

CC COMPACT DIP SWITCH DIMMABLE



COMFORTLINE DIP SWITCH C-WIDEUOUT DALI2

187345, 187346, 187347, 187348

Typical Applications

Built-in in compact luminaires for

- Shop lighting
- Office lighting
- Residential lighting
- Downlights

ComfortLine DIP switch C-wideUout DALI2

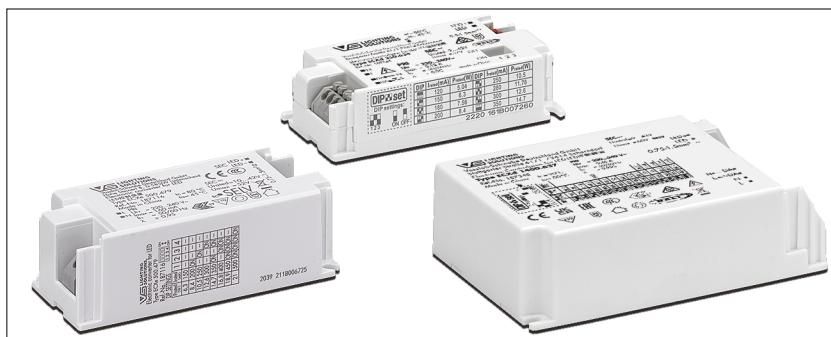
- **SELECTABLE OUTPUT CURRENT
VIA DIP SWITCH**
- **DIMMABLE: DALI (ED.2)**
- **WIDE OUTPUT VOLTAGE WINDOW**
- **VERY LOW RIPPLE CURRENT: < 3%**
- **SELV**
- **LONG SERVICE LIFE:
UP TO 100.000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**



ComfortLine DIP switch C-wideUout DALI2

Product features

- Compact casing shape
- Built-in and separate cord-grip available



Functions

- Selectable current output by dip-switch

Electrical features

- Mains voltage: 220–240 V $\pm 10\%$
- Mains frequency: 50–60 Hz
- Push-in terminals:
 - rigid 0.5–1.5 mm²
 - strand 0.75–1.5 mm²
- 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

Dimming

- Analogue
- Dimming range: 1 to 100% (at I_{max})

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

Ref. No.	Packaging unit		
	Pieces per box	Boxes per pallet	Weight g
187345	100	60	60
187346	90	32	100
187347	90	32	180
187348	40	32	340

Dimensions

Ref. No.	Casing	Length mm	Width mm	Height mm
187346	K86	97	43	30
187347				
187348	K99	110	74	30
187345	K100	85	40	21.5

Applied standards

- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN 61000-3-2/EN 61000-3-3
- EN 62384
- EN 55015
- EN 61000-4-2/EN 61000-4-5
- IEC 62386 ed. 2
- part 101/102/207

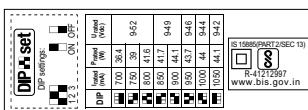
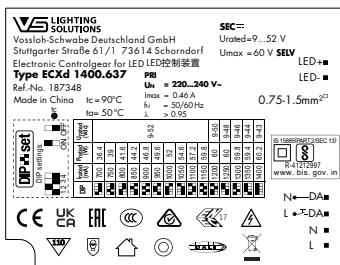
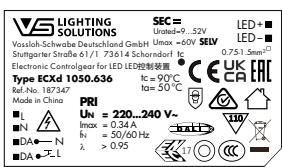
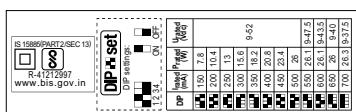
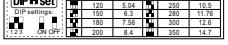
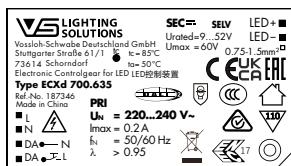
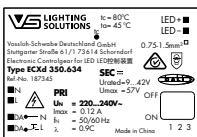
Product guarantee

- 5 years
- for operation at recommended operation temperature (see table for expected service life time on the next page)
- 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.



LED Drivers – ComfortLine DIP switch C-wideUout DALI2

Product labels



DIP switch settings

187345 / ECXd350.634			
Pin	1	2	3
OFF	OFF	OFF	5,04
ON	OFF	OFF	6,3
OFF	ON	OFF	7,56
ON	ON	OFF	8,4
OFF	OFF	ON	10,5
ON	OFF	ON	11,76
OFF	ON	ON	12,6
ON	ON	ON	14,7

187346 / ECXd 700.635			
Pin	1	2	3
OFF	OFF	ON	OFF
ON	OFF	ON	OFF
OFF	ON	ON	OFF
ON	ON	ON	OFF
OFF	OFF	OFF	ON
ON	OFF	OFF	ON
OFF	ON	OFF	ON
ON	ON	OFF	ON
OFF	ON	ON	OFF
ON	ON	ON	OFF

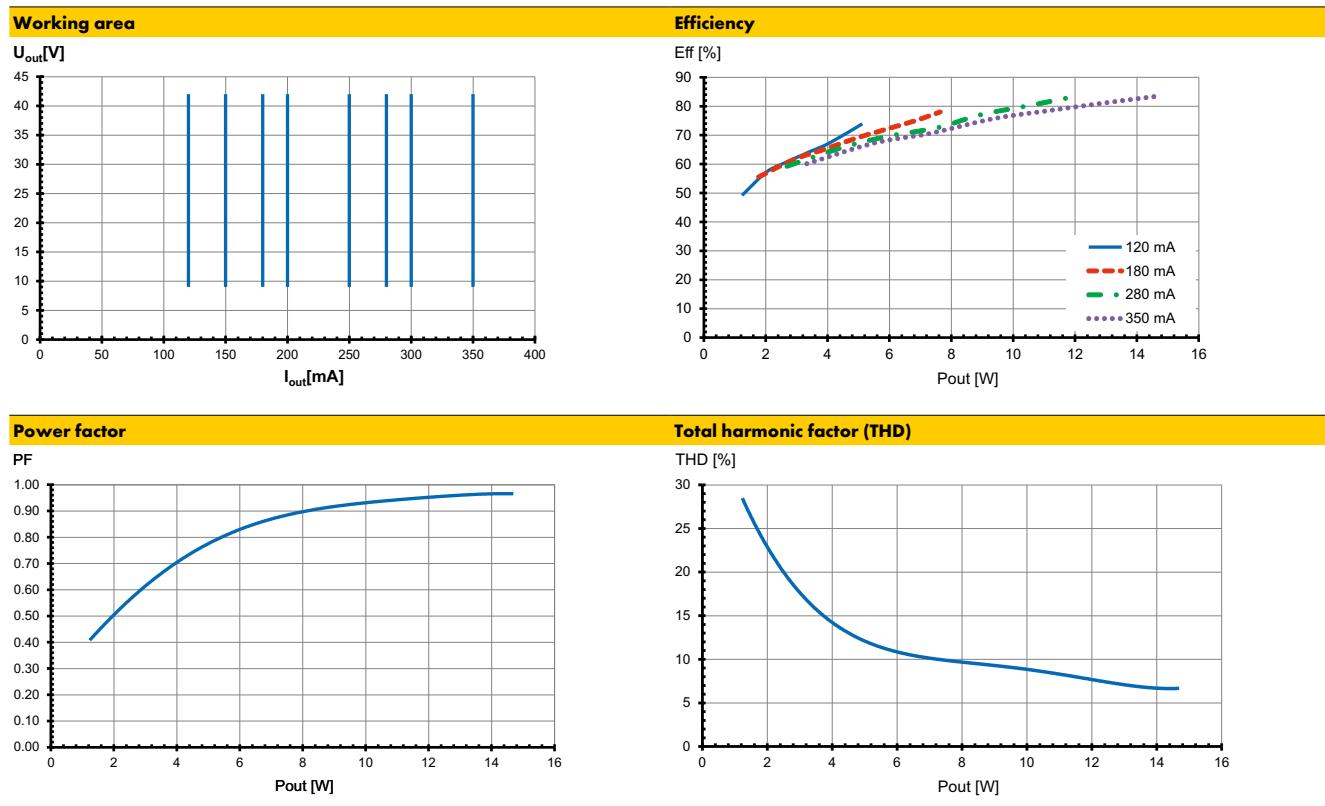
187347 / ECXd 1050.636			
Pin	1	2	3
OFF	OFF	OFF	36,4
ON	OFF	OFF	39
OFF	ON	OFF	41,6
ON	ON	OFF	41,7
OFF	OFF	ON	44,1
ON	OFF	ON	43,7
OFF	ON	ON	44
ON	ON	ON	44,1

187348 / ECXd 1400.637			
Pin	1	2	3
ON	OFF	OFF	OFF
OFF	ON	OFF	OFF
ON	ON	OFF	OFF
OFF	OFF	ON	OFF
ON	OFF	ON	OFF
OFF	ON	ON	OFF
ON	ON	ON	OFF
OFF	OFF	OFF	ON
ON	OFF	OFF	ON
OFF	ON	OFF	ON
ON	ON	OFF	ON
OFF	ON	ON	OFF
ON	ON	ON	OFF

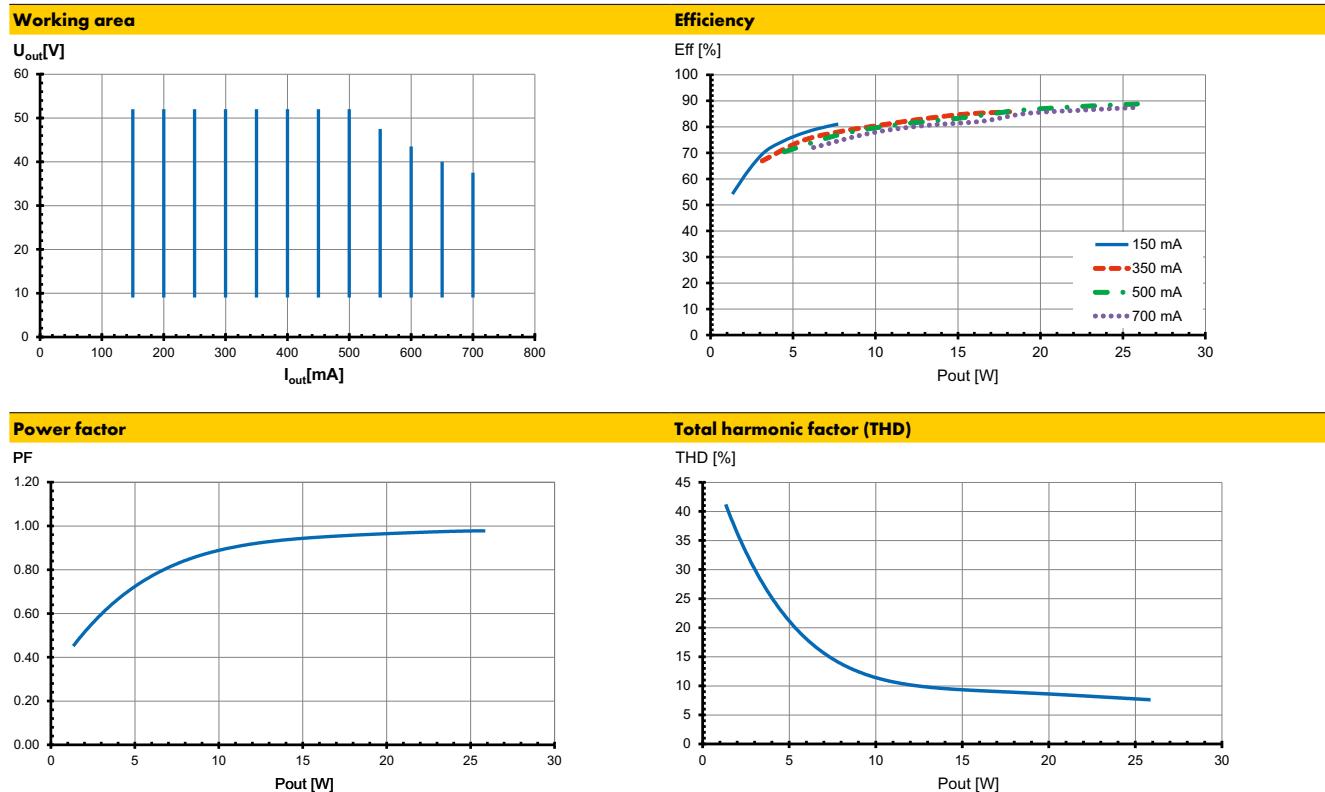
The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LED Drivers – ComfortLine DIP switch C-wideUout DALI2

Typ. performance graphs for 187345 / Type ECXd 350.634



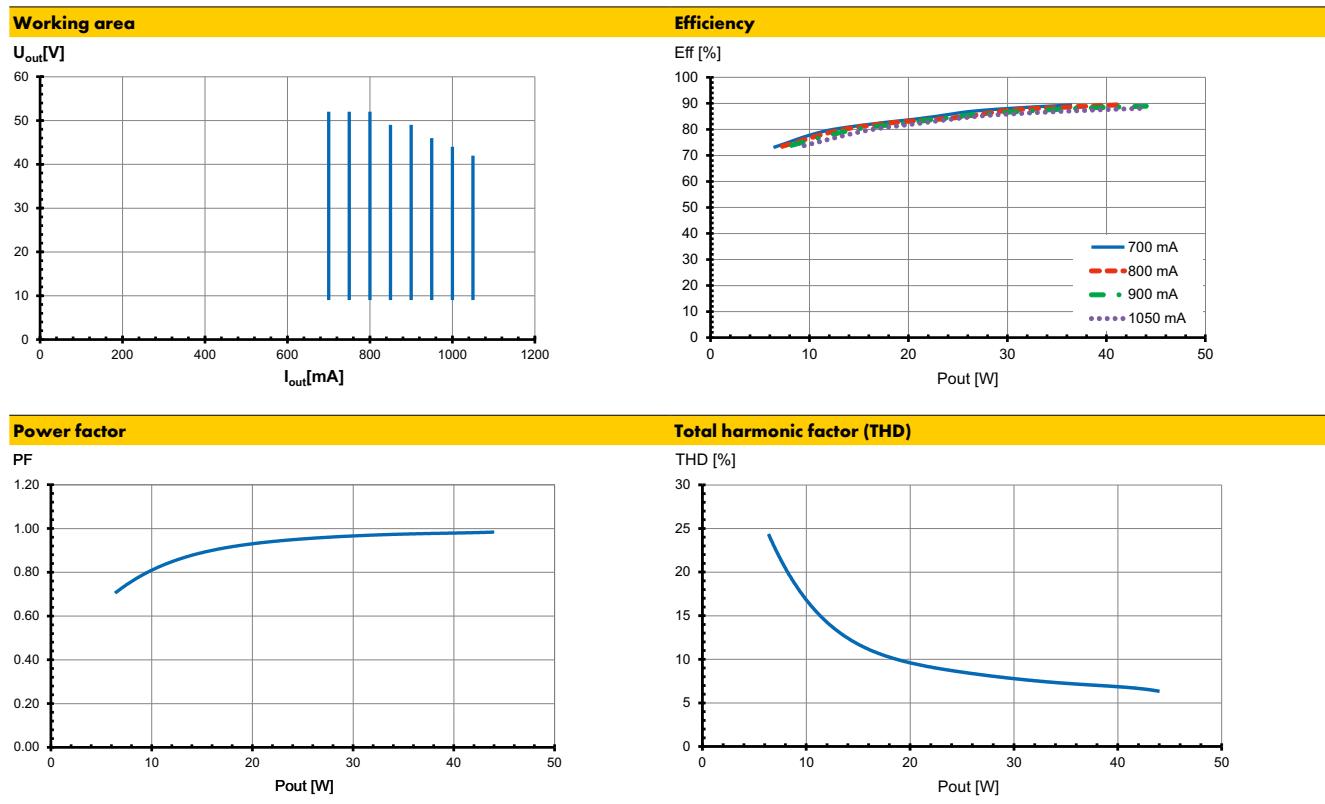
Typ. performance graphs for 187346 / Type ECXd 700.635



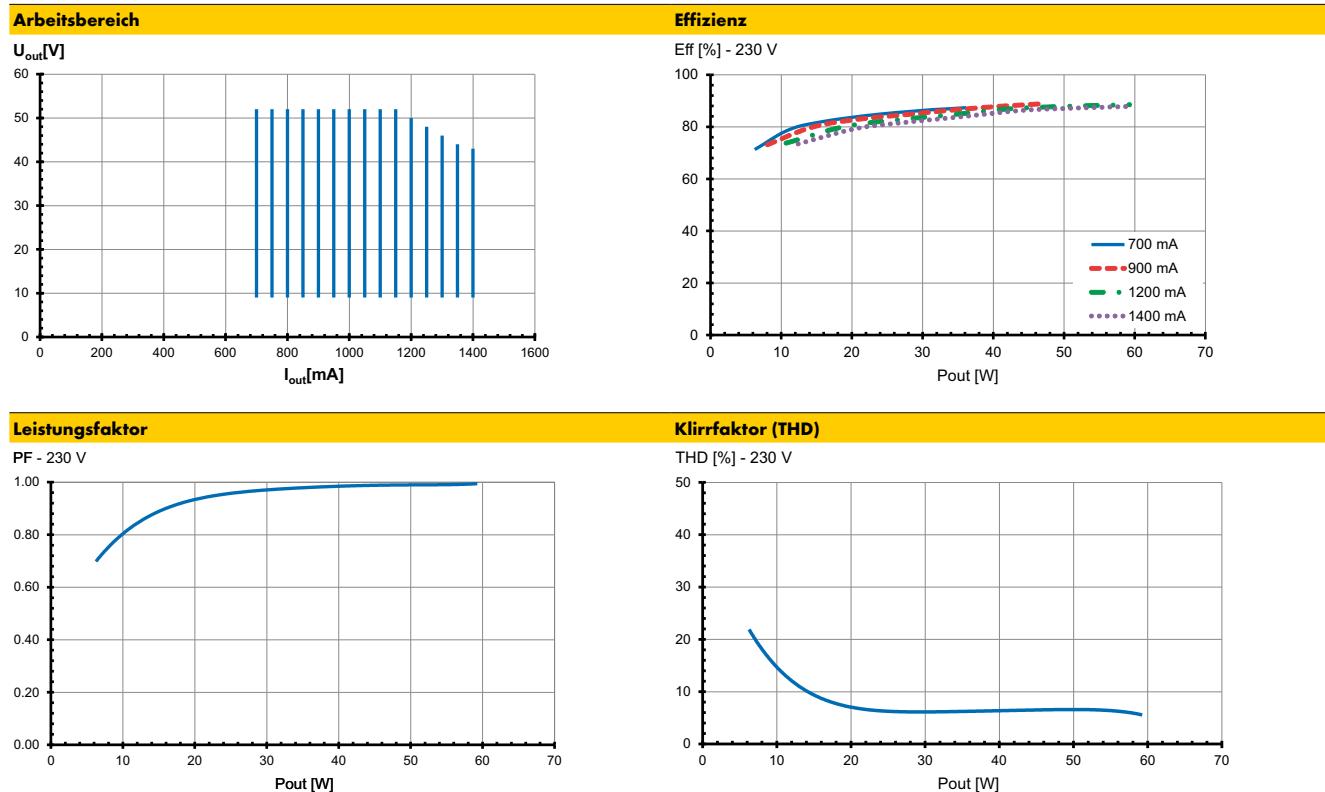
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LED Drivers – ComfortLine DIP switch C-wideUout DALI2

Typ. performance graphs for 187347 / Type ECXd 1050.636



Typ. Leistungsdiagramme für 187348 / Typ ECXd 1400.637



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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 (< 60 V DC).
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. In case of overheating the output current of the control gear will be reduced. After the temperature will drop below the critical temperature value, the output current rises again to the previously set value.
- No load operation: The control gear is protected against no load operation (open load).
- 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.

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: Built-in: Any position inside a luminaire is allowed
Independent application: Drivers are allowed to use for independent applications with separate cord grip (Ref. No.: 187203 for K86).
- Mounting location: LED drivers are designed for integration into luminaires or comparable devices.
Independent LED drivers do not need to be integrated into a casing.
Installation in outdoor luminaires: degree of protection for luminaire with water protection rate ≥ 4 (e.g. IP54 required).
- Degree of protection: IP20
- Clearance: Min. 0.10 m from walls, ceilings and insulation
- Surface: Solid and plane surface for optimum heat dissipation required.
- Heat transfer: If the driver is destined for installation in a luminaire, sufficient heat transfer must be ensured between the driver and the luminaire casing.
LED drivers should be mounted with the greatest possible clearance to heat sources.
During operation, the temperature measure at the driver's t_c point must not exceed the specified maximum value.
- Fastening: Using M4 screws in the designated holes
- Tightening torque: 0.2 Nm

Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of rigid 0.5–1.5 mm² strand 0.75–1.5 mm²
- Stripped length: 7–8 mm
- Wiring: The mains conductor within the luminaire must be kept short (to reduce the induction of interference).
Mains and lamp conductors must be kept separate and if possible should not be laid in parallel to one another.
Max. secondary side lead length: 2 m

- Polarity:

Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.

- Through-wiring:
- Secondary load:

Is not allowed.

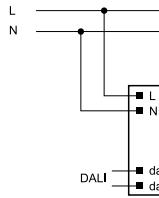
The sum of forward voltages of LED loads is within the tolerances which are mentioned in the Electrical Characteristics on the data sheet.

Parallel connection of LED loads is not allowed.

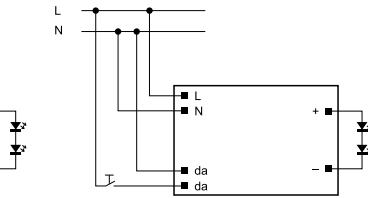
- Parallel wiring:

- Wiring diagram:

DALI:



PUSH:



Note: Max. quantity of drivers at one push button: 32

- Corridor Function: Enter corridor mode: Long push (>120s)
Exit corridor mode: Short push 5 times in 3 seconds
(For detailed description of corridor functionality please contact your responsible sales person)

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 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 m Ω (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 13 A	B 16 A	C 10 A	C 13 A	C 16 A
ECx d 350.634	187345	111	144	177	111	144	177
ECx d 700.635	187346	58	76	94	58	76	94
ECx d 1050.636	187347	32	42	52	32	42	52
ECx d 1400.637	187348	29	37	46	29	37	46

- To limit capacitive inrush currents the current carrying capacity of each circuit breaker (fuse) can be increased by a factor of 2.5 with the help of our ESB (Ref. No.: 149820, 149821, 149822) inrush current limiters.

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