

CC TRACK DIP SWITCH



COMFORTLINE DIP SWITCH UT-170

186950, 186951

Typical Applications

For common track systems

- Retail lighting

ComfortLine DIP switch UT-170

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



ComfortLine DIP switch UT-170

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 and black

Functions

- Selectable current output by DIP switches
- The output current can be freely adjusted between 200 mA and 700 mA.

Electrical features

- Mains voltage: 220–240 V \pm 10%
- Mains frequency: 50–60 Hz
- DC operation: 174–280 V, 0 Hz
- Push-in terminals: 0.2–0.75 mm²
- Power factor at full load: > 0.95
- Open circuit voltage (U_{max.}): 59 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
- Degree of protection: IP20
- Protection class II
- SELV

Packaging units

Type	Packaging unit		
	Pieces per box	Boxes per pallet	Weight g
ECXe 700.402	48	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.



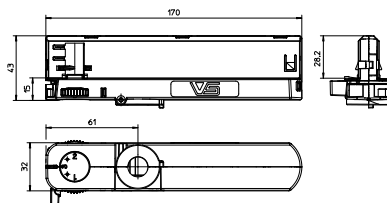
Applied standards

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



Dimensions

- Casing: UT-170
- Length: 170 mm
- Width: 32 mm
- Height: 43 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 – ComfortLine DIP switch UT-170

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 %
31	ECXe 700.402	186950	white	220–240	170	5 / 50	200–700	20–44	< 15	> 86	< 3
		186951	black								

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 700.402	0	+35	5	95	-40	+100	5	95	+80	IP20

Expected service life time

at operation temperatures at t_c point

Operation current	Type ECE 700.402	
All	70 °C	80 °C
hrs.	100,000	50,000

Product labels

VS LIGHTING SOLUTIONS
 Vossloh-Schwabe Deutschland GmbH
 Hohe Steinert 8, D-58509 Lüdenscheid

PRI $U_N = 220...240 V$
 $I_{max} = 170 mA$
 $f_N = 50...60 Hz$
 $\lambda = 0,9 C - 0,95$

SEC
 $I_{rated} = 200...700 mA$
 $U = 20...44 V$
 $U_{max} = 59 V$
 $P_{max} = 31 W$

SELV
 $t_c = 80^\circ C$
 $t_a = 0...35^\circ C$

Type ECXe 700.402
 Ref.-No. 186950
 Made in Italy

1	2	3	4	$I_{out}(mA)$	$P_{out}(W)$	1	2	3	4	$I_{out}(mA)$	$P_{out}(W)$
-	-	-	-	200	8.8	-	-	ON	-	300	13.2
-	-	-	ON	250	11	-	-	ON	ON	350	15.4
-	-	-	-	-	-	-	-	ON	-	400	17.6
-	-	-	ON	-	-	-	-	ON	ON	450	19.8
-	-	-	-	-	-	-	-	ON	ON	500	22
-	-	-	ON	-	-	-	-	ON	ON	550	24.2
-	-	-	-	-	-	-	-	ON	ON	600	26.4
-	-	-	ON	-	-	-	-	ON	ON	650	28.6
-	-	-	-	-	-	-	-	ON	ON	700	31

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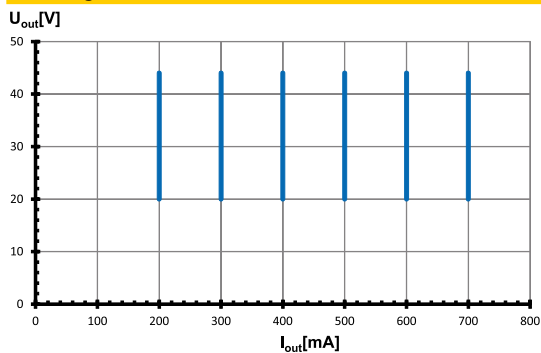
Type ECXe 700.402
 Ref.-No. 186951
 Made in Italy

1	2	3	4	$I_{out}(mA)$	$P_{out}(W)$	1	2	3	4	$I_{out}(mA)$	$P_{out}(W)$
-	-	-	-	200	8.8	-	-	ON	-	300	13.2
-	-	-	ON	250	11	-	-	ON	ON	350	15.4
-	-	-	-	-	-	-	-	ON	-	400	17.6
-	-	-	ON	-	-	-	-	ON	ON	450	19.8
-	-	-	-	-	-	-	-	ON	ON	500	22
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-	-	-	-	-	-	-	-	ON	ON	600	26.4
-	-	-	ON	-	-	-	-	ON	ON	650	28.6
-	-	-	-	-	-	-	-	ON	ON	700	31

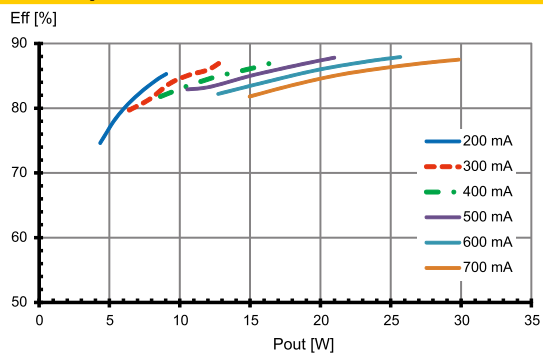
The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Typ. performance graphs for 186950, 186951 / Type ECXe 700.402

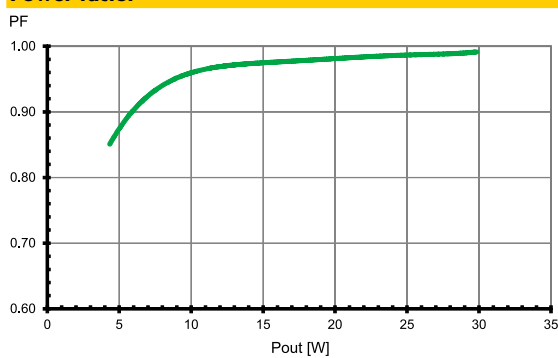
Working area



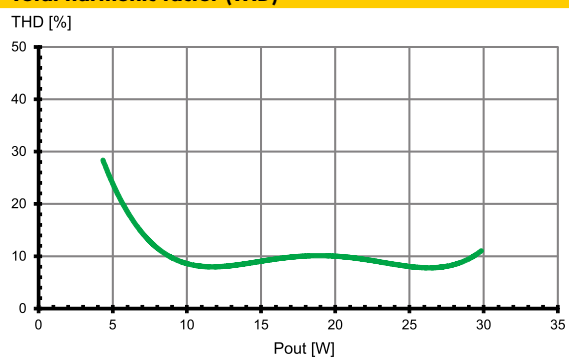
Efficiency



Power factor



Total harmonic factor (THD)



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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 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
not shut down and the service life time will
reduce.
- 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

- Eutrac
- Globaltrac
- Stucchi

Not suitable for

- IG DALI

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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

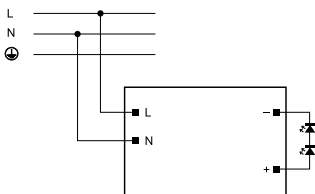
- DIN VDE 0100
- EN 60598-1

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
- Clearance:
 - Min. 0.10 m from walls, ceilings and insulation
- Fastening:
 - Double mechanical locking for perfect track fixing
- Load:
 - 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
- 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 700.402	186950, 186951	31	50	62
Automatic cut-out type C				
ECXe 700.402	186950, 186951	31	50	62

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