

CC TRACK DIP SWITCH GEN. 4



EASYLINE DIP SWITCH UT-155 GEN. 4

187535, 187536, 187537
187538, 187539, 187540
187541, 187542, 187543

Typical Applications

For common track systems

- Retail lighting



EasyLine DIP switch UT-155 Gen. 4

- **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**
- **HIGH EFFICACY: UP TO 92%**



EasyLine DIP switch UT-155 Gen. 4

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 450 mA and 1050 mA

Electrical features

- Mains voltage: 220–240 V $\pm 10\%$
- 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

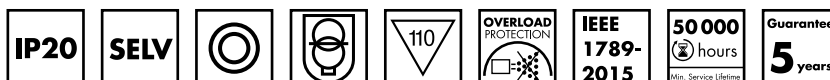
- Protection against transient main peaks up to 1 kV (between L and N)
- Electronic short-circuit protection
- Overload protection
- Degree of protection: IP20
- Protection class II
- SELV

Packaging units

Type	Packaging unit		
	Pieces per box	Boxes per pallet	Weight g
ECXe 600.718	40	40	116
ECXe 800.719	40	40	117
ECXe 1050.720	40	40	117

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.



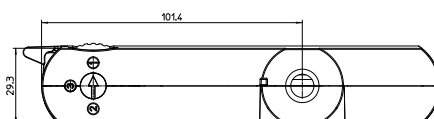
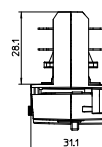
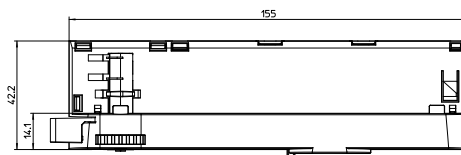
Applied standards

- 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
all types	UT-155	155	31,1	42,2 14,1

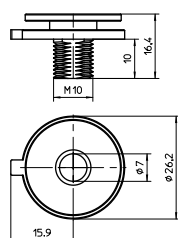


Connector nipple for track adapter

Material: zinc-die-cast

Ref. No.: 187360

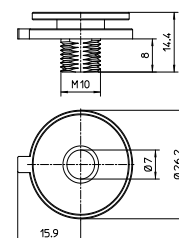
M10x1, length: 10 mm



Material: zinc-die-cast

Ref. No.: 187437

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.

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 ($\pm$ 5%)	Voltage output DC (V)	THD at full load % (230 V)	Efficiency at full load % (230 V)	Ripple 100 Hz %
25	ECXe 600.718	187535	white (RAL 9003)	220–240	126–115	19 / 118	450/500/550/600	24–42	4	92	5
		187536	black (RAL 9005)								
		187537	grey (RAL 7040)								
34	ECXe 800.719	187538	white (RAL 9003)	220–240	171–155	21 / 134	650/700/750/800	24–42	5	92	5
		187539	black (RAL 9005)								
		187540	grey (RAL 7040)								
42	ECXe 1050.720	187541	white (RAL 9003)	220–240	213–192	22 / 144	900/950/1000/1050	24–42	5	91	5
		187542	black (RAL 9005)					24–40			
		187543	grey (RAL 7040)					(@1050mA)			

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 600.718	–20	+35	10	90	–40	+85	10	90	+70	IP20
ECXe 800.719									+70	
ECXe 1050.720									+70	

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.	
	187535, 187536, 187537	
All	65 °C	70 °C
hrs.	100,000	50,000

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

ECXe 600.718

Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61/1 73614 Schorndorf

UN= 220...240V~ fN= 50/60Hz
In= 0,16A max. Umax= 59V==
Ta= 35°C tc= 70°C λL= 0.8C.95

DIP				
Irated(mA)	450	500	550	600
Prated(W)	18.9	21	23.1	25.2
Urated(Vdc)	24-42			

SELV

110V

05

ON/OFF

Ref.-No.187535
Made in China

Type ECxEx000.718

LED+■
LED-■
0.5-1.5m²



Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61 / 73614 Schorndorf

Type ECx600-718

Ref.-No.187536

Made in China

U_{in} = 220...240V~
 I_{in} = 0.16A max.
 T_a = 35°C T_c = 70°C

f_n = 50/60Hz
 U_{max} = 59V ===
 λ = 0.8C 0.95

DIP				
Irated(mA)	450	500	550	600
Prated(W)	18.9	21	23.1	25.2
Urated(Vdc)	24-42			

SELV









LED+ ■

LED- ■

0.5-1.5mm²









Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61 / 73614 Schorndorf

Electronic Contractor for LED
Type ECXe600.718

Ref.-No. 187537
Made in China

$U_N = 220...240V \sim$
 $I_N = 0.16A \text{ max.}$
 $t_a = 35^\circ C$ $t_c = 70^\circ C$

$f_N = 50/60Hz$
 $U_{max} = 59V \approx$
 $\lambda = 0.8C.95$




DIP				
Irated(mA)	450	500	550	600
Irated(W)	18.9	21	23.1	25.2
Urated(Vdc)	24-42			








Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61/1 73614 Schorndorf
Electronic Control für LED-Strahlungsgeräte
Type ECXe800-719
Ref.-No.187538
Made in China

$U_N = 220...240V \sim$
 $I_N = 0,234 \text{ max.}$
 $t_a = 35^\circ\text{C}$ $t_c = 70^\circ\text{C}$

$f_N = 50/60\text{Hz}$
 $U_{\text{max}} = 59V \text{ sine}$
 $\lambda = 0,86 \sim 0,95$

DIP				
Irated(mA)	650	700	750	800
Prated(W)	27,3	29,4	31,5	33,6
Urated(Vdc)	24-42			

SELV

LED-■
LED-■
0,5-1,5mm²



Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61/1 73614 Schorndorf

Electronic Controller for led
Type ECx800.719

Ref.-No.187539
Made in China

$U_N = 220...240V~$
 $I_N = 0,23A~max.$
 $t_a = 35^{\circ}C$ $t_c = 70^{\circ}C$

$f_N = 50/60Hz$
 $U_{max} = 59V~$
 $\lambda = 0,8C/0,95$

DIP				
Irated(mA)	650	700	750	800
Prated(W)	27.3	29.4	31.5	33.6
Urated(Vdc)	24-42			









LED-+■
LED-■
0.5-1.5mm²






VS LIGHTING SOLUTIONS Vossloh-Schwabe Deutschland GmbH Stuttgarter Straße 61/1 73614 Schorndorf Electronic Controler for LED Type ECXe800.719 Ref.No.187540 Made in China LED + ■ LED - ■ 0.5-1.5mm ²	SELV  	UN= 220...240V~ IN= 0.23A max. ta= 35°C tc= 70°C fN= 50/60Hz Umax= 59V== λ= 0.8C/0.95 	<table border="1"> <tr> <td>DIP</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Irated[mA]</td><td>650</td><td>700</td><td>750</td><td>800</td></tr> <tr> <td>Prated[W]</td><td>27.3</td><td>29.4</td><td>31.5</td><td>33.6</td></tr> <tr> <td>Urated[Vdc]</td><td colspan="4">24-42</td></tr> </table>	DIP					Irated[mA]	650	700	750	800	Prated[W]	27.3	29.4	31.5	33.6	Urated[Vdc]	24-42				   
DIP																								
Irated[mA]	650	700	750	800																				
Prated[W]	27.3	29.4	31.5	33.6																				
Urated[Vdc]	24-42																							



LED Drivers – EasyLine DIP switch UT-155 Gen. 4

Product labels

ECXe 1050.720

VS LIGHTING SOLUTIONS
Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61/1 73614 Schorndorf
Electronic Controlgear for LED
Type ECLx1050.720
Ref.No.187541
Made in China

LED+
LED-
0.5-1.5mm²

UN= 220...240V~
IN= 0.28A max.
ta= 35°C tc= 70°C

fn= 50/60Hz
Umax= 59V~
λ: 0.8C-0.95

DIP

Irated(mA)	900	950	1000	1050
Prated(W)	37.8	39.9	42	42
Urated(Vdc)	24-42		24-40	

VS LIGHTING SOLUTIONS
Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61/1 73614 Schorndorf
Electronic Controlgear for LED
Type ECLx1050.720
Ref.No.187542
Made in China

LED+
LED-
0.5-1.5mm²

UN= 220...240V~
IN= 0.28A max.
ta= 35°C tc= 70°C

fn= 50/60Hz
Umax= 59V~
λ: 0.8C-0.95

DIP

Irated(mA)	900	950	1000	1050
Prated(W)	37.8	39.9	42	42
Urated(Vdc)	24-42		24-40	

VS LIGHTING SOLUTIONS
Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61/1 73614 Schorndorf
Electronic Controlgear for LED
Type ECLx1050.720
Ref.No.187543
Made in China

LED+
LED-
0.5-1.5mm²

UN= 220...240V~
IN= 0.28A max.
ta= 35°C tc= 70°C

fn= 50/60Hz
Umax= 59V~
λ: 0.8C-0.95

DIP

Irated(mA)	900	950	1000	1050
Prated(W)	37.8	39.9	42	42
Urated(Vdc)	24-42		24-40	

DIP switch settings

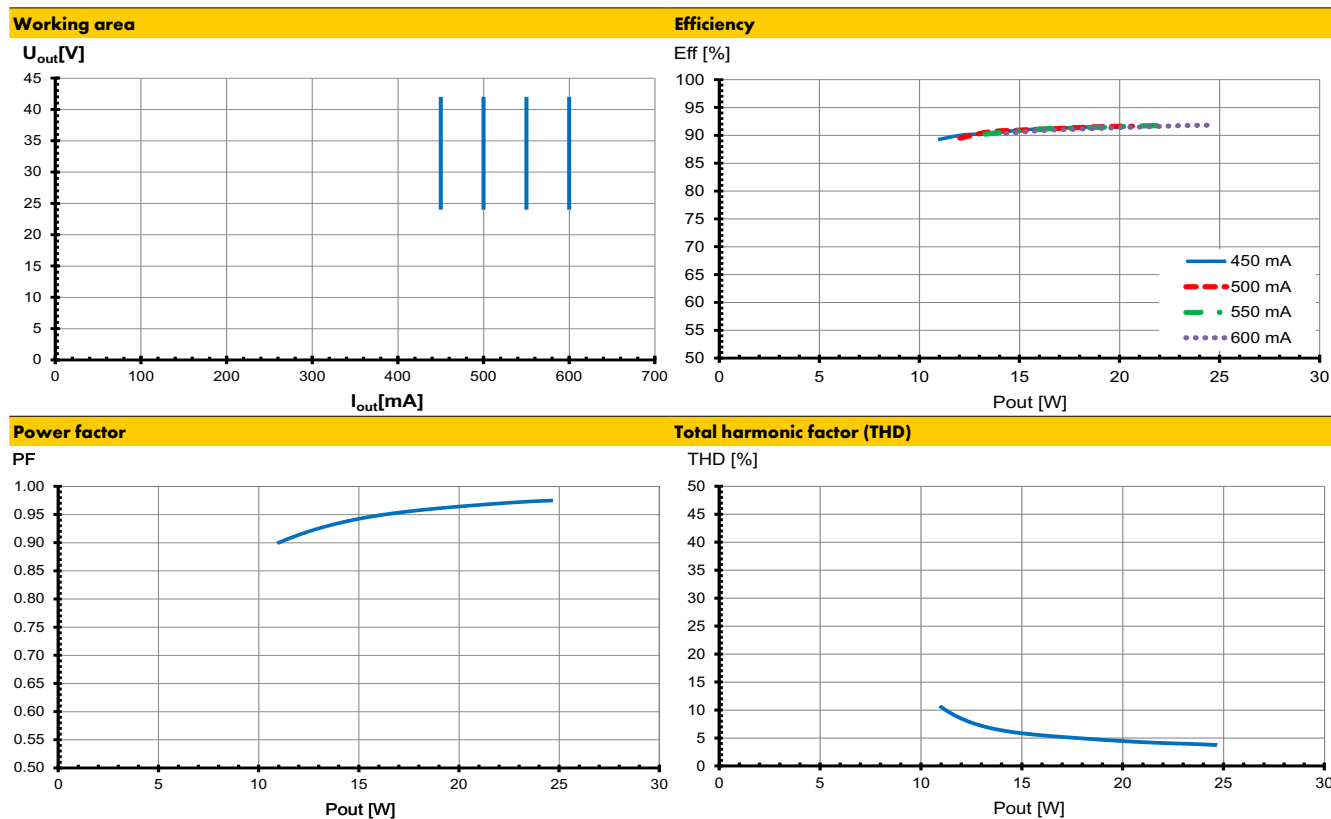
ECXe 600.718					
Pin		Output	Current	Voltage	Factory settings (mA)
1	2	W	mA	V	
OFF	OFF	18.9	450	24-42V	600
ON	OFF	21	500		
OFF	ON	23.1	550		
ON	ON	25.2	600		

ECXe 800.719					
Pin		Output	Current	Voltage	Factory settings (mA)
1	2	W	mA	V	
OFF	OFF	27.3	650	20-42V	800
ON	OFF	29.4	700		
OFF	ON	31.5	750		
ON	ON	33.6	800		

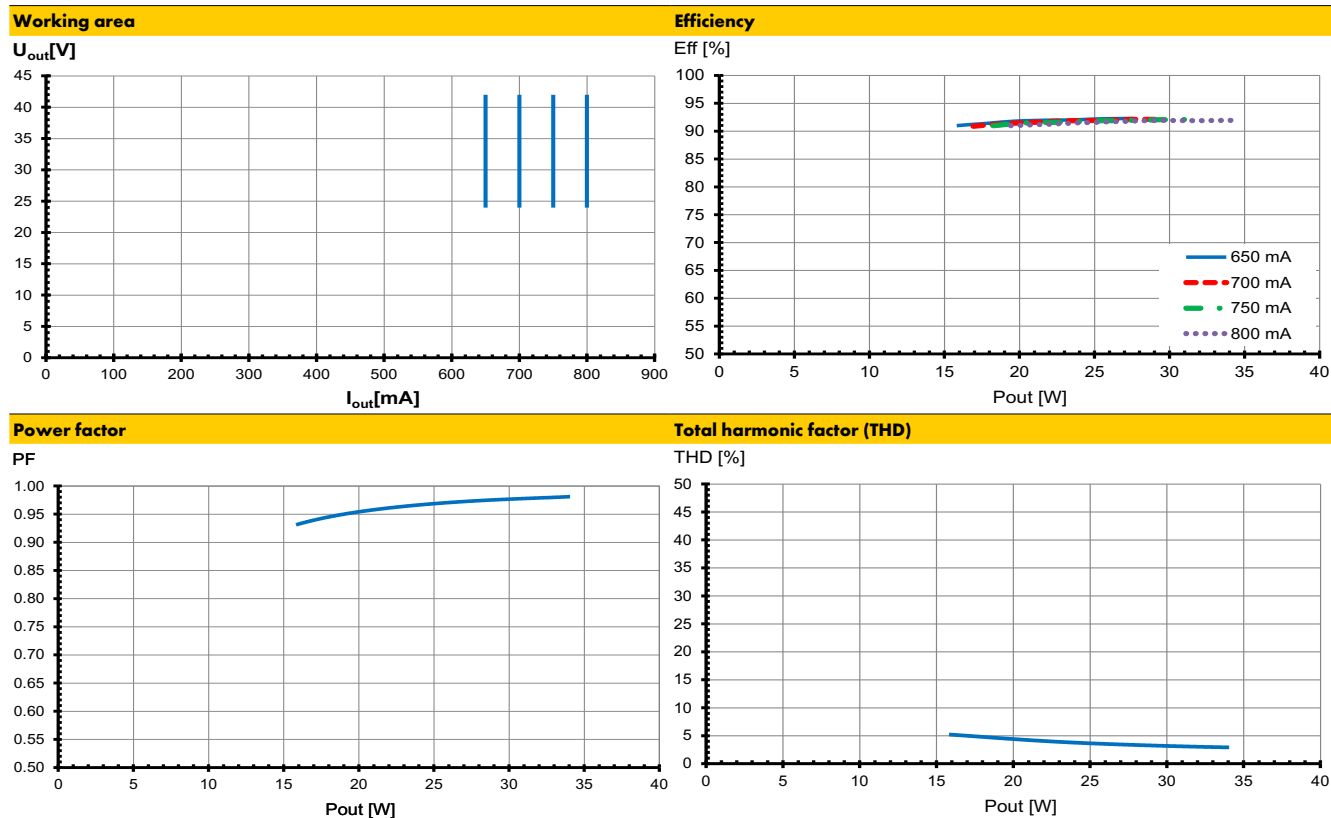
ECXe 1050.720					
Pin		Output	Current	Voltage	Factory settings (mA)
1	2	W	mA	V	
OFF	OFF	37.8	900	20-42V	1050
ON	OFF	39.9	950		
OFF	ON	42	1000		
ON	ON	42	1050	24-40V	

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

Typ. performance graphs for 187535, 187536, 187537 / Type ECXe 600.718

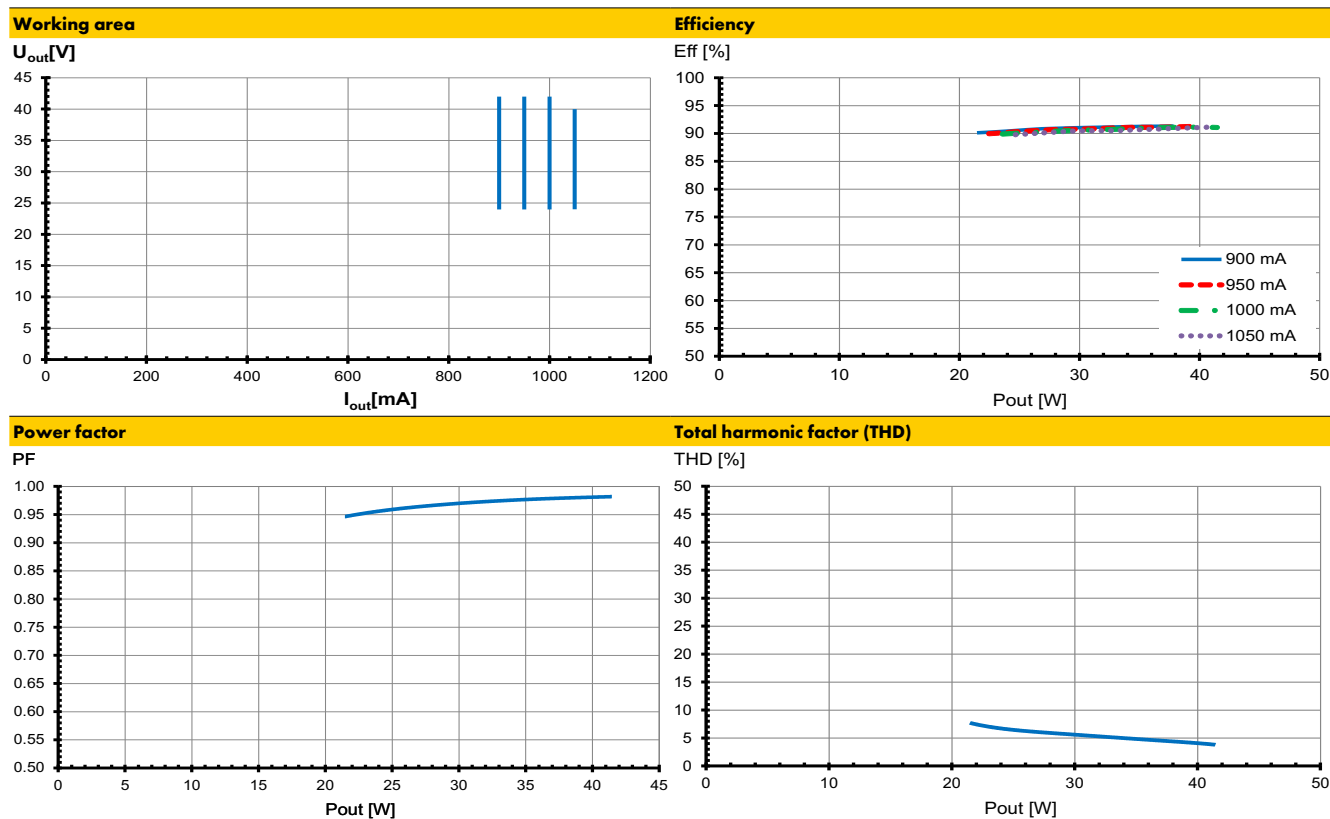


Typ. performance graphs for 187538, 187539, 187540 / Type ECXe 800.719



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

Typ. performance graphs for 187541, 187542, 187543 / Type ECXe 1050.720



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

Tested at the following tracks (3-phase, without DALI)

Manufacturer	Type	System 3P	Horizontal Operation Recommended	Vertical Operation Recommended
ZUMTOBEL	S280...	3P	Yes	Yes
EUTRAC	25-XX-XX / 26-XX-XX	3P	Yes	No
SIDE	25101	3P	Yes	No
IVELA	7501 / 7511 / 7512	3P	Yes	No
Stucchi	One track	3P	Yes	Yes
Nordic Aluminium	GLOBAL Trac Pro XTS 4xxx	3P	Yes	Yes
Nordic Aluminium	GLOBAL Trac Pro XTSF 4xxx	3P	Yes	Yes
Powergear	PRO-Q4X0	3P	Yes	Yes
ERCO	783...	3P	Yes	Yes
Unipro	T32W	3P	Yes	Yes
Unipro	T32FW	3P	Yes	Yes

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 adapter.

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

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

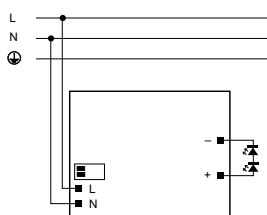
- DIN VDE 0100
- EN 60598-1

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.					
Automatic cut-out type		B 10 A	B 16 A	B 16 A	C 10 A	C 16 A	C 16 A
ECXe 600.718	187535	37	48	60	62	81	100
ECXe 600.718	187536	37	48	60	62	81	100
ECXe 600.718	187537	37	48	60	62	81	100
ECXe 800.719	187538	29	38	47	49	64	79
ECXe 800.719	187539	29	38	47	49	64	79
ECXe 800.719	187540	29	38	47	49	64	79
ECXe 1050.720	187541	26	34	42	41	53	66
ECXe 1050.720	187542	26	34	42	41	53	66
ECXe 1050.720	187543	26	34	42	41	53	66

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