

CC TRACK DIP SWITCH



EASYLINE DIP SWITCH UT-200 120-277 V

187396, 187397, 187398

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**
- **WIDE INPUT VOLTAGE RANGE: 120-277 V**
- **SELV**
- **LONG SERVICE LIFE: UP TO 100,000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**



EasyLine DIP switch UT-200 120–277 V

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, black and grey.

Functions

- Selectable current output by DIP switches
- The output current can be freely adjusted between 200 mA and 1050 mA

Electrical features

- Mains voltage: 120–277 V $\pm 10\%$
- Mains frequency: 50–60 Hz
- Power factor at full load: > 0.95
- Open circuit voltage ($U_{max.}$): 60 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 1050.656	40	30	140

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

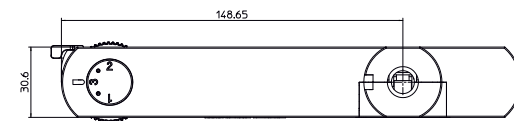
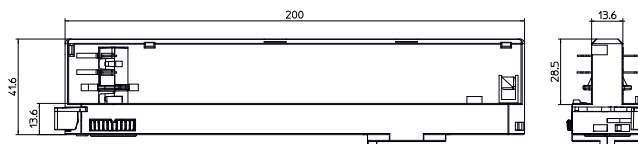
- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN 61000-3-2
- EN 61000-3-3
- EN 62384
- EN 55015
- UL 1574 (incl. UL 8750)



Dimensions

Type	Casing	Length mm	Width mm	Height (mm) visible
ECXe 1050.656	UT-200	200	30.6	41.6 13.6

UT-200

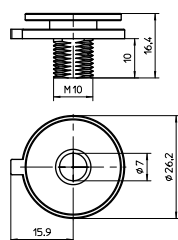


Connector nipple for track adapter

Material: zinc die-cast

Ref. No.: 187360

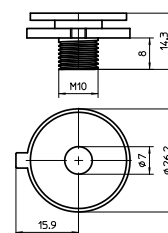
M10x1, length: 10 mm



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.

LED Drivers – EasyLine DIP switch UT-200 120–277 V

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%)	Voltage output DC (V)	THD at full load % (230 V)	Efficiency at full load % (230 V)	Ripple 100 Hz %
42	ECXe 1050.656	187396	white	120–277	413–178	17 / 172	200–1050	see table DIP settings	4	85	5
		187397	black								
		187398	grey								

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 1050.656	-20	+35	10	90	-40	+85	10	90	+80	IP20

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.	
All	187396, 187397, 187398	
hrs.	70 °C	80 °C
	100,000	50,000

ECXe 1050.656

Pin	Power				Current mA	Voltage V	Factory settings (mA)
	1	2	3	4			
OFF	OFF	OFF	OFF	8.4	200	24–42	1050
ON	OFF	OFF	OFF	10.5	250		
OFF	ON	OFF	OFF	12.6	300		
ON	ON	OFF	OFF	14.7	350		
OFF	OFF	ON	OFF	16.8	400		
ON	OFF	ON	OFF	21.0	500		
OFF	ON	ON	OFF	23.1	550		
ON	ON	ON	OFF	25.2	600		
OFF	OFF	OFF	ON	27.3	650		
ON	OFF	OFF	ON	29.4	700		
OFF	ON	OFF	ON	33.6	800		
ON	ON	OFF	ON	35.7	850		
OFF	OFF	ON	ON	37.8	900		
ON	OFF	ON	ON	39.9	950		
OFF	ON	ON	ON	42.0	1000		
ON	ON	ON	ON	42.0	1050		

Product labels

ECXe 1050.656

VS LIGHTING SOLUTIONS
Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61 / 73614 Schorndorf
Electronic Controlgear for LED
Type **ECXe1050.656**
Ref.No. 187396

UN = 120...277 V-
I_N = 0.5 A max. I_a = 35°C
f_N = 50/60 Hz t_c = 80°C
 λ : 0.45C0.95 U_{max} = 59V_{eff}

DIP	Power (W)	Current (mA)	Voltage (V)	Pin 1	Pin 2	Pin 3	Pin 4
200	8.4	200	24-42	OFF	OFF	OFF	OFF
250	10.5	250	24-42	ON	OFF	OFF	OFF
300	12.6	300	24-42	OFF	ON	OFF	OFF
350	14.7	350	24-42	ON	ON	OFF	OFF
400	16.8	400	24-42	OFF	OFF	ON	OFF
500	21	500	24-42	ON	OFF	ON	OFF
550	23.1	550	24-42	OFF	ON	ON	OFF
600	25.2	600	24-42	ON	ON	ON	OFF
650	27.3	650	24-42	OFF	OFF	OFF	ON
700	29.4	700	24-42	ON	OFF	OFF	ON
800	33.6	800	24-42	OFF	ON	OFF	ON
850	35.7	850	24-42	ON	ON	OFF	ON
900	37.8	900	24-42	OFF	OFF	ON	ON
950	39.9	950	24-42	ON	ON	ON	ON
1000	42	1000	24-42	OFF	ON	ON	ON
1050	42	1050	24-40	ON	ON	ON	ON

LED+ ■ LED- ■ t_c ON OFF
0.5-1.5mm² 1 2 3 4 OFF

CE UK EAC

RECOGNIZED COMPONENT

CONFORMS TO
UL STD. 1574
CERTIFIED TO CSA STD.
C22.2 No. 250.570

CAUTION:
Risk of Electric Shock
Suitable for dry location use

ATTENTION:
Risque de choc électrique
Convient pour une utilisation en milieu humide

Intertek
5027993

VS LIGHTING SOLUTIONS
Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61 / 73614 Schorndorf
Electronic Controlgear for LED
Type **ECXe1050.656**
Ref.No. 187397

UN = 120...277 V-
I_N = 0.5 A max. I_a = 35°C
f_N = 50/60 Hz t_c = 80°C
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DIP	Power (W)	Current (mA)	Voltage (V)	Pin 1	Pin 2	Pin 3	Pin 4
200	8.4	200	24-42	OFF	OFF	OFF	OFF
250	10.5	250	24-42	ON	OFF	OFF	OFF
300	12.6	300	24-42	OFF	ON	OFF	OFF
350	14.7	350	24-42	ON	ON	OFF	OFF
400	16.8	400	24-42	OFF	OFF	ON	OFF
500	21	500	24-42	ON	OFF	ON	OFF
550	23.1	550	24-42	OFF	ON	ON	OFF
600	25.2	600	24-42	ON	ON	ON	OFF
650	27.3	650	24-42	OFF	OFF	OFF	ON
700	29.4	700	24-42	ON	OFF	OFF	ON
800	33.6	800	24-42	OFF	ON	OFF	ON
850	35.7	850	24-42	ON	ON	OFF	ON
900	37.8	900	24-42	OFF	OFF	ON	ON
950	39.9	950	24-42	ON	ON	ON	ON
1000	42	1000	24-42	OFF	ON	ON	ON
1050	42	1050	24-40	ON	ON	ON	ON

LED+ ■ LED- ■ t_c ON OFF
0.5-1.5mm² 1 2 3 4 OFF

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Electronic Controlgear for LED
Type **ECXe1050.656**
Ref.No. 187398

UN = 120...277 V-
I_N = 0.5 A max. I_a = 35°C
f_N = 50/60 Hz t_c = 80°C
 λ : 0.45C0.95 U_{max} = 59V_{eff}

DIP	Power (W)	Current (mA)	Voltage (V)	Pin 1	Pin 2	Pin 3	Pin 4
200	8.4	200	24-42	OFF	OFF	OFF	OFF
250	10.5	250	24-42	ON	OFF	OFF	OFF
300	12.6	300	24-42	OFF	ON	OFF	OFF
350	14.7	350	24-42	ON	ON	OFF	OFF
400	16.8	400	24-42	OFF	OFF	ON	OFF
500	21	500	24-42	ON	OFF	ON	OFF
550	23.1	550	24-42	OFF	ON	ON	OFF
600	25.2	600	24-42	ON	ON	ON	OFF
650	27.3	650	24-42	OFF	OFF	OFF	ON
700	29.4	700	24-42	ON	OFF	OFF	ON
800	33.6	800	24-42	OFF	ON	OFF	ON
850	35.7	850	24-42	ON	ON	OFF	ON
900	37.8	900	24-42	OFF	OFF	ON	ON
950	39.9	950	24-42	ON	ON	ON	ON
1000	42	1000	24-42	OFF	ON	ON	ON
1050	42	1050	24-40	ON	ON	ON	ON

LED+ ■ LED- ■ t_c ON OFF
0.5-1.5mm² 1 2 3 4 OFF

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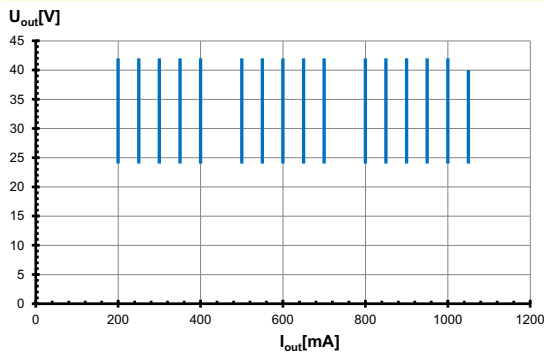
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Intertek
5027993

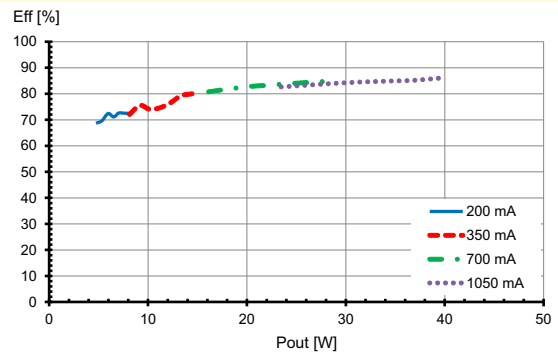
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Typ. performance graphs for 187396, 187397, 187398 / Type ECXe 1050.656

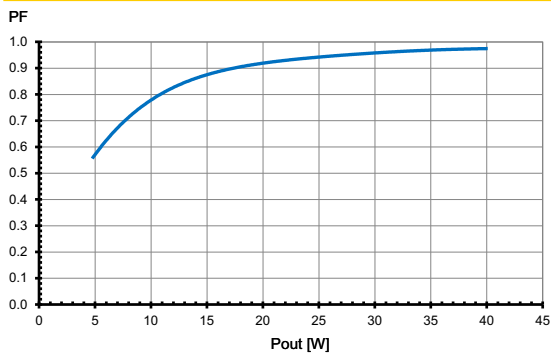
Working area at 230 V



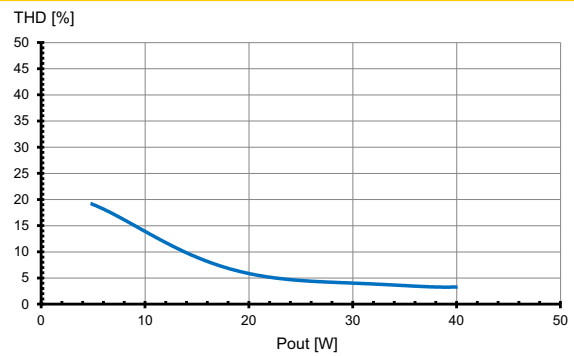
Efficiency at 230 V



Power factor at 230 V

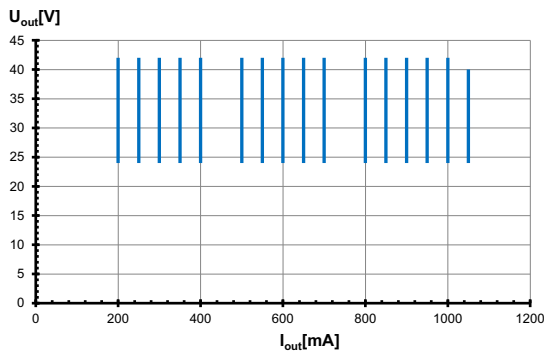


Total harmonic factor (THD) at 230 V

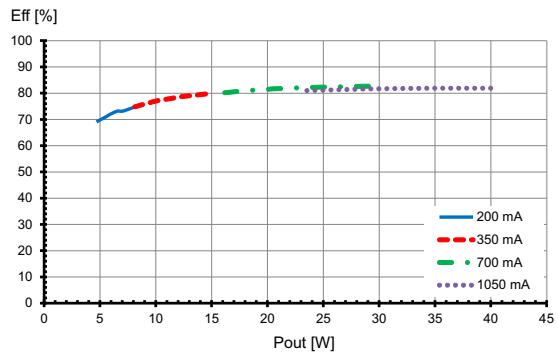


Typ. performance graphs for 187396, 187397, 187398 / Type ECXe 1050.656

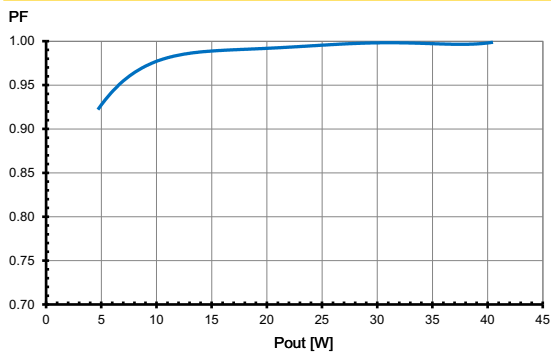
Working area at 120 V



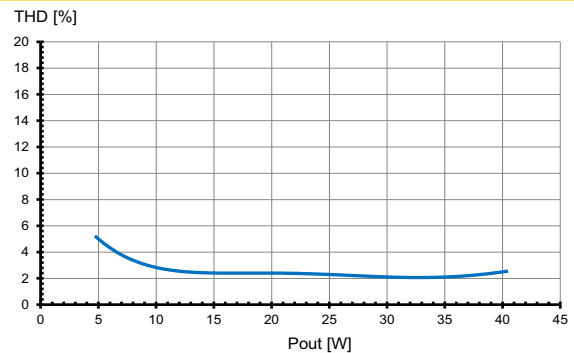
Efficiency at 120 V



Power factor at 120 V



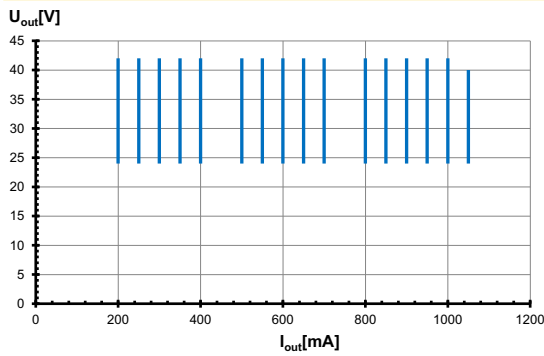
Total harmonic factor (THD) at 120 V



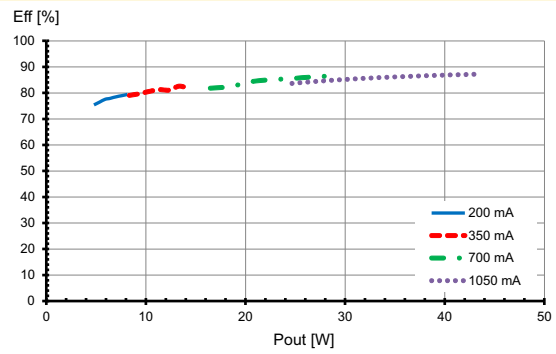
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Typ. performance graphs for 187396, 187397, 187398 / Type ECXe 1050.656

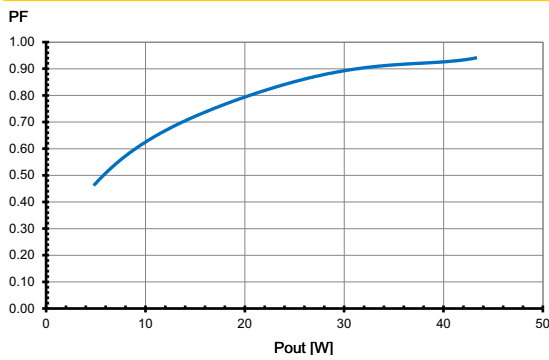
Working area at 277 V



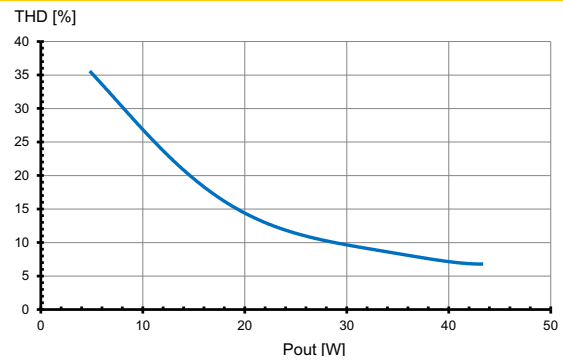
Efficiency at 277 V



Power factor at 277 V



Total harmonic factor (THD) at 277 V



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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 temperature 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
- 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

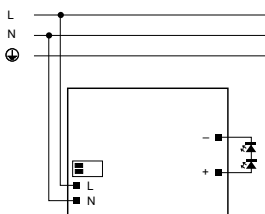
- DIN VDE 0100
- EN 60598-1

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 perfect 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.		
		B 10 A	B 16 A	B 20 A
Automatic cut-out type B				
ECXe 1050.656	187396, 187397, 187398	21	34	42
Automatic cut-out type C				
ECXe 1050.656	187396, 187397, 187398	21	34	42

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