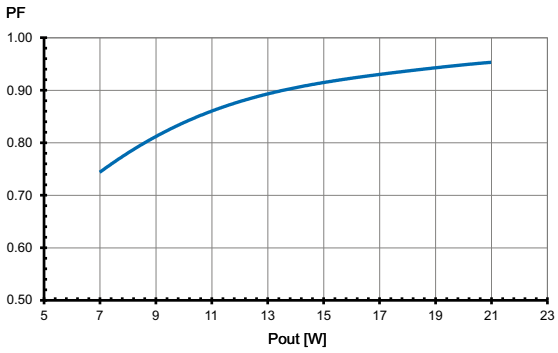
Working area



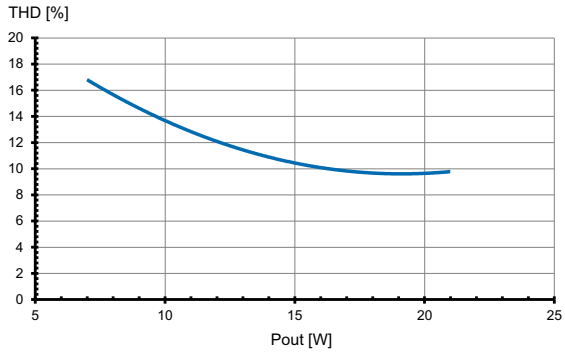
Efficiency



Power factor

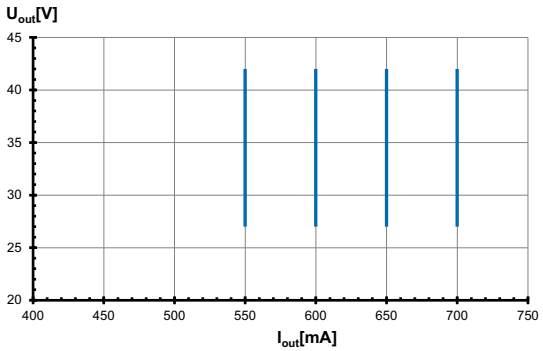


Total harmonic factor (THD)

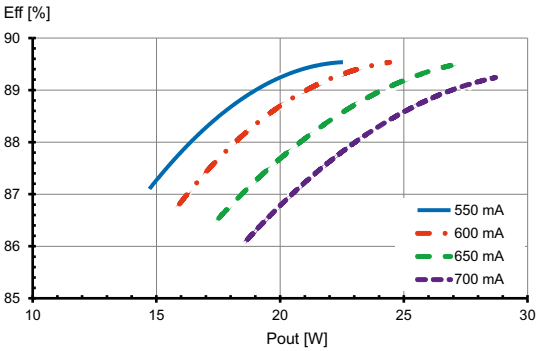


Typ. performance graphs for 187317, 187318, 187319 / Type ECXe 700.616

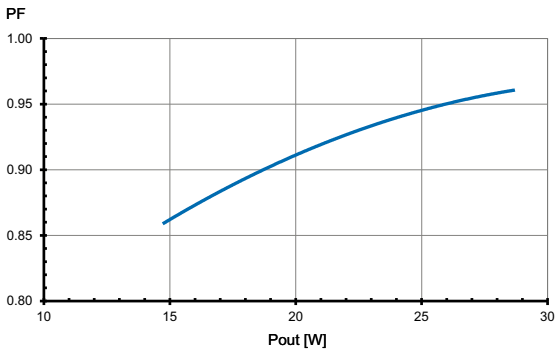
Working area



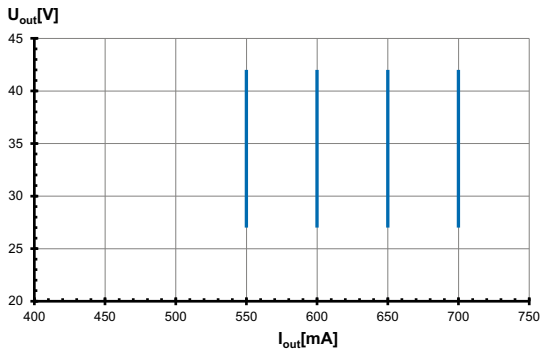
Efficiency



Power factor



Total harmonic factor (THD)



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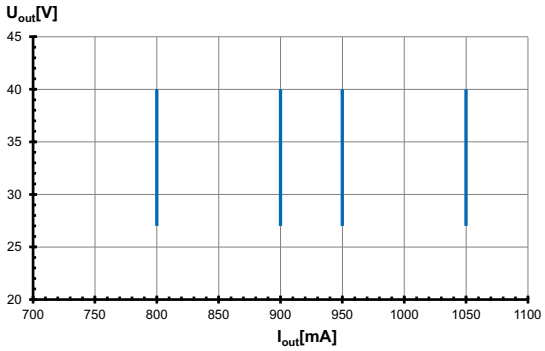
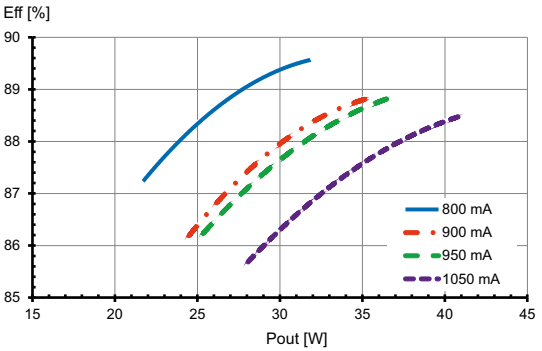
Typ. performance graphs for 187320, 187321, 187322 / Type ECXe 1050.617

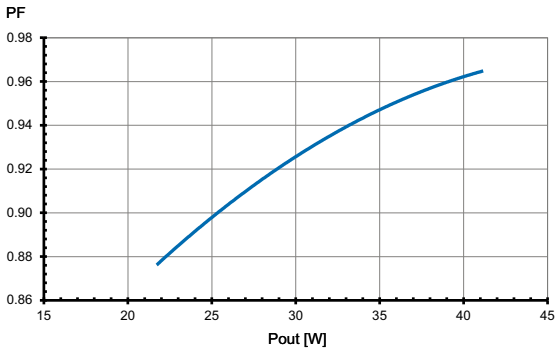
Working area



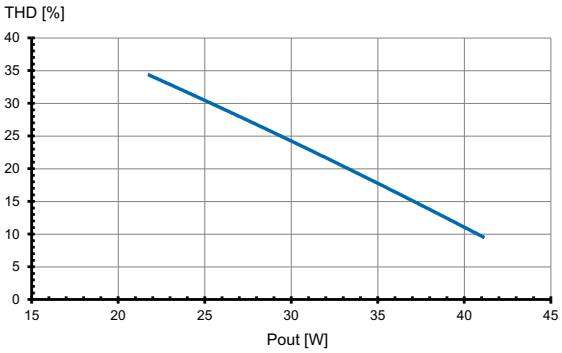
Efficiency



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 overheating 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

- Global
- PowerGear
- Ivela
- Stucchi

Not suitable for

- IG DALI
- Eutrac

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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

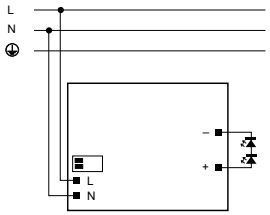
- DIN VDE 0100
- EN 60598-1

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 500.615	**187314, 187315, 187316**	65	105	131
ECXe 700.616	**187317, 187318, 187319**	30	48	60
ECXe 1050.617	**187320, 187321, 187322**	25	40	50
Automatic cut-out type C		C 10 A	C 16 A	C 20 A
ECXe 500.615	**187314, 187315, 187316**	69	111	139
ECXe 700.616	**187317, 187318, 187319**	50	80	100
ECXe 1050.617	**187320, 187321, 187322**	41	65	82

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