

# Switchboard integration

## ComPact NSX front-panel cutouts

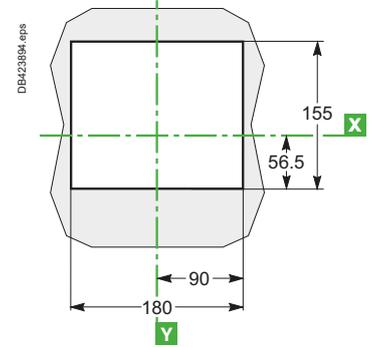
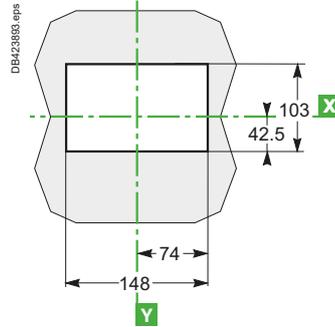
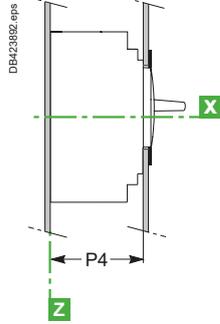
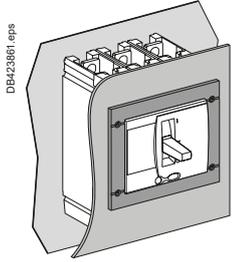
### ComPact NSX100 to 630 fixed version

#### With IP40 front-panel escutcheon

For toggle

#### NSX100 to 250

#### NSX400/630

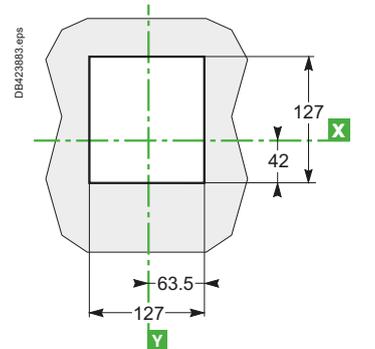
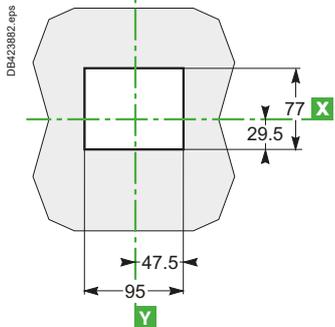
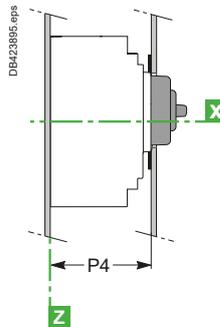
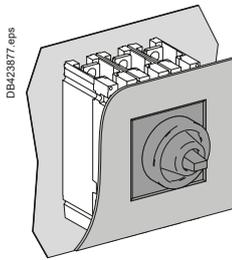


#### With IP43 toggle cover

For toggle

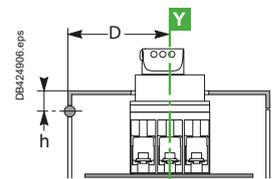
#### NSX100 to 250

#### NSX400/630



Type	P3	P4
NSX100/160/250	88	89
NSX400/630	112	113

**Note:** door cutout dimensions are given for a device position in the enclosure where  $D \geq 100 + (h \times 5)$  with respect to the door hinge.



# ComPact NSX front-panel cutouts

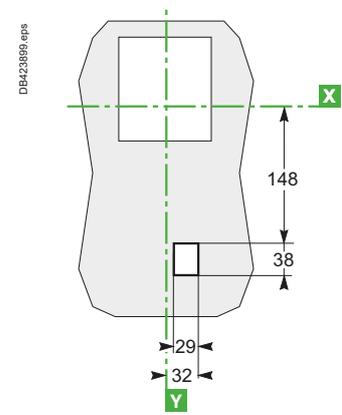
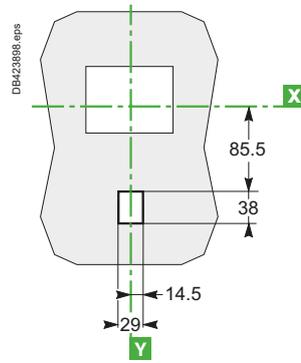
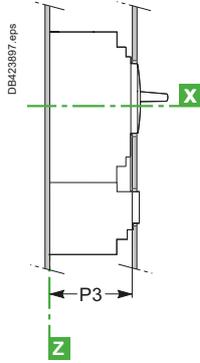
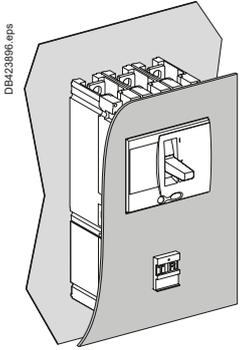
## ComPact NSX100 to 630 Vigi add-on fixed version

### Bare sheet metal

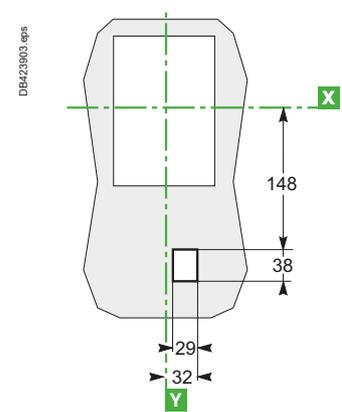
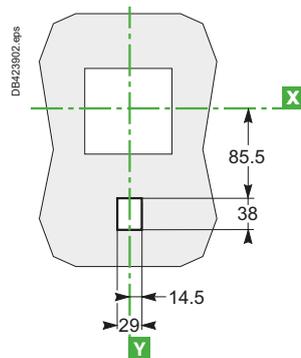
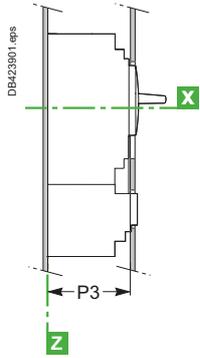
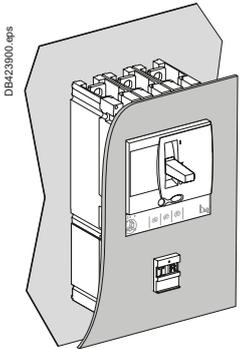
### NSX100 to 250

### NSX400/630

For toggle



For toggle with access to trip unit



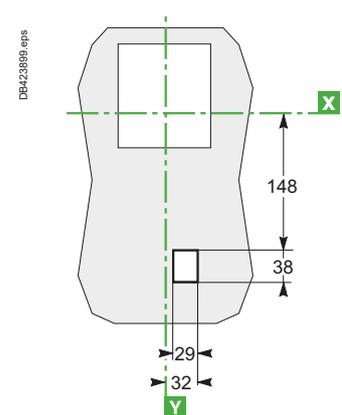
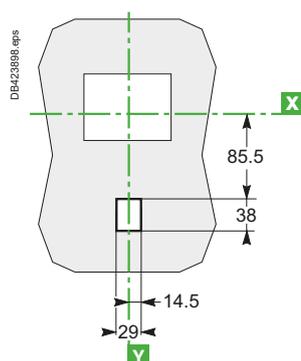
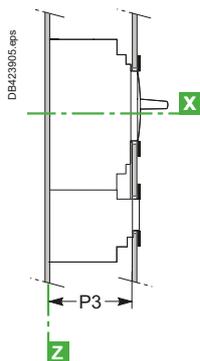
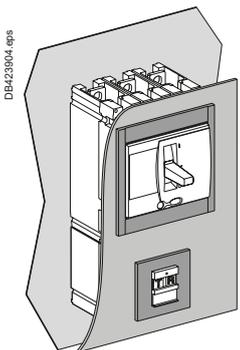
E

### With IP30 front-panel escutcheon

### NSX100 to 250

### NSX400/630

For toggle



# Switchboard integration

## ComPact NSX front-panel cutouts

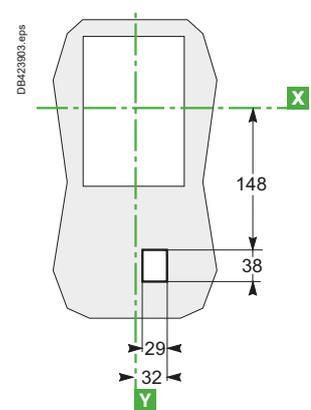
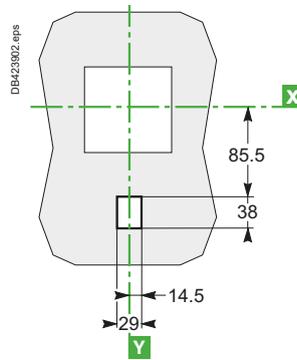
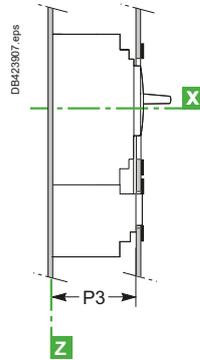
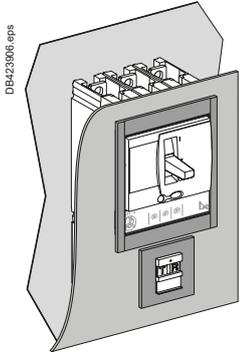
### ComPact NSX100 to 630 Vigi add-on fixed version

#### With IP30 front-panel escutcheon

For toggle with access to trip unit

#### NSX100 to 250

#### NSX400/630

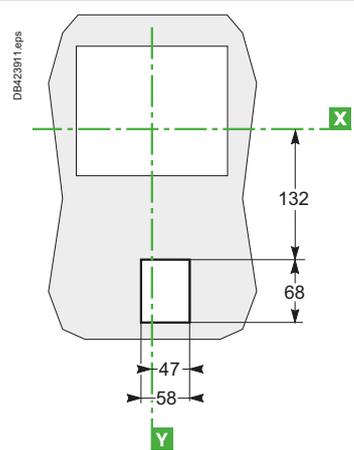
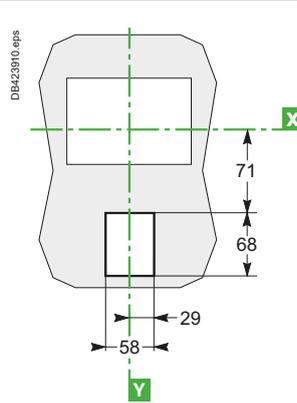
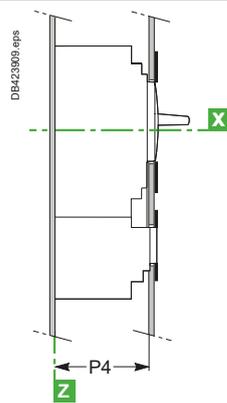
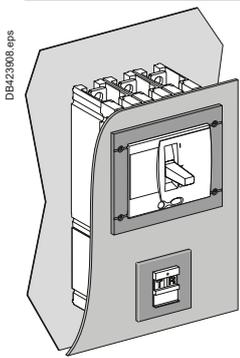


#### With IP40 front-panel escutcheon

For toggle

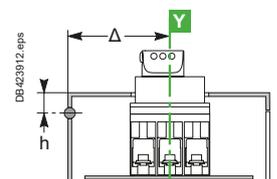
#### NSX100 to 250

#### NSX400/630



Type	P3	P4
NSX100/160/250	88	89
NSX400/630	112	113

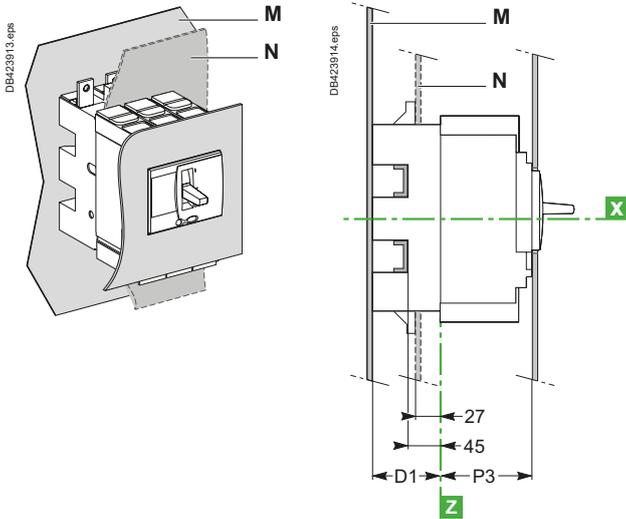
**Note:** door cutout dimensions are given for a device position in the enclosure where  $\Delta \geq 100 + (h \times 5)$  with respect to the door hinge.



# ComPact NSX front-panel cutouts

ComPact NSX100 to 630 plug-in and withdrawable versions

## Plug-in version



### Bare sheet metal

See ComPact NSX100 to 630 fixed version, [page E-56](#)

### With IP30 front-panel escutcheon

See ComPact NSX100 to 630 fixed version, [page E-56](#)

### With IP40 front-panel escutcheon

See ComPact NSX100 to 630 fixed version, [page E-57](#)

### With toggle cover

See ComPact NSX100 to 630 fixed version, [page E-57](#)

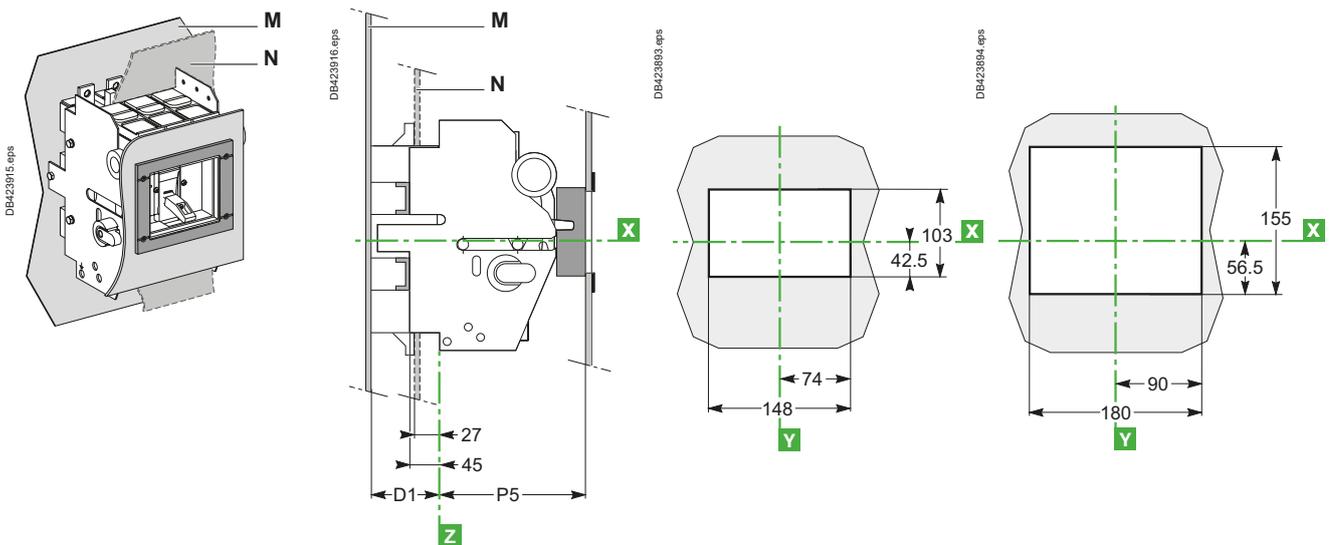
E

## Withdrawable version

NSX100 to 250

NSX400/630

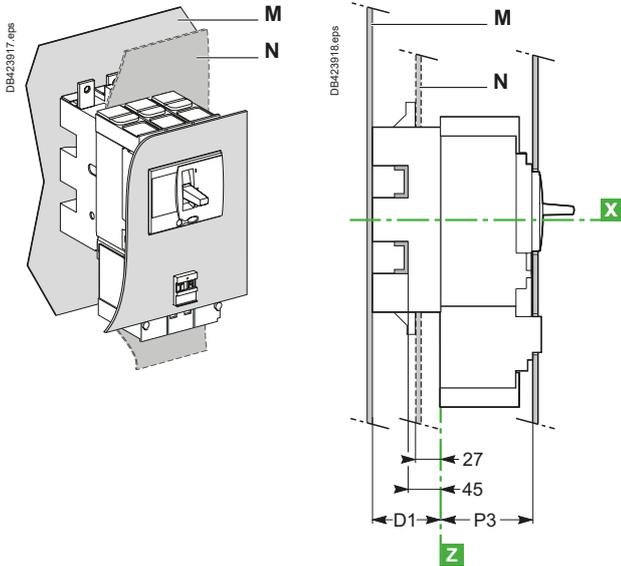
With protection collar and IP40 front-panel escutcheon



# ComPact NSX front-panel cutouts

## ComPact NSX100 to 630 Vigi add-on plug-in and withdrawable versions

### Plug-in version



#### Bare sheet metal

See ComPact NSX100 to 630 fixed version, [page E-58](#)

#### With IP30 front-panel escutcheon

See ComPact NSX100 to 630 fixed version, [page E-58](#)

#### With IP40 front-panel escutcheon

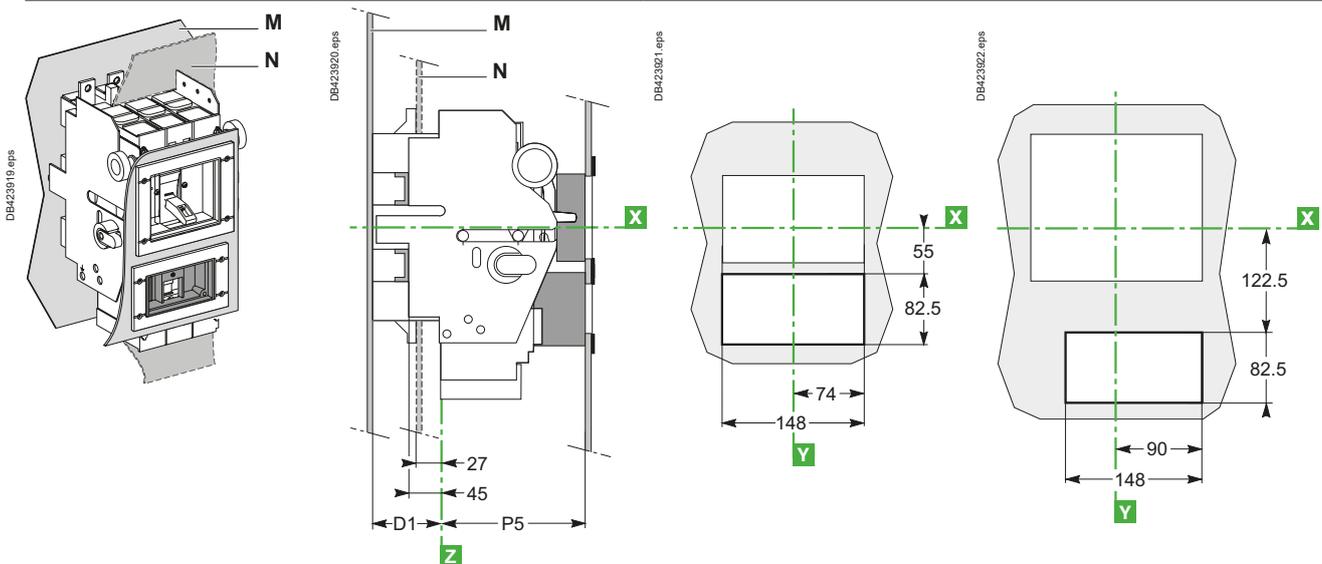
See ComPact NSX100 to 630 fixed version, [page E-59](#)

### Withdrawable version

#### NSX100 to 250

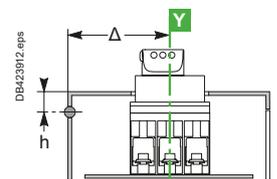
#### NSX400/630

With protection collar and IP40 front-panel escutcheon



Type	D1	P3	P5
NSX100/160/250	75	88	123
NSX400/630	100	112	147

**Note:** door cutout dimensions are given for a device position in the enclosure where  $\Delta \geq 100 + (h \times 5)$  with respect to the door hinge.

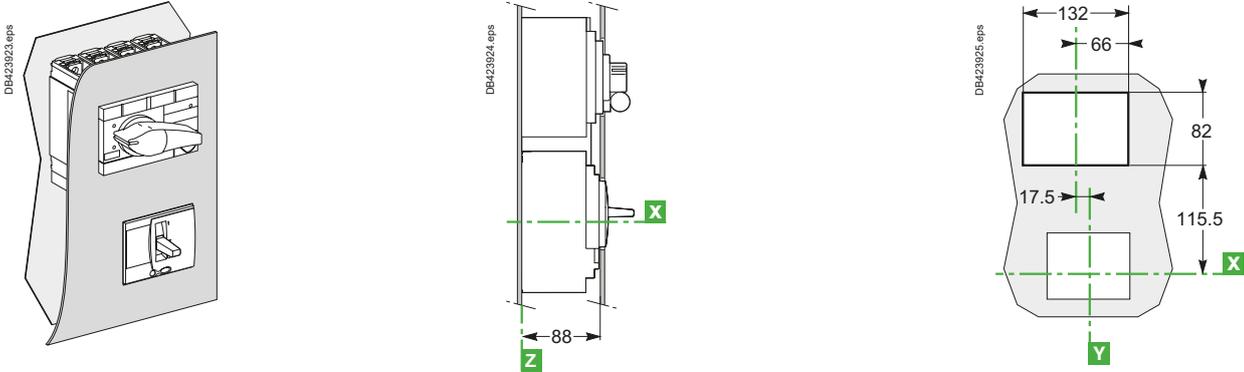


# ComPact NSX front-panel cutouts

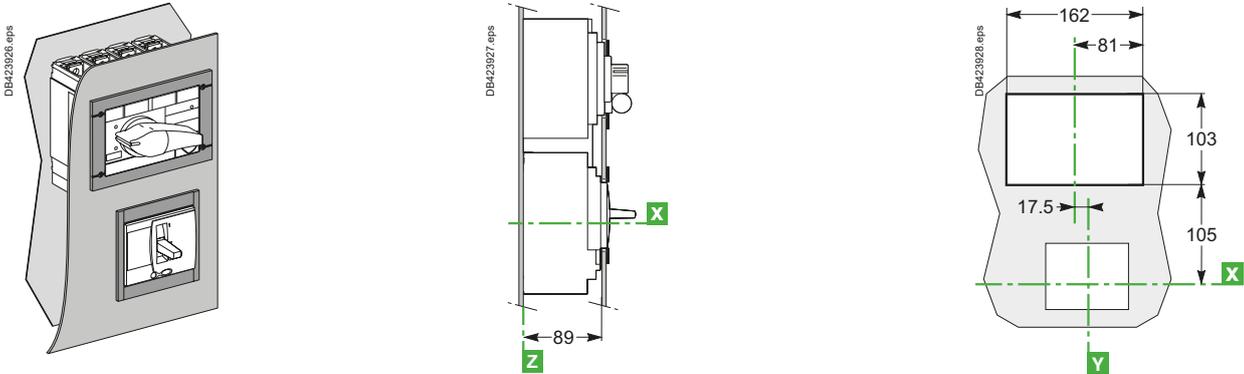
## Visu function for ComPact NSX100 to 630 fixed version

### ComPact NSX100 to 250 with ComPact INV100 to 250 Visu function

Bare sheet metal



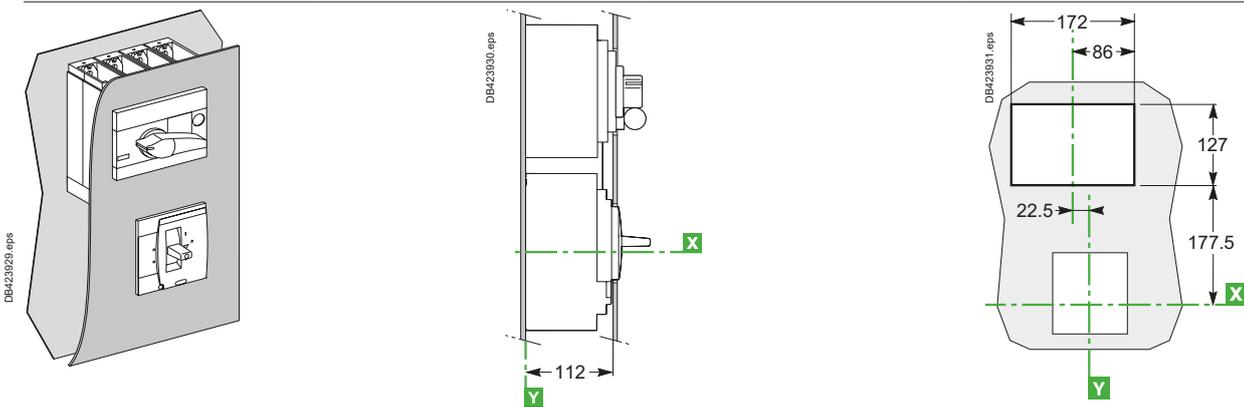
With IP40 front-panel escutcheon



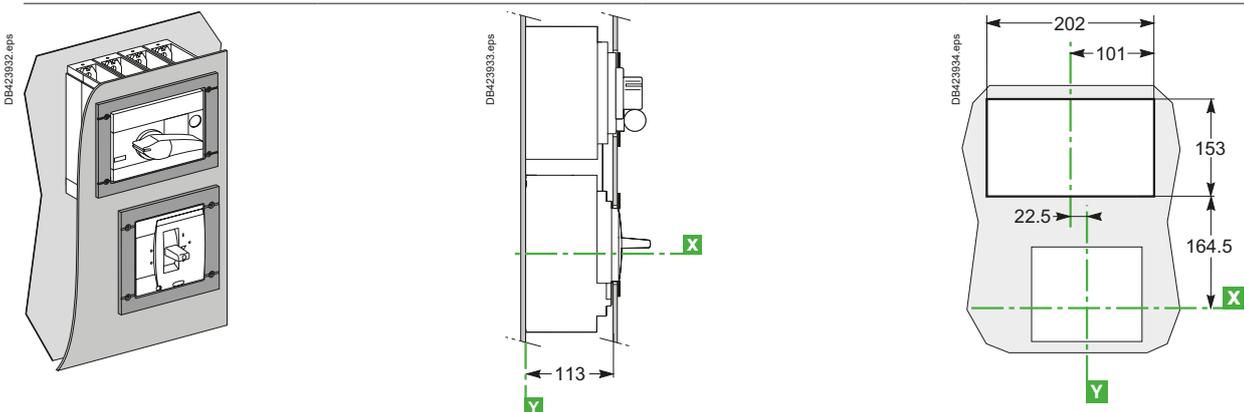
E

### ComPact NSX400/630 with ComPact INV400 to 630 Visu function

Bare sheet metal



With IP40 front-panel escutcheon



# ComPact NSX front-panel cutouts

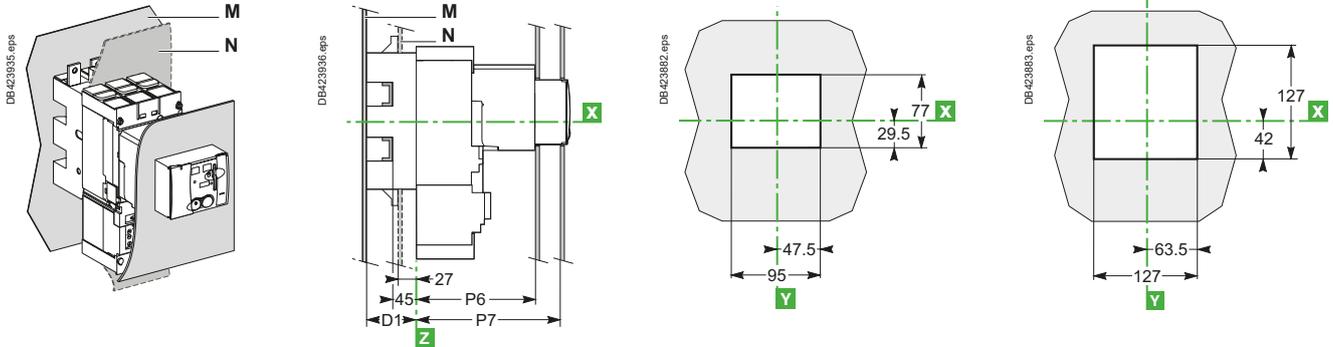
Motor mechanism module for ComPact NSX100 to 630 with/without Vigi add-on

## Bare sheet metal

Fixed, plug-in or withdrawable circuit breaker

### NSX100 to 250

### NSX400/630

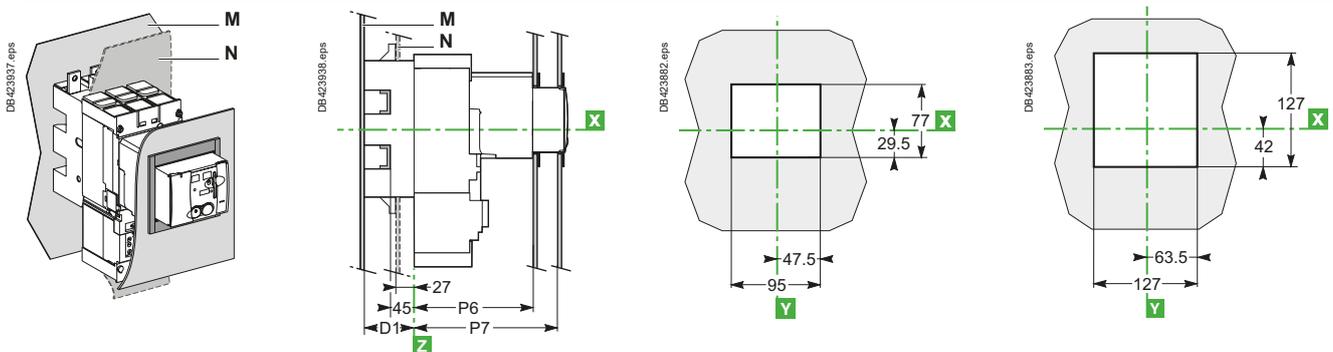


## With IP30 front-panel escutcheon

Fixed, plug-in or withdrawable circuit breaker

### NSX100 to 250

### NSX400/630

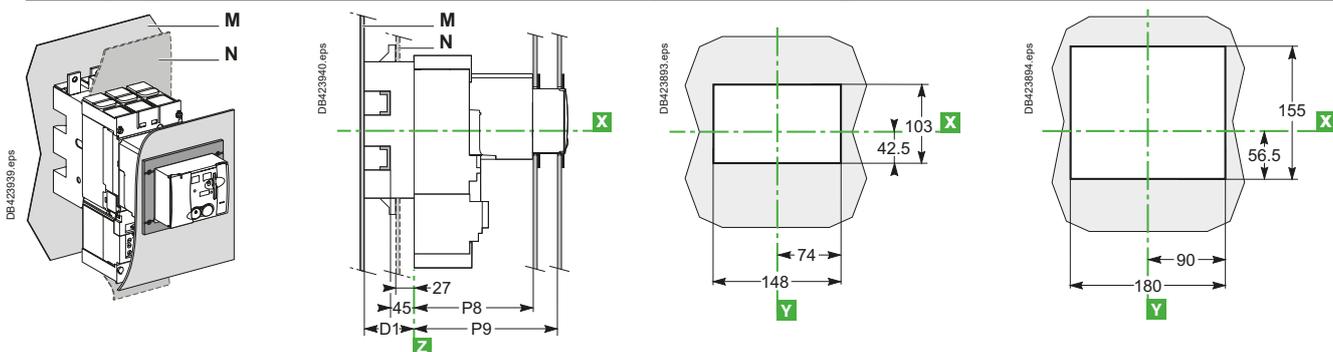


## With IP40 front-panel escutcheon

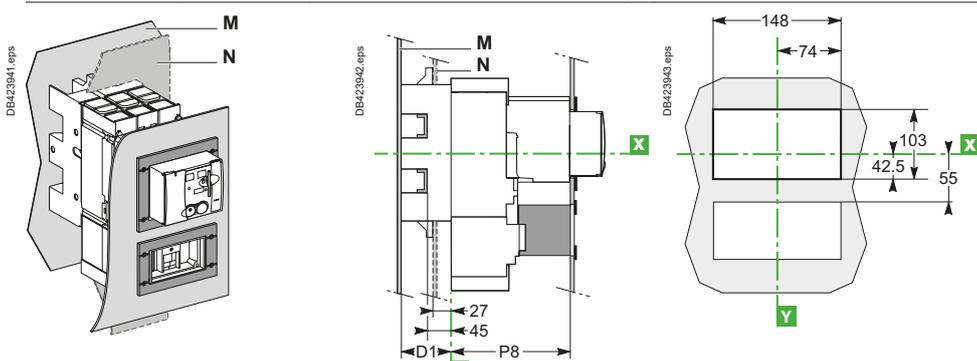
Fixed, plug-in or withdrawable circuit breaker without access to Vigi add-on

### NSX100 to 250

### NSX400/630



## Fixed or plug-in circuit breaker with access to Vigi add-on



Type	D1	P6 [1]	P7 [2]	P8 [1]	P9 [2]
NSX100/160/250	75	145	177	146	178

[1] Plug-in version.

[2] Withdrawable version.



# ComPact NSX front-panel cutouts

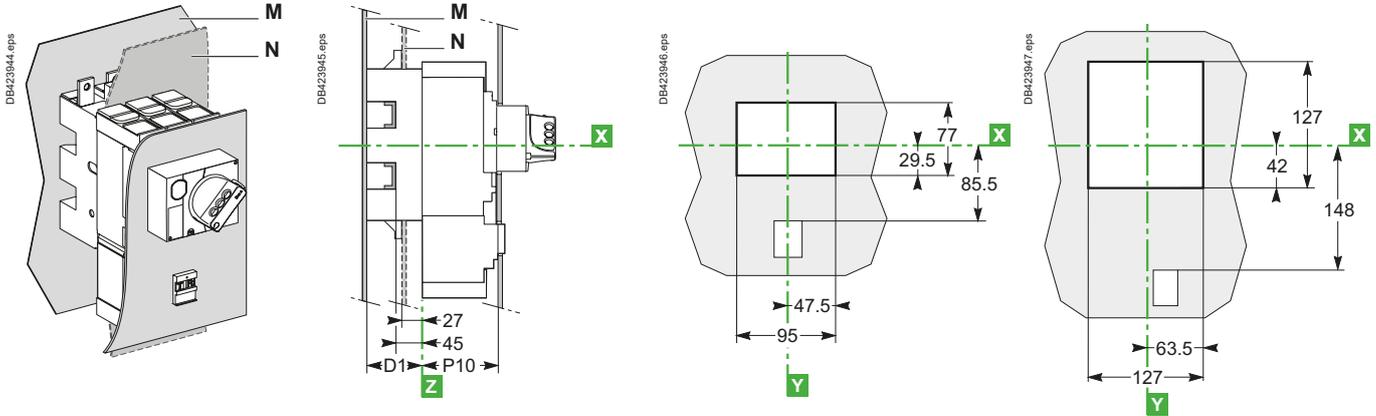
Direct rotary handle for ComPact NSX100 to 630 with/without Vigi add-on

## Fixed or plug-in circuit breakers

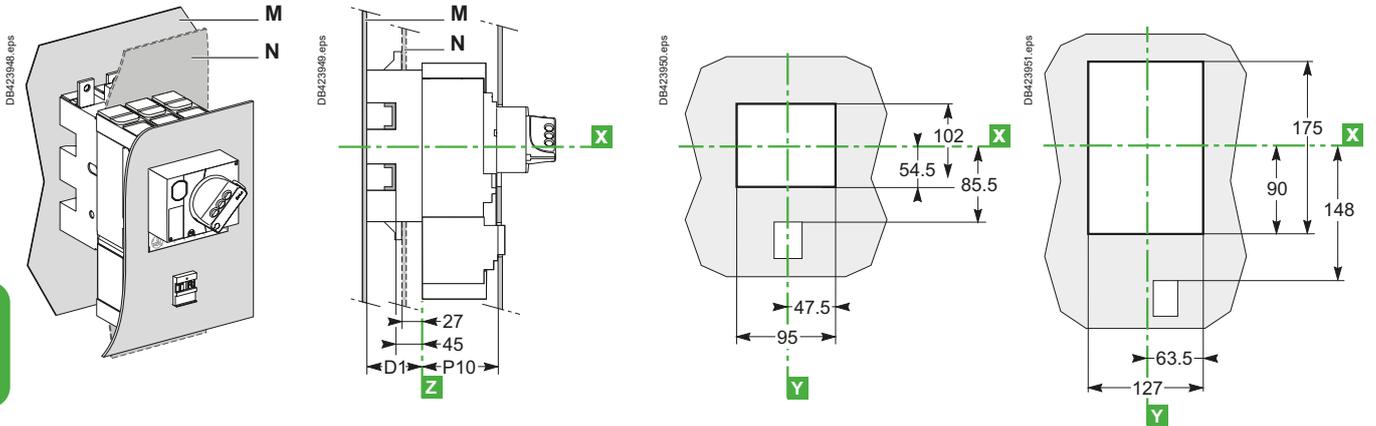
### NSX100 to 250

### NSX400/630

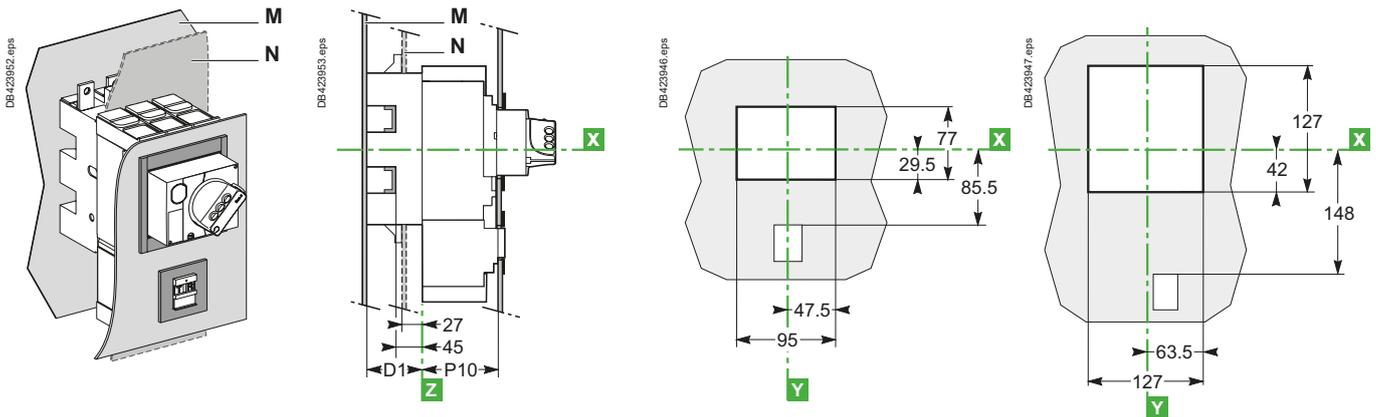
Bare sheet metal



Bare sheet metal with access to the trip unit



With IP30 front-panel escutcheon



E

# ComPact NSX front-panel cutouts

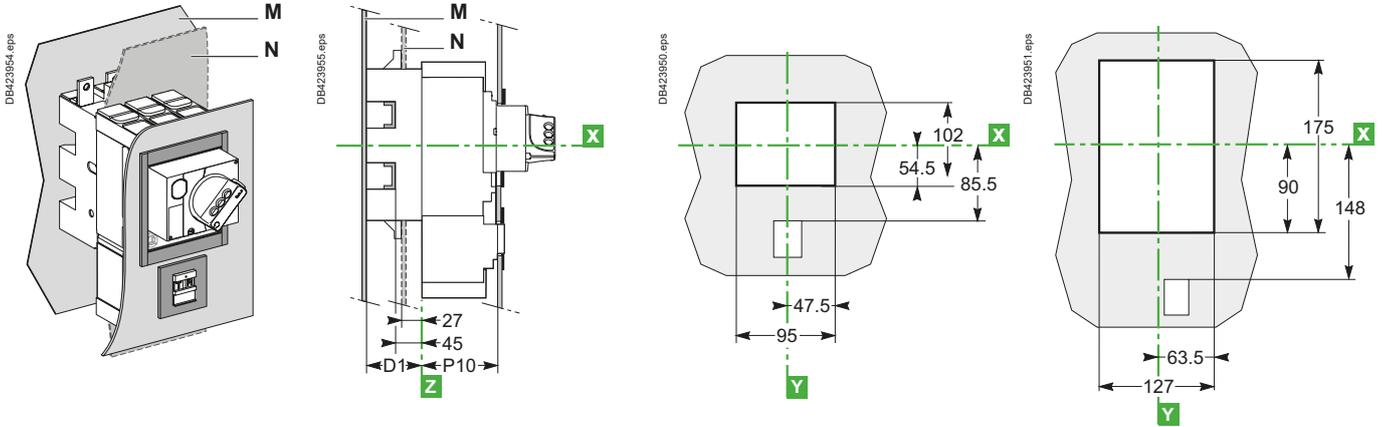
Direct rotary handle for ComPact NSX100 to 630 with/without Vigi add-on

## Fixed or plug-in circuit breakers

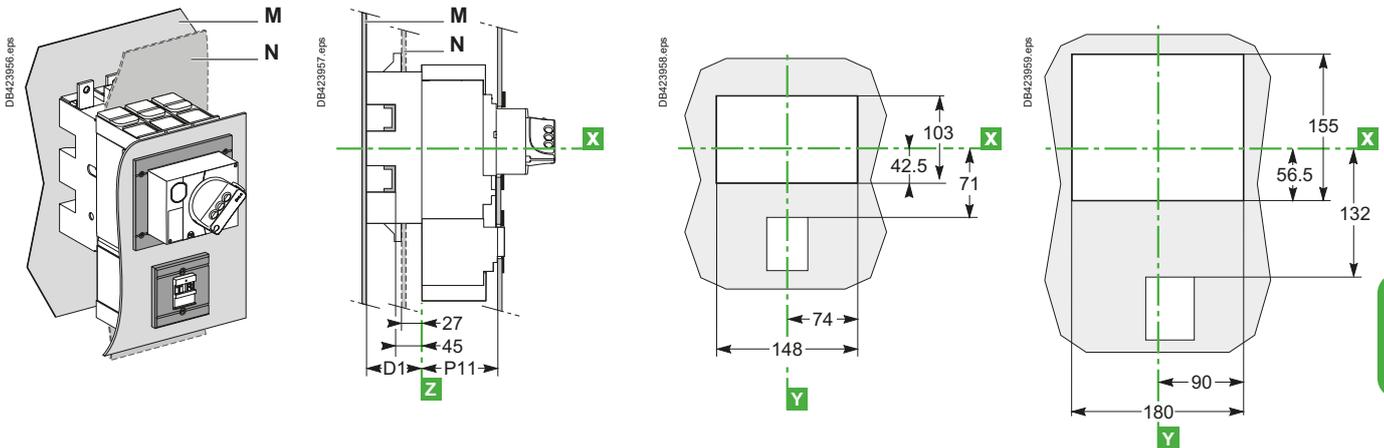
### NSX100 to 250

### NSX400/630

With IP30 front-panel escutcheon with access to the trip unit



With IP40 front-panel escutcheon

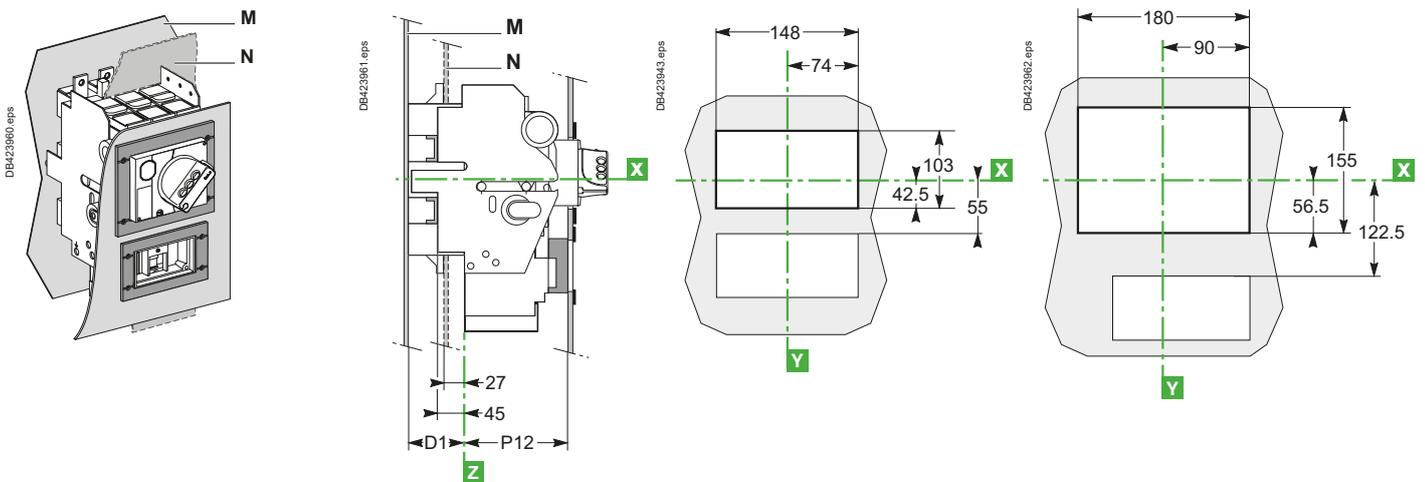


## Fixed or withdrawable circuit breakers

### NSX100 to 250

### NSX400/630

With IP40 front-panel escutcheon



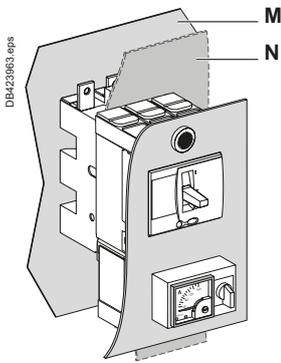
Type	D1	P10	P11	P12
NSX100/160/250	75	89	90	123
NSX400/630	100	112	113	147

# ComPact NSX front-panel cutouts

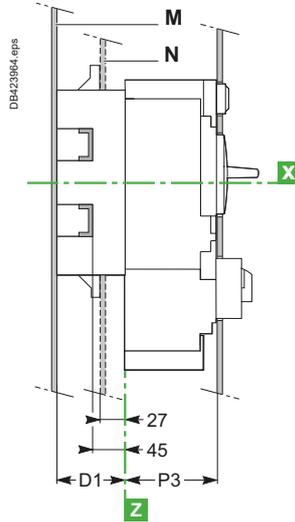
Indication and measurement modules for ComPact NSX100 to 630

## Fixed or plug-in circuit breakers with ammeter module and voltage-presence indicator

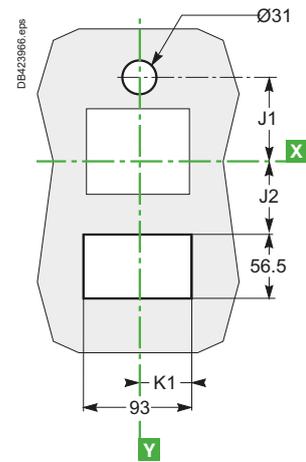
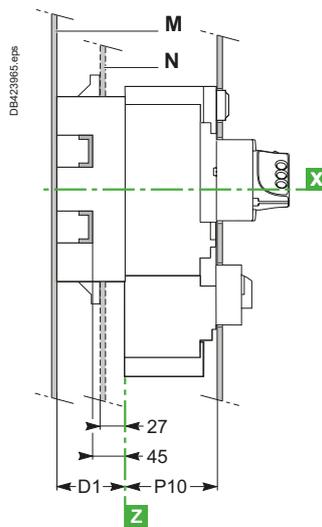
Bare sheet metal



With toggle



Rotary handle

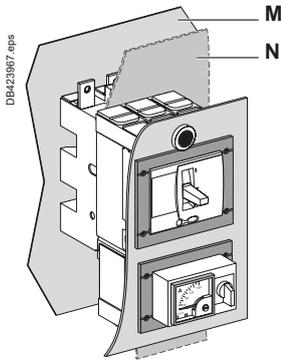


Type	D1	J1	J2	J3	K1	K2	P3	P4	P10	P11
NSX100/160/250	75	78.5	67.5	55	46.5	74	88	89	89	90
NSX400/630	100	122	129	122.5	64.5	90	112	113	112	113

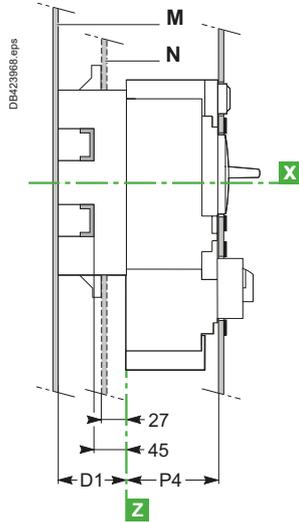
# ComPact NSX front-panel cutouts

Indication and measurement modules for ComPact NSX100 to 630

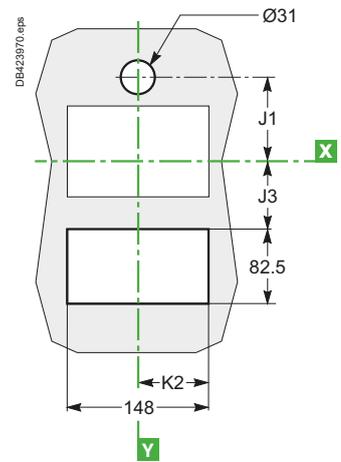
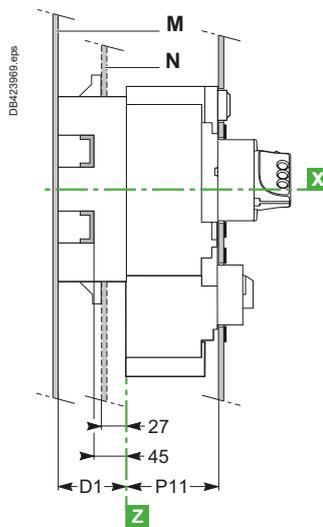
## Fixed or plug-in circuit breakers with ammeter module and voltage-presence indicator With IP40 front-panel escutcheon



With toggle



Rotary handle

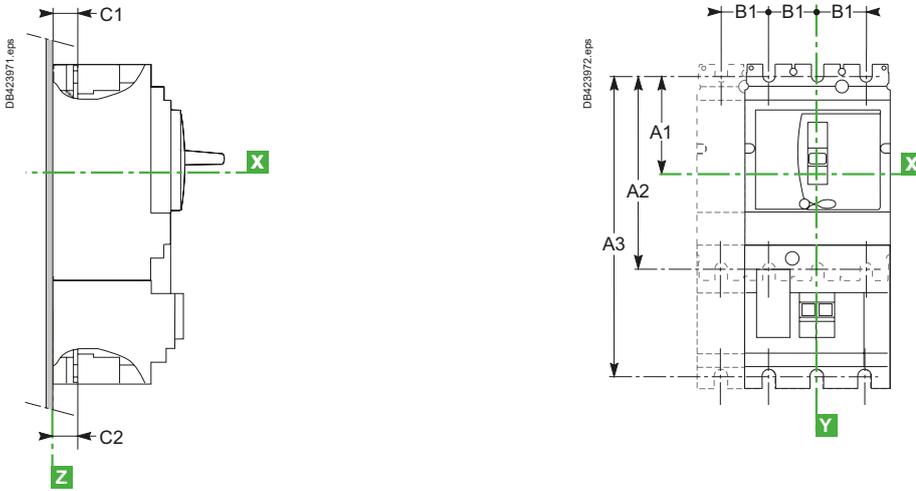


Type	D1	J1	J2	J3	K1	K2	P3	P4	P10	P11
NSX100/160/250	75	78.5	67.5	55	46.5	74	88	89	89	90
NSX400/630	100	122	129	122.5	64.5	90	112	113	112	113

# ComPact NSX power connections

ComPact NSX100 to 630 with/without Vigi add-on fixed version

## Connection locations



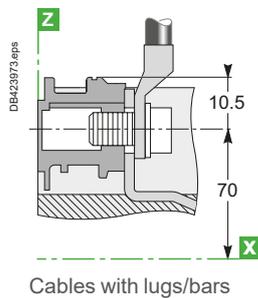
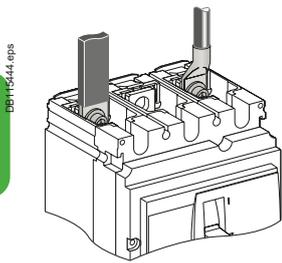
Type	A1	A2	B1	C1	C2
NSX100/160	70	140	35	19.5	19.5
NSX250	70	140	35	21.5	19.5
NSX400/630	113.5	227	45	26	26

Type	A1	A3	B1	C1	C2
NSX100/160 + Vigi	70	215	35	19.5	21.5
NSX250 + Vigi	70	215	35	21.5	21.5
NSX400/630 + Vigi	113.5	327	45	26	26

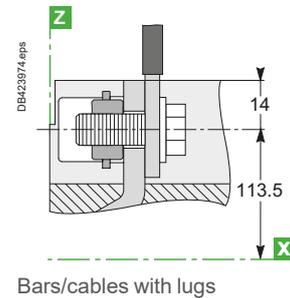
## Front connection without accessories

### NSX100 to 250

### NSX400/630



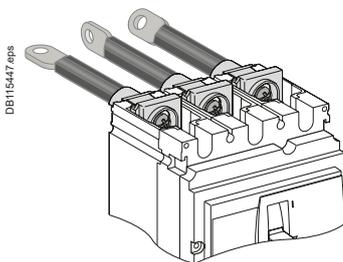
Cables with lugs/bars



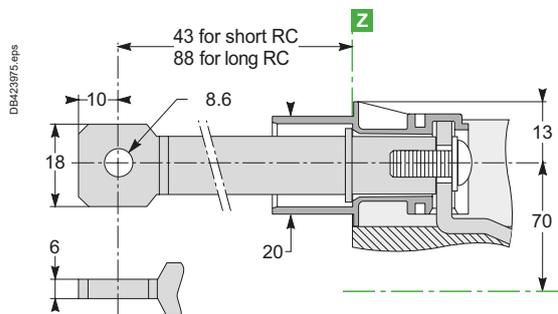
Bars/cables with lugs

## Connection with accessories

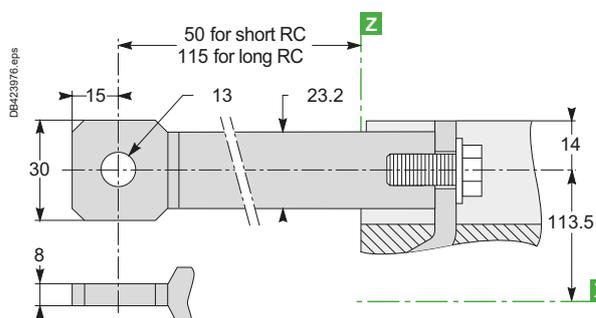
### Long and short rear connectors



### NSX100 to 250



### NSX400/630



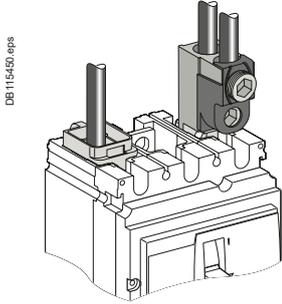
# ComPact NSX power connections

## ComPact NSX100 to 630 with/without Vigi add-on fixed version

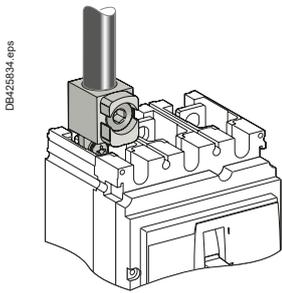
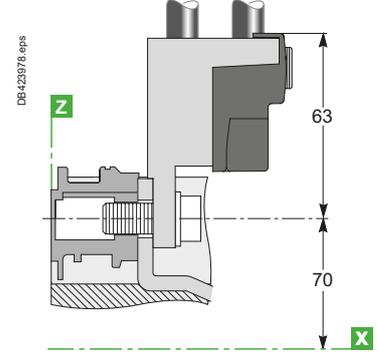
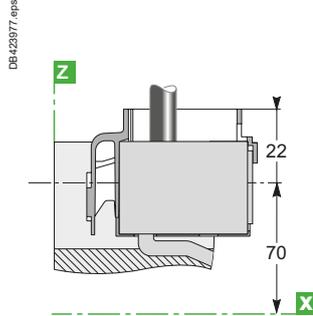
### Connection with accessories

#### Bare-cable connectors

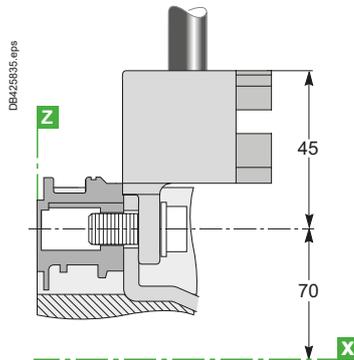
#### NSX100 to 250



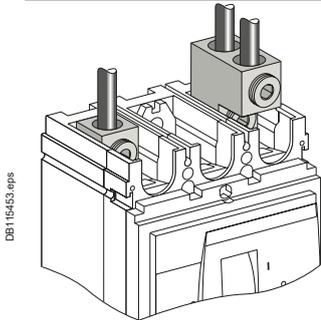
DB115430.eps



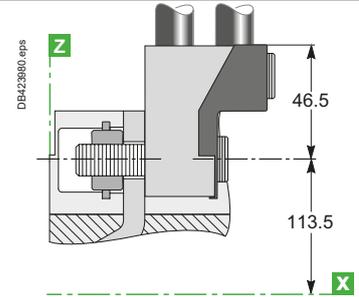
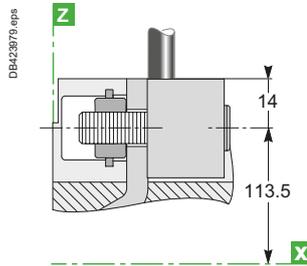
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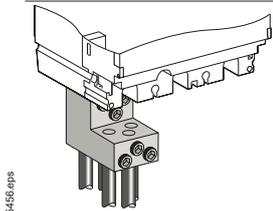
#### NSX400/630



DB115453.eps

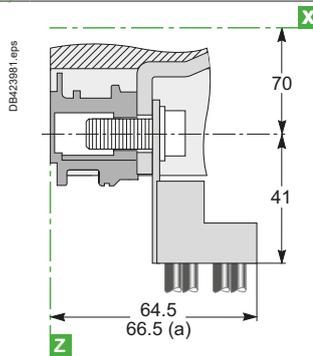


#### Distribution connectors (for NSX100 to 250 only)



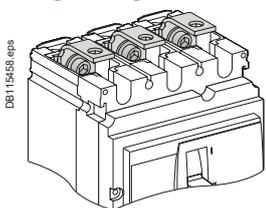
DB115456.eps

[a] Vigi add-on or NSX250.



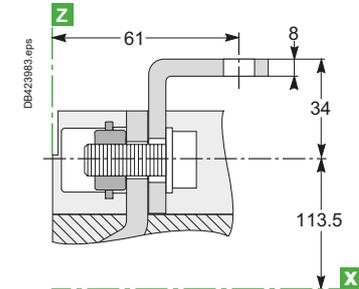
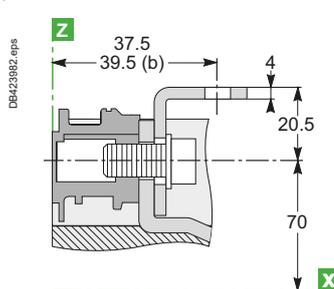
#### Right-angle terminal extensions (upstream only) NSX100 to 250

#### NSX400/630



DB115465.eps

[b] NSX250.

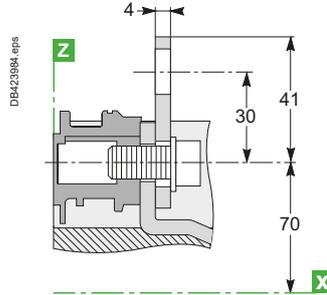
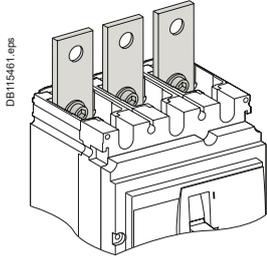


# ComPact NSX power connections

## ComPact NSX100 to 630 with/without Vigi add-on fixed version

### Connection with accessories

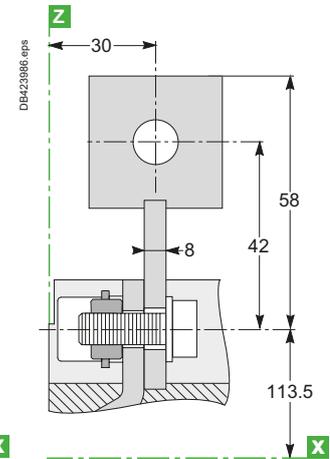
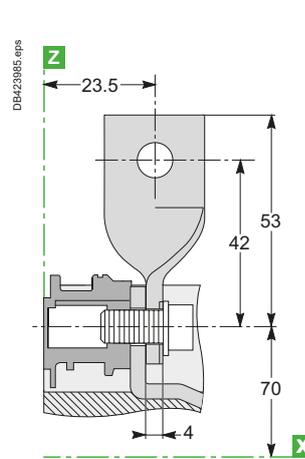
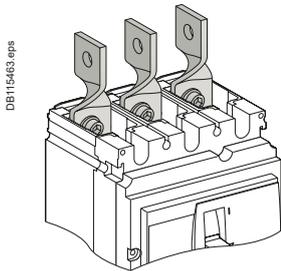
Straight terminal extensions (for NSX100 to 250 only)



### Edgewise terminal extensions

NSX100 to 250

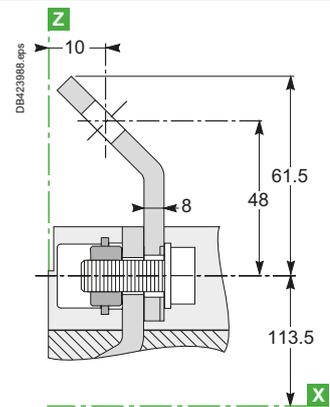
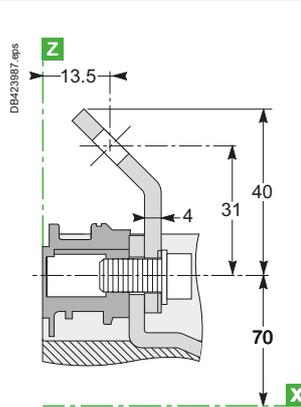
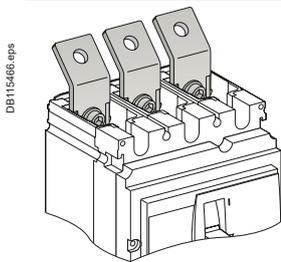
NSX400/630



### 45° terminal extensions

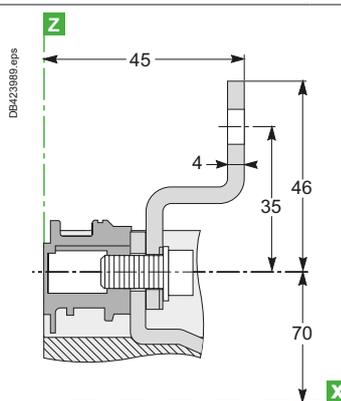
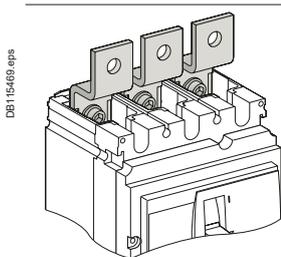
NSX100 to 250

NSX400/630



### Double-L terminal extensions

NSX100 to 250



E

# ComPact NSX power connections

## ComPact NSX100 to 630 with/without Vigi add-on fixed version

### Connection with accessories

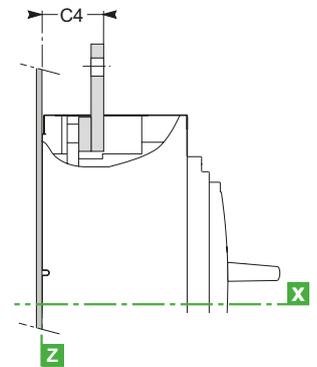
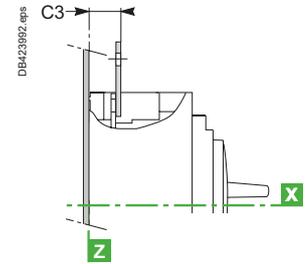
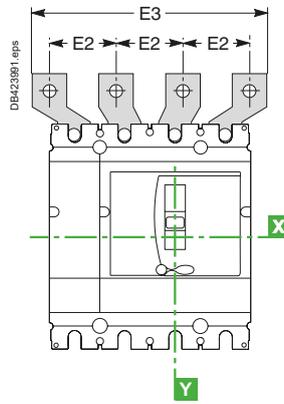
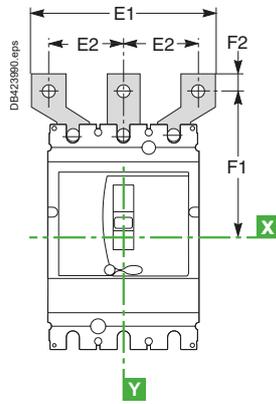
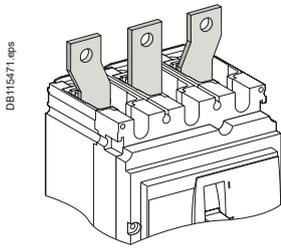
Spreaders

3P

4P

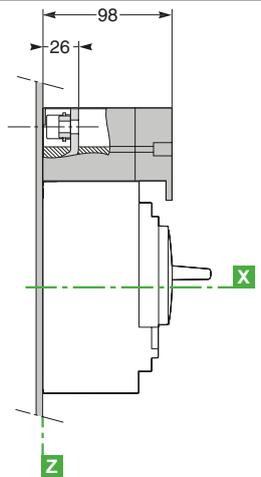
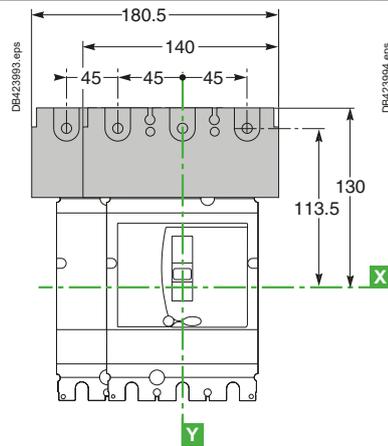
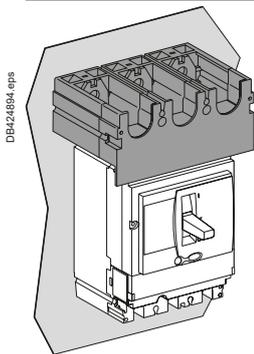
NSX100 to 250

NSX400/630



Type	C3	C4	E1	E2	E3	F1	F2
NSX100/160	23.5	-	114	45	159	100	11
NSX250	25.5	-	114	45	159	100	11
NSX400/630	-	44	135	52.5	187.5	152.5	15
			170	70	240	166	15

### One-piece spreader (for NSX100 to 250 only)

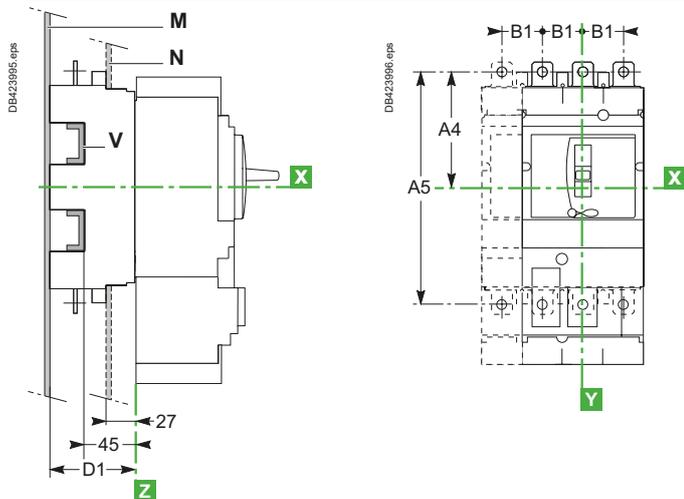


# Switchboard integration

## ComPact NSX power connections

ComPact NSX100 to 630 with/without Vigi add-on plug-in and withdrawable versions

### Connection locations



Type	A4	A5	B1	D1
NSX100 to 250	100	200	35	75
NSX400/630	156.5	313	45	100

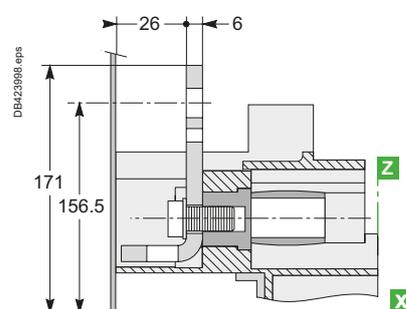
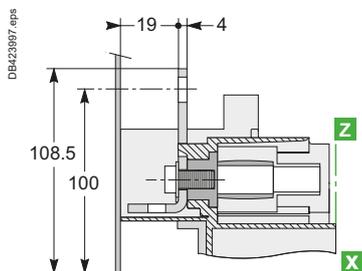
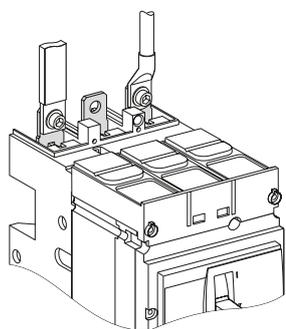
**Note :**  
 ■ for mounting on a backplate, the insulating screen supplied with the plug-in base must be installed.  
 ■ for withdrawable versions, terminal shields are recommended.

### Connection without accessories

Front connection: mounting on backplate (M) or rails (V)

NSX100 to 250

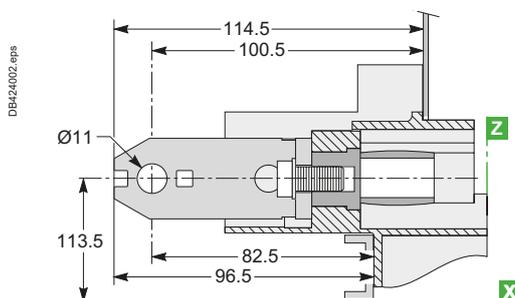
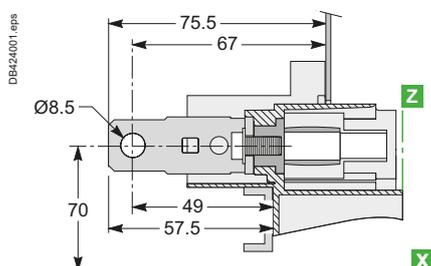
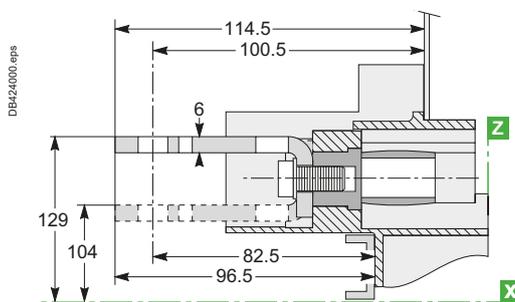
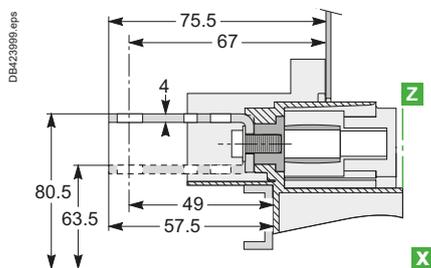
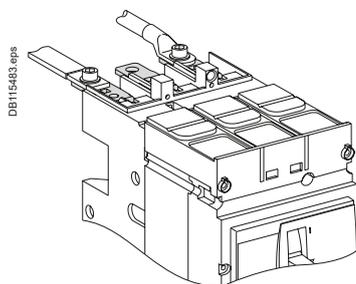
NSX400/630



Rear connection: mounting through front panel (N) or on rails (V)

NSX100 to 250

NSX400/630



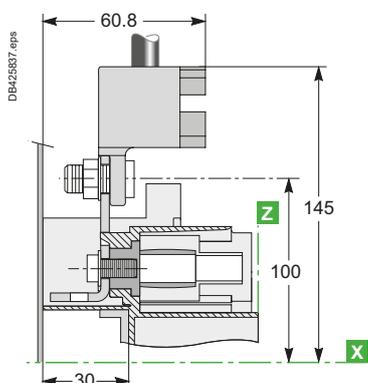
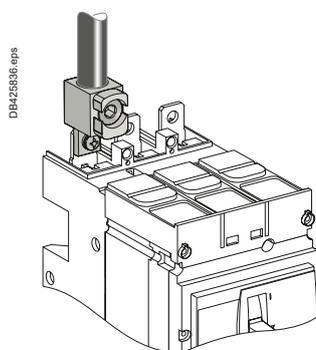
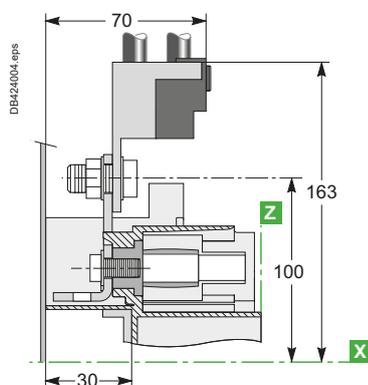
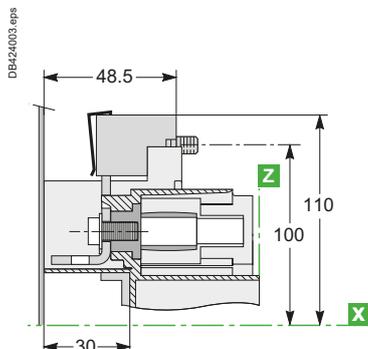
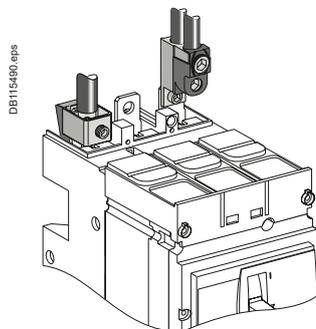
# ComPact NSX power connections

## ComPact NSX100 to 630 with/without Vigi add-on plug-in and withdrawable versions

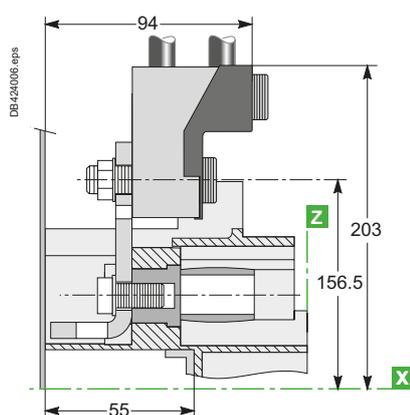
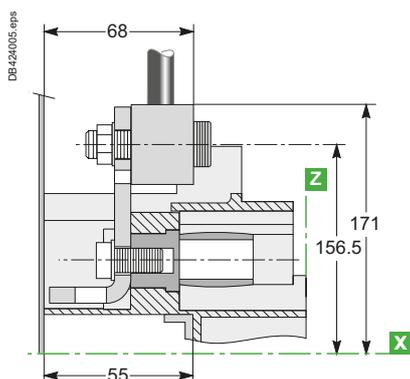
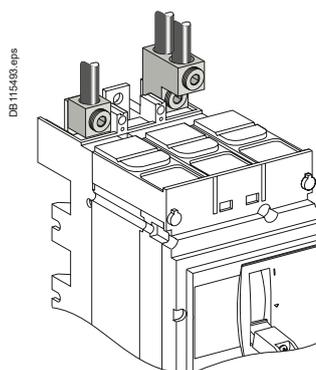
### Connection with accessories

Bare-cable connectors: mounting on backplate (M) or rails (V)

#### NSX100 to 250

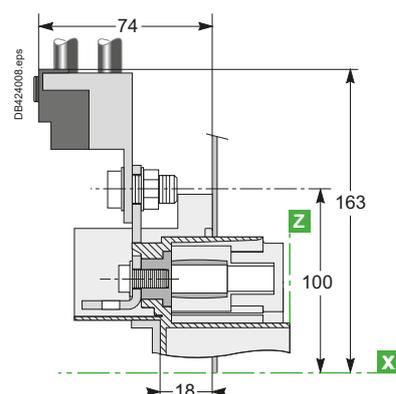
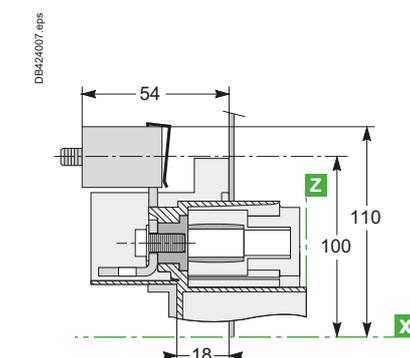
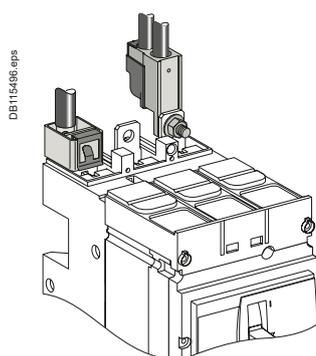


#### NSX400/630



Bare-cable connectors: mounting through front panel (N) or on rails (V)

#### NSX100 to 250

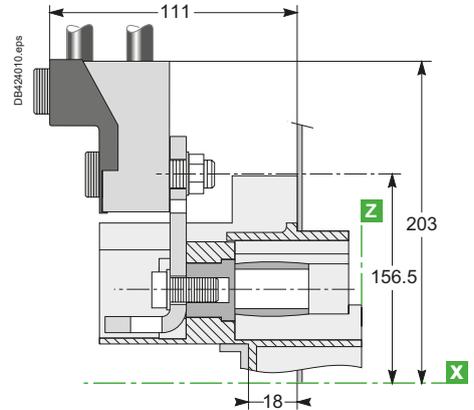
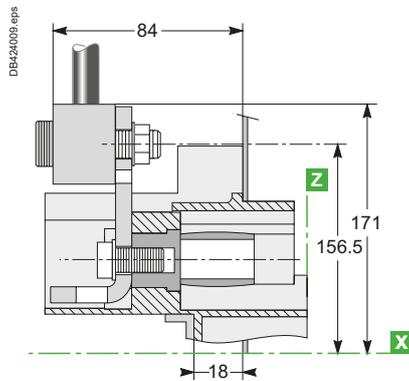
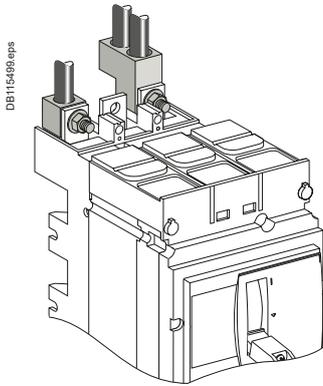


# ComPact NSX power connections

ComPact NSX100 to 630 with/without Vigi add-on plug-in and withdrawable versions

Bare-cable connectors: mounting through front panel (N) or on rails (V)

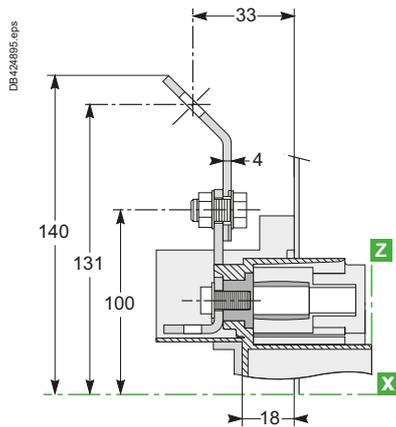
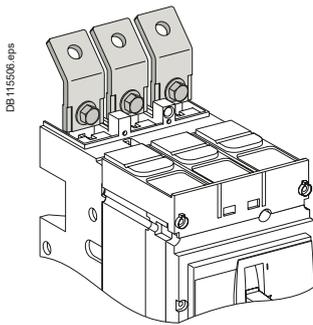
NSX400/630



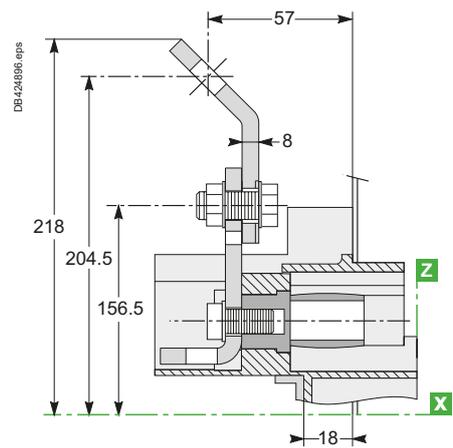
## Connection with accessories

45° extensions: mounting through front panel (N) or on rails (V)

NSX100 to 250

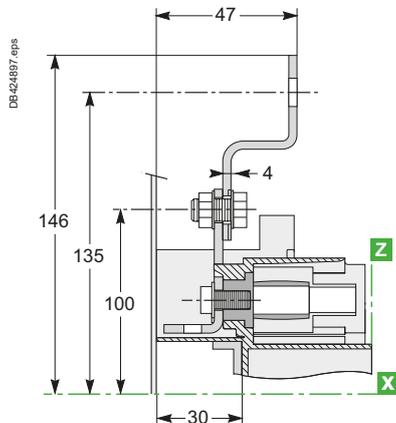
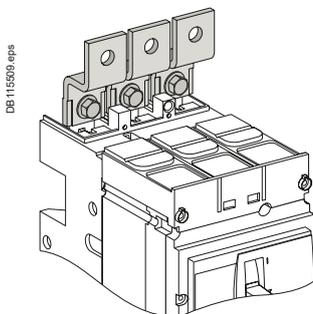


NSX400/630

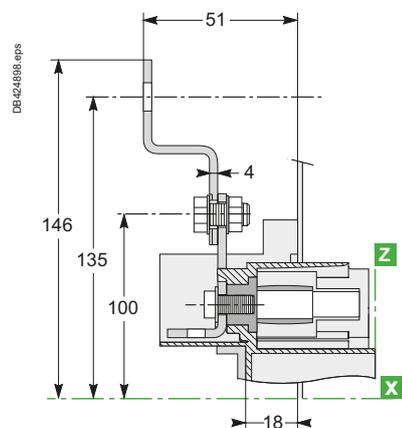


Double-L extensions: mounting on backplate (M) or rails (V)

NSX100 to 250



NSX100 to 250



Double-L extensions: mounting through front panel (N) or on rails (V)

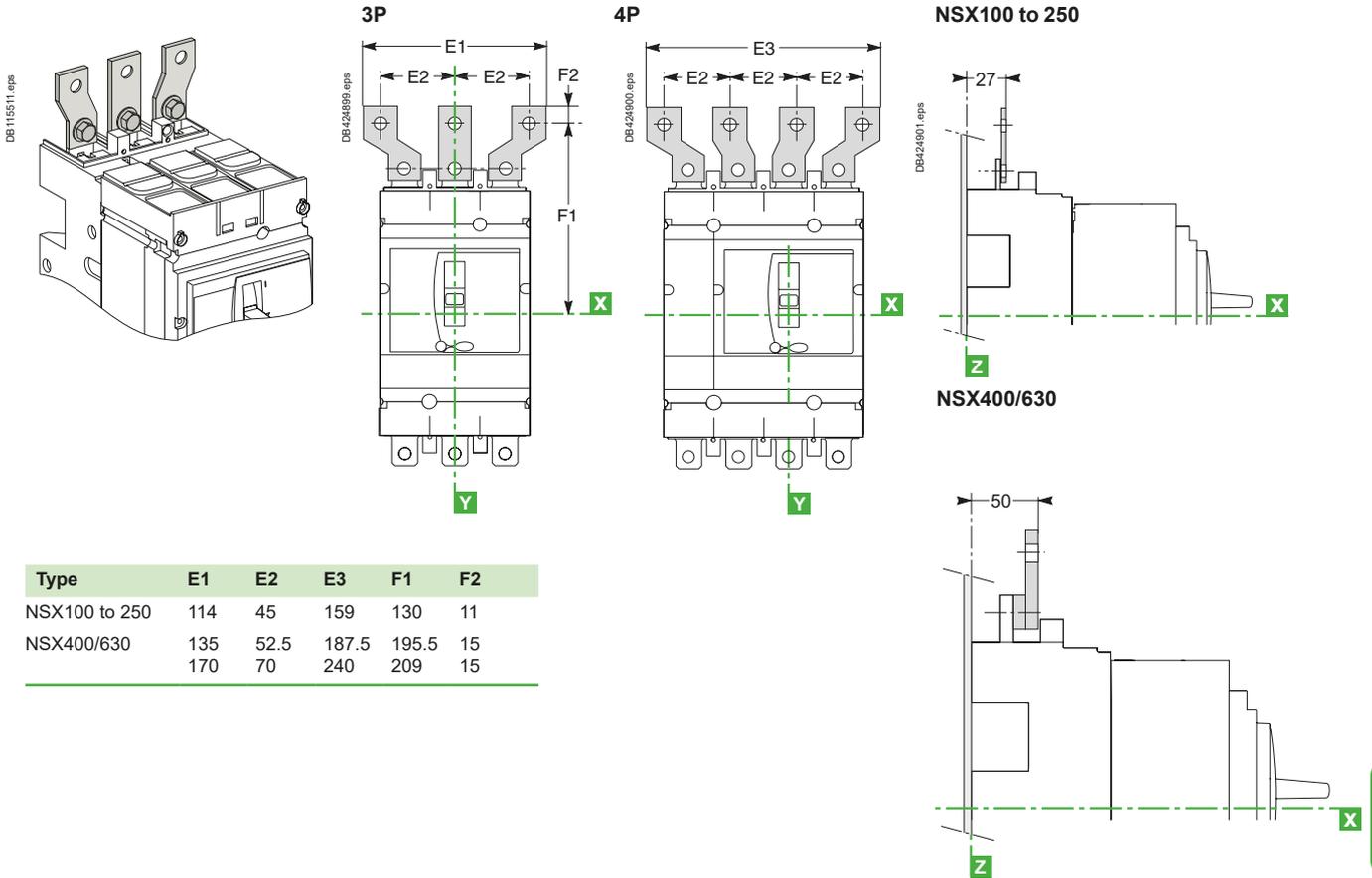
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# ComPact NSX power connections

## ComPact NSX100 to 630 with/without Vigi add-on plug-in and withdrawable versions

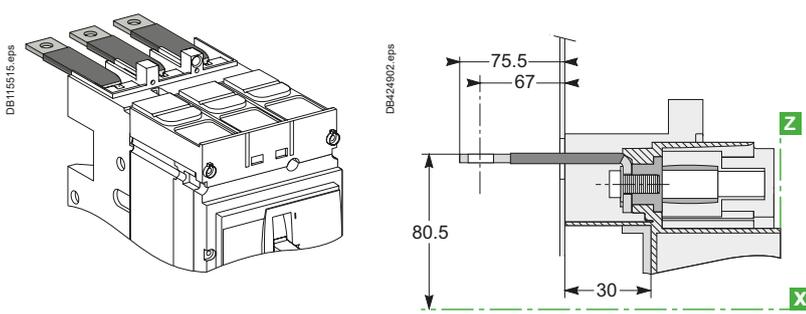
### Connection with accessories

Spreaders: mounting on backplate (M) or rails (V)

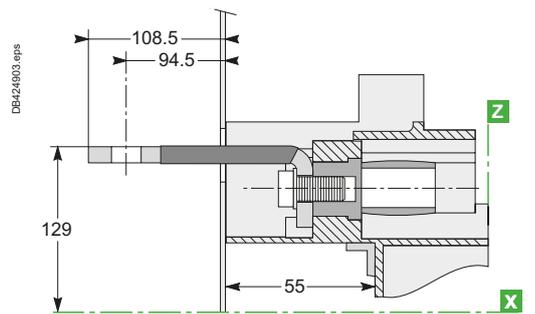


### Long insulated rear connectors: mounting on backplate (M) or rails (V)

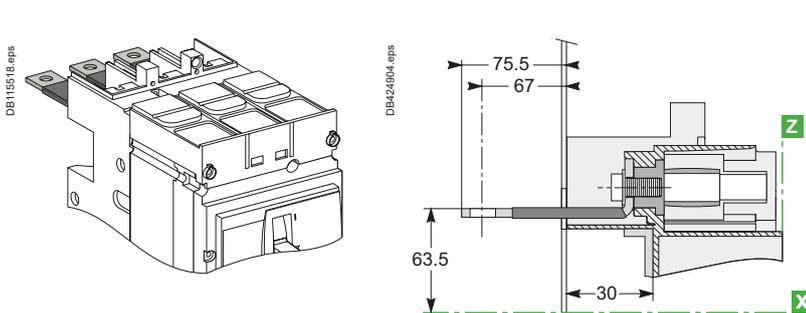
Exterior-mounted rear connectors NSX100 to 250



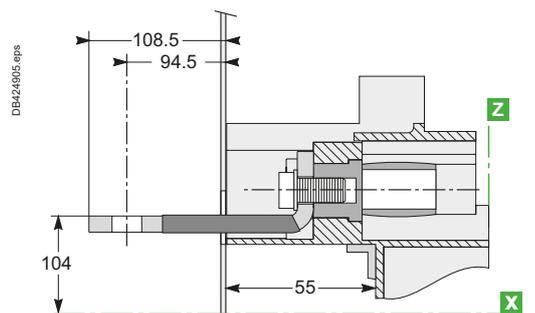
NSX400/630



Interior-mounted rear connectors NSX100 to 250



NSX400/630

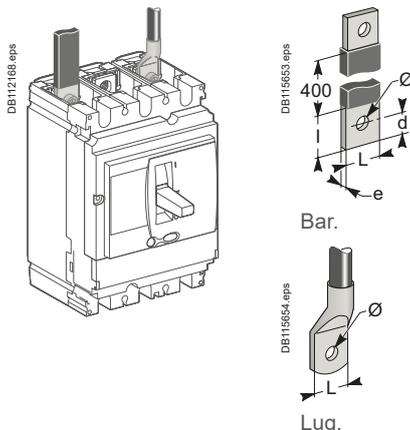


Long, insulated connectors are mandatory.

# Switchboard integration

## ComPact NSX power connections

Connection of insulated bars or cables with lugs to ComPact NSX100 to 630 with/without Vigi add-on



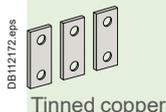
### Direct connection for NSX100 to 630

Dimensions		NSX100	NSX160/250	NSX400/630
<b>Bars</b>	L (mm)	≤ 25	≤ 25	≤ 32
	l (mm)	d + 10	d + 10	d + 15
	d (mm)	≤ 10	≤ 10	≤ 15
	e (mm)	≤ 6	≤ 6	3 ≤ e ≤ 10
	Ø (mm)	6.5	8.5	10.5
<b>Lugs</b>	L (mm)	≤ 25	≤ 25	≤ 32
	Ø (mm)	6.5	8.5	10.5
<b>Torque (Nm) [1]</b>		10	15	50
<b>Torque (Nm) [2]</b>		5/5	5/5	20/11
<b>Torque (Nm) [3]</b>		8	8	20

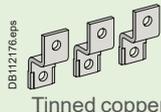
- [1] Tightening torque on the circuit breaker for lugs or bars.
- [2] Tightening torque on fixed devices for rear connectors//tightening torque on plug-in or withdrawable devices for power connectors.
- [3] Tightening torque on the plug-in base for terminal extensions.

### Accessories for NSX100 to 250

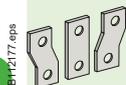
#### Straight terminal extensions



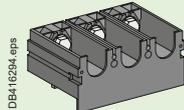
#### Double-L terminal extensions



#### Spreaders: separate parts



#### one-piece spreader



For U > 600 V, the mandatory insulation kit is not compatible with spreaders made up of separate parts. The one-piece spreader must be used.

### Connection with accessories for NSX100 to 250 (60228)

Pole pitch		NSX100	NSX160/250
Without spreaders		35 mm	
With spreaders		45 mm	
Dimensions		NSX100	NSX160/250

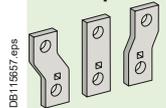
<b>Bars</b>	L (mm)	≤ 25	≤ 25
	l (mm)	20 ≤ l ≤ 25	20 ≤ l ≤ 25
	d (mm)	≤ 10	≤ 10
	e (mm)	≤ 6	≤ 6
	Ø (mm)	6.5	8.5
<b>Lugs</b>	L (mm)	≤ 25	≤ 25
	Ø (mm)	6.5	8.5
<b>Torque (Nm) [1]</b>		10	15
<b>Torque (Nm) [2]</b>		5	5

- [1] Tightening torque on the circuit breaker for spreaders or terminal extensions.
- [2] Tightening torque on the plug-in base for spreaders or terminal extensions.

Spreaders and straight, right-angle, 45°, double-L and edgewise terminal extensions are supplied with flexible interphase barriers.

### Accessories for NSX400 and 630

#### Spreaders made up of separate parts for 52.5 and 70 mm pitch



For U > 600 V, use of the 52.5 mm pitch spreaders requires a specific insulation kit. The 70 mm pitch spreaders may not be used.

### Connection with accessories for NSX400 and 630 (60228)

Pole pitch		With spreaders	With terminal extensions
Without spreaders		45 mm	
With spreaders		52.5 or 70 mm	
Dimensions		With spreaders	With terminal extensions

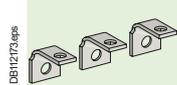
<b>Bars</b>	L (mm)	≤ 40	≤ 32
	l (mm)	d + 15	30 ≤ l ≤ 34
	d (mm)	≤ 20	≤ 15
	e (mm)	3 ≤ e ≤ 10	3 ≤ e ≤ 10
	Ø (mm)	12.5	10.5
<b>Lugs</b>	L (mm)	≤ 40	≤ 32
	Ø (mm)	12.5	10.5
<b>Torque (Nm) [1]</b>		50	50
<b>Torque (Nm) [2]</b>		20	20

- [1] Tightening torque on the circuit breaker for spreaders or terminal extensions.
- [2] Tightening torque on the plug-in base for spreaders or terminal extensions.

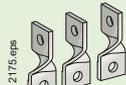
Spreaders and right-angle, 45° and edgewise terminal extensions are supplied with flexible interphase barriers.

### Accessories for NSX100 to 630

#### Right-angle terminal extensions



#### Edgewise terminal extensions



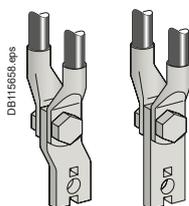
Tinned copper  
To be mounted on upstream side.

Tinned copper

#### 45° terminal extensions



Tinned copper

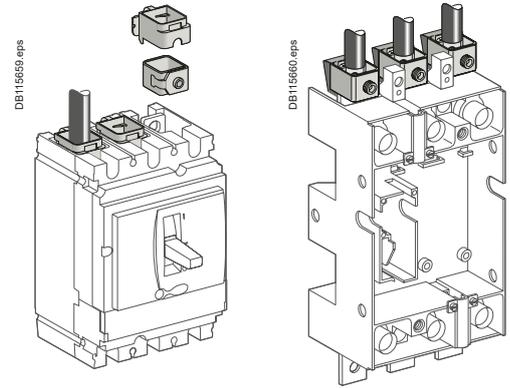
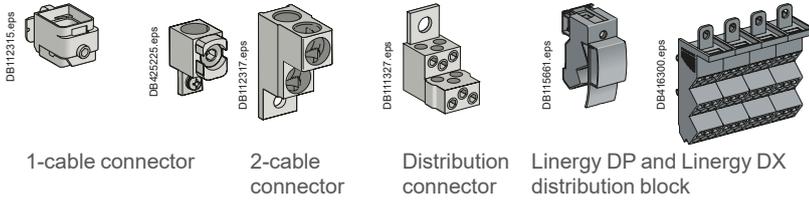


Mounting detail: 2 cables with lugs.

# ComPact NSX power connections

Connection of bare cables to ComPact NSX100 to 630 with/without Vigi add-on

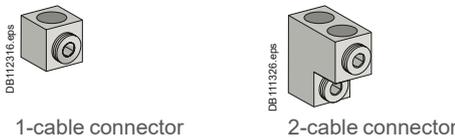
## Connection for NSX100 to 250



	1-cable connector	Steel ≤ 160 A	Aluminium ≤ 250 A	
L (mm)	25	25		
S (mm <sup>2</sup> ) Cu / Al	1.5 to 95 [1]	25 to 50	70 to 95	120 to 240 150 max. flex.
Torque (Nm)	12	20	26	31
<b>2-cable connector</b>				
L (mm)	25 or 50			
S (mm <sup>2</sup> ) Cu / Al	2 x 50 to 2 x 120			
Torque (Nm)	22			
<b>6-cable distribution connector (copper or aluminium)</b>				
L (mm)	15 or 30			
S (mm <sup>2</sup> ) Cu / Al	1.5 to 6 [1]	8 to 35		
Torque (Nm)	4	6		
<b>Linergy DX and Linergy DP distribution block (6 or 9 cables)</b>				
L (mm)	12	16		
S (mm <sup>2</sup> ) Cu / Al	6 x 4 to 10	3 x 6 to 16		

[1] For flexible cables from 1.5 to 4 mm<sup>2</sup>, connection with crimped or self-crimping ferrules.

## Connection for NSX400 and 630



	1-cable connector	2-cable connector
L (mm)	30	30 or 60
S (mm <sup>2</sup> ) Cu / Al	35 to 300 rigid 240 max. flex.	2 x 35 to 2 x 240 rigid 240 max. flex.
Torque (Nm)	31	31

## Conductor materials and electrodynamic stresses

ComPact NSX circuit breakers can be connected indifferently with bare-copper, tinned-copper and tinned-aluminium conductors (flexible or rigid bars, cables). In the event of a short-circuit, thermal and electrodynamic stresses will be exerted on the conductors. They must therefore be correctly sized and held in place by supports.

Electrical connection points on switchgear devices (switch-disconnectors, contactors, circuit breakers, etc.) should not be used for mechanical support. Any partition between upstream and downstream connections of the device must be made of non-magnetic material.



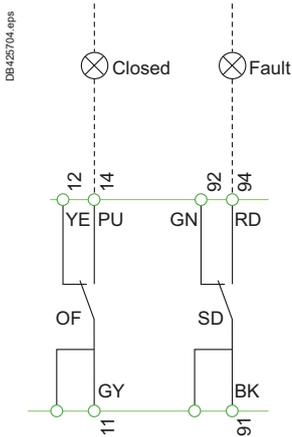
# Switchboard integration

## ComPact NSXm

### Auxiliaries

The diagram is shown with circuits de-energized, relays in normal position, and all devices open, connected, and charged. Terminal connections shown as **O** must be connected by the customer.

#### Indication contacts



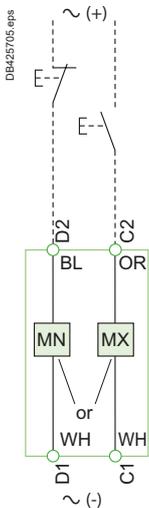
#### Indication contacts

- OF** Device ON/OFF indication contacts
- SD** Trip indication contact

#### Color code for auxiliary wiring

- BK:** Black
- GN:** Green
- GY:** Grey
- RD:** Red
- PU:** Purple
- YE:** Yellow

#### Remote operation



#### Remote operation

- MN** Undervoltage Release
- or
- MX** Shunt trip Release

#### Color code for auxiliary wiring

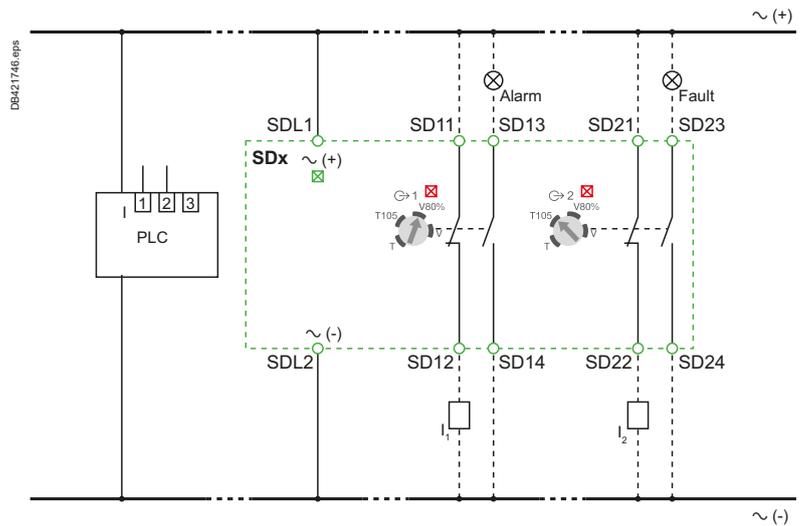
- BL:** Blue
- OR:** Orange
- WH:** White

E

# Switchboard integration ComPact NSXm SDx module for MicroLogic Vigi 4.1 (ELCB)

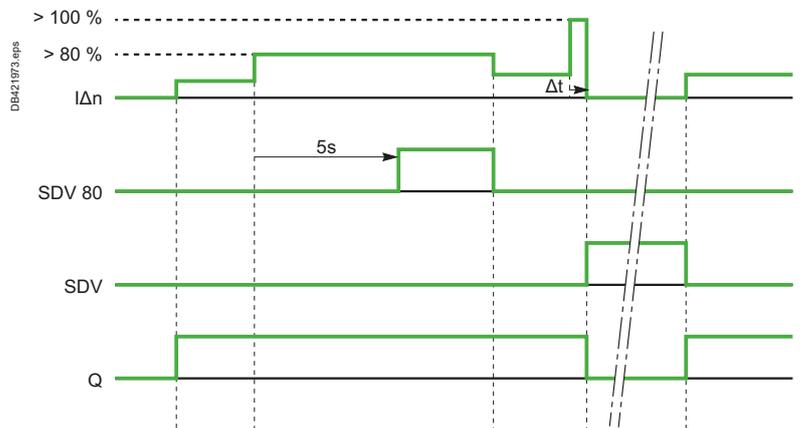
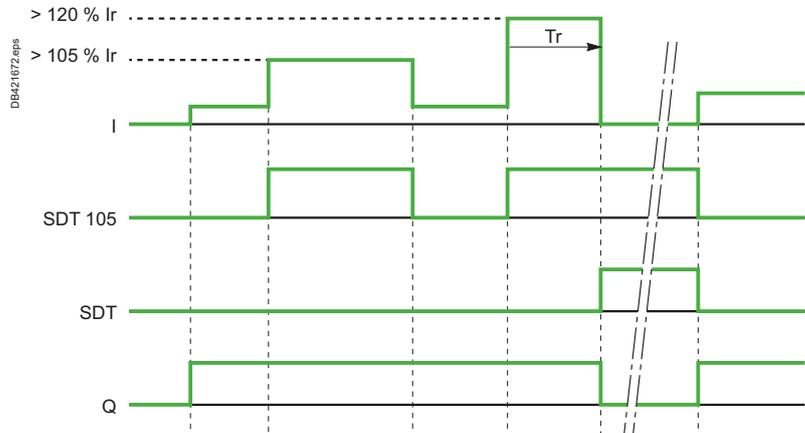
The diagram is shown with circuits de-energised, all devices open, connected and charged and relays in normal position.

## Connection



## Operation

- I: charge current
- SDT105: overload alarm
- SDT: overload trip indication
- $I_{\Delta n}$ : earth leakage current
- SDV80: earth leakage alarm
- SDV: earth leakage trip indication
- Q: circuit breaker



# Switchboard integration

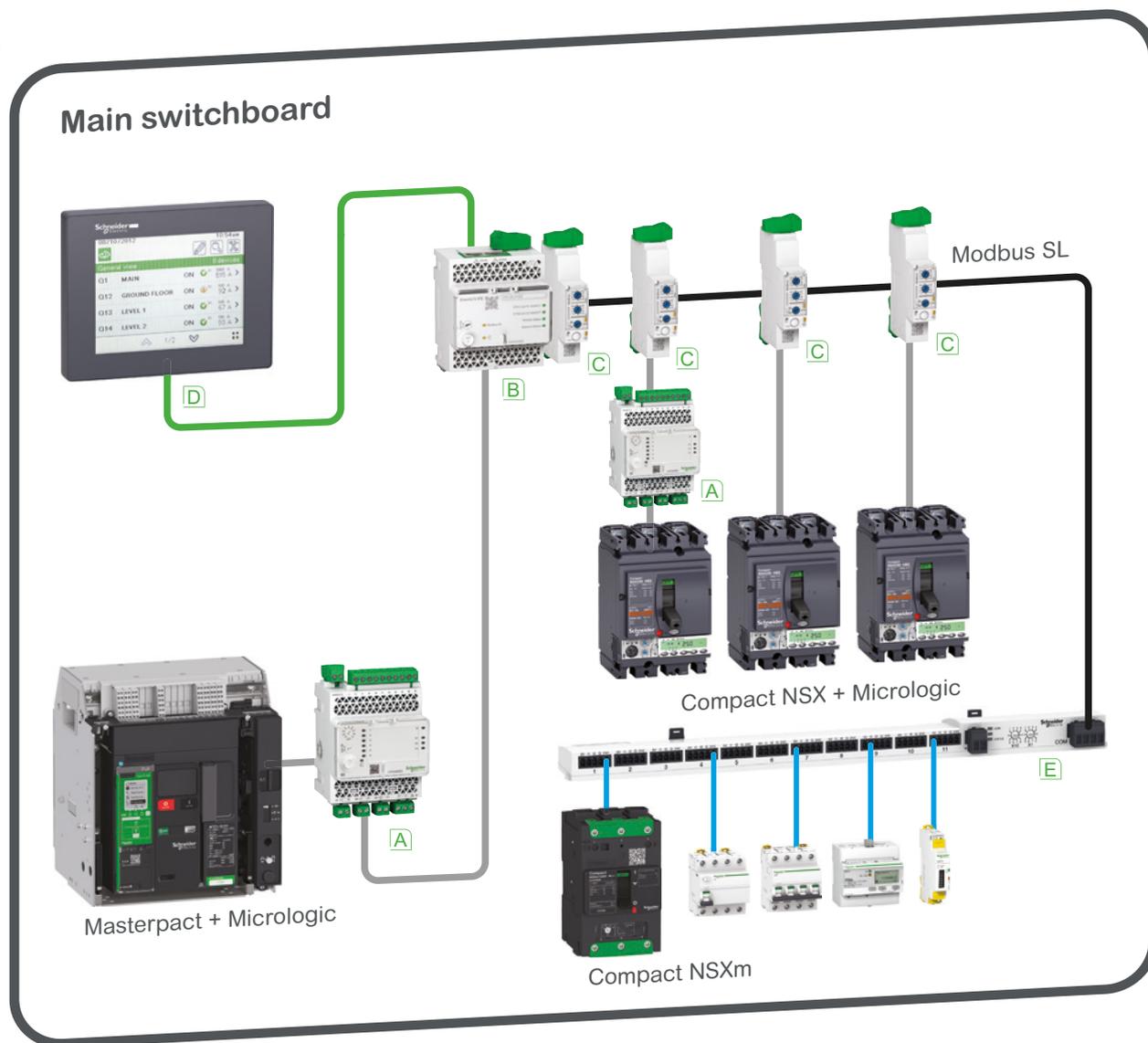
## ComPact NSXm

### Communication

#### Connection of circuit breakers to the Modbus communication network

DB452551 eps

E



**A** I/O

**B** IFE interface + gateway

**C** IFM

**D** FDM128

**E** Acti9 Smartlink Modbus

— Ethernet

— Modbus SL

— ULP

— Hard wired

# Switchboard integration

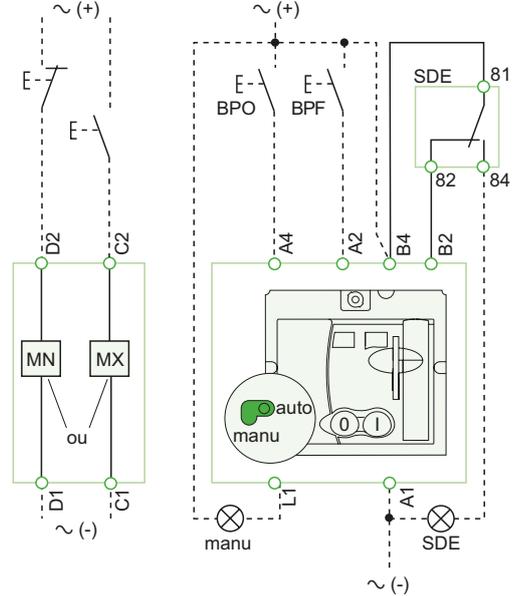
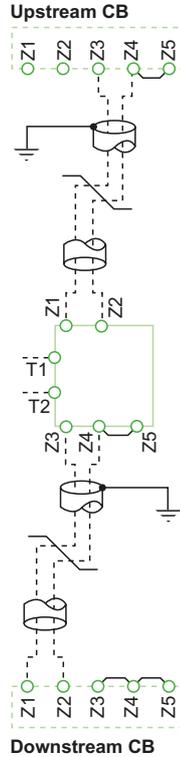
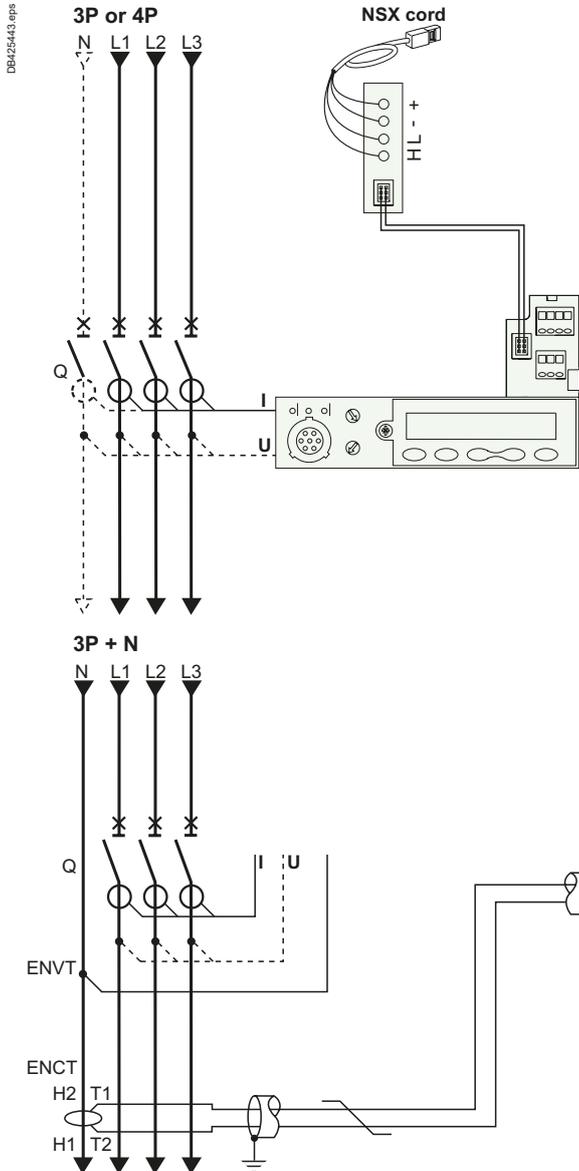
## ComPact NSX

### Fixed circuit breakers

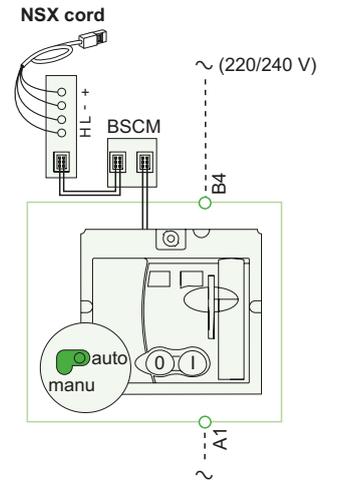
#### Power

#### MicroLogic

#### Remote operation



#### Motor mechanism (MT)



#### Communicating motor mechanism (MTC)

#### MicroLogic A or E

- A/E Communication**  
H(WH), L(BL): data  
- (BK), + (RD): 24 V DC power supply
- A/E ZSI (Zone Selective Interlocking)**  
Z1: ZSI OUT SOURCE  
Z2: ZSI OUT  
Z3: ZSI IN SOURCE  
Z4: ZSI IN ST (short time)  
Z5: ZSI IN GF (ground fault)  
**Note:** Z3, Z4, Z5 for NSX400/630 only.
- A/E ENCT: external neutral current transformer:**  
- shielded cable with 1 twisted pair (T1, T2)  
- shielding earthed at one end only (CT end).  
Connection L = 30 cm max.  
- maximum length of 10 metres  
- cable size 0.4 to 1.5 mm<sup>2</sup>  
- recommended cable: Belden 8441 or equivalent.
- E ENVT: external neutral voltage tap for connection to the neutral via a 3P circuit breaker.**

#### Remote operation

- MN:** undervoltage release
- or**
- MX:** shunt release
- Motor mechanism (MT)**
- A4:** opening order
- A2:** closing order
- B4, A1:** power supply to motor mechanism
- L1:** manual position (manu)
- B2:** SDE interlocking (mandatory for correct operation)
- BPO:** opening pushbutton
- BPF:** closing pushbutton
- Communicating motor mechanism (MTC)**
- B4, A1:** motor mechanism power supply
- BSCM:** breaker status and control module

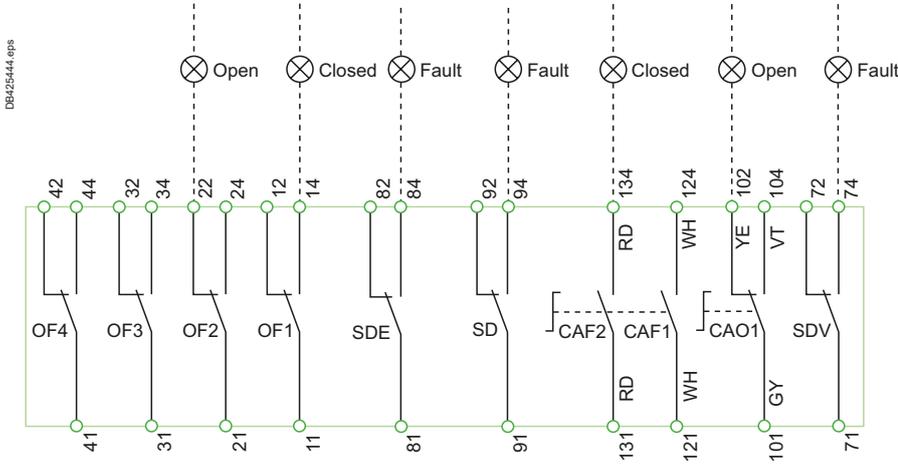


# Switchboard integration

## ComPact NSX

### Fixed circuit breakers

#### Indication contacts



E

The diagram is shown with circuits de-energised, all devices open, connected and charged and relays in normal position. Terminals shown in green ● must be connected by the customer.

#### Indication contacts

- OF2 / OF1:** device ON/OFF indication contacts
- OF4 / OF3:** device ON/OFF indication contacts (NSX400/630)
- SDE:** fault-trip indication contact (short-circuit, overload, ground fault, earth leakage)
- SD:** trip-indication contact
- CAF2/CAF1:** early-make contact (rotary handle only)
- CAO1:** early-break contact (rotary handle only)
- SDV:** earth leakage fault trip indication contact (Vigi add-on)

#### Colour code for auxiliary wiring

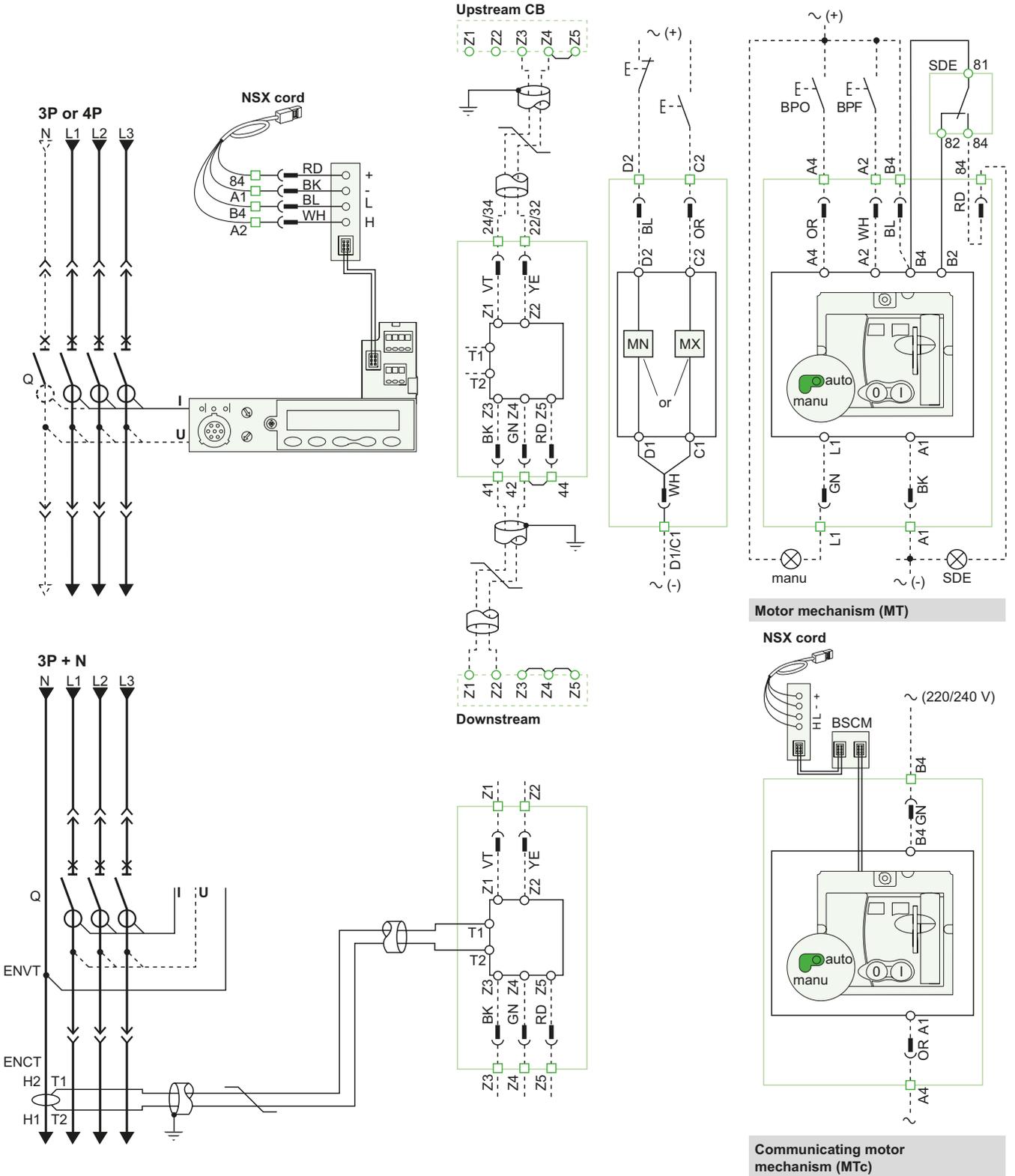
- |                   |                   |
|-------------------|-------------------|
| <b>RD:</b> red    | <b>VT:</b> violet |
| <b>WH:</b> white  | <b>GY:</b> grey   |
| <b>YE:</b> yellow | <b>OR:</b> orange |
| <b>BK:</b> black  | <b>BL:</b> blue   |
| <b>GN:</b> green  |                   |

Power

MicroLogic

Remote operation

DB42545.eps



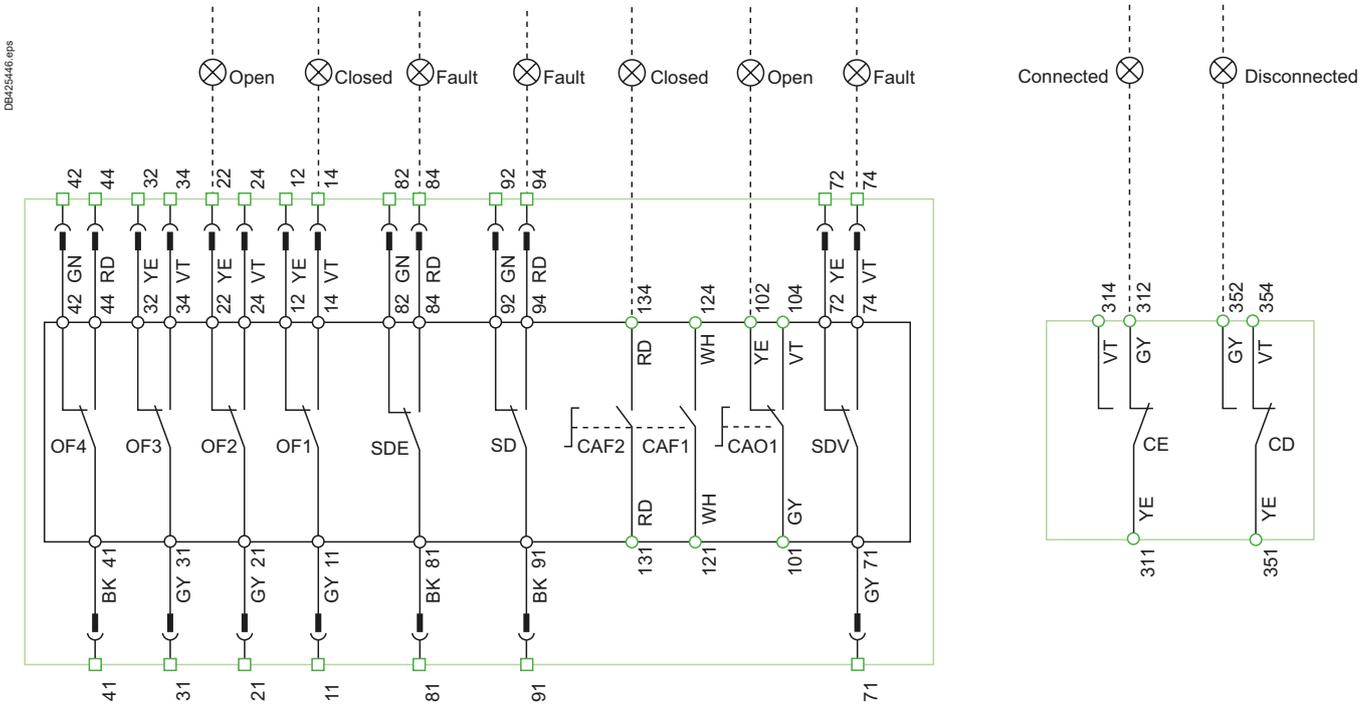
The diagram is shown with circuits de-energised, all devices open, connected and charged and relays in normal position.

# ComPact NSX

## Plug-in / withdrawable circuit breakers

### Indication contacts

### Carriage switches



E

#### MicroLogic A or E

##### A/E Communication

H(WH), L(BL): data  
- (BK), + (RD): 24 V DC power supply

##### A/E ZSI (Zone Selective Interlocking)

Z1: ZSI OUT SOURCE  
Z2: ZSI OUT  
Z3: ZSI IN SOURCE  
Z4: ZSI IN ST (short time)  
Z5: ZSI IN GF (ground fault)

**Note:** Z3, Z4, Z5 for NSX400/630 only.

##### A/E ENCT: external neutral current transformer:

- shielded cable with 1 twisted pair (T1, T2)
- shielding earthed at one end only (CT end).

Connection L = 30 cm max.  
- maximum length of 10 metres  
- cable size 0.4 to 1.5 mm<sup>2</sup>  
- recommended cable: Belden 8441 or equivalent.

##### E ENVT: external neutral voltage tap for connection to the neutral via a 3P circuit breaker.

#### Colour code for auxiliary wiring

<b>RD:</b> red	<b>VT:</b> violet
<b>WH:</b> white	<b>GY:</b> grey
<b>YE:</b> yellow	<b>OR:</b> orange
<b>BK:</b> black	<b>BL:</b> blue
<b>GN:</b> green	

Terminals shown in green □ / ○ must be connected by the customer.

#### Remote operation

**MN:** undervoltage release

or

**MX:** shunt release

#### Motor mechanism (MT)

**A4:** opening order

**A2:** closing order

**B4, A1:** motor mechanism power supply

**L1:** manual position (manu)

**B2:** SDE interlocking (mandatory for automatic or remote recharging)

**BPO:** opening pushbutton

**BPF:** closing pushbutton

#### Communicating motor mechanism (MTc)

**B4, A1:** motor mechanism power supply

**BSCM:** breaker status and control module

#### Indication contacts

**OF2 / OF1:** device ON/OFF indication contacts

**OF4 / OF3:** device ON/OFF indication contacts (NSX400/630)

**SDE:** fault-trip indication contact

(short-circuit, overload, ground fault, earth leakage)

**SD:** trip-indication contact

**CAF2/CAF1:** early-make contact (rotary handle only)

**CAO1:** early-break contact (rotary handle only)

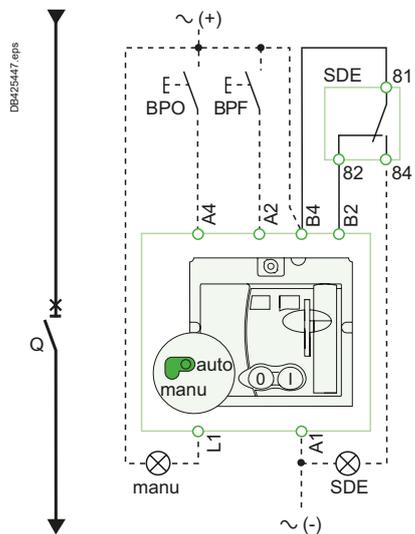
**SDV:** earth leakage fault trip indication contact (Vigi add-on)

The diagram is shown with circuits de-energised, all devices open, connected and charged and relays in normal position.

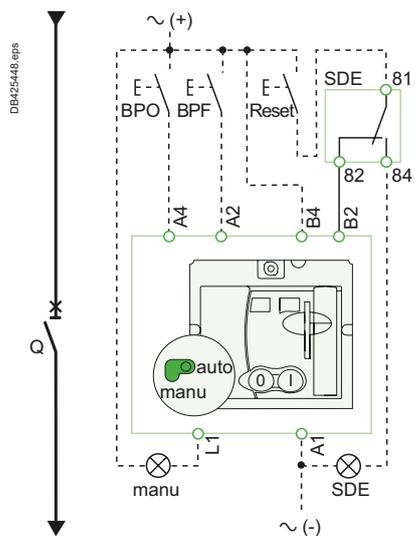
After tripping initiated by the "Push to trip" button or by the undervoltage (MN) release or the shunt (MX) release, device reset can be automatic, remote or manual.

Following tripping due to an electrical fault (with an SDE contact), reset must be carried out manually.

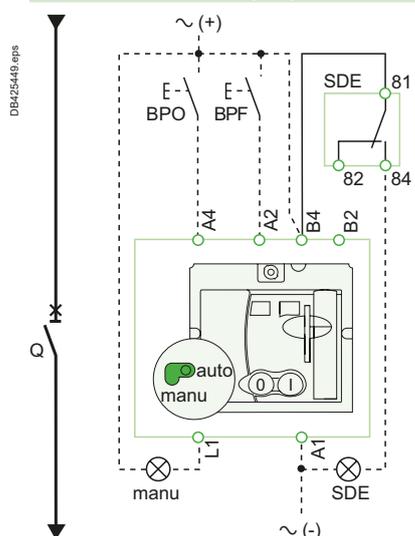
#### Motor mechanism (MT) with automatic reset



#### Motor mechanism (MT) with remote reset



#### Motor mechanism (MT) with manual reset

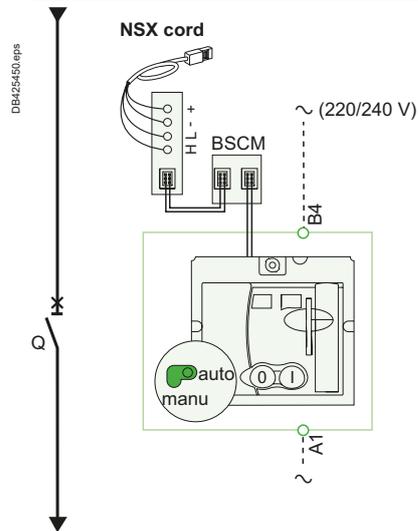


#### Symbols

- Q:** circuit breaker
- A4 :** opening order
- A2:** closing order
- B4, A1:** motor mechanism power supply
- L1:** manual position (manu)
- B2:** SDE interlocking (mandatory for correct operation)
- BPO:** opening pushbutton
- BPF:** closing pushbutton
- SDE:** fault-trip indication contact (short-circuit, overload, ground fault, earth leakage)



**Communicating motor mechanism (MTc)**



Schematic representation of the communicating motor mechanism (MT).

**Single-line diagram of communicating motor mechanism**

Opening, closing and reset orders are transmitted via the communication network. The "Enable automatic reset" and "Enable reset even if SDE" parameters must be set using the EcoStruxure Power Commission software via the screen by clicking the blue text.

"Auto/manu" is a switch on the front of the motor mechanism.

**Symbols**

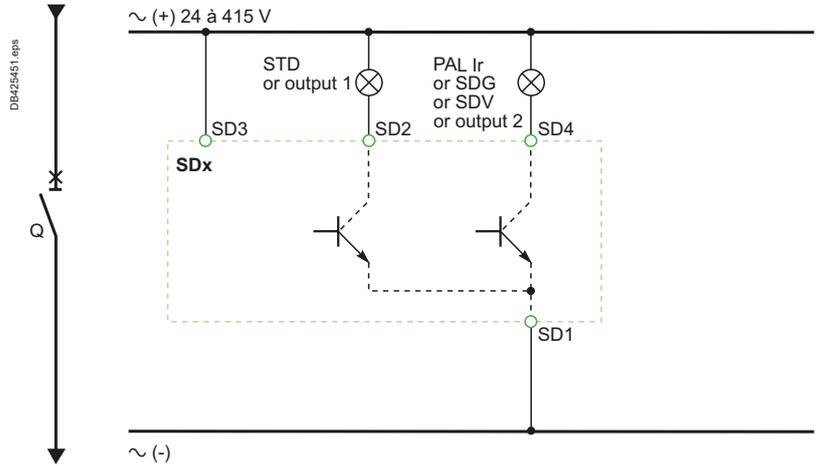
- Q:** circuit breaker
- B4, A1:** motor mechanism power supply
- BSCM:** breaker status and control module

Terminals shown in green **O** must be connected by the customer.

# Switchboard integration ComPact NSX SDx module with MicroLogic

The diagram is shown with circuits de-energised, all devices open, connected and charged and relays in normal position.

### Connection



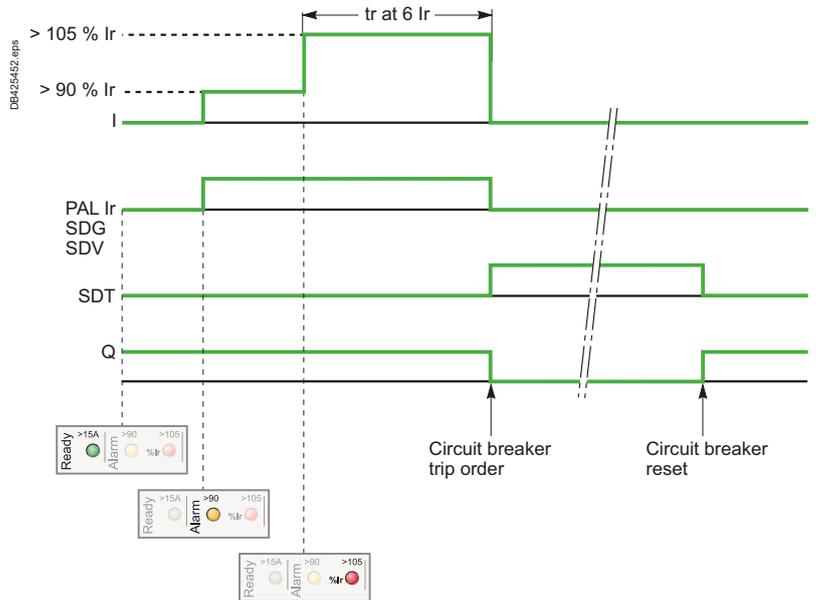
### Symbols

- SD1, SD3:** SDx-module power supply
- SD2:** output 1 (80 mA max.)
- SD4:** output 2 (80 mA max.)

	SD2	SD4
<b>MicroLogic 2</b>	SDT	-
<b>MicroLogic Vigi 4</b>	SDT	SDV
<b>MicroLogic 5</b>	SDT or output 1	PAL Ir or output 2
<b>MicroLogic 6</b>	SDT or output 1	SDG or output 2
<b>MicroLogic Vigi 7</b>	SDT or output 1	SDV or output 2

Terminals shown in green **O** must be connected by the customer.

### Operation



- I:** charge current
- PAL Ir:** thermal overload pre-alarm
- SDG:** ground-fault signal
- SDT:** thermal-fault signal
- SDV:** residual current trip signal
- Q:** circuit breaker



# ComPact NSX

## SDTAM module with MicroLogic M

The diagram is shown with circuits de-energised, all devices open, connected and charged and relays in normal position.

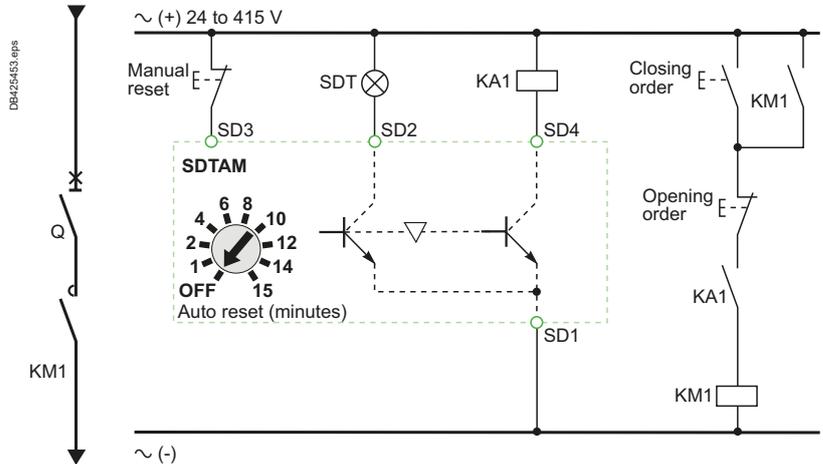
### Symbols

- SD1, SD3:** SDTAM-module power supply
- SD2:** thermal-fault signal output (80 mA max.)
- SD4:** contactor-control output (80 mA max.)

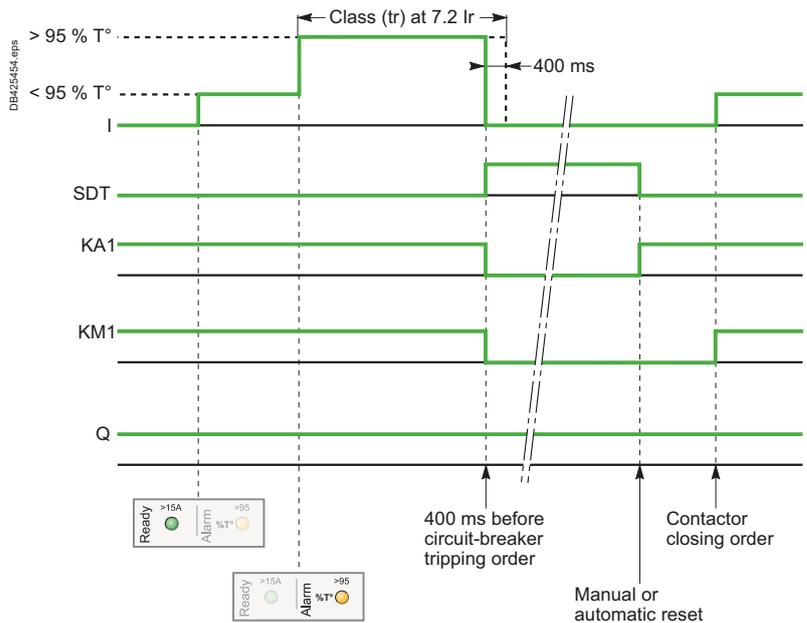
	SD2	SD4
<b>MicroLogic 2-M</b>	SDT	KA1
<b>MicroLogic 6 E-M</b>	SDT	KA1

Terminals shown in green ○ must be connected by the customer.

### Connection



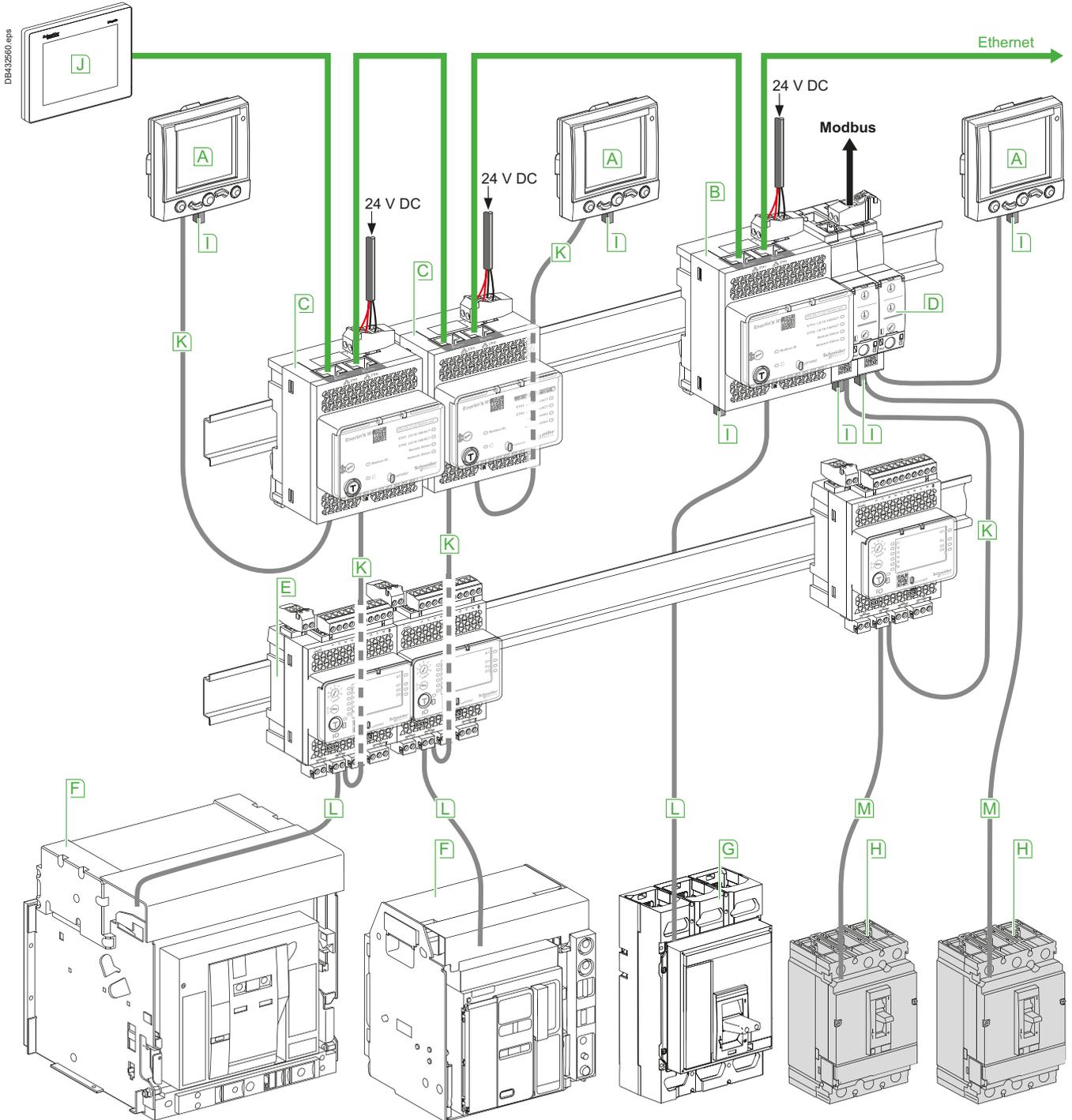
### Operation



- I:** charge current
- SDT:** thermal-fault signal
- KA1:** auxiliary relay (e.g. RBN or RTBT relay)
- KM1:** motor contactor
- Q:** circuit breaker

# Switchboard integration ComPact NSX Communication

## Connection of circuit breakers to the Modbus communication network



- A** FDM121 (TRV00121)
- B** IFE interface (LV434002)
- C** IFE switchboard server (LV434001)
- D** IFM (LV484000)
- E** I/O application module (LV434063)
- F** MasterPact MTZ
- G** ComPact NS630b-3200
- H** ComPact NSX
- I** ULP termination (TRV00880)
- J** FDM128 (LV434128)

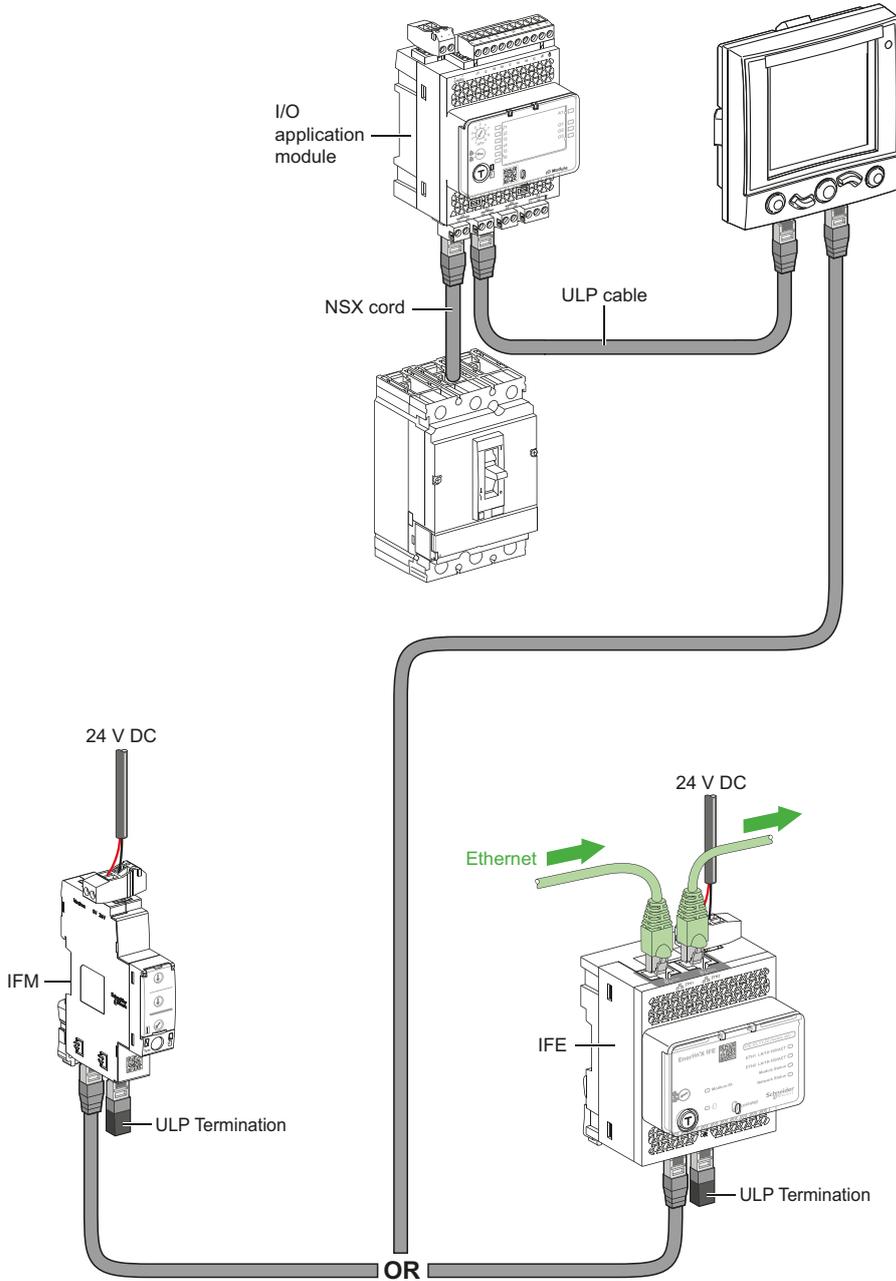
- K** ULP cable
- L** Breaker ULP cord
- M** NSX cord
- Ethernet
- Modbus

# Switchboard integration

## ComPact NSX

### Communication

DE43262.eps



E

# Switchboard integration

## Order your ComPact NSX and NSXm through digital tools

### Product selector

Go on the range page on [www.se.com](http://www.se.com)

The screenshot shows the product page for Compact NSXm. At the top, there is a navigation bar with the Schneider Electric logo and a search bar. Below the navigation bar, there are tabs for PRODUCTS, SOLUTIONS, SERVICES, SUPPORT, and ABOUT US. The main content area features the product name "Compact NSXm" and the subtitle "Molded case circuit breakers up to 160 A". A descriptive paragraph states: "Compact NSXm is the smallest size molded case circuit breaker (MCCB) in the Compact NSX range. With its convenient design, it can easily accommodate applications from 16 to 160 A. Available with integrated earth leakage protection." To the right of the text is an image of the circuit breaker. Below the text is a blue "Product Selector" button. At the bottom of the page, there are links for "Products", "Presentation", and "Documents & Downloads".

Click on "Product selector" and run your selection

The screenshot shows the "Select your Compact NSXm" product selector tool. The interface is divided into two main sections: "Characteristics" on the left and "My solution" on the right. The "Characteristics" section includes various selection criteria such as "Protection type" (Thermal magnetic (TM-E)), "rated current" (16 A, 25 A, 32 A, 40 A, 50 A, 63 A, 80 A, 100 A, 125 A, 160 A), "poles description" (3P, 4P), "protected poles description" (3d), "rating code" (F), "breaking capacity" (IEC 220-240 V 05 kA, IEC 380-415 V 36 kA, IEC 440 V 35 kA, IEC 500 V 15 kA, IEC 525 V 10 kA), and "connections - terminals" (Fixed / Evolved, compres lug, ibrcmpres lug bb, other solution). The "My solution" section shows the selected configuration: "Selection Name: Compact NSXm", "Parts: LV426930 (rotary handle black - for circuit breaker and switch) and LV426303 (circuit breaker Compact NSXm 40A 3P 36kA at 300A IEC Vigi) OverLink lug", and an "Add to cart" button with a quantity of 2.



# Order your Com**Pact** NSX and NSXm through digital tools

## Product selector

Go on the range page on [www.schneider-electric.com](http://www.schneider-electric.com)

The screenshot shows the Schneider Electric website's product selector for Compact NSX circuit breakers. The page features a green header with the Schneider Electric logo and navigation tabs for PRODUCTS, SOLUTIONS, SERVICES, SUPPORT, and ABOUT US. Below the header, a breadcrumb trail reads: Home > Low Voltage Products and Systems > Circuit Breakers and Switches > Molded Case Circuit Breakers > Compact NSX. The main content area is titled "Compact NSX" and "Molded case circuit breakers up to 630A". A descriptive paragraph states: "Compact NSX is a full range of high performance molded case circuit breakers (MCCB) in 2 frame sizes designed to meet your needs from thermal-magnetic to advanced Micrologic trip units. This range will soon feature integrated earth leakage protection." To the right of the text is an image of a Compact NSX circuit breaker. A blue "Product Selector" button is positioned below the text. At the bottom of the page, there are links for "Products", "Presentation", and "Documents & Downloads".

Clic on "Product selector" and run your selection

The screenshot displays the Schneider Electric product selector tool for Compact NSX circuit breakers. The interface is titled "Select your Compact NSX" and includes a "Reset" button. The "Characteristics" section is divided into several categories with selection options:
 

- general**: In rated current (400 A, 630 A), rating code (F).
- breaking capacity**: A grid of options including 90 kA 480 V AC, 90 kA 440 V AC, 85 kA 240 V AC, 85 kA 220/240 V AC, 78 kA 500 V AC, 78 kA 380/415 V AC, 65 kA 500V AC, 65 kA 480V AC, 65 kA 440V NEMA, 50 kA 600 V AC, 50 kA 525 V AC, 50 kA 500 V AC, 50 kA 480 V AC, 50 kA 380/415 V AC, 42 kA 480V AC, 42 kA 440V AC, 40 kA 600 V AC, 40 kA 525 V AC, 40 kA 240 V AC, 40 kA 220/240 V AC, 38 kA 380/415 V AC, 35 kA 660/690 V AC, 35 kA 600 V AC, 35 kA 525 V AC, 35 kA 480 V AC, 30 kA 500 V AC, 30 kA 480 V AC, 30 kA 440 V AC, 25 kA 660/690 V AC, 25 kA 500 V AC, 22 kA 525 V AC, 20 kA 660/690 V AC, 20 kA 600 V AC, 20 kA 525 V AC, 150 kA 380/415 V AC, 150 kA 240 V AC, 150 kA 220/240 V AC, 130 kA 480 V AC, 130 kA 440 V AC, 120 kA 240 V AC, 120 kA 220/240 V AC, 10 kA 660/690 V AC, 100 kA 380/415 V AC, 100 kA 240 V AC, 100 kA 220/240 V AC.
- operational voltage**: 500 V AC.
- combined reference**: yes, no.
- poles description**: 3P, 4P.
- protected poles description**: 3S.
- circuit breaker application**: distribution.
- trip unit technology**: electronic.

 The "My solution" section on the right lists selected parts:
 

- LV432591: Unit terminal shield - 45mm - 3 poles - Compact NSX400/630 (2 units).
- LV432518: Stud for advanced installation - for NS 400, 630 - set of 2 (3 units).
- LV432516: Plug-in base - 3 poles - for NSX400, 630 (1 unit).
- LV432533: Thermal side plates - 3 poles - 4 poles - for NSX400, 630 (1 unit).
- LV432532: Thermal side plates - 3 poles - 4 poles - for NSX400, 630 (1 unit).
- LV432520: Safety trip for advanced opening - for compact NSX (1 unit).

 An "Add to cart" button is located at the bottom right of the parts list.

F

## Catalog numbers

ComPact NSXm.....	F-3
ComPact NSX100-250.....	F-15
ComPact NSX400-630.....	F-51
Source-changeover systems for 2 devices	
ComPact NSX100 to NSX630 .....	F-76
NSX100/400 for utilities, "tarif jaune" public distribution .....	F-78
Order form .....	F-82

### Other chapters

Select your circuit breakers and switch-disconnectors .....	A-1
Select your protection .....	B-1
Customize your circuit breaker with accessories.....	C-1
Smart Panel integration.....	D-1
Switchboard integration.....	E-1
Glossary .....	G-1
Additional characteristics .....	H-1



Connection system

Compact

Compact NSXm160H

1420000

160 A

100 kA

30 kV

1000 V

OFF



Power lightning surge

1000 V

Schneider



Connection system

## Catalog numbers: ComPact NSXm

### Complete fixed device

ComPact NSXm E/B (16/25 kA at 380/415 V) .....	F-4
ComPact NSXm F/N (36/50 kA at 380/415 V) .....	F-5
ComPact NSXm H (70 kA at 380/415 V) .....	F-6
ComPact NSXm MicroLogic Vigi 4.1 E/B/F (16/25/36 kA at 380/415 V) .....	F-7
ComPact NSXm MicroLogic Vigi 4.1 N/H (50/70kA at 380/415 V) .	F-8
ComPact NSXm NA .....	F-9

### Accessories

Connection and insulation .....	F-10
Electrical auxiliaries.....	F-11
Rotary handles, locks and seals.....	F-12
Spare parts, test tool and software.....	F-13

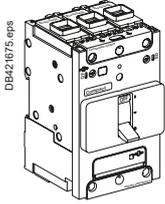
<b>Other chapters</b>	
Select your circuit breakers and switch-disconnectors .....	A-1
Select your protection .....	B-1
Customize your circuit breaker with accessories.....	C-1
Smart Panel integration.....	D-1
Switchboard integration.....	E-1
Glossary .....	G-1
Additional characteristics .....	H-1

# Complete fixed device

## ComPact NSXm E/B (16/25 kA at 380/415 V)

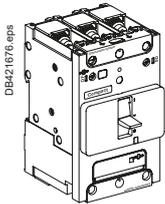
### ComPact NSXm E (16 kA at 380/415 V)

With thermal-magnetic trip unit TM-D



EverLink™ connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426100	LV426110	LV426120
TM25D	LV426101	LV426111	LV426121
TM32D	LV426102	LV426112	LV426122
TM40D	LV426103	LV426113	LV426123
TM50D	LV426104	LV426114	LV426124
TM63D	LV426105	LV426115	LV426125
TM80D	LV426106	LV426116	LV426126
TM100D	LV426107	LV426117	LV426127
TM125D	LV426108	LV426118	LV426128
TM160D	LV426109	LV426119	LV426129

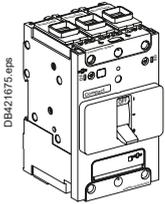


Compression lug/busbar connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426150	LV426160	LV426170
TM25D	LV426151	LV426161	LV426171
TM32D	LV426152	LV426162	LV426172
TM40D	LV426153	LV426163	LV426173
TM50D	LV426154	LV426164	LV426174
TM63D	LV426155	LV426165	LV426175
TM80D	LV426156	LV426166	LV426176
TM100D	LV426157	LV426167	LV426177
TM125D	LV426158	LV426168	LV426178
TM160D	LV426159	LV426169	LV426179

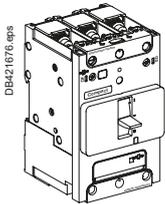
### ComPact NSXm B (25 kA at 380/415 V)

With thermal-magnetic trip unit TM-D



EverLink™ connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426200	LV426210	LV426220
TM25D	LV426201	LV426211	LV426221
TM32D	LV426202	LV426212	LV426222
TM40D	LV426203	LV426213	LV426223
TM50D	LV426204	LV426214	LV426224
TM63D	LV426205	LV426215	LV426225
TM80D	LV426206	LV426216	LV426226
TM100D	LV426207	LV426217	LV426227
TM125D	LV426208	LV426218	LV426228
TM160D	LV426209	LV426219	LV426229



Compression lug/busbar connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426250	LV426260	LV426270
TM25D	LV426251	LV426261	LV426271
TM32D	LV426252	LV426262	LV426272
TM40D	LV426253	LV426263	LV426273
TM50D	LV426254	LV426264	LV426274
TM63D	LV426255	LV426265	LV426275
TM80D	LV426256	LV426266	LV426276
TM100D	LV426257	LV426267	LV426277
TM125D	LV426258	LV426268	LV426278
TM160D	LV426259	LV426269	LV426279

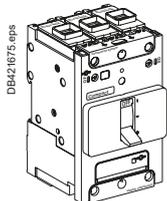
F

# Complete fixed device

## ComPact NSXm F/N (36/50 kA at 380/415 V)

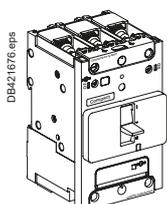
### ComPact NSXm F (36 kA at 380/415 V)

With thermal-magnetic trip unit TM-D



#### EverLink™ connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426300	LV426310	LV426320
TM25D	LV426301	LV426311	LV426321
TM32D	LV426302	LV426312	LV426322
TM40D	LV426303	LV426313	LV426323
TM50D	LV426304	LV426314	LV426324
TM63D	LV426305	LV426315	LV426325
TM80D	LV426306	LV426316	LV426326
TM100D	LV426307	LV426317	LV426327
TM125D	LV426308	LV426318	LV426328
TM160D	LV426309	LV426319	LV426329

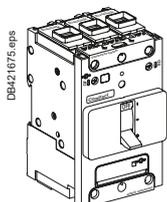


#### Compression lug/busbar connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426350	LV426360	LV426370
TM25D	LV426351	LV426361	LV426371
TM32D	LV426352	LV426362	LV426372
TM40D	LV426353	LV426363	LV426373
TM50D	LV426354	LV426364	LV426374
TM63D	LV426355	LV426365	LV426375
TM80D	LV426356	LV426366	LV426376
TM100D	LV426357	LV426367	LV426377
TM125D	LV426358	LV426368	LV426378
TM160D	LV426359	LV426369	LV426379

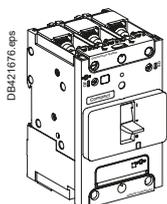
### ComPact NSXm N (50 kA at 380/415 V)

With thermal-magnetic trip unit TM-D



#### EverLink™ connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426400	LV426410	LV426420
TM25D	LV426401	LV426411	LV426421
TM32D	LV426402	LV426412	LV426422
TM40D	LV426403	LV426413	LV426423
TM50D	LV426404	LV426414	LV426424
TM63D	LV426405	LV426415	LV426425
TM80D	LV426406	LV426416	LV426426
TM100D	LV426407	LV426417	LV426427
TM125D	LV426408	LV426418	LV426428
TM160D	LV426409	LV426419	LV426429



#### Compression lug/busbar connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426450	LV426460	LV426470
TM25D	LV426451	LV426461	LV426471
TM32D	LV426452	LV426462	LV426472
TM40D	LV426453	LV426463	LV426473
TM50D	LV426454	LV426464	LV426474
TM63D	LV426455	LV426465	LV426475
TM80D	LV426456	LV426466	LV426476
TM100D	LV426457	LV426467	LV426477
TM125D	LV426458	LV426468	LV426478
TM160D	LV426459	LV426469	LV426479

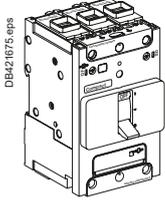
F

# Complete fixed device

## ComPact NSXm H (70 kA at 380/415 V)

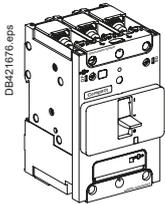
### ComPact NSXm H (70 kA at 380/415 V)

With thermal-magnetic trip unit TM-D



#### EverLink™ connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426500	LV426510	LV426520
TM25D	LV426501	LV426511	LV426521
TM32D	LV426502	LV426512	LV426522
TM40D	LV426503	LV426513	LV426523
TM50D	LV426504	LV426514	LV426524
TM63D	LV426505	LV426515	LV426525
TM80D	LV426506	LV426516	LV426526
TM100D	LV426507	LV426517	LV426527
TM125D	LV426508	LV426518	LV426528
TM160D	LV426509	LV426519	LV426529



#### Compression lug/busbar connectors

Rating	3P	4P 3d	4P 4d
TM16D	LV426550	LV426560	LV426570
TM25D	LV426551	LV426561	LV426571
TM32D	LV426552	LV426562	LV426572
TM40D	LV426553	LV426563	LV426573
TM50D	LV426554	LV426564	LV426574
TM63D	LV426555	LV426565	LV426575
TM80D	LV426556	LV426566	LV426576
TM100D	LV426557	LV426567	LV426577
TM125D	LV426558	LV426568	LV426578
TM160D	LV426559	LV426569	LV426579

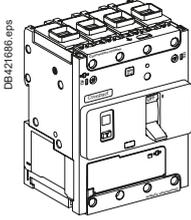
# Complete fixed device

## ComPact NSXm MicroLogic Vigi 4.1 E/B/F

(16/25/36 kA at 380/415 V)

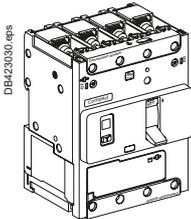
### ComPact NSXm MicroLogic Vigi 4.1 E (16 kA at 380/415 V)

With MicroLogic Vigi 4.1



EverLink™ connectors

Rating	3P	4P
25 A	LV426700	LV426705
50 A	LV426701	LV426706
100 A	LV426702	LV426707
160 A	LV426703	LV426708

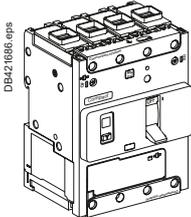


Compression lug/busbar connectors

Rating	3P	4P
25 A	LV426750	LV426755
50 A	LV426751	LV426756
100 A	LV426752	LV426757
160 A	LV426753	LV426758

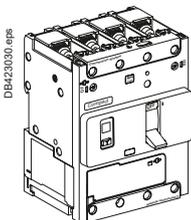
### ComPact NSXm MicroLogic Vigi 4.1 B (25 kA at 380/415 V)

With MicroLogic Vigi 4.1



EverLink™ connectors

Rating	3P	4P
25 A	LV426710	LV426715
50 A	LV426711	LV426716
100 A	LV426712	LV426717
160 A	LV426713	LV426718

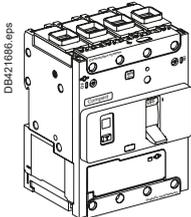


Compression lug/busbar connectors

Rating	3P	4P
25 A	LV426760	LV426765
50 A	LV426761	LV426766
100 A	LV426762	LV426767
160 A	LV426763	LV426768

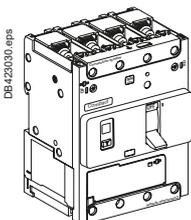
### ComPact NSXm MicroLogic Vigi 4.1 F (36 kA at 380/415 V)

With MicroLogic Vigi 4.1



EverLink™ connectors

Rating	3P	4P
25 A	LV426720	LV426725
50 A	LV426721	LV426726
100 A	LV426722	LV426727
160 A	LV426723	LV426728



Compression lug/busbar connectors

Rating	3P	4P
25 A	LV426770	LV426775
50 A	LV426771	LV426776
100 A	LV426772	LV426777
160 A	LV426773	LV426778

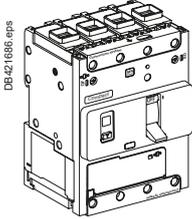


# Complete fixed device

## ComPact NSXm MicroLogic Vigi 4.1 N/H (50/70kA at 380/415 V)

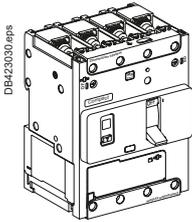
### ComPact NSXm MicroLogic Vigi 4.1 N (50 kA at 380/415 V)

With MicroLogic Vigi 4.1



EverLink™ connectors

Rating	3P	4P
25 A	LV426730	LV426735
50 A	LV426731	LV426736
100 A	LV426732	LV426737
160 A	LV426733	LV426738

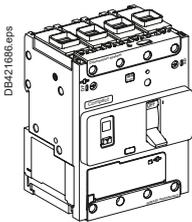


Compression lug/busbar connectors

Rating	3P	4P
25 A	LV426780	LV426785
50 A	LV426781	LV426786
100 A	LV426782	LV426787
160 A	LV426783	LV426788

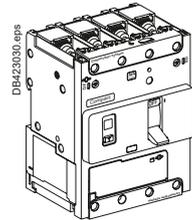
### ComPact NSXm MicroLogic Vigi 4.1 H (70 kA at 380/415 V)

With MicroLogic Vigi 4.1



EverLink™ connectors

Rating	3P	4P
25 A	LV426740	LV426745
50 A	LV426741	LV426746
100 A	LV426742	LV426747
160 A	LV426743	LV426748

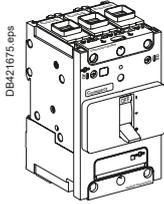


Compression lug/busbar connectors

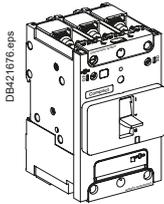
Rating	3P	4P
25 A	LV426790	LV426795
50 A	LV426791	LV426796
100 A	LV426792	LV426797
160 A	LV426793	LV426798

F

**ComPact NSXm NA switch-disconnector**



EverLink™ connectors		
Rating	3P	4P
50NA	LV426600	LV426610
100NA	LV426601	LV426611
160NA	LV426602	LV426612



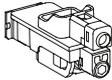
Compression lug/busbar connectors		
Rating	3P	4P
50NA	LV426650	LV426660
100NA	LV426651	LV426661
160NA	LV426652	LV426662

# Accessories

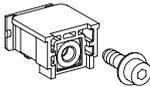
## Connection and insulation

### Connection accessories (Cu or Al)

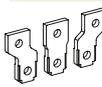
#### Bare cable connectors

 DB421533.eps	Everlink connector with control wire terminal	1x (2.5 to 95 mm <sup>2</sup> ); ≤ 160 A Cu or ≤ 100 A Al	Set of 3	LV426970
			Set of 4	LV426971
 DB419793.eps	Aluminium connector	1x (2.5 to 70 mm <sup>2</sup> ); ≤ 125 A Cu or Al	Set of 2	LV426966
			Set of 3	LV426967

#### Compression lugs / busbar connectors

 DB421537.eps	Terminal with nuts and screws M6	≤ 160 A	Set of 3	LV426960
			Set of 4	LV426961

#### Terminal extensions

 DB421538.eps	Spreaders from 27 to 35 mm pitch <sup>[1]</sup>	3P	LV426940
		4P	LV426941

#### Crimp lugs for copper cable <sup>[1]</sup>

 DB421539.eps	For cable 50 mm <sup>2</sup>	Set of 3	LV426978
		Set of 4	LV426979
	For cable 70 mm <sup>2</sup>	Set of 3	LV426980
		Set of 4	LV426981
	For cable 95 mm <sup>2</sup>	Set of 3	LV426982
		Set of 4	LV426983

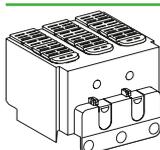
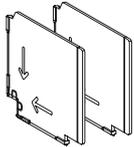
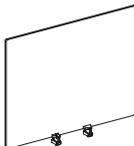
#### Crimp lugs for aluminium cable <sup>[1]</sup>

 DB421540.eps	For cable 95 mm <sup>2</sup> rigid	Set of 3	LV426984
		Set of 4	LV426985
	For cable 120 mm <sup>2</sup> rigid	Set of 3	LV426976
		Set of 4	LV426977

#### Torque limiting breakaway bits

 DB421541.eps	9 N.m	Set of 6	LV426990
		Set of 8	LV426991
	5 N.m	Set of 6	LV426992
		Set of 8	LV426993

### Insulation accessories

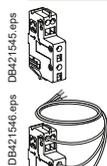
 DB421542.eps	1 long terminal shield	3P	LV426912
		4P	LV426913
 DB421543.eps	Interphase barriers	Set of 6	LV426920
 DB21544eps	2 rear insulation screens	3P	LV426922
		4P	LV426923

[1] Supplied with 2 or 3 interphase barriers.

F

**Electrical auxiliaries**

**Auxiliary contacts (changeover)**



Standard OF or SD	LV426950
Pre-wired OF <sup>[1]</sup>	LV426951
Pre-wired SD <sup>[1]</sup>	LV426952

**SDx for MicroLogic Vigi 4.1**



SDx module 24-250 V AC/DC	LV426900
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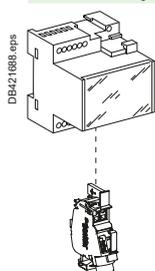
**Voltage releases**



	Standard	Voltage	MX	MN		
AC		24 V 50/60 Hz	LV426841	LV426801		
		48 V 50/60 Hz	LV426842	LV426802		
		110...130 V 50/60 Hz	LV426843	LV426803		
		220...240 V 50 Hz	LV426844	LV426804		
		208...240 V 60 Hz				
		277 V 60 Hz	LV426844	LV426805		
		380...415 V 50 Hz	LV426846	LV426806		
DC		440...480 V 60 Hz	LV426846	LV426807		
		12 V DC	LV426850	-		
		24 V DC	LV426841	LV426801		
		48 V DC	LV426842	LV426802		
Pre-wired <sup>[1]</sup>	AC	125 V DC	LV426843	LV426803		
		250 V DC	LV426844	LV426815		
		DC		24 V DC	LV426861	LV426821
				48 V DC	LV426862	LV426822
				110...130 V 50/60 Hz	LV426863	LV426823
				220...240 V 50 Hz	LV426864	LV426824
	208...240 V 60 Hz					
	277 V 60 Hz		LV426864	LV426825		
	380...415 V 50 Hz		LV426866	LV426826		
DC		440...480 V 60 Hz	LV426866	LV426827		
		12 V DC	LV426870	-		
		24 V DC	LV426861	LV426821		
		48 V DC	LV426862	LV426822		
		125 V DC	LV426863	LV426823		
	250 V DC	LV426864	LV426835			



**Time delay unit for undervoltage release (MN)**



<b>MN 48 V 50/60 Hz with fixed time delay</b>		
Composed of:	MN 48 V DC	LV426802
	Delay unit 48 V 50/60 Hz	LV429426
<b>MN 220-240 V 50/60 Hz with fixed time delay</b>		
Composed of:	MN 250 V DC	LV426815
	Delay unit 220-240 V 50/60 Hz	LV429427
<b>MN 48 V DC/AC 50/60 Hz with adjustable time delay</b>		
Composed of:	MN 48 V DC	LV426802
	Delay unit 48 V DC/AC 50/60 Hz	33680
<b>MN 110-130 V DC/AC 50/60 Hz with adjustable time delay</b>		
Composed of:	MN 125 V DC	LV426803
	Delay unit 100-130 V DC/AC 50/60 Hz	33681
<b>MN 220-250 V DC/AC 50/60 Hz with adjustable time delay</b>		
Composed of:	MN 250 V DC	LV426815
	Delay unit 200-250 V DC/AC 50-60 Hz	33682

[1] Cable: 1 meter long - AWG 18 - 480 V UL certified.

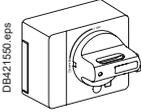


# Accessories

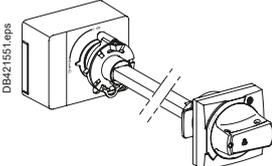
## Rotary handles, locks and seals

### Rotary handle

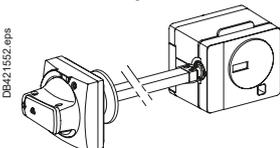
#### Direct rotary handle

	With black handle	LV426930
	With red handle on yellow front	LV426931

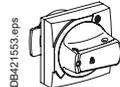
#### Extended rotary handle

	With black handle IP54	LV426932
	With red handle on yellow front IP54	LV426933
	With red handle on yellow front IP65	LV426934
	Open door shaft operator	LV426937
	Laser tool	GVAPL01

#### Side rotary handle

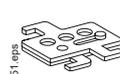
	With black handle IP54	LV426935
	With red handle on yellow front IP54	LV426936

#### Universal handle

	Black handle IP54 (spare part for replacement of front. ext. or side rotary handle)	LV426997
	Red handle on yellow front IP54	LV426998
	Red handle on yellow front IP65	LV426999

### Locks

#### Toggle locking device for 1 to 3 padlocks

	By removable device	29370
	By fixed device (OFF or ON)	LV426905
	By fixed device (OFF only)	LV426906
		

#### Lead - Sealing accessories

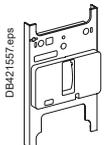
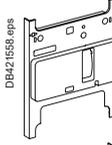
	Bag of accessories	LV429375
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F

# Accessories

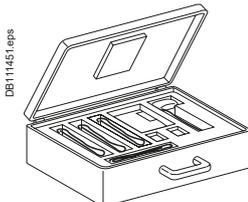
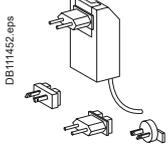
## Spare parts, test tool and software

### Spare parts

 DB421557.eps	Front cover	3P	LV426946
	 DB421558.eps	4P	LV426947
		ELCB <sup>[1]</sup>	LV426948

### Test tool, software, demo

#### Test tool

 DB111449.eps	Pocket battery for MicroLogic		LV434206
 DB111451.eps	Maintenance case		TRV00910
	Comprising: <ul style="list-style-type: none"> <li>■ USB maintenance interface</li> <li>■ Power supply</li> <li>■ MicroLogic cord</li> <li>■ USB cord</li> <li>■ RJ45/RJ45 male cord</li> </ul>		
 DB111450.eps	Spare USB maintenance interface		TRV00911
 DB111452.eps	Spare power supply 110-240 V AC		TRV00915
 DB111453.eps	Spare MicroLogic cord for USB maintenance interface		TRV00917

#### Software

 DB117159.eps	Configuration and setting EcoStruxure Power Commission software		LV4ST100
	Test software LTU		LV4ST121 <sup>[2]</sup>
	Monitoring EcoStruxure Power Commission software		LV4SM100 <sup>[2]</sup>

#### Demo tool

	Demo case for ComPact		LV434207
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[1] ELCB: Earth Leakage Circuit Breaker.

[2] Downloadable from <http://schneider-electric.com>.





F

# Catalog numbers: ComPact NSX100-250

## Complete fixed device

ComPact NSX100/160 1P-2P NSX250N 1P .....	F-16
ComPact NSX100/160/250B (25 kA 380/415 V) .....	F-17
ComPact NSX100/160/250B Vigi add-on (25 kA 380/415 V).....	F-18
ComPact NSX100/160/250F (36 kA 380/415 V).....	F-19
ComPact NSX100/160/250F Vigi add-on (36 kA 380/415 V).....	F-21
ComPact NSX100/160/250N (50 kA 380/415 V) .....	F-22
ComPact NSX100/160/250H (70 kA 380/415 V) .....	F-24
ComPact NSX100/250R (200 kA 380/415 V - 45 kA 690 V).....	F-26
ComPact NSX100/250HB1 (85 kA 500 V - 75 kA 690 V).....	F-28
ComPact NSX100/250HB2 (100 kA 500 V - 100 kA 690 V).....	F-30
ComPact NSX100/160/250NA.....	F-32

## Based on separate components

ComPact NSX100/160/250 .....	F-33
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## Trip unit accessories

ComPact NSX100/160/250 with/without Vigi add-on .....	F-36
-------------------------------------------------------	------

## Installation and connection

ComPact NSX100/160/250 with/without Vigi add-on .....	F-37
-------------------------------------------------------	------

## Accessories and auxiliaries

ComPact NSX100/160/250 with/without Vigi add-on .....	F-38
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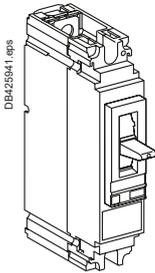
<b>Other chapters</b>	
Select your circuit breakers and switch-disconnectors .....	A-1
Select your protection .....	B-1
Customize your circuit breaker with accessories.....	C-1
Smart Panel integration.....	D-1
Switchboard integration.....	E-1
Glossary .....	G-1
Additional characteristics .....	H-1

# Complete fixed device

## ComPact NSX100/160 1P-2P NSX250N 1P

### ComPact NSX100/160 F/N/M/S 1P/2P

With thermal-magnetic trip unit TM-D



#### ComPact NSX100F AC/DC

Rating	1P 1d (Icu = 18 kA 220/240 V AC)	2P 2d (Icu = 18 kA 380/415 V AC)
TM16D	LV438562	LV438592
TM20D	LV438563	LV438593
TM25D	LV438564	LV438594
TM30D	LV438565	LV438595
TM40D	LV438566	LV438596
TM50D	LV438567	LV438597
TM63D	LV438568	LV438598
TM80D	LV438569	LV438599
TM100D	LV438570	LV438600

#### ComPact NSX100F AC/DC

#### ComPact NSX160F AC/DC

Rating	1P 1d (Icu = 18 kA 220/240 V AC)	2P 2d (Icu = 18 kA 380/415 V AC)
TM125D	LV438669	LV438699
TM160D	LV438670	LV438700

#### ComPact NSX160F AC/DC

#### ComPact NSX100N AC/DC

Rating	1P 1d (Icu = 25 kA 220/240 V AC)	2P 2d (Icu = 25 kA 380/415 V AC)
TM16D	LV438572	LV438602
TM20D	LV438573	LV438603
TM25D	LV438574	LV438604
TM30D	LV438575	LV438605
TM40D	LV438576	LV438606
TM50D	LV438577	LV438607
TM63D	LV438578	LV438608
TM80D	LV438579	LV438609
TM100D	LV438580	LV438610

#### ComPact NSX100M AC/DC

#### ComPact NSX160N AC/DC

Rating	1P 1d (Icu = 25 kA 220/240 V AC)	2P 2d (Icu = 40 kA 380/415 V AC)
TM125D	LV438679	LV438709
TM160D	LV438680	LV438710

#### ComPact NSX160M AC/DC

#### ComPact NSX100M AC/DC

Rating	1P 1d (Icu = 40 kA 220/240 V AC)	2P 2d (Icu = 70 kA 380/415 V AC)
TM16D	LV438582	LV438612
TM20D	LV438583	LV438613
TM25D	LV438584	LV438614
TM30D	LV438585	LV438615
TM40D	LV438586	LV438616
TM50D	LV438587	LV438617
TM63D	LV438588	LV438618
TM80D	LV438589	LV438619
TM100D	LV438590	LV438620

#### ComPact NSX100S AC/DC

#### ComPact NSX160M AC/DC

Rating	1P 1d (Icu = 40 kA 220/240 V AC)	2P 2d (Icu = 70 kA 380/415 V AC)
TM125D	LV438689	LV438719
TM160D	LV438690	LV438720

#### ComPact NSX160S AC/DC

### ComPact NSX250 N 1P

With thermal-magnetic trip unit TM-D

#### ComPact NSX250N AC

Rating	1P 1d (Icu = 25 kA 220/240 V AC)
TM160D	LV438693
TM200D	LV438694
TM250D	LV438695

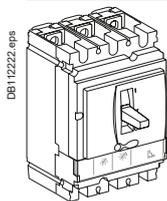
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# Complete fixed device

## ComPact NSX100/160/250B (25 kA 380/415 V)

### ComPact NSX100/160/250B

With thermal-magnetic trip unit TM-D



#### ComPact NSX100B (25 kA at 380/415 V)

Rating	3P 2d	3P 3d	4P 3d	4P 4d
TM16D	LV429547	LV429557	LV429567	LV429577
TM25D	LV429546	LV429556	LV429566	LV429576
TM32D	LV429545	LV429555	LV429565	LV429575
TM40D	LV429544	LV429554	LV429564	LV429574
TM50D	LV429543	LV429553	LV429563	LV429573
TM63D	LV429542	LV429552	LV429562	LV429572
TM80D	LV429541	LV429551	LV429561	LV429571
TM100D	LV429540	LV429550	LV429560	LV429570

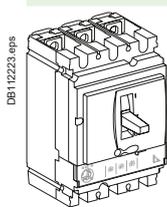
#### ComPact NSX160B (25 kA at 380/415 V)

Rating	3P 2d	3P 3d	4P 3d	4P 4d
TM80D	LV430303	LV430313	LV430323	LV430333
TM100D	LV430302	LV430312	LV430322	LV430332
TM125D	LV430301	LV430311	LV430321	LV430331
TM160D	LV430300	LV430310	LV430320	LV430330

#### ComPact NSX250B (25 kA at 380/415 V)

Rating	3P 2d	3P 3d	4P 3d	4P 4d
TM125D	LV431103	LV431113	LV431123	LV431133
TM160D	LV431102	LV431112	LV431122	LV431132
TM200D	LV431101	LV431111	LV431121	LV431131
TM250D	LV431100	LV431110	LV431120	LV431130

With electronic trip unit MicroLogic 2.2 (LS<sub>o</sub>I protection)



#### ComPact NSX100B (25 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40	LV429777	LV429787
100	LV429775	LV429785

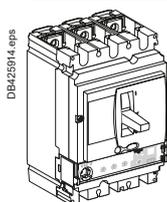
#### ComPact NSX160B (25 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100	LV430746	LV430751
160	LV430745	LV430750

#### ComPact NSX250B (25 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100	LV431142	LV431152
160	LV431141	LV431151
250	LV431140	LV431150

With electronic trip unit MicroLogic Vigi 4.2 (LS<sub>o</sub>IR protection)



#### ComPact NSX100B (25 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
40 A	LV433810	LV433818
100 A	LV433811	LV433819

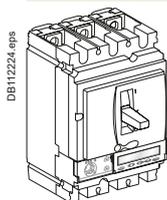
#### ComPact NSX160B (25 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433812	LV433820
160 A	LV433813	LV433821

#### ComPact NSX250B (25 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433814	LV433822
160 A	LV433815	LV433823
250 A	LV433816	LV433824

With electronic trip unit MicroLogic 5.2 A (LSI protection, ammeter)



#### ComPact NSX100B (25 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
40	LV429872	LV429877
100	LV429870	LV429875

#### ComPact NSX160B (25 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
100	LV430871	LV430876
160	LV430870	LV430875

#### ComPact NSX250B (25 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
100	LV431147	LV431157
160	LV431146	LV431156
250	LV431145	LV431155

With electronic trip unit MicroLogic 5.2 E (LSI protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 A (LSIG protection, ammeter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 E (LSIG protection, energy meter)

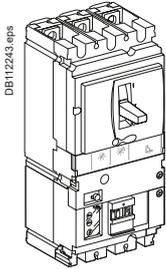
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/160/250B Vigi add-on (25 kA 380/415 V)

### ComPact NSX100/160/250B Vigi add-on

With thermal-magnetic trip unit TM-D



#### ComPact NSX100B (25 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d	4P 4d
TM16D	LV429667	LV429707	LV429967
TM25D	LV429666	LV429706	LV429966
TM32D	LV429665	LV429705	LV429965
TM40D	LV429664	LV429704	LV429964
TM50D	LV429663	LV429703	LV429963
TM63D	LV429662	LV429702	LV429962
TM80D	LV429661	LV429701	LV429961
TM100D	LV429660	LV429700	LV429960

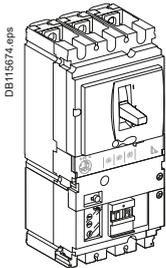
#### ComPact NSX160B (25 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d	4P 4d
TM80D	LV430343	LV430353	LV430363
TM100D	LV430342	LV430352	LV430362
TM125D	LV430341	LV430351	LV430361
TM160D	LV430340	LV430350	LV430360

#### ComPact NSX250B (25 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d	4P 4d
TM125D	LV431903	LV431913	LV431963
TM160D	LV431902	LV431912	LV431962
TM200D	LV431901	LV431911	LV431961
TM250D	LV431900	LV431910	LV431960

With electronic trip unit MicroLogic 2.2 (LS<sub>0</sub>I protection)



#### ComPact NSX100B (25 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40	LV429975	LV429985
100	LV429974	LV429984

#### ComPact NSX160B (25 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40	LV430962	LV430997
100	LV430961	LV430996
160	LV430960	LV430995

#### ComPact NSX250B (25 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100	LV431977	LV431987
160	LV431976	LV431986
250	LV431975	LV431985

With electronic trip unit MicroLogic 5.2 A or 5.2 E (LSI protection, ammeter or energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

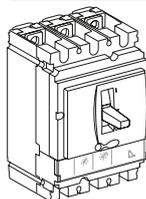
# Complete fixed device

## ComPact NSX100/160/250F (36 kA 380/415 V)

### ComPact NSX100/160/250F

With thermal-magnetic trip unit TM-D

DB112222.eps



#### ComPact NSX100F (36 kA at 380/415 V)

Rating	3P 2d	3P 3d	4P 3d	4P 4d
TM16D	LV429627	LV429637	LV429647	LV429657
TM25D	LV429626	LV429636	LV429646	LV429656
TM32D	LV429625	LV429635	LV429645	LV429655
TM40D	LV429624	LV429634	LV429644	LV429654
TM50D	LV429623	LV429633	LV429643	LV429653
TM63D	LV429622	LV429632	LV429642	LV429652
TM80D	LV429621	LV429631	LV429641	LV429651
TM100D	LV429620	LV429630	LV429640	LV429650

#### ComPact NSX160F (36 kA at 380/415 V)

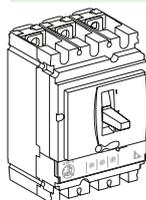
Rating	3P 2d	3P 3d	4P 3d	4P 4d
TM80D	LV430623	LV430633	LV430643	LV430653
TM100D	LV430622	LV430632	LV430642	LV430652
TM125D	LV430621	LV430631	LV430641	LV430651
TM160D	LV430620	LV430630	LV430640	LV430650

#### ComPact NSX250F (36 kA at 380/415 V)

Rating	3P 2d	3P 3d	4P 3d	4P 4d
TM125D	LV431623	LV431633	LV431643	LV431653
TM160D	LV431622	LV431632	LV431642	LV431652
TM200D	LV431621	LV431631	LV431641	LV431651
TM250D	LV431620	LV431630	LV431640	LV431650

With electronic trip unit MicroLogic 2.2 (LS<sub>o</sub>I protection)

DB112223.eps



#### ComPact NSX100F (36 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40	LV429772	LV429782
100	LV429770	LV429780

#### ComPact NSX160F (36 kA at 380/415 V)

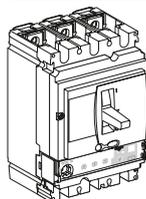
Rating	3P 3d	4P 3d, 4d, 3d + N/2
100	LV430771	LV430781
160	LV430770	LV430780

#### ComPact NSX250F (36 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100	LV431772	LV431782
160	LV431771	LV431781
250	LV431770	LV431780

With electronic trip unit MicroLogic Vigi 4.2 (LS<sub>o</sub>IR protection)

DB425914.eps



#### ComPact NSX100F (36 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
40 A	LV433826	LV433834
100 A	LV433827	LV433835

#### ComPact NSX160F (36 kA 380/415V)

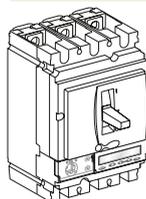
Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433828	LV433836
160 A	LV433829	LV433837

#### ComPact NSX250F (36 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433830	LV433838
160 A	LV433831	LV433839
250 A	LV433832	LV433840

With electronic trip unit MicroLogic 5.2 A (LSI protection, ammeter)

DB112224.eps



#### ComPact NSX100F (36 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
40	LV429882	LV429887
100	LV429880	LV429885

#### ComPact NSX160F (36 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
100	LV430881	LV430886
160	LV430880	LV430885

#### ComPact NSX250F (36 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
100	LV431862	LV431867
160	LV431861	LV431866
250	LV431860	LV431865

With electronic trip unit MicroLogic 5.2 E (LSI protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 A (LSIG protection, ammeter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 E (LSIG protection, energy meter)

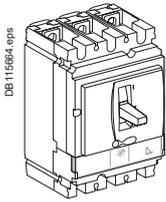
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/160/250F (36 kA 380/415 V)

### ComPact NSX100/160/250F

#### With magnetic trip unit MA



#### ComPact NSX100F (36 kA at 380/415 V)

Rating	3P 3d
MA2.5	LV429745
MA6.3	LV429744
MA12.5	LV429743
MA25	LV429742
MA50	LV429741
MA100	LV429740

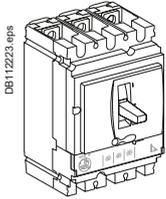
#### ComPact NSX160F (36 kA at 380/415 V)

Rating	3P 3d
MA100	LV430831
MA150	LV430830

#### ComPact NSX250F (36 kA at 380/415 V)

Rating	3P 3d
MA150	LV431749
MA220	LV431748

#### With electronic trip unit MicroLogic 2.2 M (LS<sub>o</sub> motor protection)



#### ComPact NSX100F (36 kA at 380/415 V)

Rating	3P 3d
25 A	LV429828
50 A	LV429827
100 A	LV429825

#### ComPact NSX160F (36 kA at 380/415 V)

Rating	3P 3d
100 A	LV430986
150 A	LV430985

#### ComPact NSX250F (36 kA at 380/415 V)

Rating	3P 3d
150 A	LV431161
220 A	LV431160

#### With electronic trip unit MicroLogic 6.2 E-M (LSIG motor protection, energy meter)

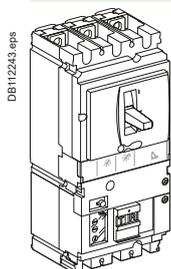
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/160/250F Vigi add-on (36 kA 380/415 V)

### ComPact NSX100/160/250F Vigi add-on

With thermal-magnetic trip unit TM-D



ComPact NSX100F (36 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d	4P 4d
TM16D	LV429937	LV429947	LV429957
TM25D	LV429936	LV429946	LV429956
TM32D	LV429935	LV429945	LV429955
TM40D	LV429934	LV429944	LV429954
TM50D	LV429933	LV429943	LV429953
TM63D	LV429932	LV429942	LV429952
TM80D	LV429931	LV429941	LV429951
TM100D	LV429930	LV429940	LV429950

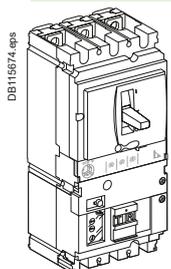
ComPact NSX160F (36 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d	4P 4d
TM80D	LV430933	LV430943	LV430953
TM100D	LV430932	LV430942	LV430952
TM125D	LV430931	LV430941	LV430951
TM160D	LV430930	LV430940	LV430950

ComPact NSX250F (36 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d	4P 4d
TM125D	LV431933	LV431943	LV431953
TM160D	LV431932	LV431942	LV431952
TM200D	LV431931	LV431941	LV431951
TM250D	LV431930	LV431940	LV431950

With electronic trip unit MicroLogic 2.2 (LS<sub>0</sub>I protection)



ComPact NSX100F (36 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV429972	LV429982
100 A	LV429970	LV429980

ComPact NSX160F (36 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV430973	LV430983
100 A	LV430971	LV430981
160 A	LV430970	LV430980

ComPact NSX250F (36 kA at 380/415 V) MH Vigi add-on (200 to 440 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV431972	LV431982
160 A	LV431971	LV431981
250 A	LV431970	LV431980

With electronic trip unit MicroLogic 5.2 A or 5.2 E (LSI protection, energy meter)

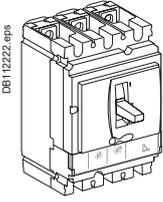
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/160/250N (50 kA 380/415 V)

### ComPact NSX100/160/250N

With thermal-magnetic trip unit TM-D



#### ComPact NSX100N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d	4P 4d
TM16D	LV429847	LV429857	LV429867
TM25D	LV429846	LV429856	LV429866
TM32D	LV429845	LV429855	LV429865
TM40D	LV429844	LV429854	LV429864
TM50D	LV429843	LV429853	LV429863
TM63D	LV429842	LV429852	LV429862
TM80D	LV429841	LV429851	LV429861
TM100D	LV429840	LV429850	LV429860

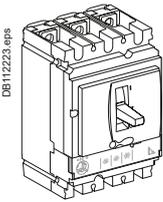
#### ComPact NSX160N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d	4P 4d
TM80D	LV430843	LV430853	LV430863
TM100D	LV430842	LV430852	LV430862
TM125D	LV430841	LV430851	LV430861
TM160D	LV430840	LV430850	LV430860

#### ComPact NSX250N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d	4P 4d
TM125D	LV431833	LV431843	LV431853
TM160D	LV431832	LV431842	LV431852
TM200D	LV431831	LV431841	LV431851
TM250D	LV431830	LV431840	LV431850

With electronic trip unit MicroLogic 2.2 (LS<sub>o</sub>I protection)



#### ComPact NSX100N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV429797	LV429807
100 A	LV429795	LV429805

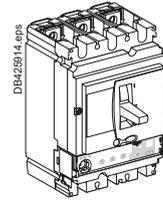
#### ComPact NSX160N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV430776	LV430786
160 A	LV430775	LV430785

#### ComPact NSX250N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV431872	LV431877
160 A	LV431871	LV431876
250 A	LV431870	LV431875

With electronic trip unit MicroLogic Vigi 4.2 (LS<sub>o</sub>IR protection)



#### ComPact NSX100N (50 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
40 A	LV433842	LV433850
100 A	LV433843	LV433851

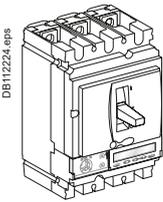
#### ComPact NSX160N (50 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433844	LV433852
160 A	LV433845	LV433853

#### ComPact NSX250N (50 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433846	LV433854
160 A	LV433847	LV433855
250 A	LV433848	LV433856

With electronic trip unit MicroLogic 5.2 A (LSI protection, ammeter)



#### ComPact NSX100N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV429892	LV429897
100 A	LV429890	LV429895

#### ComPact NSX160N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV430891	LV430896
160 A	LV430890	LV430895

#### ComPact NSX250N (50 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV431882	LV431887
160 A	LV431881	LV431886
250 A	LV431880	LV431885

With electronic trip unit MicroLogic 5.2 E (LSI protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 A (LSIG protection, ammeter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 E (LSIG protection, energy meter)

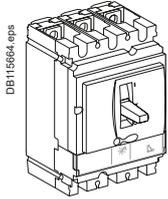
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/160/250N (50 kA 380/415 V)

### ComPact NSX100/160/250N

With magnetic trip unit MA



#### ComPact NSX100N (50 kA at 380/415 V)

Rating	3P 3d
MA2.5	LV429755
MA6.3	LV429754
MA12.5	LV429753
MA25	LV429752
MA50	LV429751
MA100	LV429750

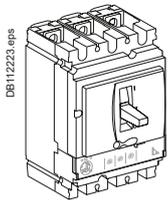
#### ComPact NSX160N (50 kA at 380/415 V)

Rating	3P 3d
MA100	LV430833
MA150	LV430832

#### ComPact NSX250N (50 kA at 380/415 V)

Rating	3P 3d
MA150	LV431753
MA220	LV431752

With electronic trip unit MicroLogic 2.2 M (LS<sub>o</sub>I motor protection)



#### ComPact NSX100N (50 kA at 380/415 V)

Rating	3P 3d
25 A	LV429833
50 A	LV429832
100 A	LV429830

#### ComPact NSX160N (50 kA at 380/415 V)

Rating	3P 3d
100 A	LV430989
150 A	LV430988

#### ComPact NSX250N (50 kA at 380/415 V)

Rating	3P 3d
150 A	LV431166
220 A	LV431165

With electronic trip unit MicroLogic 6.2 E-M (LSIG motor protection, energy meter)

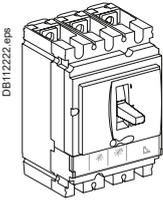
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/160/250H (70 kA 380/415 V)

### ComPact NSX100/160/250H

With thermal-magnetic trip unit TM-D



#### ComPact NSX100H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d	4P 4d
TM16D	LV429677	LV429687	LV429697
TM25D	LV429676	LV429686	LV429696
TM32D	LV429675	LV429685	LV429695
TM40D	LV429674	LV429684	LV429694
TM50D	LV429673	LV429683	LV429693
TM63D	LV429672	LV429682	LV429692
TM80D	LV429671	LV429681	LV429691
TM100D	LV429670	LV429680	LV429690

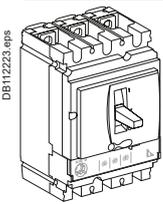
#### ComPact NSX160H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d	4P 4d
TM80D	LV430673	LV430683	LV430693
TM100D	LV430672	LV430682	LV430692
TM125D	LV430671	LV430681	LV430691
TM160D	LV430670	LV430680	LV430690

#### ComPact NSX250H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d	4P 4d
TM125D	LV431673	LV431683	LV431693
TM160D	LV431672	LV431682	LV431692
TM200D	LV431671	LV431681	LV431691
TM250D	LV431670	LV431680	LV431690

With electronic trip unit MicroLogic 2.2 (LS<sub>o</sub>I protection)



#### ComPact NSX100H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV429792	LV429802
100 A	LV429790	LV429800

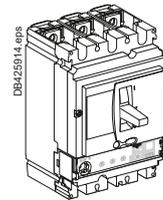
#### ComPact NSX160H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV430791	LV430801
160 A	LV430790	LV430800

#### ComPact NSX250H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV431792	LV431802
160 A	LV431791	LV431801
250 A	LV431790	LV431800

With electronic trip unit MicroLogic Vigi 4.2 (LS<sub>o</sub>IR protection)



#### ComPact NSX100H (70 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
40 A	LV433858	LV433866
100 A	LV433859	LV433867

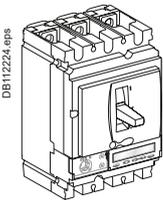
#### ComPact NSX160H (70 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433860	LV433868
160 A	LV433861	LV433869

#### ComPact NSX250H (70 kA 380/415V)

Rating	3P 3d	4P 4d, 3d + N/2
100 A	LV433862	LV433870
160 A	LV433863	LV433871
250 A	LV433864	LV433872

With electronic trip unit MicroLogic 5.2 A (LSI protection, ammeter)



#### ComPact NSX100H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV429794	LV429804
100 A	LV429793	LV429803

#### ComPact NSX160H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV430795	LV430805
160 A	LV430794	LV430804

#### ComPact NSX250H (70 kA at 380/415 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV431797	LV431807
160 A	LV431796	LV431806
250 A	LV431795	LV431805

With electronic trip unit MicroLogic 5.2 E (LSI protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 A (LSIG protection, ammeter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.2 E (LSIG protection, energy meter)

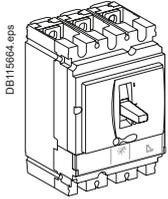
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/160/250H (70 kA 380/415 V)

### ComPact NSX100/160/250H

With magnetic trip unit MA



#### ComPact NSX100H (70 kA at 380/415 V)

Rating	3P 3d
MA2.5	LV429765
MA6.3	LV429764
MA12.5	LV429763
MA25	LV429762
MA50	LV429761
MA100	LV429760

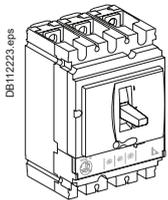
#### ComPact NSX160H (70 kA at 380/415 V)

Rating	3P 3d
MA100	LV430835
MA150	LV430834

#### ComPact NSX250H (70 kA at 380/415 V)

Rating	3P 3d
MA150	LV431757
MA220	LV431756

With electronic trip unit MicroLogic 2.2 M (LS<sub>o</sub>I motor protection)



#### ComPact NSX100H (70 kA at 380/415 V)

Rating	3P 3d
25 A	LV429838
50 A	LV429837
100 A	LV429835

#### ComPact NSX160H (70 kA at 380/415 V)

Rating	3P 3d
100 A	LV430992
150 A	LV430991

#### ComPact NSX250H (70 kA at 380/415 V)

Rating	3P 3d
150 A	LV431171
220 A	LV431170

With electronic trip unit MicroLogic 6.2 E-M (LSIG motor protection, energy meter)

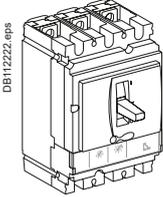
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX100/250R (200 kA 380/415 V - 45 kA 690 V)

### ComPact NSX100/250R

With thermal-magnetic trip unit TM-D



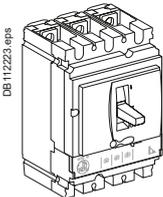
ComPact NSX100R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d	4P 4d
TM40D	LV433200	LV433201
TM50D	LV433202	LV433203
TM63D	LV433204	LV433205
TM80D	LV433206	LV433207
TM100D	LV433208	LV433209

ComPact NSX250R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d	4P 4d
TM125D	LV433470	LV433471
TM160D	LV433472	LV433473
TM200D	LV433474	LV433475
TM250D	LV433476	LV433477

With electronic trip unit MicroLogic 2.2 (LS<sub>0</sub>I protection)



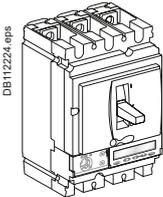
ComPact NSX100R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV433270	LV433271
100 A	LV433272	LV433273

ComPact NSX250R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV433510	LV433511
160 A	LV433512	LV433513
250 A	LV433514	LV433515

With electronic trip unit MicroLogic 5.2 E (LSI protection, energy meter)



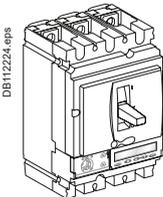
ComPact NSX100R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV433277	LV433278
100 A	LV433279	LV433280

ComPact NSX250R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV433518	LV433519
160 A	LV433520	LV433521
250 A	LV433522	LV433523

With electronic trip unit MicroLogic 6.2 E (LSIG protection, energy meter)



ComPact NSX100R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV433281	LV433282
100 A	LV433283	LV433284

ComPact NSX250R (200 kA at 380/415 V - 45 kA at 690 V)

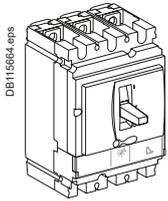
Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV433524	LV433525
160 A	LV433526	LV433527
250 A	LV433528	LV433529

# Complete fixed device

## ComPact NSX100/250R (200 kA 380/415 V - 45 kA 690 V)

### ComPact NSX100/250R

With magnetic trip unit MA



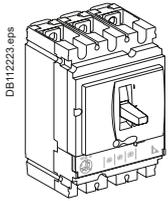
ComPact NSX100R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d
MA12.5	LV433242
MA25	LV433243
MA50	LV433244
MA100	LV433245

ComPact NSX250R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d
MA150	LV433500
MA220	LV433501

With electronic trip unit MicroLogic 2.2 M (LS<sub>o</sub>I motor protection)



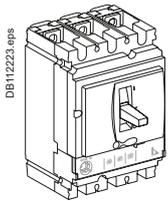
ComPact NSX100R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d
25 A	LV433274
50 A	LV433275
100 A	LV433276

ComPact NSX250R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d
150 A	LV433516
220 A	LV433517

With electronic trip unit MicroLogic 6.2 E-M (LSIG motor protection, energy meter)



ComPact NSX100R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d
25 A	LV433285
50 A	LV433286
80 A	LV433287

ComPact NSX250R (200 kA at 380/415 V - 45 kA at 690 V)

Rating	3P 3d
150 A	LV433530
220 A	LV433531

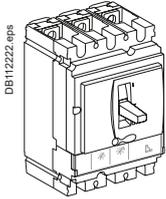


# Complete fixed device

## ComPact NSX100/250HB1 (85 kA 500 V - 75 kA 690 V)

### ComPact NSX100/250HB1

With thermal-magnetic trip unit TM-D



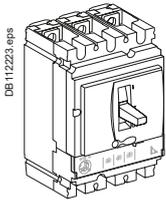
ComPact NSX100HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d	4P 4d
TM40D	LV433210	LV433211
TM50D	LV433212	LV433213
TM63D	LV433214	LV433215
TM80D	LV433216	LV433217
TM100D	LV433218	LV433219

ComPact NSX250HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d	4P 4d
TM125D	LV433478	LV433479
TM160D	LV433480	LV433481
TM200D	LV433482	LV433483
TM250D	LV433484	LV433485

With electronic trip unit MicroLogic 2.2 (LS<sub>0</sub>I protection)



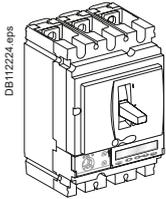
ComPact NSX100HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV433300	LV433301
100 A	LV433302	LV433303

ComPact NSX250HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV433540	LV433541
160 A	LV433542	LV433543
250 A	LV433544	LV433545

With electronic trip unit MicroLogic 5.2 E (LSI protection, energy meter)



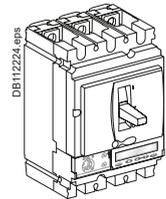
ComPact NSX100HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV433307	LV433308
100 A	LV433309	LV433310

ComPact NSX250HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV433548	LV433549
160 A	LV433550	LV433551
250 A	LV433552	LV433553

With electronic trip unit MicroLogic 6.2 E (LSIG protection, energy meter)



ComPact NSX100HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV433311	LV433312
100 A	LV433313	LV433314

ComPact NSX250HB1 (85 kA at 500 V - 75 kA at 690 V)

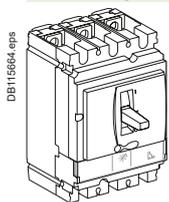
Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV433554	LV433555
160 A	LV433556	LV433557
250 A	LV433558	LV433559

# Complete fixed device

## ComPact NSX100/250HB1 (85 kA 500 V - 75 kA 690 V)

### ComPact NSX100/250HB1

With magnetic trip unit MA



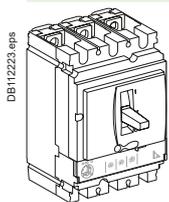
ComPact NSX100HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d
MA12.5	LV433248
MA25	LV433249
MA50	LV433250
MA100	LV433251

ComPact NSX250HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d
MA150	LV433502
MA220	LV433503

With electronic trip unit MicroLogic 2.2 M (LS<sub>o</sub>I motor protection)



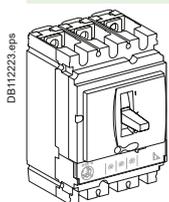
ComPact NSX100HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d
25 A	LV433304
50 A	LV433305
100 A	LV433306

ComPact NSX250HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d
150 A	LV433546
220 A	LV433547

With electronic trip unit MicroLogic 6.2 E-M (LSIG motor protection, energy meter)



ComPact NSX100HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d
25 A	LV433315
50 A	LV433316
80 A	LV433317

ComPact NSX250HB1 (85 kA at 500 V - 75 kA at 690 V)

Rating	3P 3d
150 A	LV433560
220 A	LV433561

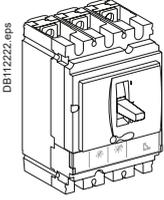


# Complete fixed device

## ComPact NSX100/250HB2 (100 kA 500 V - 100 kA 690 V)

### ComPact NSX100/250HB2

With thermal-magnetic trip unit TM-D



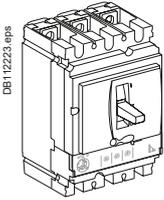
ComPact NSX100HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d	4P 4d
TM63D	LV433224	LV433225
TM80D	LV433226	LV433227
TM100D	LV433228	LV433229

ComPact NSX250HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d	4P 4d
TM125D	LV433486	LV433487
TM160D	LV433488	LV433489
TM200D	LV433490	LV433491
TM250D	LV433492	LV433493

With electronic trip unit MicroLogic 2.2 (LS<sub>0</sub>I protection)



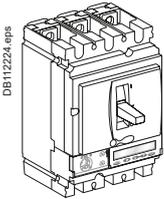
ComPact NSX100HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV433330	LV433331
100 A	LV433332	LV433333

ComPact NSX250HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
100 A	LV433570	LV433571
160 A	LV433572	LV433573
250 A	LV433574	LV433575

With electronic trip unit MicroLogic 5.2 E (LSI protection, energy meter)



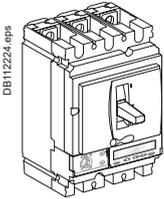
ComPact NSX100HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV433337	LV433338
100 A	LV433339	LV433340

ComPact NSX250HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV433578	LV433579
160 A	LV433580	LV433581
250 A	LV433582	LV433583

With electronic trip unit MicroLogic 6.2 E (LSIG protection, energy meter)



ComPact NSX100HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
40 A	LV433341	LV433342
100 A	LV433343	LV433344

ComPact NSX250HB2 (100 kA at 500 V - 100 kA at 690 V)

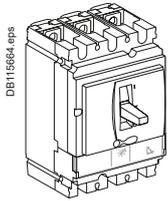
Rating	3P 3d	4P 3d, 4d, 3d + N/2, OSN
100 A	LV433584	LV433585
160 A	LV433586	LV433587
250 A	LV433588	LV433589

# Complete fixed device

## ComPact NSX100/250HB2 (100 kA 500 V - 100 kA 690 V)

### ComPact NSX100/250HB2

With magnetic trip unit MA



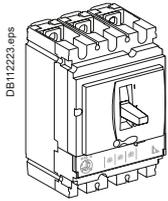
ComPact NSX100HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d
MA12.5	LV433254
MA25	LV433255
MA50	LV433256
MA100	LV433257

ComPact NSX250HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d
MA150	LV433504
MA220	LV433505

With electronic trip unit MicroLogic 2.2 M (LS<sub>o</sub>I motor protection)



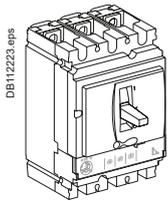
ComPact NSX100HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d
25 A	LV433334
50 A	LV433335
100 A	LV433336

ComPact NSX250HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d
150 A	LV433576
220 A	LV433577

With electronic trip unit MicroLogic 6.2 E-M (LSIG motor protection, energy meter)



ComPact NSX100HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d
25 A	LV433345
50 A	LV433346
80 A	LV433347

ComPact NSX250HB2 (100 kA at 500 V - 100 kA at 690 V)

Rating	3P 3d
150 A	LV433590
220 A	LV433591

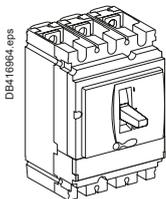


# Complete fixed device

## ComPact NSX100/160/250NA

### ComPact NSX100/160/250NA switch-disconnector

With NA switch-disconnector unit



DBA110654.eps

#### ComPact NSX100NA

Rating	<b>2P</b>	<b>3P</b>	<b>4P</b>
100 A	<b>LV429619</b>	<b>LV429629</b>	<b>LV429639</b>

#### ComPact NSX160NA

Rating	<b>2P</b>	<b>3P</b>	<b>4P</b>
160 A	<b>LV430619</b>	<b>LV430629</b>	<b>LV430639</b>

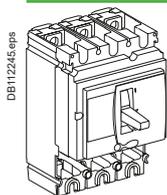
#### ComPact NSX250NA

Rating	<b>2P</b>	<b>3P</b>	<b>4P</b>
250 A	<b>LV431619</b>	<b>LV431629</b>	<b>LV431639</b>

## Based on separate components

## ComPact NSX100/160/250

## Basic frame



DB112245.eps

## ComPact NSX100

	3P	4P
NSX100B (25 kA 380/415 V)	LV429014	LV429015
NSX100F (36 kA 380/415 V)	LV429003	LV429008
NSX100N (50 kA 380/415 V)	LV429006	LV429011
NSX100H (70 kA 380/415 V)	LV429004	LV429009
NSX100S (100 kA 380/415 V)	LV429018	LV429019
NSX100L (150 kA 380/415 V)	LV429005	LV429010

## ComPact NSX160

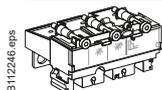
	3P	4P
NSX160B (25 kA 380/415 V)	LV430390	LV430395
NSX160F (36 kA 380/415 V)	LV430403	LV430408
NSX160N (50 kA 380/415 V)	LV430406	LV430411
NSX160H (70 kA 380/415 V)	LV430404	LV430409
NSX160S (100 kA 380/415 V)	LV430391	LV430396
NSX160L (150 kA 380/415 V)	LV430405	LV430410

## ComPact NSX250

	3P	4P
NSX250B (25 kA 380/415 V)	LV431390	LV431395
NSX250F (36 kA 380/415 V)	LV431403	LV431408
NSX250N (50 kA 380/415 V)	LV431406	LV431411
NSX250H (70 kA 380/415 V)	LV431404	LV431409
NSX250S (100 kA 380/415 V)	LV431391	LV431396
NSX250L (150 kA 380/415 V)	LV431405	LV431410

## + Trip unit

## Distribution protection



DB112246.eps

## Thermal-magnetic TM-D

Rating	3P 3d	4P 3d	4P 4d
TM16D	LV429037	LV429047	LV429057
TM25D	LV429036	LV429046	LV429056
TM32D	LV429035	LV429045	LV429055
TM40D	LV429034	LV429044	LV429054
TM50D	LV429033	LV429043	LV429053
TM63D	LV429032	LV429042	LV429052
TM80D	LV429031	LV429041	LV429051
TM100D	LV429030	LV429040	LV429050
TM125D	LV430431	LV430441	LV430451
TM160D <sup>[1]</sup>	LV430430	LV430440	LV430450
TM160D <sup>[2]</sup>	LV431432	LV431442	LV431452
TM200D	LV431431	LV431441	LV431451
TM250D	LV431430	LV431440	LV431450

MicroLogic 2.2 (LS<sub>o</sub>I protection)

Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV429072	LV429082
100 A	LV429070	LV429080
160 A	LV430470	LV430480
250 A	LV431470	LV431480

## MicroLogic 5.2 A (LSI protection, ammeter)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
40 A	LV429091	LV429101
100 A	LV429090	LV429100
160 A	LV430490	LV430495
250 A	LV431490	LV431495

## MicroLogic 5.2 E (LSI protection, energy meter)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
40 A	LV429096	LV429106
100 A	LV429095	LV429105
160 A	LV430491	LV430496
250 A	LV431491	LV431496

## MicroLogic 6.2 A (LSIG protection, ammeter)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
40 A	LV429111	LV429136
100 A	LV429110	LV429135
160 A	LV430505	LV430515
250 A	LV431505	LV431515

## MicroLogic 6.2 E (LSIG protection, energy meter)

Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
40 A	LV429116	LV429141
100 A	LV429115	LV429140
160 A	LV430506	LV430516
250 A	LV431506	LV431516

[1] For NSX160.

[2] For NSX250.

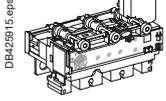
# Based on separate components

## ComPact NSX100/160/250

### + Trip unit (cont.)

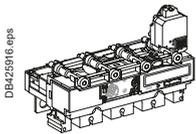
#### Distribution protection with embedded earth leakage protection

##### MicroLogic Vigi 4.2 (LS<sub>o</sub>IR protection)



Rating	3P 3d	4P 4d 3d + N/2
40 A	LV433800	LV433805
100 A	LV433801	LV433806
160 A	LV433802	LV433807
250 A	LV433803	LV433808

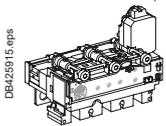
##### MicroLogic Vigi 7.2 E (LSIR protection)



Rating	3P 3d	4P 4d 3d + N/2
40 A	-	LV433879
100 A	-	LV433880
160 A	-	LV433881
250 A	-	LV433882

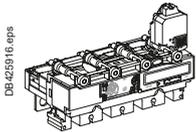
#### Distribution protection with embedded earth leakage alarm

##### MicroLogic Vigi 4.2 AL (LS<sub>o</sub>I protection + earth leakage alarm)



Rating	3P 3d	4P 4d 3d + N/2
40 A	LV433884	LV433889
100 A	LV433885	LV433890
160 A	LV433886	LV433891
250 A	LV433887	LV433892

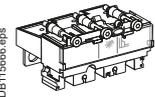
##### MicroLogic Vigi 7.2 E AL (LSI protection + earth leakage alarm)



Rating	3P 3d	4P 4d 3d + N/2
40 A	-	LV433898
100 A	-	LV433899
160 A	-	LV433900
250 A	-	LV433901

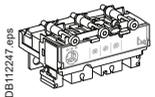
#### Motor protection

##### Magnetic MA (I protection)



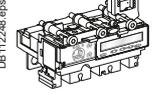
Rating	3P 3d	4P 3d
MA2.5	LV429125	
MA6.3	LV429124	
MA12.5	LV429123	
MA25	LV429122	
MA50	LV429121	
MA100	LV429120	LV429130
MA150	LV430500	LV430510
MA220	LV431500	LV431510

##### MicroLogic 2.2 M (LS<sub>o</sub>I protection)



Rating	3P 3d
25 A	LV429174
50 A	LV429172
100 A	LV429170
150 A	LV430520
220 A	LV431520

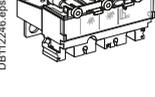
##### MicroLogic 6.2 E-M (LSIG protection, energy meter)



Rating	3P 3d
25 A	LV429184
50 A	LV429182
80 A	LV429180
150 A	LV430521
220 A	LV431521

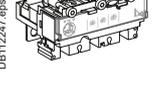
#### Generator protection

##### Thermal-magnetic TM-G



Rating	3P 3d	4P 4d
TM16G	LV429155	LV429165
TM25G	LV429154	LV429164
TM40G	LV429153	LV429163
TM63G	LV429152	LV429162
TM80G	LV430080	LV430092
TM100G	LV430081	LV430093
TM125G	LV430082	LV430094
TM160G	LV430083	LV430095
TM200G	LV430084	LV430096
TM250G	LV430085	LV430097

##### MicroLogic 2.2 G (LS<sub>o</sub>I protection)



Rating	3P 3d	4P 3d, 4d, 3d + N/2
40 A	LV429076	LV429086
100 A	LV429075	LV429085
160 A	LV430475	LV430485
250 A	LV431475	LV431485

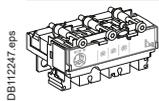
F

## Based on separate components

## ComPact NSX100/160/250

**+ Trip unit (cont.)**

## Protection of public distribution systems

MicroLogic 2.2 AB (LS<sub>0</sub>I) protection)

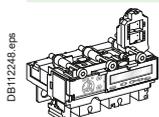
Rating	4P 3d, 4d, 3d + N/2
100 A	LV434550
160 A	LV434551
240 A	LV434554

## Earth Leakage protection of public distribution systems

## MicroLogic Vigi 4.2 AB distribution protections

Rating	4P 3d, 4d, 3d + N/2
100 A	LV433804
160 A	LV433809
250 A	LV433817

## 16 Hz 2/3 network protection

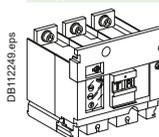


## MicroLogic 5.2 A-Z (LSI protection, ammeter)

Rating	3P 3d
100 A	LV429089
250 A	LV431489

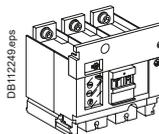
**+ Vigi add-on or Vigi add-on Alarm**

## Vigi add-on



	3P	4P
ME type for NSX100/160 (200 to 440 V)	LV429212	LV429213
MH type for NSX100/160 (200 to 440 V)	LV429210	LV429211
MH type for NSX250 (200 to 440 V)	LV431535	LV431536
MH type for NSX100/160 (440 to 550 V)	LV429215	LV429216
MH type for NSX250 (440 to 550 V)	LV431533	LV431534
Connection for a 4P Vigi on a 3P breaker		LV429214

## Vigi add-on Alarm



	3P	4P
200 to 440 V AC	LV429459	LV429460
Connection for a 4P insulation monitoring module on a 3P breaker		LV429214

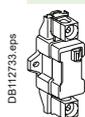
## Catalog numbers

## Trip unit accessories

## ComPact NSX100/160/250 with/without Vigi add-on

## Trip unit accessories

## External neutral CT for 3 pole breaker with MicroLogic 5/6



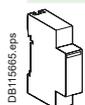
25-100 A	LV429521
150-250 A	LV430563

## 24 V DC wiring accessory for MicroLogic 5/6



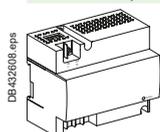
24 V DC power supply connector	LV434210
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## ZSI wiring accessory for NS630b NW with NSX



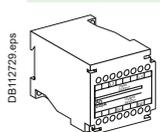
ZSI module	LV434212
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## External power supply module (24 V DC - 1 A), class 4



24-30 V DC	LV454440
48-60 V DC	LV454441
100-125 V DC	LV454442
110-130 V AC	LV454443
200-240 V AC	LV454444

## Battery module

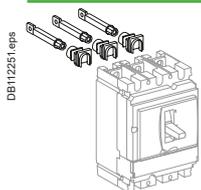


24 V DC battery module	54446
------------------------	-------

# Installation and connection

## ComPact NSX100/160/250 with/without Vigi add-on

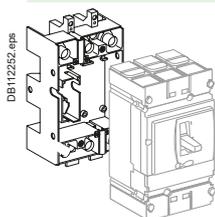
### Fixed/RC device = fixed/FC device + rear connection kit



Short RC kit			
Kit 3P		3 x	LV429235
Kit 4P		4 x	LV429235
Mixed RC kit			
Kit 3P	Short RCs	2 x	LV429235
	Long RCs	1 x	LV429236
Kit 4P	Short RCs	2 x	LV429235
	Long RCs	2 x	LV429236

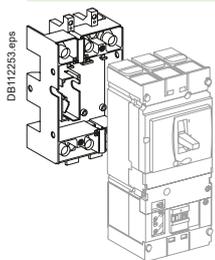
### Plug-in version = fixed/FC device + plug-in kit

#### Kit for ComPact NSX



Plug-in kit	2P (3P) LV429288	3P LV429289	4P LV429290
Comprising:			
Base	= 1 x LV429265	= 1 x LV429266	= 1 x LV429267
Power connections	+ 2 x LV429268	+ 3 x LV429268	+ 4 x LV429268
Short terminal shields	+ 2 x LV429515	+ 2 x LV429515	+ 2 x LV429516
Safety trip interlock	+ 1 x LV429270	+ 1 x LV429270	+ 1 x LV429270

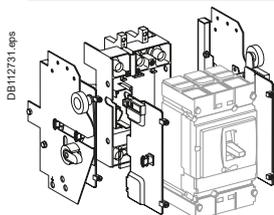
#### Kit for ComPact NSX Vigi add-on



ComPact NSX Vigi add-on plug-in kit	3P LV429291	4P LV429292
Comprising:		
Base	= 1 x LV429266	= 1 x LV429267
Power connections	+ 3 x LV429269	+ 4 x LV429269
Short terminal shields	+ 2 x LV429515	+ 2 x LV429516
Safety trip interlock	+ 1 x LV429270	+ 1 x LV429270

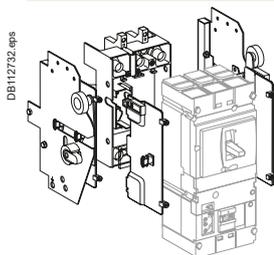
### Withdrawable version = fixed/FC device + withdrawable kit

#### Kit for ComPact NSX



	2P (3P) Kit for ComPact NSX	3P Kit for ComPact NSX	4P Kit for ComPact NSX
Plug-in kit	= 1 x LV429288	= 1 x LV429289	= 1 x LV429290
Chassis side plates for base	+ 1 x LV429282	+ 1 x LV429282	+ 1 x LV429282
Chassis side plates for breaker	+ 1 x LV429283	+ 1 x LV429283	+ 1 x LV429283

#### Kit for ComPact NSX Vigi add-on



	3P Kit for Vigi add-on	4P Kit for Vigi add-on
Plug-in kit	= 1 x LV429291	= 1 x LV429292
Chassis side plates for base	+ 1 x LV429282	+ 1 x LV429282
Chassis side plates for breaker	+ 1 x LV429283	+ 1 x LV429283

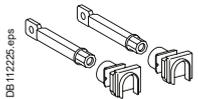


# Accessories and auxiliaries

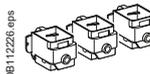
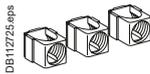
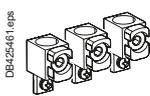
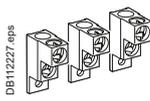
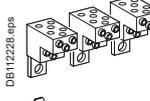
## ComPact NSX100/160/250 with/without Vigi add-on

### Connection accessories (Cu or Al)

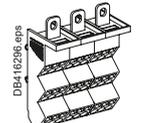
#### Rear connections

	2 short	LV429235
	2 long	LV429236

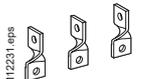
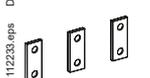
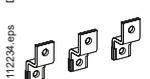
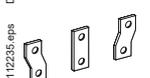
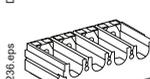
#### Bare cable connectors

	Steel connectors	1 x (1.5 to 95 mm <sup>2</sup> ) ; ≤ 160 A	Set of 2	LV429246
			Set of 3	LV429242
			Set of 4	LV429243
	Aluminium connectors	1 x (25 to 95 mm <sup>2</sup> ) ; ≤ 250 A	Set of 2	LV429255
			Set of 3	LV429227
			Set of 4	LV429228
		1 x (120 to 185 mm <sup>2</sup> ) ; ≤ 250 A	Set of 2	LV429247
			Set of 3	LV429259
			Set of 4	LV429260
		1 x (120 to 240 mm <sup>2</sup> ) ; ≤ 250 A	Set of 3	LV429244
		Set of 4	LV429245	
	Clips for connectors		Set of 10	LV429241
	Aluminium connectors for 2 cables <sup>[1]</sup>	2 x (50 to 120 mm <sup>2</sup> ) ; ≤ 250 A	Set of 3	LV429218
			Set of 4	LV429219
	Aluminium connectors <sup>[1]</sup> for 6 cables	6 x (1.5 to 35 mm <sup>2</sup> ) ; ≤ 250 A	Set of 3	LV429248
			Set of 4	LV429249
	6.35 mm voltage tap for aluminium connectors for 1 or 2 cables		Set of 10	LV429348

#### Lineryg DX and Lineryg DP distribution block (for bare cable)

	160 A (40 °C) 6 cables S ≤ 10 mm <sup>2</sup>	1P	04031
	250 A (40 °C) 9 cables S ≤ 10 mm <sup>2</sup>	3P	04033
		4P	04034

#### Terminal extensions

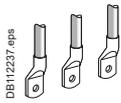
	45° terminal extension <sup>[1]</sup>	Set of 3	LV429223
		Set of 4	LV429224
	Edgewise terminal extensions <sup>[1]</sup>	Set of 3	LV429308
		Set of 4	LV429309
	Right-angle terminal extensions <sup>[1]</sup>	Set of 2	LV429250
		Set of 3	LV429261
		Set of 4	LV429262
	Straight terminal extensions <sup>[1]</sup>	Set of 2	LV429251
		Set of 3	LV429263
		Set of 4	LV429264
	Double-L terminal extensions <sup>[1]</sup>	Set of 3	LV429221
		Set of 4	LV429222
	Spreaders from 35 to 45 mm pitch <sup>[1]</sup>	3P	LV431563
		4P	LV431564
	One-piece spreader from 35 to 45 mm pitch	3P	LV431060
		4P	LV431061
	Front alignment base (for one-piece spreader)	3P/4P	LV431064

[1] Supplied with 2 or 3 interphase barriers.

# Accessories and auxiliaries

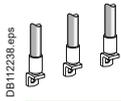
## ComPact NSX100/160/250 with/without Vigi add-on

### Crimp lugs for copper cable<sup>[1]</sup>



For cable 120 mm <sup>2</sup>	Set of 3	LV429252
	Set of 4	LV429256
For cable 150 mm <sup>2</sup>	Set of 3	LV429253
	Set of 4	LV429257
For cable 185 mm <sup>2</sup>	Set of 3	LV429254
	Set of 4	LV429258

### Crimp lugs for aluminium cable<sup>[1]</sup>

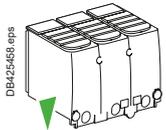


For cable 150 mm <sup>2</sup>	Set of 3	LV429504
	Set of 4	LV429505
For cable 185 mm <sup>2</sup>	Set of 3	LV429506
	Set of 4	LV429507

### Insulation accessories



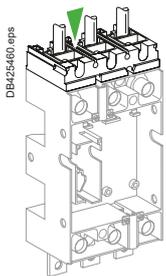
1 short terminal shield for breaker or plug-in base	3P	LV429515
	4P	LV429516



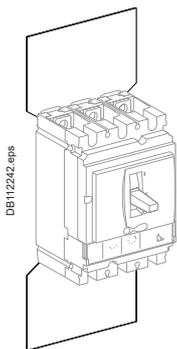
1 long terminal shield for breaker or plug-in base	3P	LV429517
	4P	LV429518



Interphase barriers for breaker or plug-in base	Set of 6	LV429329
-------------------------------------------------	----------	----------



Connection adapter for plug-in base	3P	LV429306
	4P	LV429307



2 insulating screens for breaker (45 mm pitch)	3P	LV429330
	4P	LV429331

<sup>[1]</sup> Supplied with 2 or 3 interphase barriers.



# Accessories and auxiliaries

## ComPact NSX100/160/250 with/without Vigi add-on

### Electrical auxiliaries

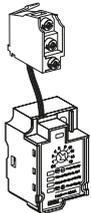
#### Auxiliary contacts (changeover)

DB112254.eps 	OF or SD or SDE or SDV	<b>29450</b>
	OF or SD or SDE or SDV low level	<b>29452</b>
	SDE adapter, mandatory for trip unit TM, MA or MicroLogic 2	<b>LV429451</b>

#### SDx output module for MicroLogic

DB112275.eps 	SDx module 24/415 V AC/DC	<b>LV429532</b>
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#### SDTAM contactor tripping module (early-break thermal fault signal) for MicroLogic 2.2 M/6.2 E-M

DB112276.eps 	SDTAM 24/415 V AC/DC overload fault indication	<b>LV429424</b>
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#### Voltage releases

	Voltage	MX	MN	
DB111454.eps 	AC			
		24 V 50/60 Hz	<b>LV429384</b>	<b>LV429404</b>
		48 V 50/60 Hz	<b>LV429385</b>	<b>LV429405</b>
		110-130 V 50/60 Hz	<b>LV429386</b>	<b>LV429406</b>
		220-240 V 50/60 Hz and 208-277 V 60 Hz	<b>LV429387</b>	<b>LV429407</b>
		380-415 V 50 Hz and 440-480 V 60 Hz	<b>LV429388</b>	<b>LV429408</b>
	525 V 50 Hz and 600 V 60 Hz	<b>LV429389</b>	<b>LV429409</b>	
DB111454.eps 	DC			
		12 V	<b>LV429382</b>	<b>LV429402</b>
		24 V	<b>LV429390</b>	<b>LV429410</b>
		30 V	<b>LV429391</b>	<b>LV429411</b>
		48 V	<b>LV429392</b>	<b>LV429412</b>
		60 V	<b>LV429383</b>	<b>LV429403</b>
		125 V	<b>LV429393</b>	<b>LV429413</b>
		250 V	<b>LV429394</b>	<b>LV429414</b>
		<b>MN 48 V 50/60 Hz with fixed time delay</b>		
	Composed of:	MN 48 V DC		<b>LV429412</b>
	Delay unit 48 V 50/60 Hz		<b>LV429426</b>	
	<b>MN 220-240 V 50/60 Hz with fixed time delay</b>			
Composed of:	MN 250 V DC		<b>LV429414</b>	
	Delay unit 220-240 V 50/60 Hz		<b>LV429427</b>	
	<b>MN 48 V DC/AC 50/60 Hz with adjustable time delay</b>			
Composed of:	MN 48 V DC		<b>LV429412</b>	
	Delay unit 48 V DC/AC 50/60 Hz		<b>33680</b>	
	<b>MN 110-130 V DC/AC 50/60 Hz with adjustable time delay</b>			
Composed of:	MN 125 V DC		<b>LV429413</b>	
	Delay unit 100-130 V DC/AC 50/60 Hz		<b>33681</b>	
	<b>MN 220-250 V DC/AC 50/60 Hz with adjustable time delay</b>			
Composed of:	MN 250 V DC		<b>LV429414</b>	
	Delay unit 200-250 V DC/AC 50-60 Hz		<b>33682</b>	

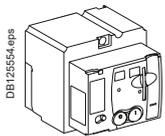
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# Accessories and auxiliaries

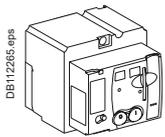
## ComPact NSX100/160/250 with/without Vigi add-on

### Motor mechanism

Motor mechanism module supplied with SDE adapter

	AC	Voltage	MT100/160	MT250
		48-60 V 50/60 Hz	LV429440	LV431548
	110-130 V 50/60 Hz	LV429433	LV431540	
	220-240 V 50/60 Hz and	LV429434	LV431541	
	208-277 V 60 Hz			
	380-415 V 50/60 Hz and	LV429435	LV431542	
	440-480 V 60 Hz			
	DC	24-30 V	LV429436	LV431543
	48-60 V	LV429437	LV431544	
	110-130 V	LV429438	LV431545	
250 V	LV429439	LV431546		

Communicating motor mechanism module supplied with SDE adapter

	Motor mechanism module	MTc 100/160	220-240 V 50/60 Hz	LV429441
		MTc 250	220-240 V 50/60 Hz	LV431549
	+			
	Breaker and Status Communication Module	BSCM		LV434205
	+			
	NSX cord	Wire length L = 0.35 m		LV434200
		Wire length L = 1.3 m		LV434201
		Wire length L = 3 m		LV434202
		U > 480 V AC wire length L = 0.35 m		LV434204



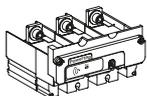
# Accessories and auxiliaries

## ComPact NSX100/160/250 with/without Vigi add-on

### Indication and measurement modules

#### PowerLogic PowerTag NSX

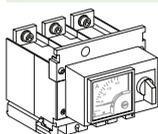
DB43062.eps



Rating (A)			250
3P			<b>LV434020</b>
3P+N			<b>LV434021</b>

#### Ammeter module

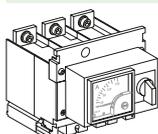
DB11256.eps



Rating (A)	100	160	250
3P	<b>LV429455</b>	<b>LV430555</b>	<b>LV431565</b>
4P	<b>LV429456</b>	<b>LV430556</b>	<b>LV431566</b>

#### I max. ammeter module

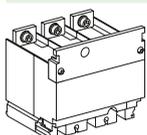
DB11256.eps



Rating (A)	100	160	250
3P	<b>LV434849</b>	<b>LV434850</b>	<b>LV434851</b>

#### Current transformer module

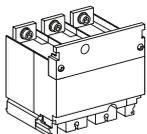
DB11257.eps



Rating (A)	100	150	250
3P	<b>LV429457</b>	<b>LV430557</b>	<b>LV431567</b>
4P	<b>LV429458</b>	<b>LV430558</b>	<b>LV431568</b>

#### Current transformer module and voltage output

DB11257.eps



Rating (A)	125	150	250
3P	<b>LV429461</b>	<b>LV430561</b>	<b>LV431569</b>
4P	<b>LV429462</b>	<b>LV430562</b>	<b>LV431570</b>

#### Voltage presence indicator

DB11258.eps

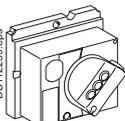


3P/4P		<b>LV429325</b>
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### Rotary handles

#### Direct rotary handle

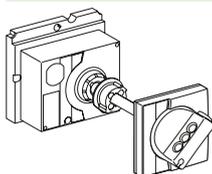
DB11259.eps



With black handle	<b>LV429337</b>
With red handle on yellow front	<b>LV429339</b>
MCC conversion accessory	<b>LV429341</b>
CNOMO conversion accessory	<b>LV429342</b>

#### Extended rotary handle

DB11260.eps



With black handle	<b>LV429338</b>
With red handle on yellow front	<b>LV429340</b>
With telescopic handle for withdrawable device	<b>LV429343</b>

DB421689.eps



Open door shaft operator	<b>LV426937</b>
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#### Accessories for direct or extended rotary handle

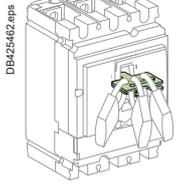
Indication auxiliary	1 early-break contact	<b>LV429345</b>
	2 early-make contacts	<b>LV429346</b>

# Accessories and auxiliaries

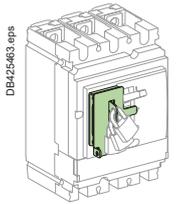
## ComPact NSX100/160/250 with/without Vigi add-on

### Locks

#### Toggle locking device for 1 to 3 padlocks

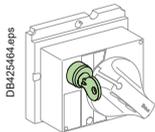


By removable device	<b>29370</b>
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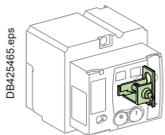
By fixed device for 3P-4P (open or close position)	<b>LV429371</b>
By fixed device for 3P-4P (open position only)	<b>LV429370</b>

#### Locking of rotary handle



Keylock adapter (keylock not included)		<b>LV429344</b>
Keylock (keylock adapter not included)	Ronis 1351B.500	<b>41940</b>
	Profalux KS5 B24 D4Z	<b>42888</b>

#### Locking of motor mechanism module



Keylock adapter + Ronis keylock (special)	<b>LV429449</b>
-------------------------------------------	-----------------

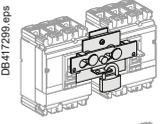
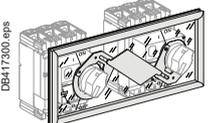


# Accessories and auxiliaries

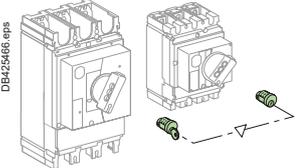
## ComPact NSX100/160/250 with/without Vigi add-on

### Interlocking

#### Mechanical interlocking for circuit breakers

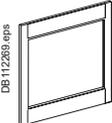
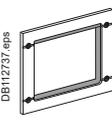
 <p>DB417299.eps</p>	With toggles	LV429354
	With rotary handles	LV429369
 <p>DB417300.eps</p>		

#### Interlocking with key (2 keylocks / 1 key) for rotary handles

 <p>DB425686.eps</p>	Keylock kit (keylock not included) <sup>[1]</sup>	LV429344	
	1 set of 2 keylocks	Ronis 1351B.500	41950
	(1 key only, keylock kit not included)	Profalux KS5 B24 D4Z	42878

### Installation accessories

#### Front-panel escutcheons

 <p>DB112269.eps</p> <p>IP30</p>	IP30 escutcheon for all control types	LV429525
	IP30 trip unit access escutcheon for toggle	LV429526
	IP30 escutcheon for Vigi add-on	LV429527
 <p>DB112737.eps</p> <p>IP40</p>	IP40 escutcheon for all control types	LV429317
	IP40 escutcheon for Vigi add-on	LV429316
	IP40 escutcheon for Vigi add-on or ammeter module	LV429318

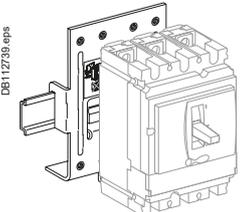
#### IP43 rubber toggle cover

 <p>DB112738.eps</p>	1 toggle cover	LV429319
--------------------------------------------------------------------------------------------------------	----------------	----------

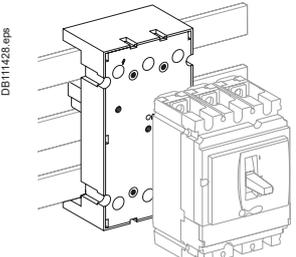
#### Lead-sealing accessories

 <p>DB115615.eps</p>	Bag of accessories	LV429375
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#### Din rail adapter

 <p>DB112739.eps</p>	1 adapter	LV429305
--------------------------------------------------------------------------------------------------------	-----------	----------

#### 60 mm plate

 <p>DB111428.eps</p>	Plate 3P ComPact NSX100/250 IEC	LV429372
	Plate 4P ComPact NSX100/250 IEC	LV429373

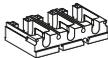
[1] For only 1 device.

# Accessories and auxiliaries

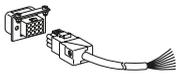
## ComPact NSX100/160/250 with/without Vigi add-on

### Plug-in/withdrawable version accessories

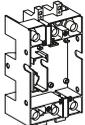
#### Insulation accessories

DB117159.eps 	1 connection adapter for plug-in base	3P	LV429306
		4P	LV429307

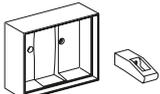
#### Auxiliary connections

DB117160.eps 	1 9-wire fixed connector (for base)		LV429273
DB117161.eps 	1 9-wire moving connector (for circuit breaker)		LV429274
DB117162.eps 	1 support for 2 moving connectors		LV429275
DB115885.eps 	9-wire manual auxiliary connector (fixed + moving)		LV429272

#### Plug-in base accessories

DB43265.eps 	2 long insulated right angle terminal extensions	Set of 2	LV429276
DB117165.eps 	2 IP40 shutters for base		LV429271
DB117166.eps 	Base	2P (3P base)	LV429265
		3P	LV429266
DB117167.eps 	Base	4P	LV429267
DB117168.eps 	2 power connections	2/3/4P	LV429268
DB117169.eps 	1 short terminal shield	2/3P	LV429515
DB117170.eps 	1 short terminal shield	4P	LV429516
DB117171.eps 	1 safety trip interlock	2/3/4P	LV429270

#### Chassis accessories

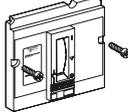
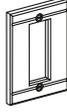
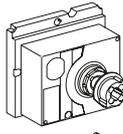
DB117172.eps 	Escutcheon collar	Toggle	LV429284
DB117173.eps 	Escutcheon collar	Vigi add-on	LV429285
DB117163.eps 	Locking kit (keylock not included)		LV429286
	Keylock (keylock adapter not included)	Ronis 1351B.500	41940
		Profalux KS5 B24 D4Z	42888
DB11426.eps 	2 carriage switches (connected/disconnected position indication)		LV429287

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# Accessories and auxiliaries

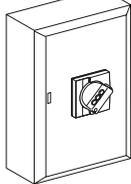
## ComPact NSX100/160/250 with/without Vigi add-on

### Spare parts

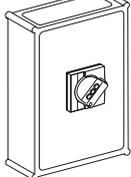
	5 spare toggle extensions (NSX250)		<b>LV429313</b>
	Bag of screws		<b>LV429312</b>
	12 snap-in nuts (fixed/FC)	M6 for NSX100N/H/L M8 for NSX160/250N/H/L	<b>LV429234</b> <b>LV430554</b>
	NS retrofit escutcheon	Small cut-out	<b>LV429528</b>
	IP40 toggle escutcheon	ComPact NS type/small cut-out	<b>29315</b>
	1 set of 10 identification labels		<b>LV429226</b>
	1 base for extended rotary handle		<b>LV429502</b>
	Torque limiting screws (set of 12)	3P/4P ComPact NSX100-250	<b>LV429513</b>
	LCD display for electronic trip unit	MicroLogic 5 MicroLogic 6 MicroLogic 6 E-M	<b>LV429483</b> <b>LV429484</b> <b>LV429486</b>
	5 transparent covers for trip unit	TM, MA, NA MicroLogic 2 MicroLogic 5/6	<b>LV429481</b> <b>LV429478</b>

### Individual enclosures

#### IP55 steel enclosure

	ComPact NSX100/160 with black extended rotary handle	<b>LV431215</b>
	ComPact NSX100/160 with red and yellow extended rotary handle	<b>LV431216</b>
	ComPact NSX250 or ComPact NSX100-250 Vigi add-on with black extended rotary handle	<b>LV431217</b>
	ComPact NSX250 or ComPact NSX100-250 Vigi add-on with red and yellow extended rotary handle	<b>LV431218</b>

#### IP55 insulating enclosure

	ComPact NSX100/160 with black extended rotary handle	<b>LV429465</b>
	ComPact NSX100/160 Vigi add-on with black extended rotary handle	<b>LV429466</b>
	ComPact NSX250 with black extended rotary handle	<b>LV431573</b>
	ComPact NSX250 Vigi add-on with black extended rotary handle	<b>LV431574</b>

### Visible break disconnect function

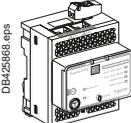
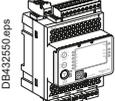
See catalog dealing with "ComPact INV products (visible break)" and the associated accessories.  
The visible break disconnection function is compatible with fixed front-connected/rear-connected ComPact NSX devices.

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# Accessories and auxiliaries

## ComPact NSX100/160/250 with/without Vigi add-on

### Communication option

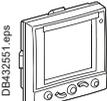
 DB425688.eps	IFE	Ethernet interface for LV breaker	LV434001
		Ethernet interface for LV breakers and gateway	LV434002
 DB425706.eps	IFM Modbus-SL interface module		LV434000
 DB432550.eps	I/O application module		LV434063
	User guide IFE		DOCA0084EN
	User guide I/O application module		DOCA0055EN

### Monitoring and control (remote operation)

#### Circuit breaker accessories

 DB111439.eps	Breaker Status Control Module	BSCM <sup>[1]</sup>	LV434205
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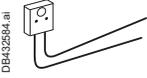
#### ULP display module<sup>[2]</sup>

 DB433551.eps	Switchboard front display module FDM121		TRV00121
	FDM mounting accessory (diameter 22 mm)		TRV00128

#### Ethernet display module

 DB417489.eps	Switchboard front display module FDM128		LV434128
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#### ULP wiring accessories

 DB111442.eps	NSX cord L = 0.35 m		LV434200
	NSX cord L = 1.3 m		LV434201
	NSX cord L = 3 m		LV434202
	NSX cord for U > 480 V AC L = 1.3 m		LV434204
 DB113621.eps	10 stacking connectors for communication interface modules		TRV00217
 DB432584.ai	2 Modbus line terminators		VW3A8306DRC <sup>[3]</sup>
 LV434211.ai	Connector Modbus adaptor		LV434211
 DB417490.eps	RS 485 roll cable (4 wires, length 60 m)		50965
 DB115823.eps	5 RJ45 connectors female/female		TRV00870
 DB111444.eps	10 ULP line terminators		TRV00880
 DB111445.eps	10 RJ45/RJ45 male cord L = 0.3 m		TRV00803
	10 RJ45/RJ45 male cord L = 0.6 m		TRV00806
	5 RJ45/RJ45 male cord L = 1 m		TRV00810
	5 RJ45/RJ45 male cord L = 2 m		TRV00820
	5 RJ45/RJ45 male cord L = 3 m		TRV00830
	1 RJ45/RJ45 male cord L = 5 m		TRV00850

[1] SDE adapter mandatory for trip unit TM, MA or MicroLogic 2 (LV429451).

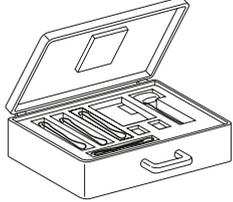
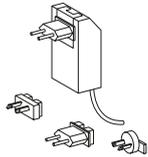
[2] For measurement display with MicroLogic A and E or status display with BSCM.

[3] www.schneider-electric.com.

# Accessories and auxiliaries

## ComPact NSX100/160/250 with/without Vigi add-on

### Test tool, software, demo

Test tool		
	Pocket battery for MicroLogic NSX100-630	LV434206
	Maintenance case Comprising: - USB maintenance interface - Power supply - MicroLogic cord - USB cord - RJ45/RJ45 male cord	TRV00910
	Spare USB maintenance interface	TRV00911
	Spare power supply 110-240 V AC	TRV00915
	Spare MicroLogic cord for USB maintenance interface	TRV00917
	Bluetooth/Modbus option for USB maintenance interface	VW3A8114 <sup>[1]</sup>
Software		
	Configuration and setting EcoStruxure Power Commission software	LV4ST100 <sup>[2]</sup>
	Test software LTU	LV4ST121 <sup>[2]</sup>
	Monitoring EcoStruxure Power Commission software	LV4SM100 <sup>[2]</sup>
Demo tool		
	Demo case for ComPact NSX	LV434207

[1] See Telemecanique catalog.

[2] Downloadable from <http://schneider-electric.com>.

# Accessories and auxiliaries

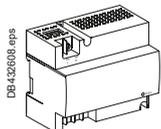
## ComPact NSX100/160/250 with/without Vigi add-on

### Accessories

#### Power supply modules

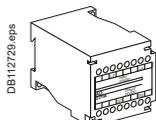


External power supply module 100-240 V AC 110-230 V DC / 24 V DC-3 A class 2	<b>ABL8RPS24030</b>	[1]
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External power supply module 24 V DC-1 A OVC IV		
24-30 V DC	<b>LV454440</b>	
48-60 V DC	<b>LV454441</b>	
100-125 V DC	<b>LV454442</b>	
110-130 V AC	<b>LV454443</b>	
200-240 V AC	<b>LV454444</b>	

#### Battery module



24 V DC battery module	<b>54446</b>	
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[1] See Telemecanique catalog.





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## Catalog numbers: ComPact NSX400-630

### Complete fixed device

ComPact NSX400/630F (36 kA 380/415 V).....	F-52
ComPact NSX400/630F Vigi add-on (36 kA 380/415 V) .....	F-53
ComPact NSX400/630N (50 kA 380/415 V) .....	F-54
ComPact NSX400/630N Vigi add-on (50 kA 380/415 V) .....	F-55
ComPact NSX400/630H (70 kA 380/415 V) .....	F-56
ComPact NSX400/630R (200 kA 380/415 V - 45 kA 690 V).....	F-57
ComPact NSX400/630HB1 (85 kA 500 V - 75 kA 690 V) .....	F-58
ComPact NSX400/630HB2 (85 kA 500 V - 100 kA 690 V) .....	F-59
ComPact NSX400/630NA .....	F-60

### Based on separate components

ComPact NSX and ComPact NSX Vigi add-on .....	F-61
-----------------------------------------------	------

### Trip unit accessories

ComPact NSX400/630 with/without Vigi add-on .....	F-63
---------------------------------------------------	------

### Installation and connection

ComPact NSX and ComPact NSX400/630 Vigi add-on .....	F-64
ComPact NSX400/630 with/without Vigi add-on .....	F-66

### Communication, monitoring and control

ComPact NSX400/630 with/without Vigi add-on .....	F-74
---------------------------------------------------	------

### Monitoring and control, accessories

ComPact NSX400/630 with/without Vigi add-on .....	F-75
---------------------------------------------------	------

### Source-changeover systems for 2 devices

ComPact NSX100 to NSX630 .....	F-76
--------------------------------	------

### NSX100/400 for utilities,

"tarif jaune" public distribution .....	F-78
-----------------------------------------	------

ComPact NSX100 to NSX630 order form.....	F-82
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### Other chapters

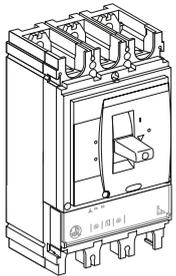
Select your circuit breakers and switch-disconnectors .....	A-1
Select your protection .....	B-1
Customize your circuit breaker with accessories .....	C-1
Smart Panel integration .....	D-1
Switchboard integration .....	E-1
Glossary .....	G-1
Additional characteristics .....	H-1

# Complete fixed device

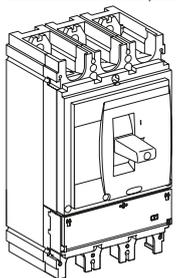
## ComPact NSX400/630F (36 kA 380/415 V)

### ComPact NSX400/630F

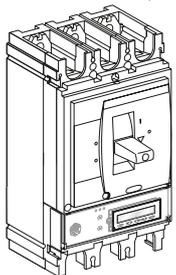
#### Electronic trip unit MicroLogic 2.3 (LS<sub>o</sub>I protection)

			<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2</b>
	ComPact NSX400F (36 kA at 380/415 V)	250 A	<b>LV432682</b>	<b>LV432683</b>
		400 A	<b>LV432676</b>	<b>LV432677</b>
	ComPact NSX630F (36 kA at 380/415 V)	630 A	<b>LV432876</b>	<b>LV432877</b>

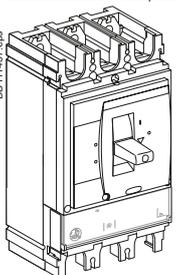
#### Electronic trip unit MicroLogic Vigi 4.3 (LS<sub>o</sub>IR protection)

			<b>3P 3d</b>	<b>4P 4d 3d + N/2</b>
	ComPact NSX400F (36 kA at 380/415 V)	400 A	<b>LV433934</b>	<b>LV433936</b>
	ComPact NSX400F (36 kA at 380/415 V)	570 A	<b>LV433935</b>	<b>LV433937</b>

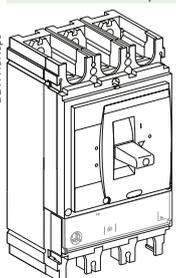
#### Electronic trip unit MicroLogic 5.3 A (LSI protection, ammeter)

			<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2, 3d + OSN</b>
	ComPact NSX400F (36 kA at 380/415 V)	400 A	<b>LV432678</b>	<b>LV432679</b>
	ComPact NSX630F (36 kA at 380/415 V)	630 A	<b>LV432878</b>	<b>LV432879</b>

#### Electronic trip unit MicroLogic 1.3 M (I motor protection)

			<b>3P 3d</b>	
	ComPact NSX400F 1.3 M (36 kA at 380/415V)	320 A	<b>LV432748</b>	
	ComPact NSX630F 1.3 M (36 kA at 380/415V)	500 A	<b>LV432948</b>	

#### Electronic trip unit MicroLogic 2.3 M (LS<sub>o</sub>I motor protection)

			<b>3P 3d</b>	
	ComPact NSX400F 2.3 M (36 kA at 380/415V)	320 A	<b>LV432775</b>	
	ComPact NSX630F 2.3 M (36 kA at 380/415V)	500 A	<b>LV432975</b>	

With electronic trip unit MicroLogic 5.3 E (LSI protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.3 A (LSIG protection, ammeter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.3 E (LSIG protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.3 E-M (LSIG motor protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

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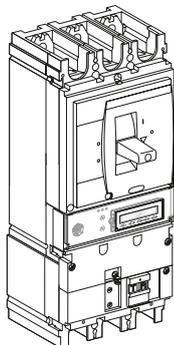
# Complete fixed device

## ComPact NSX400/630F Vigi add-on (36 kA 380/415 V)

### ComPact NSX400/630F Vigi add-on

Electronic trip unit MicroLogic 2.3 (LS<sub>0</sub>I protection)

DB111458.eps



		3P 3d	4P 3d, 4d, 3d + N/2
ComPact NSX400F Vigi add-on (36 kA at 380/415 V)	400 A	<b>LV432731</b>	<b>LV432732</b>
ComPact NSX630F Vigi add-on (36 kA at 380/415 V)	630 A	<b>LV432931</b>	<b>LV432932</b>

With electronic trip unit MicroLogic 5.3 E (LSI protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.3 A (LSIG protection, ammeter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.3 E (LSIG protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

With electronic trip unit MicroLogic 6.3 E-M (LSIG motor protection, energy meter)

To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

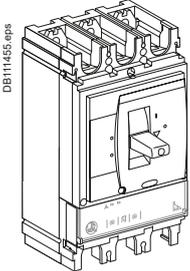


# Complete fixed device

## ComPact NSX400/630N (50 kA 380/415 V)

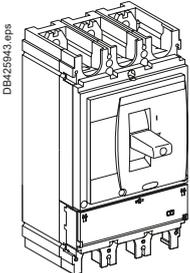
### ComPact NSX400/630N

#### Electronic trip unit MicroLogic 2.3 (LS<sub>o</sub>I protection)



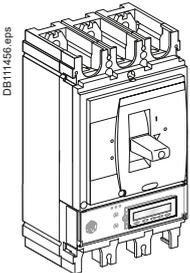
		3P 3d	4P 3d, 4d, 3d + N/2
ComPact NSX400N (50 kA at 380/415 V)	250 A	LV432707	LV432708
	400 A	LV432693	LV432694
ComPact NSX630N (50 kA at 380/415 V)	630 A	LV432893	LV432894

#### Electronic trip unit MicroLogic Vigi 4.3 (LS<sub>o</sub>IR protection)



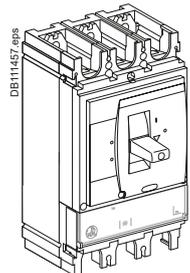
		3P 3d	4P 4d 3d + N/2
ComPact NSX400N (50 kA at 380/415 V)	400 A	LV433938	LV433940
ComPact NSX630N (50 kA at 380/415 V)	570 A	LV433939	LV433941

#### Electronic trip unit MicroLogic 5.3 A (LSI protection, ammeter)



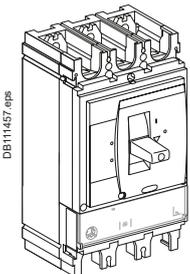
		3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
ComPact NSX400N (50 kA at 380/415 V)	400 A	LV432699	LV432700
ComPact NSX630N (50 kA at 380/415 V)	630 A	LV432899	LV432900

#### Electronic trip unit MicroLogic 1.3 M A (I motor protection)



		3P 3d
ComPact NSX400N 1.3 M (50 kA at 380/415V)	320 A	LV432749
ComPact NSX630N 1.3 M (50 kA at 380/415V)	500 A	LV432949

#### Electronic trip unit MicroLogic 2.3 M (LS<sub>o</sub>I motor protection)



		3P 3d
ComPact NSX400N 2.3 M (50 kA at 380/415V)	320 A	LV432776
ComPact NSX630N 2.3 M (50 kA at 380/415V)	500 A	LV432976

F

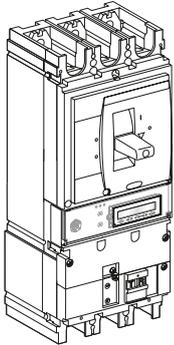
# Complete fixed device

## ComPact NSX400/630N Vigi add-on (50 kA 380/415 V)

### ComPact NSX400/630N Vigi add-on

Electronic trip unit MicroLogic 2.3 (LS<sub>0</sub>I protection)

DB111458.eps



		<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2</b>
ComPact NSX400N Vigi add-on (50 kA at 380/415 V) 400 A		<b>LV432733</b>	<b>LV432734</b>
ComPact NSX630N Vigi add-on (50 kA at 380/415 V) 630 A		<b>LV432933</b>	<b>LV432934</b>

With electronic trip unit MicroLogic 5.3 E (LSI protection, energy meter)

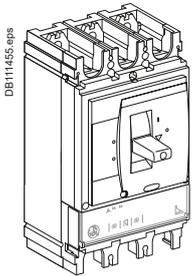
To be ordered with 2 catalog numbers: 1 basic frame + 1 trip unit

# Complete fixed device

## ComPact NSX400/630H (70 kA 380/415 V)

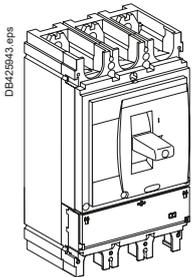
### ComPact NSX400/630H

Electronic trip unit MicroLogic 2.3 (LS<sub>o</sub>I protection)



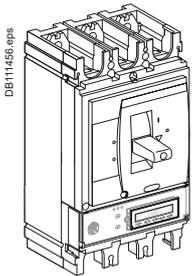
		3P 3d	4P 3d, 4d, 3d + N/2
ComPact NSX400H (70 kA at 380/415 V)	250 A	LV432709	LV432710
	400 A	LV432695	LV432696
ComPact NSX630H (70 kA at 380/415 V)	630 A	LV432895	LV432896

Electronic trip unit MicroLogic Vigi 4.3 (LS<sub>o</sub>IR protection)



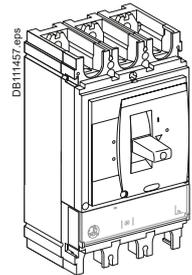
		3P 3d	4P 4d 3d + N/2
ComPact NSX400H (70 kA at 380/415 V)	400 A	LV433942	LV433944
ComPact NSX630H (70 kA at 380/415 V)	570 A	LV433943	LV433945

Electronic trip unit MicroLogic 5.3 A (LSI protection, ammeter)



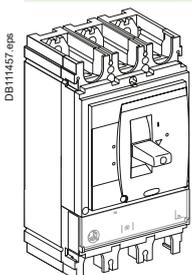
		3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
ComPact NSX400H (70 kA at 380/415 V)	400 A	LV432701	LV432702
ComPact NSX630H (70 kA at 380/415 V)	630 A	LV432901	LV432902

Electronic trip unit MicroLogic 1.3 M (I motor protection)



		3P 3d
ComPact NSX400H 1.3 M (70 kA at 380/415V)	320 A	LV432750
ComPact NSX630H 1.3 M (70 kA at 380/415V)	500 A	LV432950

Electronic trip unit MicroLogic 2.3 M (LS<sub>o</sub>I motor protection)



		3P 3d
ComPact NSX400H 2.3 M (70 kA at 380/415V)	320 A	LV432777
ComPact NSX630H 2.3 M (70 kA at 380/415V)	500 A	LV432977

With electronic trip unit MicroLogic 6.3 E (LSIG protection, energy meter)

Only available as separate components.

With electronic trip unit MicroLogic 6.3 E-M (LSIG motor protection, energy meter)

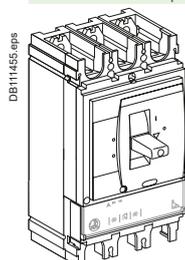
Only available as separate components.

# Complete fixed device

## ComPact NSX400/630R (200 kA 380/415 V - 45 kA 690 V)

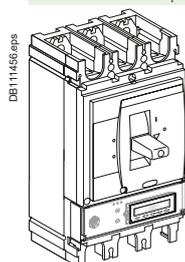
### ComPact NSX400/630R

#### Electronic trip unit MicroLogic 2.3 (LS<sub>0</sub>I protection)



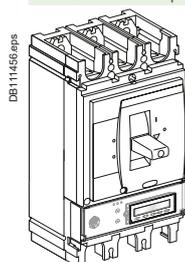
DB11455.eps		NSX400R (200 kA at 380/415 V - 45 kA at 690 V)	250 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2</b>
			400 A	<b>LV433600</b>	<b>LV433601</b>
		NSX630R (200 kA at 380/415 V - 45 kA at 690 V)	630 A	<b>LV433602</b>	<b>LV433603</b>
				<b>LV433700</b>	<b>LV433701</b>

#### Electronic trip unit MicroLogic 5.3 E (LSI protection, energy meter)



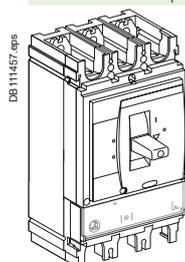
DB11456.eps		NSX400R (200 kA at 380/415 V - 45 kA at 690 V)	400 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2, 3d + OSN</b>
			630 A	<b>LV433606</b>	<b>LV433607</b>
		NSX630R (200 kA at 380/415 V - 45 kA at 690 V)	630 A	<b>LV433704</b>	<b>LV433705</b>

#### Electronic trip unit MicroLogic 6.3 E (LSIG protection, energy meter)



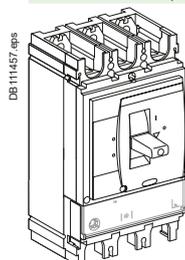
DB11456.eps		NSX400R (200 kA at 380/415 V - 45 kA at 690 V)	400 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2, 3d + OSN</b>
			630 A	<b>LV433608</b>	<b>LV433609</b>
		NSX630R (200 kA at 380/415 V - 45 kA at 690 V)	630 A	<b>LV433706</b>	<b>LV433707</b>

#### Electronic trip unit MicroLogic 1.3 M (I motor protection)



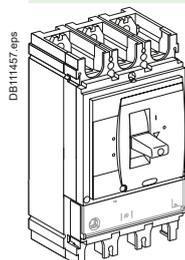
DB11457.eps		NSX400R (200 kA at 380/415 V - 45 kA at 690 V)	320 A	<b>3P 3d</b>	
			500 A	<b>LV433604</b>	
		NSX630R (200 kA at 380/415 V - 45 kA at 690 V)	500 A	<b>LV433702</b>	

#### Electronic trip unit MicroLogic 2.3 M (LS<sub>0</sub>I motor protection)



DB11457.eps		NSX400R (200 kA at 380/415 V - 45 kA at 690 V)	320 A	<b>3P 3d</b>	
			500 A	<b>LV433605</b>	
		NSX630R (200 kA at 380/415 V - 45 kA at 690 V)	500 A	<b>LV433703</b>	

#### With electronic trip unit MicroLogic 6.3 E-M (LSIG motor protection, energy meter)



DB11457.eps		NSX400R (200 kA at 380/415 V - 45 kA at 690 V)	320 A	<b>3P 3d</b>	
			500 A	<b>LV433610</b>	
		NSX630R (200 kA at 380/415 V - 45 kA at 690 V)	500 A	<b>LV433708</b>	

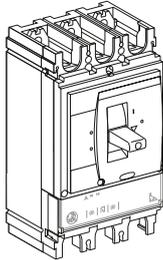


# Complete fixed device

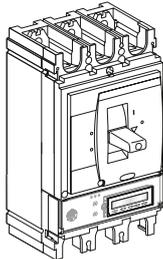
## ComPact NSX400/630HB1 (85 kA 500 V - 75 kA 690 V)

### ComPact NSX400/630HB1

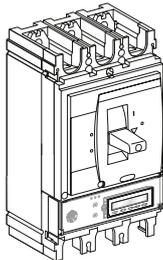
#### Electronic trip unit MicroLogic 2.3 (LS<sub>0</sub>I protection)

 <p>DB111455.eps</p>	NSX400HB1 (85 kA at 500 V - 75 kA at 690 V)	250 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2</b>
		400 A	<b>LV433620</b>	<b>LV433621</b>
	NSX630HB1 (85 kA at 500 V - 75 kA at 690 V)	400 A	<b>LV433622</b>	<b>LV433623</b>
		630 A	<b>LV433720</b>	<b>LV433721</b>

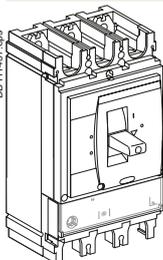
#### Electronic trip unit MicroLogic 5.3 E (LSI protection, energy meter)

 <p>DB111456.eps</p>	NSX400HB1 (85 kA at 500 V - 75 kA at 690 V)	400 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2, 3d + OSN</b>
		630 A	<b>LV433626</b>	<b>LV433627</b>
	NSX630HB1 (85 kA at 500 V - 75 kA at 690 V)	400 A	<b>LV433724</b>	<b>LV433725</b>
		630 A	<b>LV433724</b>	<b>LV433725</b>

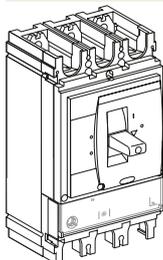
#### Electronic trip unit MicroLogic 6.3 E (LSIG protection, energy meter)

 <p>DB111456.eps</p>	NSX400HB1 (85 kA at 500 V - 75 kA at 690 V)	400 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2, 3d + OSN</b>
		630 A	<b>LV433628</b>	<b>LV433629</b>
	NSX630HB1 (85 kA at 500 V - 75 kA at 690 V)	400 A	<b>LV433726</b>	<b>LV433727</b>
		630 A	<b>LV433726</b>	<b>LV433727</b>

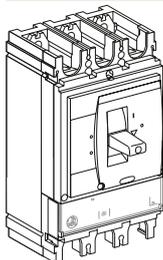
#### Electronic trip unit MicroLogic 1.3 M (I motor protection)

 <p>DB111457.eps</p>	NSX400HB1 (85 kA at 500 V - 75 kA at 690 V)	320 A	<b>3P 3d</b>	
		500 A	<b>LV433624</b>	
	NSX630HB1 (85 kA at 500 V - 75 kA at 690 V)	320 A	<b>LV433722</b>	
		500 A	<b>LV433722</b>	

#### Electronic trip unit MicroLogic 2.3 M (LS<sub>0</sub>I motor protection)

 <p>DB111457.eps</p>	NSX400HB1 (85 kA at 500 V - 75 kA at 690 V)	320 A	<b>3P 3d</b>	
		500 A	<b>LV433625</b>	
	NSX630HB1 (85 kA at 500 V - 75 kA at 690 V)	320 A	<b>LV433723</b>	
		500 A	<b>LV433723</b>	

#### With electronic trip unit MicroLogic 6.3 E-M (LSIG motor protection, energy meter)

 <p>DB111457.eps</p>	NSX400HB1 (85 kA at 500 V - 75 kA at 690 V)	320 A	<b>3P 3d</b>	
		500 A	<b>LV433630</b>	
	NSX630HB1 (85 kA at 500 V - 75 kA at 690 V)	320 A	<b>LV433728</b>	
		500 A	<b>LV433728</b>	

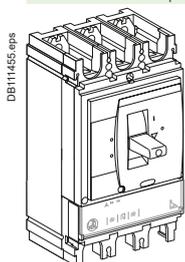
F

# Complete fixed device

## ComPact NSX400/630HB2 (85 kA 500 V - 100 kA 690 V)

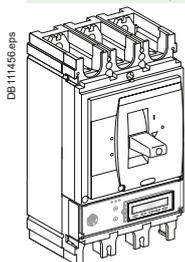
### ComPact NSX400/630HB2

#### Electronic trip unit MicroLogic 2.3 (LS<sub>0</sub>I protection)



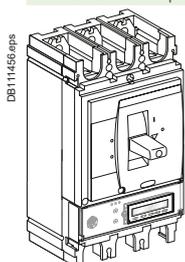
NSX400HB2 (85 kA at 500 V - 100 kA at 690 V)	250 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2</b>
	400 A	<b>LV433640</b>	<b>LV433641</b>
NSX630HB2 (85 kA at 500 V - 100 kA at 690 V)	630 A	<b>LV433642</b>	<b>LV433643</b>
		<b>LV433740</b>	<b>LV433741</b>

#### Electronic trip unit MicroLogic 5.3 E (LSI protection, energy meter)



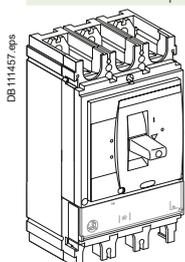
NSX400HB2 (85 kA at 500 V - 100 kA at 690 V)	400 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2, 3d + OSN</b>
		<b>LV433646</b>	<b>LV433647</b>
NSX630HB2 (85 kA at 500 V - 100 kA at 690 V)	630 A	<b>LV433744</b>	<b>LV433745</b>

#### Electronic trip unit MicroLogic 6.3 E (LSIG protection, energy meter)



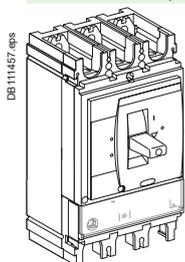
NSX400HB2 (85 kA at 500 V - 100 kA at 690 V)	400 A	<b>3P 3d</b>	<b>4P 3d, 4d, 3d + N/2, 3d + OSN</b>
		<b>LV433648</b>	<b>LV433649</b>
NSX630HB2 (85 kA at 500 V - 100 kA at 690 V)	630 A	<b>LV433746</b>	<b>LV433747</b>

#### Electronic trip unit MicroLogic 1.3 M (I motor protection)



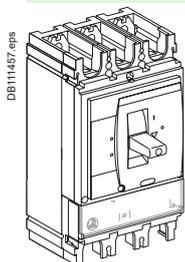
NSX400HB2 (85 kA at 500 V - 100 kA at 690 V)	320 A	<b>3P 3d</b>
		<b>LV433644</b>
NSX630HB2 (85 kA at 500 V - 100 kA at 690 V)	500 A	<b>LV433742</b>

#### Electronic trip unit MicroLogic 2.3 M (LS<sub>0</sub>I motor protection)



NSX400HB2 (85 kA at 500 V - 100 kA at 690 V)	320 A	<b>3P 3d</b>
		<b>LV433645</b>
NSX630HB2 (85 kA at 500 V - 100 kA at 690 V)	500 A	<b>LV433743</b>

#### With electronic trip unit MicroLogic 6.3 E-M (LSIG motor protection, energy meter)



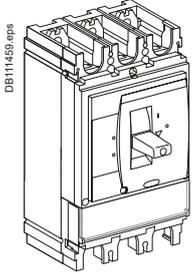
NSX400HB2 (85 kA at 500 V - 100 kA at 690 V)	320 A	<b>3P 3d</b>
		<b>LV433650</b>
NSX630HB2 (85 kA at 500 V - 100 kA at 690 V)	500 A	<b>LV433748</b>



# Complete fixed device ComPact NSX400/630NA

## ComPact NSX400/630 NA switch-disconnector

With NA switch-disconnector unit

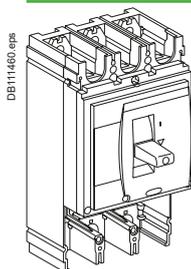


	3P	4P
ComPact NSX400 NA	LV432756	LV432757
ComPact NSX630 NA, 45 mm pitch	LV432956	LV432957

# Based on separate components

## ComPact NSX and ComPact NSX Vigi add-on

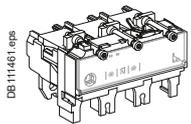
### Basic frame



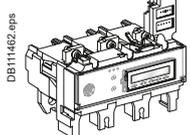
ComPact NSX400		
	3P	4P
NSX400F (36 kA 380/415 V)	LV432413	LV432415
NSX400N (50 kA 380/415 V)	LV432403	LV432408
NSX400H (70 kA 380/415 V)	LV432404	LV432409
NSX400S (100 kA 380/415 V)	LV432414	LV432416
NSX400L (150 kA 380/415 V)	LV432405	LV432410
ComPact NSX630		
	3P	4P
NSX630F (36 kA 380/415 V)	LV432813	LV432815
NSX630N (50 kA 380/415 V)	LV432803	LV432808
NSX630H (70 kA 380/415 V)	LV432804	LV432809
NSX630S (100 kA 380/415 V)	LV432814	LV432816
NSX630L (150 kA 380/415 V)	LV432805	LV432810

### + Trip unit

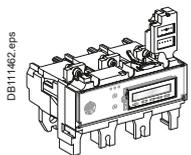
#### Distribution protection



MicroLogic 2.3 (LS <sub>0</sub> I protection)		
Rating	3P 3d	4P 3d, 4d, 3d + N/2
MicroLogic 2.3 250 A	LV432082	LV432086
MicroLogic 2.3 400 A	LV432081	LV432085
MicroLogic 2.3 630 A	LV432080	LV432084



MicroLogic 5.3 A (LSI protection, ammeter)		
Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
MicroLogic 5.3 A 400 A	LV432091	LV432094
MicroLogic 5.3 A 630 A	LV432090	LV432093

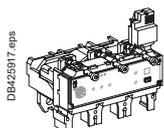


MicroLogic 5.3 E (LSI protection, energy meter)		
Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
MicroLogic 5.3 E 400 A	LV432097	LV432100
MicroLogic 5.3 E 630 A	LV432096	LV432099

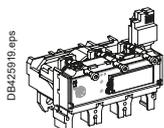
MicroLogic 6.3 A (LSIG protection, ammeter)		
Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
MicroLogic 6.3 A 400 A	LV432103	LV432106
MicroLogic 6.3 A 630 A	LV432102	LV432105

MicroLogic 6.3 E (LSIG protection, energy meter)		
Rating	3P 3d	4P 3d, 4d, 3d + N/2, 3d + OSN
MicroLogic 6.3 E 400 A	LV432109	LV432112
MicroLogic 6.3 E 630 A	LV432108	LV432111

#### Distribution protection with embedded earth leakage protection

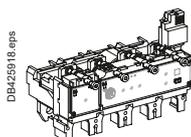


With electronic trip unit MicroLogic Vigi 4.3 (LS <sub>0</sub> IR protection)		
Rating	3P 3d	4P 4d 3d + N/2
400 A	LV433930	LV433932
570 A	LV433931	LV433933

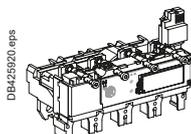


With electronic trip unit MicroLogic Vigi 7.3 E (LSIR protection)		
Rating	3P 3d	4P 4d 3d + N/2
400 A	LV433950	LV433952
570 A	LV433951	LV433953

#### Distribution protection with embedded earth leakage protection alarm



With electronic trip unit MicroLogic Vigi 4.3 AL (LS <sub>0</sub> I protection + earth leakage alarm)		
Rating	3P 3d	4P 4d 3d + N/2
400 A	LV433960	LV433962
570 A	LV433961	LV433963



With electronic trip unit MicroLogic Vigi 7.3 E AL (LSI protection + earth leakage alarm)		
Rating	3P 3d	4P 4d 3d + N/2
400 A	LV433965	LV433967
570 A	LV433966	LV433968

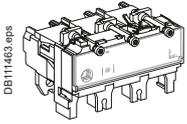


# Based on separate components

## ComPact NSX400/630

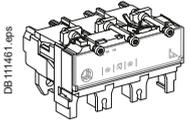
### + Trip unit

#### Motor protection



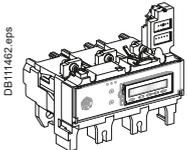
#### MicroLogic 1.3 M (I protection)

Rating	<b>3P 3d</b>	<b>4P 3d</b>
MicroLogic 1.3 M 320 A	<b>LV432069</b>	<b>LV432078</b>
MicroLogic 1.3 M 500 A	<b>LV432068</b>	<b>LV432077</b>



#### MicroLogic 2.3 M (LS<sub>0</sub>I protection)

Rating	<b>3P 3d</b>
MicroLogic 2.3 M 320 A	<b>LV432072</b>
MicroLogic 2.3 M 500 A	<b>LV432071</b>



#### MicroLogic 6.3 E-M (LSIG protection, energy meter)

Rating	<b>3P 3d</b>
MicroLogic 6.3 E-M 320 A	<b>LV432075</b>
MicroLogic 6.3 E-M 500 A	<b>LV432074</b>

#### Protection of public distribution systems

#### MicroLogic 2.3 AB (LS<sub>0</sub>I protection)

Rating	<b>4P 3d, 4d, 3d + N/2</b>
MicroLogic 2.3 400 A	<b>LV434557</b>

#### 16 Hz 2/3 network protection

#### MicroLogic 5.3 A-Z (LSI protection, ammeter)

Rating	<b>3P 3d</b>
MicroLogic 5.3 A-Z 630 A	<b>LV432089</b>

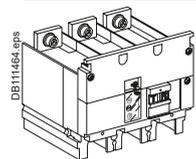
#### Earth Leakage protection of public distribution systems

#### MicroLogic Vigi 4.3 AB distribution protections

Rating	<b>4P 4d 3d + N/2</b>
400 A	<b>LV433948</b>

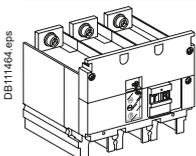
### + Vigi add-on or Vigi add-on Alarm

#### Vigi add-on



Type MB	200 to 440 V	<b>3P</b>	<b>4P</b>
	440 to 550 V	<b>LV432455</b>	<b>LV432456</b>
Connection for a 4P Vigi add-on on a 3P breaker		<b>LV432453</b>	<b>LV432454</b>
			<b>LV432457</b>

#### Vigi add-on Alarm



200 to 440 V AC	<b>3P</b>	<b>4P</b>
Connection for a 4P insulation monitoring module on a 3P breaker	<b>LV432659</b>	<b>LV432660</b>
		<b>LV432457</b>

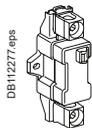
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# Trip unit accessories

## ComPact NSX400/630 with/without Vigi add-on

### Trip unit accessories

External neutral CT for 3 pole breaker with MicroLogic 5/6



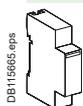
400-630 A LV432575

24 V DC wiring accessory for MicroLogic 5/6



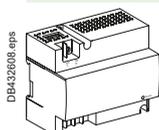
24 V DC power supply connector LV434210

ZSI accessory for NS630b-NW with NSX



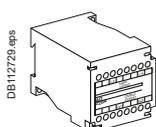
ZSI module LV434212

External power supply module (24 V DC - 1 A), class 4



24-30 V DC	LV454440
48-60 V DC	LV454441
100-125 V DC	LV454442
110-130 V AC	LV454443
200-240 V AC	LV454444

Battery module



24 V DC battery module 54446



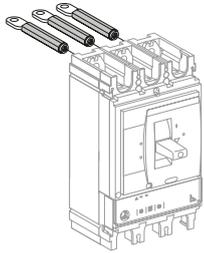
# Installation and connection

## ComPact NSX and ComPact NSX400/630 Vigi add-on

Fixed/RC device = fixed/FC device + rear connection kit

### Mixed RC kit

DB111465.eps

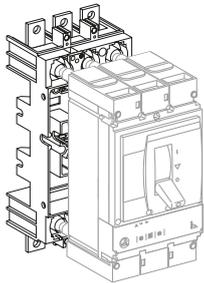


Kit 3P	Short RCs	2 x	<b>LV432475</b>
	Long RCs	1 x	<b>LV432476</b>
Kit 4P	Short RCs	2 x	<b>LV432475</b>
	Long RCs	2 x	<b>LV432476</b>

Plug-in version = fixed/FC device + plug-in kit

### Kit for ComPact NSX

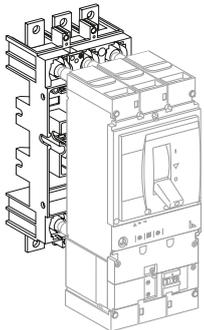
DB111467.eps



	3P	4P
<b>Plug-in kit</b>	<b>LV432538</b>	<b>LV432539</b>
Comprising:		
Base	= 1 x LV432516	= 1 x LV432517
Power connections	+ 3 x LV432518	+ 4 x LV432518
Short terminal shields	+ 2 x LV432591	+ 2 x LV432592
Safety trip interlock	+ 1 x LV432520	+ 1 x LV432520

### Kit for ComPact NSX Vigi add-on

DB111469.eps



	3P	4P
<b>ComPact NSX Vigi add-on plug-in kit</b>	<b>LV432540</b>	<b>LV432541</b>
Comprising:		
Base	= 1 x LV432516	= 1 x LV432517
Power connections	+ 3 x LV432519	+ 4 x LV432519
Short terminal shields	+ 2 x LV432591	+ 2 x LV432592
Safety trip interlock	+ 1 x LV432520	+ 1 x LV432520

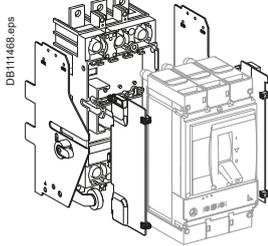
[1] Supplied with 2 or 3 interphase barriers.

# Installation and connection

## ComPact NSX and ComPact NSX400/630 Vigi add-on

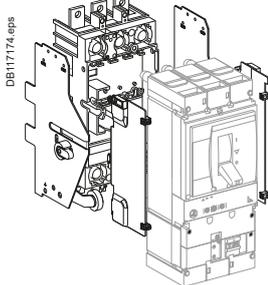
Withdrawable version = fixed/FC device + withdrawable kit

### Kit for ComPact NSX



	3P	4P
	<b>Kit for ComPact NSX</b>	<b>Kit for ComPact NSX</b>
	=	=
Plug-in kit:	1 x LV432538	1 x LV432539
	+	+
Chassis side plates for base	1 x LV432532	1 x LV432532
	+	+
Chassis side plates for breaker	1 x LV432533	1 x LV432533

### Kit for ComPact NSX Vigi add-on



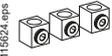
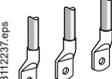
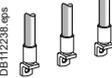
	3P	4P
	<b>Kit for ComPact NSX Vigi add-on</b>	<b>Kit for ComPact NSX Vigi add-on</b>
	=	=
Plug-in kit:	1 x LV432540	1 x LV432541
	+	+
Chassis side plates for base	1 x LV432532	1 x LV432532
	+	+
Chassis side plates for breaker	1 x LV432533	1 x LV432533



# Accessories and auxiliaries

## ComPact NSX400/630 with/without Vigi add-on

### Connection accessories (Cu or Al)

Rear connections				
	2 short			LV432475
	2 long			LV432476
Bare cable connectors <sup>[1]</sup>				
	Aluminium connectors	1 x (35 to 300 mm <sup>2</sup> )	Set of 3	LV432479
			Set of 4	LV432480
	Aluminium connectors for 2 cables	2 x (35 to 240 mm <sup>2</sup> )	Set of 3	LV432481
			Set of 4	LV432482
	6.35 mm voltage tap for aluminium connectors for 1 or 2 cables		Set of 10	LV429348
Terminal extensions <sup>[1]</sup>				
	45° terminal extensions		Set of 3	LV432586
			Set of 4	LV432587
	Edgewise terminal extensions		Set of 3	LV432486
			Set of 4	LV432487
	Right-angle terminal extensions		Set of 3	LV432484
			Set of 4	LV432485
	Spreaders	52.5 mm	3P	LV432490
			4P	LV432491
		70 mm	3P	LV432492
			4P	LV432493
Crimp lugs for copper cable <sup>[1]</sup>				
	For cable 240 mm <sup>2</sup>		Set of 3	LV432500
			Set of 4	LV432501
	For cable 300 mm <sup>2</sup>		Set of 3	LV432502
			Set of 4	LV432503
Crimp lugs for aluminium cable <sup>[1]</sup>				
	For cable 240 mm <sup>2</sup>		Set of 3	LV432504
			Set of 4	LV432505
	For cable 300 mm <sup>2</sup>		Set of 3	LV432506
			Set of 4	LV432507
Supplied with 2 or 3 interphase barriers				

[1] Supplied with 2 or 3 interphase barriers.

# Accessories and auxiliaries

## ComPact NSX400/630 with/without Vigi add-on

### Insulation accessories

<p>DB425487.eps</p>	Short terminal shield, 45 mm (1 piece)	3P	LV432591
		4P	LV432592
<p>DB117163.eps</p> <p>DB117164.eps</p>	Short terminal shield > 500 V (1 piece)	3P	LV433693
		4P	LV433694
<p>DB425468.eps</p>	Long terminal shield, 45 mm (1 piece)	3P	LV432593
		4P	LV432594
<p>DB425469.eps</p>	Long terminal shield for spreaders, 52.5 mm (1 piece) (supplied with insulating plate)	3P	LV432595
		4P	LV432596
<p>DB425470.eps</p>	Interphase barriers	Set of 6	LV432570
<p>DB425471.eps</p>	Connection adapter for plug-in base	3P	LV432584
		4P	LV432585
<p>DB115228.eps</p>	2 insulating screens (70 mm pitch)	3P	LV432578
		4P	LV432579



# Accessories and auxiliaries

## ComPact NSX400/630 with/without Vigi add-on

### Electrical auxiliaries

#### Auxiliary contacts (changeover)

DB11254.eps		OF or SD or SDE or SDV	29450
		OF or SD or SDE or SDV low level	29452

#### SDx output module for MicroLogic electronic trip unit

DB11275.eps		SDx module 24/415 V AC/DC	LV429532
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#### SDTAM contactor tripping module (early-break thermal fault signal) for MicroLogic 2.3 M/6.3 E-M

DB11276.eps		SDTAM 24/415 V AC/DC overload fault indication	LV429424
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#### Voltage releases

	Voltage	MX	MN		
DB11454.eps	AC	24 V 50/60 Hz	LV429384	LV429404	
		48 V 50/60 Hz	LV429385	LV429405	
		110-130 V 50/60 Hz	LV429386	LV429406	
		220-240 V 50/60 Hz and 208-277 V 60 Hz	LV429387	LV429407	
		380-415 V 50 Hz and 440-480 V 60 Hz	LV429388	LV429408	
		525 V 50 Hz and 600 V 60 Hz	LV429389	LV429409	
DB11454.eps	DC	12 V	LV429382	LV429402	
		24 V	LV429390	LV429410	
		30 V	LV429391	LV429411	
		48 V	LV429392	LV429412	
		60 V	LV429383	LV429403	
		125 V	LV429393	LV429413	
		250 V	LV429394	LV429414	
			MN 48 V 50/60 Hz with fixed time delay		
		Composed of:	MN 48 V DC		LV429412
			Delay unit 48 V 50/60 Hz		LV429426
	MN 220-240 V 50/60 Hz with fixed time delay				
Composed of:	MN 250 V DC		LV429414		
	Delay unit 220-240 V 50/60 Hz		LV429427		
	MN 48 V DC/AC 50/60 Hz with adjustable time delay				
Composed of:	MN 48 V DC		LV429412		
	Delay unit 48 V DC/AC 50/60 Hz		33680		
	MN 110-130 V DC/AC 50/60 Hz with adjustable time delay				
Composed of:	MN 125 V DC		LV429413		
	Delay unit 100-130 V DC/AC 50/60 Hz		33681		
	MN 220-250 V DC/AC 50/60 Hz with adjustable time delay				
Composed of:	MN 250 V DC		LV429414		
	Delay unit 200-250 V DC/AC 50-60 Hz		33682		

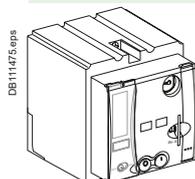
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# Accessories and auxiliaries

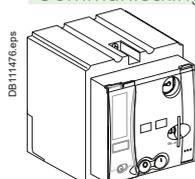
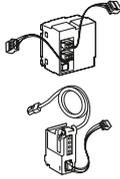
## ComPact NSX400/630 with/without Vigi add-on

### Motor mechanism

#### Motor mechanism module

	AC	Voltage	MT400-630
		48-60 V 50/60 Hz	LV432639
		110-130 V 50/60 Hz	LV432640
		220-240 V 50/60 Hz and 208-277 V 60 Hz	LV432641
		380-415 V 50 Hz	LV432642
	DC	440-480 V 60 Hz	LV432647
		24-30 V	LV432643
		48-60 V	LV432644
		110-130 V	LV432645
		250 V	LV432646
Operation counter			LV432648

#### Communicating motor mechanism module

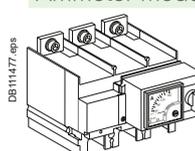
 	Motor mechanism module	MTc 400/630	220-240 V 50/60 Hz	LV432652	
	+				
	Breaker status Communication Module	BSCM		LV434205	
	+				
	NSX cord	Wire length L = 0.35 m			LV434200
		Wire length L = 1.3 m			LV434201
		Wire length L = 3 m			LV434202
		U > 480 V AC wire length L = 0.35 m			LV434204

### Indication and measurement modules

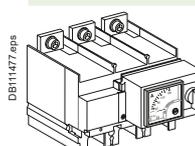
#### PowerLogic PowerTag NSX

	Rating (A)	630
	3P	LV434022
	3P+N	LV434023

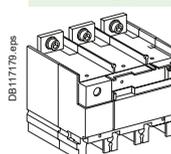
#### Ammeter module

	Rating (A)	400	630
	3P	LV432655	LV432855
	4P	LV432656	LV432856

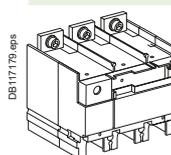
#### I max. ammeter module

	Rating (A)	400	630
	3P	LV434852	LV434853

#### Current transformer module

	Rating (A)	400	630
	3P	LV432657	LV432857
	4P	LV432658	LV432858

#### Current transformer module and voltage output

	Rating (A)	400	600
	3P	LV432653	LV432861
	4P	LV432654	LV432862

#### Voltage presence indicator

	3P/4P	LV432566
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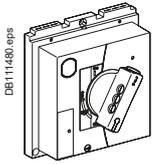


# Accessories and auxiliaries

## ComPact NSX400/630 with/without Vigi add-on

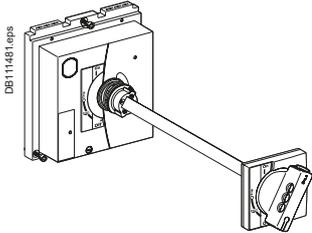
### Rotary handles

#### Direct rotary handle



With black handle	LV432597
With red handle on yellow front	LV432599
MCC conversion accessory	LV432606
CNOMO conversion accessory	LV432602

#### Extended rotary handle



With black handle	LV432598
With red handle on yellow front	LV432600
With telescopic handle for withdrawable device	LV432603



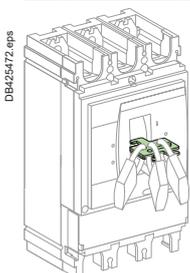
Open door shaft operator	LV426937
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#### Accessories for direct or extended rotary handle

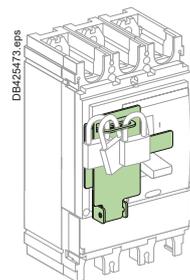
Indication auxiliary	1 early-break contact	LV432605
	2 early-make contacts	LV429346

### Locks

#### Toggle locking device for 1 to 3 padlocks

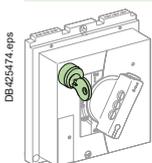


By removable device	29370
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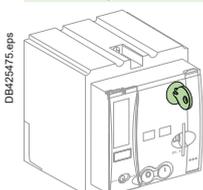
By fixed device for 3P, 4P (open or close position)	LV432631
By fixed device for 3P, 4P (for open position only)	LV432630

#### Locking of rotary handle



Keylock adapter (keylock not included)	LV432604	
Keylock (keylock adapter not included)	Ronis 1351B.500	41940
	Profalux KS5 B24 D4Z	42888

#### Locking of motor mechanism module



Keylock adapter (keylock not included)	LV432649	
Keylock (keylock adapter not included)	Ronis 1351B.500	41940
	Profalux KS5 B24 D4Z	42888

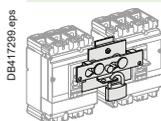
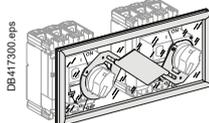
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# Accessories and auxiliaries

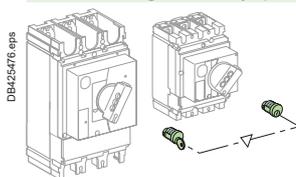
## ComPact NSX400/630 with/without Vigi add-on

### Interlocking

#### Mechanical interlocking for circuit breakers

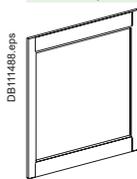
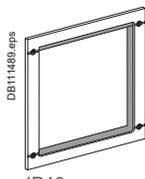
 <p>DB417299 eps</p>	With toggles	LV432614
	With rotary handles	LV432621
 <p>DB417300 eps</p>		

#### Interlocking with key (2 keylocks / 1 key) for rotary handles

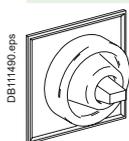
 <p>DB625076 eps</p>	Keylock kit (keylock not included) <sup>[1]</sup>	LV432604	
	1 set of 2 keylocks	Ronis 1351B.500	41950
	(1 key only, keylock kit not included)	Profalux KS5 B24 D4Z	42878

### Installation accessories

#### Front-panel escutcheons

 <p>DB111489 eps</p>	IP30 escutcheon for all control types	LV432557
	IP30 trip unit access escutcheon for toggle	LV432559
	IP30 escutcheon for Vigi add-on	LV429527
IP30		
 <p>DB111488 eps</p>	IP40 escutcheon for all control types	LV432558
	IP40 escutcheon for Vigi add-on	LV429316
	IP40 escutcheon for Vigi add-on or ammeter module	LV429318
IP40		

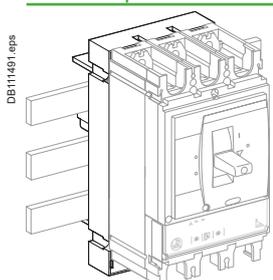
#### IP43 rubber toggle cover

 <p>DB111490 eps</p>	1 toggle cover	LV432560
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#### Lead-sealing accessories

 <p>DB1156115 eps</p>	Bag of accessories	LV429375
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#### 60 mm plate

 <p>DB111491 eps</p>	Plate 3P ComPact NSX400/630 IEC	LV432623
	Plate 4P ComPact NSX400/630 IEC	LV432624

[1] For only 1 device.

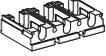


# Accessories and auxiliaries

## ComPact NSX400/630 with/without Vigi add-on

### Plug-in/withdrawable version accessories

#### Insulation accessories

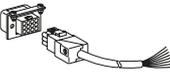
	Connection adapter for plug-in base	3P	<b>LV432584</b>
		4P	<b>LV432585</b>

#### Auxiliary connections

	1 9-wire fixed connector (for base)		<b>LV429273</b>
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	1 9-wire moving connector (for circuit breaker)		<b>LV432523</b>
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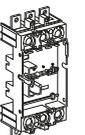
	1 support for 3 moving connectors		<b>LV432525</b>
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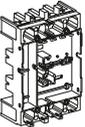
	9-wire manual auxiliary connector (fixed + moving)		<b>LV429272</b>
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#### Plug-in base accessories

	Long insulated right angle terminal extensions	Set of 2	<b>LV432526</b>
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	2 IP40 shutters for base		<b>LV432521</b>
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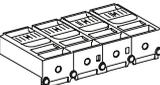
	Base	3P	<b>LV432516</b>
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	Base	4P	<b>LV432517</b>
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	Power connections	3/4P	<b>LV432518</b>
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	Short terminal shields	3P	<b>LV432591</b>
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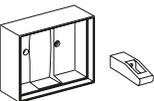
	Short terminal shield > 500 V (1 piece)	3P	<b>LV433693</b>
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	Short terminal shields	4P	<b>LV432592</b>
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	Short terminal shield > 500 V (1 piece)	4P	<b>LV433694</b>
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	Safety trip interlock	3/4P	<b>LV432520</b>
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#### Chassis accessories

	Escutcheon collar	Toggle	<b>LV432534</b>
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	Escutcheon collar	Vigi add-on	<b>LV429285</b>
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	Locking kit (keylock not included)		<b>LV429286</b>
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	Keylock (keylock adapter not included) Ronis 1351B.500		<b>41940</b>
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	Profalux KS5 B24 D4Z		<b>42888</b>
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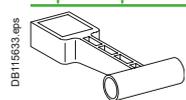
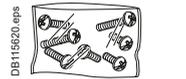
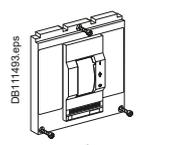
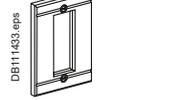
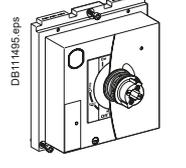
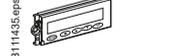
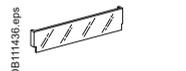
	2 carriage switches (connected/disconnected position indication)		<b>LV429287</b>
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# Accessories and auxiliaries

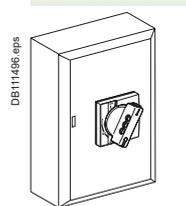
## ComPact NSX400/630 with/without Vigi add-on

### Spare parts

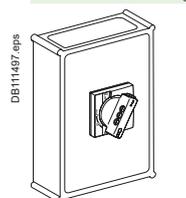
	Additional toggle extension for NSX400/630		<b>32595</b>
	5 spare toggle extensions		<b>LV432553</b>
	Bag of screws		<b>LV432552</b>
	ComPact NS retrofit escutcheon	Small cut-out	<b>LV432571</b>
	IP40 toggle escutcheon	ComPact NS type/small cut-out	<b>32556</b>
	Torque limiting screws (set of 12)	3P/4P ComPact NSX400-630	<b>LV432513</b>
	1 set of 10 identification labels		<b>LV429226</b>
	1 base for extended rotary handle		<b>LV432498</b>
	LCD display for electronic trip unit	MicroLogic 5 MicroLogic 6 MicroLogic E-M	<b>LV429483</b> <b>LV429484</b> <b>LV429486</b>
	5 transparent covers for electronic trip unit	MicroLogic 5/6 MicroLogic 2	<b>LV432459</b> <b>LV432461</b>

### Individual enclosures

#### IP55 steel enclosure

	ComPact NSX400 with black extended rotary handle	<b>LV431219</b>
	ComPact NSX400 with red and yellow extended rotary handle	<b>LV431220</b>
	ComPact NSX630 or ComPact NSX400/630 Vigi add-on with black extended rotary handle	<b>LV431221</b>
	ComPact NSX630 or ComPact NSX400/630 Vigi add-on with red and yellow extended rotary handle	<b>LV431222</b>

#### IP55 insulating enclosure

	ComPact NSX400/630 with black extended rotary handle	<b>LV432665</b>
	ComPact NSX400/630 Vigi add-on with black extended rotary handle	<b>LV432666</b>

### Visible break disconnect function

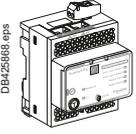
See catalog dealing with "ComPact INV products (visible break)" and the associated accessories.  
The visible break disconnection function is compatible with fixed front-connected/rear-connected ComPact NSX devices.



# Communication, monitoring and control

## ComPact NSX400/630 with/without Vigi add-on

### Communication option

	IFE	Ethernet interface for LV breaker	LV434001
		Ethernet interface for LV breakers and gateway	LV434002
	IFM Modbus-SL interface module		LV434000
	I/O application module		LV434063
	User guide IFE		DOCA0084EN
	User guide I/O application module		DOCA0055EN

### Monitoring and control (remote operation)

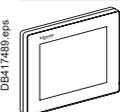
#### Circuit breaker accessories

	Breaker Status Control Module	BSCM <sup>[1]</sup>	LV434205
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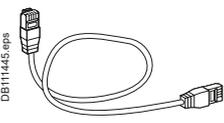
#### ULP display module<sup>[2]</sup>

	Switchboard front display module FDM121		TRV00121
	FDM mounting accessory (diameter 22 mm)		TRV00128

#### Ethernet display module

	Switchboard front display module FDM128		LV434128
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#### ULP wiring accessories

	NSX cord L = 0.35 m		LV434200
	NSX cord L = 1.3 m		LV434201
	NSX cord L = 3 m		LV434202
	NSX cord for U > 480 V AC L = 1.3 m		LV434204
	10 stacking connectors for communication interface modules		TRV00217
	2 Modbus line terminators		VW3A8306DRC <sup>[3]</sup>
	Connector Modbus adaptor		LV434211
	RS 485 roll cable (4 wires, length 60 m)		50965
	5 RJ45 connectors female/female		TRV00870
	10 ULP line terminators		TRV00880
	10 RJ45/RJ45 male cord L = 0.3 m		TRV00803
	10 RJ45/RJ45 male cord L = 0.6 m		TRV00806
	5 RJ45/RJ45 male cord L = 1 m		TRV00810
	5 RJ45/RJ45 male cord L = 2 m		TRV00820
	5 RJ45/RJ45 male cord L = 3 m		TRV00830
	1 RJ45/RJ45 male cord L = 5 m		TRV00850

[1] SDE adapter mandatory for trip unit TM, MA or MicroLogic 2 (LV429451).

[2] For measurement display with MicroLogic A and E or status display with BSCM.

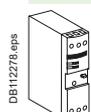
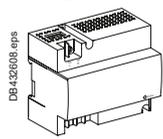
[3] www.schneider-electric.com.

# Monitoring and control, accessories

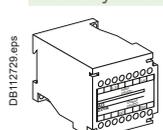
## ComPact NSX400/630 with/without Vigi add-on

### Accessories

#### Power supply modules

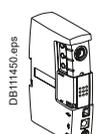
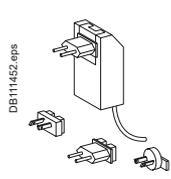
	External power supply module 100-240 V AC 110-230 V DC / 24 V DC-3 A class 2	<b>ABL8RPS24030</b>	[1]
	External power supply module 24 V DC-1 A OVC IV		
	24-30 V DC	<b>LV454440</b>	
	48-60 V DC	<b>LV454441</b>	
	100-125 V DC	<b>LV454442</b>	
	110-130 V AC	<b>LV454443</b>	
	200-240 V AC	<b>LV454444</b>	

#### Battery module

	24 V DC battery module	<b>54446</b>	
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### Test tool, software, demo

#### Test tool

	Pocket battery for MicroLogic NSX100-630	<b>LV434206</b>	
	Maintenance case Comprising: - USB maintenance interface - Power supply - MicroLogic cord - USB cord - RJ45/RJ45 male cord	<b>TRV00910</b>	
	Spare USB maintenance interface	<b>TRV00911</b>	
	Spare power supply 110-240 V AC	<b>TRV00915</b>	
	Spare MicroLogic cord for USB maintenance interface	<b>TRV00917</b>	
	Bluetooth/Modbus option for USB maintenance interface	<b>VW3A8114</b>	[1]

#### Software

	Configuration and setting EcoStruxure Power Commission software	<b>LV4ST100</b>	[2]
	Test software LTU	<b>LV4ST121</b>	[2]
	Monitoring EcoStruxure Power Commission software	<b>LV4SM100</b>	[2]

#### Demo tool

	Demo case for ComPact NSX	<b>LV434207</b>	
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[1] See Telemecanique catalog.

[2] Downloadable from <http://schneider-electric.com>.

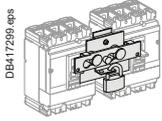
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# Source-changeover systems for 2 devices

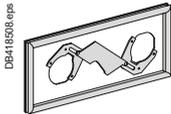
## ComPact NSX100 to NSX630

### Manual source-changeover

#### Mechanical interlocking

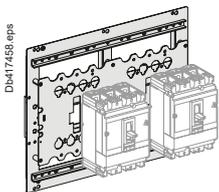


For toggle controlled circuit breakers	NSX100...250	<b>LV429354</b>
	NSX400...630	<b>LV432614</b>



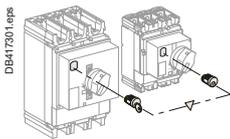
For rotary handled circuit breakers	NSX100...250	<b>LV429369</b>
	NSX400...630	<b>LV432621</b>

#### Interlocking on base plate



For 2 devices side by side	<b>29349</b>
	<b>32609</b>

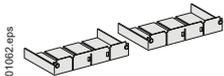
#### Keylock interlocking



For rotary handled or remote controlled circuit breakers 2 locks, 1 key	Ronis 1351B.500	<b>41950</b>
	Profalux KS5 B24 D4Z	<b>42878</b>

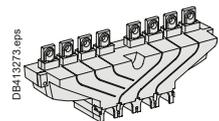
### Connection accessories

#### Downstream coupling accessories



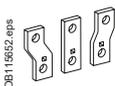
Short terminal shields (1 pair) + "S1" source/"S2" source		<b>3P</b>	<b>4P</b>
	NSX100...250/NSX100...250/ 250 A	<b>LV429358</b>	<b>LV429359</b>
	NSX400...630/NSX400...630/ 630 A	<b>LV432619</b>	<b>LV432620</b>

+



Long terminal shields (1 pair)	NSX100...250/NSX100...250	<b>LV429518</b>
	NSX400...630/NSX400...630	<b>LV432594</b>
	Long terminal shield for spreaders, 52.5 mm (1 piece)	<b>LV432596</b>

#### Terminal extensions



Spreaders	52.5 mm	<b>4P</b>	<b>LV432491</b>
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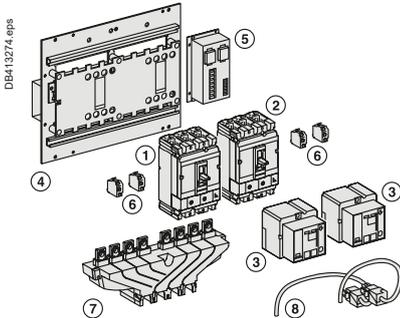
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# Source-changeover systems for 2 devices

## ComPact NSX100 to NSX630

### Typical composition of source-changeover system

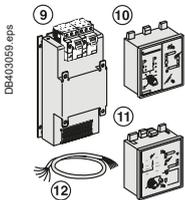
#### Remote source-changeover



- 1 normal device N (1)
- + 1 replacement device R (2)
- + 2 remote controls (3)
- + 1 plate with interlocking (4) with IVE (5) and its wiring (8)
- + 2 plug-in kits (if plug-in version)
- + 1 adaptor kit for NSX100...250 plug-in (if NSX400...630 with NSX100...250)
- + auxiliary switches (6)
- 2 x (1 OF + 1 SDE) for ComPact NSX100...630
- + 1 downstream coupling accessory (7) for ComPact NSX100...630 (option)
- + long RC (if back connection)

IVE and remote controls must have the same voltage.

#### Associated controller

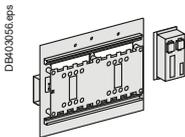


- 1 source changeover without associated controller
- + 1 ACP (9) with BA controller (10)
- Or + 1 ACP (9) with UA controller (11)
- Or + 1 ACP (9) with UA150 controller (11)
- + extension (12) for remote UA/BA connection on front of switchboard

IVE + remote control + ACP + BA or UA must have the same voltage.

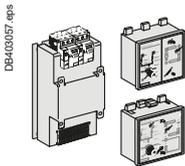
### Automatic source-changeover

#### Mechanical and electrical interlocking



Source "normal"/source "replacement" (identical voltages)	24 to 250 V DC	48 to 415 V AC 50/60 Hz 440 V 60 Hz
<b>NSX100...250/NSX100...250</b>		
Plate + IVE	<b>29351</b>	<b>29350</b>
Plate	<b>29349</b>	<b>29349</b>
IVE	<b>29356</b>	<b>29352</b>
Auxiliary switches 2 OF + 2 SDE	4 x <b>29450</b>	4 x <b>29450</b>
Spare wiring system (device/IVE)	<b>29365</b>	<b>29365</b>
Back sockets option add: Only long RC	[2]	[2]
Plug in base option add: Plug in kit	[2]	[2]
<b>NSX400...630/NSX100...630</b>		
Plate + IVE	<b>32611</b>	<b>32610</b>
Plate	<b>32609</b>	<b>32609</b>
IVE	<b>29356</b>	<b>29352</b>
Auxiliary switches 2 OF + 2 SDE	4 x <b>29450</b>	4 x <b>29450</b>
Spare wiring system (device/IVE)	<b>29365</b>	<b>29365</b>
Back sockets option add: Only long RC	[2]	[2]
Plug in base option add: Plug in kit	[2]	[2]
Adaptator kit for NSX100...250	1 x <b>32618</b>	1 x <b>32618</b>

#### Controller



	110/127 V AC 50/60 Hz	220/240 V AC 50/60 Hz	380/415 V AC 50/60 Hz 440 V 60 Hz
ACP + controller BA [1]		<b>29470</b>	<b>29471</b>
Plate ACP		<b>29363</b>	<b>29364</b>
Controller BA		<b>29376</b>	<b>29377</b>
ACP + controller UA [1]	<b>29448</b>	<b>29472</b>	<b>29473</b>
Plate ACP	<b>29447</b>	<b>29363</b>	<b>29364</b>
Controller UA	<b>29446</b>	<b>29378</b>	<b>29380</b>

#### Wiring cable between BA/UA and ACP/IVE

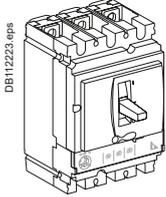
Wiring cable (1.5 meter)	<b>29368</b>	<b>29368</b>
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[1] The supply voltages BA/UA controller, ACP plate, IVE and the remote control must be identical whatever the source-changeover type.  
 [2] See products pages.

# NSX100/400 for utilities, "tarif jaune" public distribution

## Complete fixed/FC device without accessories

### ComPact NSX with MicroLogic AB

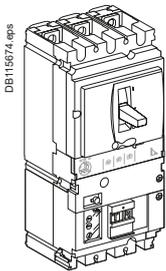


#### ComPact NSX

	Rating	4P
NSX100F MicroLogic AB	100	LV434562
NSX160F MicroLogic AB	160	LV434563
NSX250F MicroLogic AB	240	LV434564
NSX400F MicroLogic AB	400	LV434565

Comprising:	Basic frame	MicroLogic AB
NSX100F + MicroLogic AB 100	LV429008	LV434550
NSX160F + MicroLogic AB 160	LV430408	LV434551
NSX250F + MicroLogic AB 240	LV431408	LV434554
NSX400F + MicroLogic AB 400	LV432415	LV434557

### ComPact NSX Vigi add-on with MicroLogic AB



#### ComPact NSX Vigi add-on

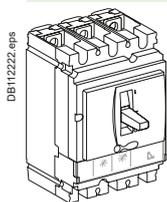
	Rating	4P
NSX100F MicroLogic AB	100	LV434572
NSX160F MicroLogic AB	160	LV434573
NSX250F MicroLogic AB	240	LV434574
NSX400F MicroLogic AB	400	LV434575

Comprising:	Basic frame	MicroLogic AB	Vigi add-on MH/MB
NSX100F + MicroLogic AB 100 + MH	LV429008	LV434550	LV429211
NSX160F + MicroLogic AB 160 + MH	LV430408	LV434551	LV429211
NSX250F + MicroLogic AB 240 + MH	LV431408	LV434554	LV431536
NSX400F + MicroLogic AB 400 + MB	LV432415	LV434557	LV432456

# NSX100/400 for utilities, "tarif jaune" public distribution

## Complet fixed/FC device without accessories

### ComPact NSX with normal trip unit



#### ComPact NSX100F

Rating	4P 3d	4P 4d
TM40D	LV429644	LV429654
TM63D	LV429642	LV429652
TM80D	LV429641	LV429651
TM100D	LV429640	LV429650

#### ComPact NSX160F

Rating	4P 3d	4P 4d
TM80D	LV430643	LV430653
TM100D	LV430642	LV430652
TM125D	LV430641	LV430651
TM160D	LV430640	LV430650

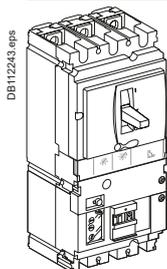
#### ComPact NSX250F

Rating	4P 3d	4P 4d
TM125D	LV431643	LV431653
TM160D	LV431642	LV431652
TM200D	LV431641	LV431651
TM250D	LV431640	LV431650

#### ComPact NSX400F

	4P 3d	4P 4d
MicroLogic 2.3	LV432677	LV432677

### ComPact NSX with normal trip unit



#### ComPact NSX100F Vigi add-on

Rating	4P 3d	4P 4d
TM40D	LV429944	LV429954
TM63D	LV429942	LV429952
TM80D	LV429941	LV429951
TM100D	LV429940	LV429950

#### ComPact NSX160F Vigi add-on

Rating	4P 3d	4P 4d
TM80D	LV430943	LV430953
TM100D	LV430942	LV430952
TM125D	LV430941	LV430951
TM160D	LV430940	LV430950

#### ComPact NSX250F Vigi add-on

Rating	4P 3d	4P 4d
TM125D	LV431943	LV431953
TM160D	LV431942	LV431952
TM200D	LV431941	LV431951
TM250D	LV431940	LV431950

#### ComPact NSX400F Vigi add-on

	4P 3d	4P 4d
MicroLogic 2.3	LV432732	LV432732

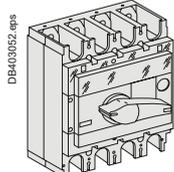
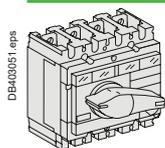


## Catalog numbers

# NSX100/400 for utilities, "tarif jaune" public distribution

## Visible break

## ComPact INV100 to INV630 standard version



ComPact INV100	For ComPact NSX100	4P
ComPact INV160	For ComPact NSX160	31161
ComPact INV200	For ComPact NSX250	31165
ComPact INV250	For ComPact NSX250	31163
		31167

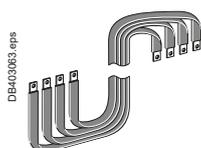
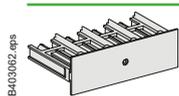
ComPact INV320	For ComPact NSX400	4P
ComPact INV400	For ComPact NSX400	31169
		31171

## Spare viewport



For INV100 to 250	31089
For INV320/400	31090

## Combination with ComPact NSX devices



INV100 to 250 - NSX250 combination assembly	31066
INV320/400 - NSX250 combination assembly	31067
Front alignment base for INV320/400 - NSX250 combination assembly	31064
INV320/400 - NSX400 combination assembly	31068

Flexible connection assembly for vertical INV100 to 250 with NSX horizontal N <sup>[1]</sup>	04443
Flexible connection assembly for vertical INV100 to 250 with NSX horizontal V <sup>[1]</sup>	04444
Flexible connection assembly for vertical INV320 to 630 with NSX horizontal N <sup>[1]</sup>	04445
Flexible connection assembly for vertical INV320 to 630 with NSX horizontal V <sup>[1]</sup>	04446
Flexible connection assembly for vertical INV100 to 250 with vertical NSX250 beside	31071
Flexible connection assembly for vertical INV320 to 630 with vertical NSX400/630 beside	31072
Flexible connection assembly for vertical INV320 to 630 with vertical NSX250 beside	31093

[1] Product sold by MGA and valid for new Prisma only.

# NSX100/400 for utilities, "tarif jaune" public distribution

## Installation and connection with or without the visible break function

### Conventional installation

#### Combination assembly

#### Upstream and downstream connection

INV100 to 250 - NSX100/160/250	4 snap-on bare cable connectors for cables:	1.5 to 95 mm <sup>2</sup> ; ≤ 160 A	2x	LV429243
		10 to 185 mm <sup>2</sup> ; ≤ 250 A	2x	LV429260
	10 clips for bare cable connector		1x	LV429241
	4 right-angle terminal extensions		2x	LV429262
	2 long terminal shields		1x	LV429518
INV320/400 - NSX100/160/250	4 bare cable connectors:	For 1 cable, 35 mm <sup>2</sup> to 300 mm <sup>2</sup>	1x	LV432480
		For 2 cables, 35 mm <sup>2</sup> to 240 mm <sup>2</sup>	1x	LV432482
	4 right-angle terminal extensions		1x	LV432485
	1 long terminal shield		1x	LV432594
	4 snap-on bare cable connectors for cables:	1.5 to 95 mm <sup>2</sup> ; ≤ 160 A	1x	LV429243
	10 to 185 mm <sup>2</sup> ; ≤ 250 A	1x	LV429260	
	10 clips for bare cable connector		1x	LV429241
	4 right-angle terminal extensions		1x	LV429262
	1 long terminal shield		1x	LV429518
INV320/400 - NSX400	4 bare cable connectors:	For 1 cable, 35 mm <sup>2</sup> to 300 mm <sup>2</sup>	2x	LV432480
		For 2 cables, 35 mm <sup>2</sup> to 240 mm <sup>2</sup>	2x	LV432482
	4 right-angle terminal extensions		2x	LV432485
	1 long terminal shield		1x	LV432594

### Installation in cabinet or enclosure

#### Combination assembly (mounting in duct)

#### Flexible connection assembly (mounting in cubicle)

#### Upstream and downstream connection

INV100 to 250 - NSX100/160/250	4 snap-on bare cable connectors for cables:	1.5 to 95 mm <sup>2</sup> ; ≤ 160 A	2x	LV429243
		10 to 185 mm <sup>2</sup> ; ≤ 250 A	2x	LV429260
	1 short terminal shield		1x	LV429516
INV320/400 - NSX100/160/250	4 bare cable connectors:	For 1 cable, 35 mm <sup>2</sup> to 300 mm <sup>2</sup>	1x	LV432480
		For 2 cables, 35 mm <sup>2</sup> to 240 mm <sup>2</sup>	1x	LV432482
	1 short terminal shield		1x	LV432592
	4 snap-on bare cable connectors for cables:	1.5 to 95 mm <sup>2</sup> ; ≤ 160 A	1x	LV429243
		10 to 185 mm <sup>2</sup> ; ≤ 250 A	1x	LV429260
	1 short terminal shield		1x	LV429516
INV320/400 - NSX400	4 bare cable connectors:	For 1 cable, 35 mm <sup>2</sup> to 300 mm <sup>2</sup>	2x	LV432480
		For 2 cables, 35 mm <sup>2</sup> to 240 mm <sup>2</sup>	2x	LV432482
	1 short terminal shield		1x	LV432592

# ComPact NSX100 to NSX630 order form

Name of customer: .....  
 Address for delivery: .....  
 Requested delivery date: .....  
 Customer order no.: .....

To indicate your choices, check the applicable square boxes   
 or note the quantity

and enter the appropriate information in the rectangles

### Circuit breaker or switch-disconnector

ComPact type  **NSX100/160/250 - 160A not available with R, HB1 or HB2**  
**NSX400/630**

Rating **A**

Circuit breaker **B, F, N, H, S, L, R, HB1, HB2**

Switch-disconnector **NA**

Number of poles **1, 2, 3 or 4**

Number of poles protected **2d, 3d or 4d**

Fixed device  Front connections

Plug-in/withdr.  Plug-in  Withdrawable

Earth-leakage protection **ME, MH, MB (not available with R, HB1 or HB2)**

Vigi add-on Voltage < 550 V  V   
 4P option on 3P NSX

### Trip unit

**Thermal-mag.**  **TMD** rating (16 ... 250 A) (40 ... 250 A) with R, HB1 and (63...250 A) with HB2  
 **TMG** rating (16 ... 250 A) - not available with R, HB1 or HB2  
 **MA** rating (2.5 ... 220 A) (12.5 ... 220 A) with R, HB1 and HB2

### Electronic

\* Not available with R, HB1 or HB2

<input type="checkbox"/> <b>MicroLogic 2.2</b>	<input type="checkbox"/> <b>MicroLogic 2.3</b>
<input type="checkbox"/> <b>MicroLogic 2.2 G*</b>	<input type="checkbox"/> <b>MicroLogic 2.3 AB*</b>
<input type="checkbox"/> <b>MicroLogic 2.2 AB*</b>	<input type="checkbox"/> <b>MicroLogic Vigi 4.3</b>
<input type="checkbox"/> <b>MicroLogic Vigi 4.2</b>	<input type="checkbox"/> <b>MicroLogic Vigi 4.3 AL</b>
<input type="checkbox"/> <b>MicroLogic Vigi 4.2 AL</b>	<input type="checkbox"/> <b>MicroLogic Vigi 4.3 AB</b>
<input type="checkbox"/> <b>MicroLogic Vigi 4.2 AB</b>	<input type="checkbox"/> <b>MicroLogic 5.3 A*</b>
<input type="checkbox"/> <b>MicroLogic 5.2 A*</b>	<input type="checkbox"/> <b>MicroLogic 5.3 E</b>
<input type="checkbox"/> <b>MicroLogic 5.2 E</b>	<input type="checkbox"/> <b>MicroLogic 5.3 A-Z*</b>
<input type="checkbox"/> <b>MicroLogic 5.2 A-Z*</b>	<input type="checkbox"/> <b>MicroLogic 6.3 A*</b>
<input type="checkbox"/> <b>MicroLogic 6.2 A*</b>	<input type="checkbox"/> <b>MicroLogic 6.3 E</b>
<input type="checkbox"/> <b>MicroLogic 6.2 E</b>	<input type="checkbox"/> <b>MicroLogic Vigi 7.3 E</b>
<input type="checkbox"/> <b>MicroLogic Vigi 7.2 E</b>	<input type="checkbox"/> <b>MicroLogic Vigi 7.3 E AL</b>
<input type="checkbox"/> <b>MicroLogic Vigi 7.2 AL</b>	<input type="checkbox"/> <b>MicroLogic 1.3 M</b>
<input type="checkbox"/> <b>MicroLogic 2.2 M</b>	<input type="checkbox"/> <b>MicroLogic 2.3 M</b>
<input type="checkbox"/> <b>MicroLogic 6.2 E-M</b>	<input type="checkbox"/> <b>MicroLogic 6.3 E-M</b>

**SDTAM Module**

External neutral CT

24 V DC power supply connector

ZSI connector accessory for plug-in and withdrawable

ZSI wiring accessory for NS630b / MTZ

External power supply module 24 V DC

24-30 V DC <input type="checkbox"/>	48-60 V DC <input type="checkbox"/>
100-125 V AC <input type="checkbox"/>	110-130 V AC <input type="checkbox"/>
200-240 V AC <input type="checkbox"/>	

### Battery module

### Connection

Rear-connection kit

Short  Long

Mixed

NSX100/250 connectors

Snap-on 1.5<sup>□</sup> to 95<sup>□</sup> (< 160 A)  
 Snap-on 25<sup>□</sup> to 95<sup>□</sup> (< 250 A)  
 Snap-on 120<sup>□</sup> to 185<sup>□</sup> (< 250 A)  
 Distribution 6 x 1.5<sup>□</sup> to 35<sup>□</sup>  
 Aluminium 1 cable 25 to 95  
 Aluminium 1 cable 120 to 185  
 Aluminium 1 cable 120 to 250  
 Aluminium 2 cables 50<sup>□</sup> to 120<sup>□</sup>

NSX400/630 connectors

1 cable 35<sup>□</sup> to 300<sup>□</sup>  
 2 cables 35<sup>□</sup> to 240<sup>□</sup>

Right-angle terminal extensions

Straight extensions  NSX100/250

Edgewise extensions  45° terminal extension  Double-L terminal extensions

Spreader

NSX100/250 (one piece)  (45 mm)  
 NSX400/630 (52.5 mm)  (70 mm)

Cu cable lugs

NSX100/250 <input type="checkbox"/>	120 <sup>□</sup> <input type="checkbox"/>	150 <sup>□</sup> <input type="checkbox"/>	185 <sup>□</sup> <input type="checkbox"/>
NSX400/630 <input type="checkbox"/>	240 <sup>□</sup> <input type="checkbox"/>	300 <sup>□</sup> <input type="checkbox"/>	

Al cable lugs

NSX100/250 <input type="checkbox"/>	150 <sup>□</sup> <input type="checkbox"/>	185 <sup>□</sup> <input type="checkbox"/>
NSX400/630 <input type="checkbox"/>	240 <sup>□</sup> <input type="checkbox"/>	300 <sup>□</sup> <input type="checkbox"/>

Voltage measurement

Input for connector For lugs NSX100/250 ≤ 185<sup>□</sup>  
 For lugs NSX400/630

Terminal shields

NSX100/250 <input type="checkbox"/>	Short <input type="checkbox"/>	Long <input type="checkbox"/>
NSX400/630 <input type="checkbox"/>	Short <input type="checkbox"/>	Long <input type="checkbox"/>

Short ≥ 500 V  Long for 52.5 mm spreaders

Interphase barriers  Set of 6

2 insulating screens:  NSX100/250  
 NSX400/630 70 pitch

### Test tool

<input type="checkbox"/> Pocket battery for MicroLogic	<input type="checkbox"/> Power supply 110-240 V AC
<input type="checkbox"/> Maintenance case	<input type="checkbox"/> Spare MicroLogic cord
<input type="checkbox"/> USB maintenance interface	

### Indication and measurement

<input type="checkbox"/> PowerLogic PowerTag NSX	3P <input type="checkbox"/>	4P <input type="checkbox"/>
<input type="checkbox"/> Ammeter module	standard 3P <input type="checkbox"/>	4P <input type="checkbox"/>
	I max 3P <input type="checkbox"/>	
<input type="checkbox"/> Current-transformer module	3P <input type="checkbox"/>	4P <input type="checkbox"/>
<input type="checkbox"/> Current-transformer module + TCU	3P <input type="checkbox"/>	4P <input type="checkbox"/>
<input type="checkbox"/> Insulation-monitoring module - not available with HB1 or HB2	3P <input type="checkbox"/>	4P <input type="checkbox"/>
<input type="checkbox"/> Voltage-presence indicator - not available with HB1 or HB2		
<input type="checkbox"/> Auxiliary contact	OF, SD, SDE or SDV Standard <input type="checkbox"/>	Low level <input type="checkbox"/>
<input type="checkbox"/> SDE adapter (TM, MA or MicroLogic 2 trip units)		
<input type="checkbox"/> SDX module		

### Remote operation

<input type="checkbox"/> Electrical operation	Motor mechanism	AC <input type="checkbox"/>	DC <input type="checkbox"/>	V <input type="checkbox"/>
<input type="checkbox"/> Voltage releases	Instantaneous	MX AC <input type="checkbox"/>	DC <input type="checkbox"/>	V <input type="checkbox"/>
		MN AC <input type="checkbox"/>	DC <input type="checkbox"/>	V <input type="checkbox"/>
	Fixed time delay	MN AC <input type="checkbox"/>	DC <input type="checkbox"/>	V <input type="checkbox"/>
	Adjust. time delay	MN AC <input type="checkbox"/>	DC <input type="checkbox"/>	V <input type="checkbox"/>

### Rotary handles

<input type="checkbox"/> Direct	Black <input type="checkbox"/>	Red and yellow front <input type="checkbox"/>
	MCC conversion access. <input type="checkbox"/>	CNOMO conversion access. <input type="checkbox"/>
<input type="checkbox"/> Extended	Black <input type="checkbox"/>	Red and yellow front <input type="checkbox"/>
	Telescopic handle for withdrawable device <input type="checkbox"/>	
	Open door shaft operator <input type="checkbox"/>	
<input type="checkbox"/> Indication auxiliary	1 early-break switch <input type="checkbox"/>	2 early-make switches <input type="checkbox"/>

### Locking

<input type="checkbox"/> Toggle (1 to 3 padlocks)	Removable <input type="checkbox"/>	Fixed <input type="checkbox"/>
<input type="checkbox"/> Rotary handle	Keylock adapter (keylock not included) <input type="checkbox"/>	Profalux KS5 B24 D4Z <input type="checkbox"/>
	Keylocks Ronis 1351B.500 <input type="checkbox"/>	
<input type="checkbox"/> Motor mechanism	Keylock adapter + keylock Ronis (special) <input type="checkbox"/>	NSX100/250 <input type="checkbox"/>
	Keylock adapter (keylock not included) <input type="checkbox"/>	NSX400/630 <input type="checkbox"/>
	Keylocks Ronis 1351B.500 <input type="checkbox"/>	Profalux KS5 B24 D4Z <input type="checkbox"/>

### Interlocking

<input type="checkbox"/> Mechanical	Toggle operated <input type="checkbox"/>	Rotary Handle <input type="checkbox"/>
<input type="checkbox"/> By key (2 keylocks, 1 key)	Locking kit without locks <input type="checkbox"/>	
<input type="checkbox"/> For rotary handle	Keylocks Ronis 1351B.500 <input type="checkbox"/>	Profalux KS5 B24 D4Z <input type="checkbox"/>

### Installation accessories

<input type="checkbox"/> IP30 escutcheon for all types (toggle/rotary handle/motor mechanism)	
<input type="checkbox"/> IP30 escutcheon (with access to toggle + trip unit)	
<input type="checkbox"/> IP30 escutcheon for Vigi add-on	
<input type="checkbox"/> IP40 escutcheon for all types (toggle/rotary handle/motor mechanism)	
<input type="checkbox"/> IP40 escutcheon for Vigi add-on	
<input type="checkbox"/> IP40 escutcheon for Vigi add-on or ammeter module	
<input type="checkbox"/> Toggle cover	
<input type="checkbox"/> Sealing accessories	
<input type="checkbox"/> DIN rail adapter	NSX100/250
<input type="checkbox"/> 3P 60 mm busbar adapter	

### Plug-in / withdrawable configuration accessories

<input type="checkbox"/> Auxiliary connections	1 automatic connector fixed part with 9 wires (for base) <input type="checkbox"/>	
	1 automatic connector moving part with 9 wires (for circuit breaker) <input type="checkbox"/>	
	1 support for 3 automatic connector moving parts <input type="checkbox"/>	1 support for 2 automatic connector <input type="checkbox"/>
	9-wire manual auxiliary connector (fixed + moving) <input type="checkbox"/>	
<input type="checkbox"/> Plug-in base accessories	Long insulated terminals <input type="checkbox"/>	Set of 2 <input type="checkbox"/>
	2 IP4 shutters for base <input type="checkbox"/>	
<input type="checkbox"/> Chassis accessories	Escutcheon collar <input type="checkbox"/>	Toggle <input type="checkbox"/> Vigi <input type="checkbox"/>
	Locking kit (keylock not included) <input type="checkbox"/>	
	2 carriage switches (conn./disconnected position indication) <input type="checkbox"/>	
<input type="checkbox"/> Parts or plug-in	Plug-in base FC/RC <input type="checkbox"/>	2P <input type="checkbox"/> 3P <input type="checkbox"/> 4P <input type="checkbox"/>
<input type="checkbox"/> Withdrawable kits	Set of two power connections <input type="checkbox"/>	Standard <input type="checkbox"/> Vigi <input type="checkbox"/>
	Safety trip for advanced opening <input type="checkbox"/>	
	For 3P/4P chassis <input type="checkbox"/>	Moving part <input type="checkbox"/>
		Fixed part <input type="checkbox"/>
<input type="checkbox"/> Adapter for plug-in base (for terminal shield or interphase barriers)		

### Communication

<input type="checkbox"/>	NSX Cord L = 0.35 m <input type="checkbox"/>	NSX Cord L = 1.3 m <input type="checkbox"/>
<input type="checkbox"/>	NSX Cord U > 480 V AC L = 0.35 m <input type="checkbox"/>	NSX Cord L = 3 m <input type="checkbox"/>

### BSCM

<input type="checkbox"/>	Communicating motor mechanism 220-240 V <input type="checkbox"/>		
<input type="checkbox"/>	Switchboard front display module FDM121 <input type="checkbox"/>		
<input type="checkbox"/>	FDM mounting accessory <input type="checkbox"/>		
<input type="checkbox"/>	Ethernet Interface + Gateway <input type="checkbox"/>		
<input type="checkbox"/>	Ethernet Interface <input type="checkbox"/>		
<input type="checkbox"/>	Modbus interface <input type="checkbox"/>		
<input type="checkbox"/>	I/O Application Module <input type="checkbox"/>	Qty 1 <input type="checkbox"/>	
<input type="checkbox"/>		Qty 2 <input type="checkbox"/>	
<input type="checkbox"/>	Stacking accessory <input type="checkbox"/>		
<input type="checkbox"/>	ULP line termination <input type="checkbox"/>		
<input type="checkbox"/>	RJ45 connectors female/female <input type="checkbox"/>	Wire length RJ45 L = 0.3 m <input type="checkbox"/>	Wire length RJ45 L = 0.6 m <input type="checkbox"/>
		Wire length RJ45 L = 1 m <input type="checkbox"/>	Wire length RJ45 L = 2 m <input type="checkbox"/>
		Wire length RJ45 L = 3 m <input type="checkbox"/>	Wire length RJ45 L = 5 m <input type="checkbox"/>

# Glossary

Accessories.....	G-2
Circuit-breaker characteristics (IEC 60947-2).....	G-2
Communication.....	G-4
Components.....	G-6
Controls.....	G-6
Selectivity / Cascading.....	G-6
Environment.....	G-7
Harmonics.....	G-8
Measurements.....	G-9
Protection.....	G-10
Relays and auxiliary contacts.....	G-10
Switchgear.....	G-11
Three-phase asynchronous motors and their protection.....	G-11
Trip units.....	G-12



<b>Other chapters</b>	
Select your circuit breakers and switch-disconnectors.....	A-1
Select your protection.....	B-1
Customize your circuit breaker with accessories.....	C-1
Smart Panel integration.....	D-1
Switchboard integration.....	E-1
Catalog numbers.....	F-1
Additional characteristics.....	H-1

# Glossary

For each major section (Accessories, Switchgear, etc.) and for each item (Adapter for plug-in base, Connection terminal, etc.), this glossary provides:

- the page number in the concerned catalog
- the reference standard
- the standardised IEC symbol
- the definition.

Text in quotation marks is drawn from the standards.

## Accessories .....

<b>Adapter for plug-in base</b>	The adapter is a plastic component that can be installed upstream and/or downstream of the plug-in base and enables use of all the connection accessories of the fixed device.
<b>Bare-cable connector</b>	Conducting part of the circuit breaker intended for connection to power circuits. On ComPact NSX, it is an aluminium part that screws to the connection terminals of the circuit breaker. There are one or more holes (single or multiple cable connector) for the ends of bare cables.
<b>Connection terminals</b>	Flat copper surface, linked to the conducting parts of the circuit breaker and to which power connections are made using bars, connectors or lugs.
<b>One-piece spreader</b>	The spreader is a plastic component with copper connectors that can be installed upstream and/or downstream of a ComPact NSX100 to 250 circuit breaker with a pole pitch of 35 mm. It increases the pitch of the circuit-breaker terminals to the 45 mm pitch of a NSX400/630 device to facilitate connection of large cables.
<b>Spreaders</b>	Set of three (3P device) or four (4P) flat, conducting parts made of aluminium. They are screwed to the circuit-breaker terminals to increase the pitch between poles.

## Circuit-breaker characteristics (IEC 60947-2) .....

<b>Breaking capacity</b>	Value of prospective current that a switching device is capable of breaking at a stated voltage under prescribed conditions of use and behaviour. Reference is generally made to the ultimate breaking capacity (Icu) and the service breaking capacity (Ics).
<b>Degree of protection (IP) IEC 60529</b>	<p>Defines device protection against the penetration of solid objects and liquids, using two digits specified in standard IEC 60259. Each digit corresponds to a level of protection, where 0 indicates no protection.</p> <ul style="list-style-type: none"> <li>■ First digit (0 to 6): protection against penetration of solid foreign objects. 1 corresponds to protection against objects with a diameter &gt; 50 mm, 6 corresponds to total protection against dust.</li> <li>■ Second digit (0 to 8): protection against penetration of liquids (water). 1 corresponds to protection against falling drops of water (condensation), 8 corresponds to continuous immersion.</li> </ul> <p>The enclosure of ComPact NSX circuit breakers provides a minimum of IP40 (protection against objects &gt; 1 mm) and can reach IP56 (protection against dust and powerful water jets) depending on the installation conditions.</p>
<b>Degree of protection against external mechanical impacts (IK)</b>	<p>Defines the aptitude of an object to resist mechanical impacts on all sides, indicated by a number from 0 to 10 (standard IEC 62262). Each number corresponds to the impact energy (in Joules) that the object can handle according to a standardised procedure.</p> <p>0 corresponds to no protection, 1 to an impact energy of 0.14 Joules, 10 to an impact energy of 20 Joules. ComPact NSX provide IK07 (2 Joules) and can provide IK08 (5 Joules) depending on the installation conditions.</p>
<b>Durability</b>	The term "durability" is used in the standards instead of "endurance" to express the expectancy of the number of operating cycles which can be performed by the equipment before repair or replacement of parts. The term "endurance" is used for specifically defined operational performance.
<b>Electrical durability IEC 60947-1</b>	With respect to its resistance to electrical wear, equipment is characterised by the number of on-load operating cycles, corresponding to the service conditions given in the relevant product standard, which can be made without re replacement.



<b>Frame size</b>	<p>"A term designating a group of circuit breakers, the external physical dimensions of which are common to a range of current ratings. Frame size is expressed in amperes corresponding to the highest current rating of the group. Within a frame size, the width may vary according to the number of poles. This definition does not imply dimensional standardization."</p> <p>ComPact NSX has two frame sizes covering 100 to 250 A and 400 to 630 A.</p>
<b>Insulation class</b>	<p>Defines the type of device insulation in terms of earthing and the corresponding safety for user, in one of three classes.</p> <ul style="list-style-type: none"> <li>■ Class I. The device is earthed. Any electrical faults, internal or external, or caused by the load, are cleared via the earthing circuit, thus ensuring user safety.</li> <li>■ Class II. The device is not connected to a protective conductor. User safety is ensured by reinforced insulation around the live parts (an insulating case and no contact with live parts, i.e. plastic buttons, molded connections, etc.) or double insulation.</li> <li>■ Class III. The device may be connected only to SELV (safety extra-low voltage) circuits. The ComPact NSX are class II devices (front) and may be installed through the door in class II switchboards (standards IEC 61140 and IEC 60664-1), without reducing insulation, even with a rotary handle or motor mechanism module.</li> </ul>
<b>Making capacity</b>	Value of prospective making current that a switching device is capable of making at a stated voltage under prescribed conditions of use and behaviour. Reference is generally made to the short-circuit making capacity I <sub>cm</sub> .
<b>Maximum break time</b>	Maximum time after which breaking is effective, i.e. the contacts separated and the current completely interrupted.
<b>Mechanical durability</b>	With respect to its resistance to mechanical wear, equipment is characterised by the number of no-load operating cycles which can be effected before it becomes necessary to service or replace any mechanical parts.
<b>Non-tripping time</b>	This is the minimum time during which the protective device does not operate in spite of pick-up overrun, if the duration of the overrun does not exceed the corresponding voluntary time delay.
<b>Pollution degree of environment conditions</b> IEC 60947-1 IEC 60664-1	<p>"Conventional number based on the amount of conductive or hygroscopic dust, ionized gas or salt and on the relative humidity and its frequency of occurrence, resulting in hygroscopic absorption or condensation of moisture leading to reduction in dielectric strength and/or surface resistivity". Standard IEC 60947-1 distinguishes four pollution degrees.</p> <ul style="list-style-type: none"> <li>■ Degree 1. No pollution or only dry, non-conductive pollution occurs.</li> <li>■ Degree 2. Normally, only non-conductive pollution occurs. Occasionally, however, a temporary conductivity caused by condensation may be expected.</li> <li>■ Degree 3. Conductive pollution occurs, or dry, non-conductive pollution occurs which becomes conductive due to condensation.</li> <li>■ Degree 4. The pollution generates persistent conductivity caused, for instance, by conductive dust or by rain or snow. ComPact NSX meets degree 3, which corresponds to industrial applications.</li> </ul>
<b>Prospective short-circuit current</b>	Current that would flow through the poles if they remained fully closed during the short-circuit.
<b>Rated current (I<sub>n</sub>)</b>	This is the current that the device can carry continuously with the contacts closed and without abnormal temperature rise.
<b>Rated impulse withstand voltage (U<sub>imp</sub>)</b>	"The peak value of an impulse voltage of prescribed form and polarity which the equipment is capable of withstanding without failure under specified conditions of test and to which the values of the clearances are referred. The rated impulse withstand voltage of an equipment shall be equal to or higher than the values stated for the transient overvoltages occurring in the circuit in which the equipment is fitted".
<b>Rated insulation voltage (U<sub>i</sub>)</b>	"The rated insulation voltage of an equipment is the value of voltage to which dielectric tests and creepage distances are referred. In no case shall the maximum value of the rated operational voltage exceed that of the rated insulation voltage".
<b>Rated operational current (I<sub>e</sub>)</b>	"A rated operational current of an equipment is stated by the manufacturer and takes into account the rated operational voltage, the rated frequency, the rated duty, the utilization category and the type of protective enclosure, if appropriate".
<b>Rated operational voltage (U<sub>e</sub>)</b>	<p>"A value of voltage which, combined with a rated operational current, determines the application of the equipment and to which the relevant tests and the utilisation categories are referred. For multipole equipment, it is generally stated as the voltage between phases".</p> <p>This is the maximum continuous voltage at which the equipment may be used.</p>

# Glossary

<b>Rated short-time withstand current (Icw)</b>	"Value of short-time withstand current, assigned to the equipment by the manufacturer, that the equipment can carry without damage, under the test conditions specified in the relevant product standard". Generally expressed in kA for 0.5, 1 or 3 seconds. This is an essential characteristic for air circuit breakers. It is not significant for molded-case circuit breakers for which the design targets fast opening and high limiting capacity.
<b>Service breaking capacity (Ics)</b>	Expressed as a percentage of Icu, it provides an indication on the robustness of the device under severe conditions. It is confirmed by a test with one opening and one closing/opening at Ics, followed by a check that the device operates correctly at its rated current, i.e. 50 cycles at In, where temperature rise remains within tolerances and the protection system suffers no damage.
<b>Short-circuit making capacity (Icm)</b>	Value indicating the capacity of the device to make and carry a high current without repulsion of the contacts. It is expressed in kA peak.
<b>Suitability for isolation (see also below Positive contact indication)</b>	<p>This capability means that the circuit breaker meets the conditions below.</p> <ul style="list-style-type: none"> <li>■ In the open position, it must withstand, without flashover between the upstream and downstream contacts, the impulse voltage specified by the standard as a function of the Uimp indicated on the device.</li> <li>■ It must indicate contact position by one or more of the following systems: <ul style="list-style-type: none"> <li>□ position of the operating handle</li> <li>□ separate mechanical indicator</li> <li>□ visible break of the moving contacts</li> </ul> </li> <li>■ Leakage current between each pole, with the contacts open, at a test voltage of 1.1 x the rated operating voltage, must not exceed: <ul style="list-style-type: none"> <li>□ 0.5 mA per pole for new devices</li> <li>□ 2 mA per pole for devices already subjected to normal switching operations</li> <li>□ 6 mA, the maximum value that must never be exceeded.</li> </ul> </li> <li>■ It must not be possible to install padlocks unless the contacts are open. Locking in the closed position is permissible for special applications. ComPact NSX complies with this requirement by positive contact indication.</li> </ul>
<b>Suitable for isolation with positive contact indication (see also above Suitability for isolation)</b>	<p>Suitability for isolation is defined here by the mechanical reliability of the position indicator of the operating mechanism, where:</p> <ul style="list-style-type: none"> <li>■ the isolation position corresponds to the O (OFF) position</li> <li>■ the operating handle cannot indicate the "OFF" position unless the contacts are effectively open.</li> </ul> <p>The other conditions for isolation must all be fulfilled:</p> <ul style="list-style-type: none"> <li>■ locking in the open position is possible only if the contacts are effectively open</li> <li>■ leakage currents are below the standardised limits</li> <li>■ overvoltage impulse withstand between upstream and downstream connections.</li> </ul>
<b>Ultimate breaking capacity (Icu)</b>	Expressed in kA, it indicates the maximum breaking capacity of the circuit breaker. It is confirmed by a test with one opening and one closing/opening at Icu, followed by a check that the circuit is properly isolated. This test ensures user safety.

## Communication.....

<b>Acti 9 Smartlink Ethernet</b>	Acti 9 Smartlink Ethernet collects data from Smartlink Modbus and transfers them via the Ethernet network.
<b>Acti 9 Smartlink Modbus</b>	Acti 9 Smartlink Modbus is used to transfer data from Acti 9 devices to a PLC or monitoring system via the communication system: Modbus serial line.
<b>BSCM (Breaker status and control module)</b>	The optional BSCM for ComPact NSX is used to acquire device status indications and control the communicating remote-control function. It includes a memory used to manage the maintenance indicators. It serves as a converter between the analog outputs of the device indication contacts (O/F, SD, SDE) and the digital communicating functions.
<b>Com'X 210 energy server</b>	<p>Com'X 210 energy server is a compact, plug-and-play data logger that merges seamlessly with the Smart Panels energy management solution. It consolidates inputs from analog environmental sensors (e.g. temperature), digital readers (e.g. pulsed signals from smart energy or water meters, load running hours), and energy management equipment running over the Modbus protocol.</p> <p>Designed for ease of implementation, data can be transmitted securely via Ethernet, Wi-Fi, or GPRS to any energy management platforms. The Com'X 210 energy server is scalable and can be easily adaptable to accommodate future upgrades. Com'X 210 is a perfect fit with our energy management services, enabling visualization, tracking, and analysis of energy data to support optimization of energy performance and cost management.</p>

<b>Ethernet TCP/IP (Transmission Control Protocol / Internet Protocol)</b>	Ethernet is a very common network protocol and complies with IEEE standard 802.3. Ethernet TCP/IP is the protocol that brings web functions to Ethernet networks. Most PCs have an Ethernet 10/100 card (10 or 100 Mbit/s) for connection to the internet. Data communicated from ComPact NSX via Modbus are accessible on a PC via a TCP/IP-Modbus gateway such as MPS100 or EGX100.
<b>FDM121 switchboard display</b>	An FDM121 switchboard display unit can be connected to a ULP IMU using a prefabricated cord to display all measurements, alarms, histories and event tables, maintenance indicators, management of installed devices on a screen. The result is a veritable 96 x 96 mm Power Meter. The FMD121 display unit requires a 24 V DC power supply. The FDM121 is a switchboard display unit that can be integrated in the ComPact NSX100 to 630 A, PowerPact H/J/L/P/R, ComPact NS or MasterPact systems.
<b>FDM128 switchboard display</b>	The FDM128 is an intelligent Ethernet display. It collects the data from up to 8 devices via Ethernet network. The FDM128 is a large display, but requires very little depth. The anti-glare graphic screen is backlit for very easy reading even under poor ambient lighting and at sharp angles.
<b>IFE Ethernet interface, IFE Ethernet interface + gateway</b>	The IFE Ethernet interface for LV circuit breaker enables an intelligent modular unit (IMU), for example a MasterPact NT/NW/MTZ or ComPact NSX circuit breaker to be connected to an Ethernet network.
<b>IFM Module interface Modbus</b>	This module required for connection to the network, contains the Modbus address (1 to 99) declared by the user via the two dials in front. It automatically adapts (baud rate, parity) to the Modbus network in which it is installed. It is equipped with a lock-out switch to enable or disable operations involving writing to MicroLogic, i.e. reset, counter reset, setting modifications, device opening and closing commands, etc. There is a built-in test function to check the connections of the Modbus interface module with the MicroLogic and FDM121 display unit.
<b>I/O application module</b>	The I/O (Input/Output) application module for LV breaker is part of an ULP system with built-in functionalities and applications to enhance the application needs. The ULP system architecture can be built without any restrictions using the wide range of circuit breakers. The I/O application module is compliant with the ULP system specifications. Two I/O application modules can be connected in the same ULP network.
<b>Network</b>	Set of communicating devices that are interconnected by communication lines in order to share data and resources.
<b>Open protocol</b>	A protocol for system communication, interconnection or data exchange for which technical specifications are public, i.e. there are no restrictions on access or implementation. An open protocol is the opposite of a proprietary protocol.
<b>Protocol</b>	Standardised specification for dialog between digital components that exchange data. It is an operating mode based on the length and structure of binary words and it must be used by all the components exchanging data between themselves. Communication is not possible without using a protocol.
<b>RJ45 connector</b>	Universal, 8-wire connector that is widely used in digital communication networks. The RJ45 connector is used to interconnect computer equipment (Ethernet, Modbus, etc.), telephones and audiovisual equipment.
<b>RS485 Modbus</b>	Modbus is the most widely used communication protocol in industrial networks. It operates in master-slave mode. An RS485 multipoint link connects the master and slaves via a pair of wires offering throughputs of up to 38400 bits/second over distances up to 1200 m). The master cyclically polls the slaves which send back the requested information. The Modbus protocol uses frames containing the address of the targeted slave, the function (read, write), the datum and the CRC (cyclical redundancy check).
<b>SDTAM</b>	Relay module with two static outputs specifically for the motor-protection MicroLogic trip units 1 M, 2 M and 6 E-M. An output, linked to the contactor controller, opens the contactor when an overload or other motor fault occurs, thus avoiding opening of the circuit breaker. The other output stores the opening event in memory.
<b>SDx</b>	Relay module with two outputs that remotes the trip or alarm conditions of ComPact NSX circuit breakers equipped with a MicroLogic electronic trip unit.
<b>Static output</b>	Output of a relay made up of a thyristor or triac electronic component. The low switching capability means that a power relay is required. This is the case for the SDx and SDTAM outputs.
<b>ULP (Universal Logic Plug)</b> 	Connection system used by ComPact NSX to communicate information to the Modbus interface via a simple RJ45 cable. Compatible modules are indicated by the symbol opposite.

# Glossary

## Components

### ASIC (Application Specific Integrated Circuit)

Integrated circuit designed, built and intended for a specific application. It carries out repetitive sequences of instructions engraved in the silicon chip. For that reason, it is extremely reliable because it cannot be modified and is not affected by environment conditions.

MicroLogic trip units use an ASIC for the protection functions. The ASIC cyclically polls the network status at a high frequency, using the values supplied by captors. Comparison with the settings forms the basis for orders to the electronic trip units.

### Microprocessor

A microprocessor is a more general purpose device than an ASIC. In MicroLogic, a microprocessor is used for measurements and it can be programmed. It is not used for the main protection functions that are carried out by the ASIC.

## Controls

### Communicating motor mechanism

For ComPact NSX remote control via the communication system, a communicating motor mechanism is required. Except for the communication function, it is identical to the standard motor mechanism module and connects to and controlled by the BSCM module.

### CNOMO machine-tool rotary handle

Handle used for machine-tool control enclosures and providing IP54 and IK08.

### Direct rotary handle

This is an optional control handle for the circuit breaker. It has the same three positions I (ON), O (OFF) and TRIPPED as the toggle control. It provides IP40, IK07 and the possibility, due to its extended travel, of using early-make and early-break contacts. It maintains suitability for isolation and offers optional locking using a keylock or a padlock.

### Emergency off

In a circuit equipped with a circuit breaker, this function is carried out by an opening mechanism using an MN undervoltage release or an MX shunt release in conjunction with an emergency off button.

### Extended rotary handle

Rotary handle with an extended shaft to control devices installed at the rear of switchboards. It has the same characteristics as direct rotary handles. It offers multiple locking possibilities using a keylock, a padlock or a door interlock.

### Failsafe remote tripping

Remote tripping is carried out by an opening mechanism using an MN undervoltage release in conjunction with an emergency off button. If power is lost, the protection device opens the circuit breaker.

### Manual toggle control

This is the standard control mechanism for the circuit breaker, with a toggle that can be flipped up or down. In a molded-case circuit breaker (MCCB), there are three positions, I (ON), O (OFF) and TRIPPED. Once in the TRIPPED position, manual reset is required by switching to O (OFF position before reclosing. The TRIPPED position does not offer isolation with positive contact indication. This is guaranteed only by the O (OFF) position.

### MCC rotary handle

Handle used for motor control centres and providing IP43 and IK07.

### Motor mechanism module

The optional motor mechanism module is used to remotely open, close and recharge the circuit breaker.

## Selectivity / Cascading

### Cascading

Cascading implements the current-limiting capacity of a circuit breaker, making it possible to install downstream circuit breakers with lower performance levels. The upstream circuit breaker reduces any high short-circuit currents. This makes it possible to install downstream circuit breakers with breaking capacities less than the prospective short-circuit current at their point of installation. The main advantage of cascading is to reduce the overall cost of switchgear. Because the current is limited throughout the circuit downstream of the limiting circuit breaker, cascading applies to all the devices located downstream.

### Current selectivity

Selectivity based on the difference between the current-protection settings of the circuit breakers. The difference in settings between two successive circuit breakers in a circuit must be sufficient to allow the downstream breaker to clear the fault before the upstream breaker trips.

<b>Selectivity</b>	Selectivity is ensured between upstream and downstream circuit breakers if, when a fault occurs, only the circuit breaker placed immediately upstream of the fault trips. Selectivity is the key to ensuring the continuity of service of an installation.
<b>Energy selectivity</b>	This function is specific to ComPact NSX (see Reflex tripping on page G-7) and supplements the other types of selectivity.
<b>Partial selectivity</b>	Selectivity is partial if the conditions for total selectivity are not met up to the ultimate short-circuit current I <sub>cu</sub> , but only up to a lesser value. This value is called the selectivity limit. If a fault exceeds the selectivity limit, both circuit breakers trip.
<b>Time selectivity</b>	Selectivity based on the difference between the time-delay settings of the circuit breakers. The upstream trip unit is delayed to provide the downstream breaker the time required to clear the fault.
<b>Total selectivity</b>	Total selectivity is ensured between upstream and downstream circuit breakers if, for all fault values, from overloads up to solid short-circuits, only the downstream circuit breaker trips and the upstream circuit breaker remains closed.
<b>Zone selective interlocking (ZSI)</b>	A number of circuit breakers with MicroLogic electronic trip units are interconnected one after another by a pilot wire. In the event of a short-time or ground fault: <ul style="list-style-type: none"> <li>■ in the absence of information from downstream, the circuit breaker directly concerned by the fault (i.e. located just upstream of the fault) shifts to the shortest time delay and sends a signal upstream</li> <li>■ the upstream device, on receiving the signal from the downstream device, maintains its normal time delay.</li> </ul> In this manner, the fault is cleared rapidly by the circuit breaker closest to the fault.

Environment.....

<b>EMC (Electromagnetic compatibility)</b>	EMC is the capacity of a device not to disturb its environment during operation (emitted electromagnetic disturbances) and to operate in a disturbed environment (electromagnetic disturbances affecting the device). The standards define various classes for the types of disturbances. MicroLogic trip units comply with annexes F and J in standard IEC IE60947-2.
<b>Power loss Pole resistance</b>	The flow of current through the circuit-breaker poles produces Joule-effect losses caused by the resistance of the poles.
<b>Product environmental profile (PEP) LCA: Life-cycle assessment ISO 14040</b>	<p>An assessment on the impact of the construction and use of a product on the environment, in compliance with standard ISO 14040, Environmental management, life-cycle assessment (LCA), principles and framework.</p> <p>For ComPact NSX, this assessment is carried out using the standardised EIME (Environmental Impact and Management Explorer) software, which makes possible comparisons between the products of different manufacturers.</p> <p>It includes all stages, i.e. manufacture, distribution, use and end of life, with set usage assumptions:</p> <ul style="list-style-type: none"> <li>■ use over 20 years at a percent load of 80% for 14 hours per day and 20% for ten hours</li> <li>■ according to the European electrical-energy model.</li> </ul> <p>It provides the information presented below.</p> <ul style="list-style-type: none"> <li>■ Materials making up the product: composition and proportions, with a check to make sure no substances forbidden by the RoHS directive are included.</li> <li>■ Manufacture: on Schneider Electric production sites that have set up an environmental management system certified ISO 14001.</li> <li>■ Distribution: packaging in compliance with the 94/62/EC packaging directive (optimised volumes and weights) and optimised distribution flows via local centres.</li> <li>■ Use: no aspects requiring special precautions for use. Power lost through Joule effect in Watts (W) must be &lt; 0.02% of total power flowing through the circuit breaker. Based on the above assumptions, annual consumption from 95 to 200 kWh.</li> <li>■ End of life: products dismantled or crushed. For ComPact NSX, 81% of materials can be recycled using standard recycling techniques. Less than 2% of total weight requires special recycling.</li> </ul>



# Glossary

<p><b>Product environmental profile (PEP)</b> <b>Environmental indicators</b></p>	<p>Environmental indicators are also frequently used for the PEP (sheet available on request for ComPact NSX):</p> <ul style="list-style-type: none"> <li>■ Depletion of natural resources</li> <li>■ Depletion of energy</li> <li>■ Depletion of water</li> <li>■ Potential for atmospheric warming (greenhouse effect)</li> <li>■ Potential for stratospheric ozone depletion</li> <li>■ Creation of atmospheric ozone (ozone layer)</li> <li>■ Acidification of air (acid rain)</li> <li>■ Production of hazardous waste.</li> </ul>
<p><b>RoHS directive (Restriction of Hazardous substances)</b></p>	<p>European directive 2002/95/EC dated 27 January 2003 aimed at reducing or eliminating the use of hazardous substances. The manufacturer must attest to compliance, without third-party certification. Circuit breakers are not included in the list of concerned products, which are essentially consumer products. That notwithstanding, Schneider Electric decided to comply with the RoHS directive. ComPact NSX products are designed in compliance with RoHS and do not contain (above the authorised levels) lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls PBB and polybrominated diphenyl ether PBDE).</p>
<p><b>Safety clearances</b></p>	<p>When installing a circuit breaker, minimum distances (safety clearances) must be maintained between the device and panels, bars and other protection systems installed nearby. These distances, which depend on the ultimate breaking capacity, are defined by tests carried out in accordance with standard IEC 60947-2.</p>
<p><b>Temperature derating</b></p>	<p>An ambient temperature varying significantly from 40°C can modify operation of magnetic or thermal-magnetic protection functions. It does not affect electronic trip units. However, when electronic trip units are used in high-temperature situations, it is necessary to check the settings to ensure that only the permissible current for the given ambient temperature is let through.</p>
<p><b>Vibration withstand IEC 60068-2-6</b></p>	<p>Circuit breakers are tested in compliance with standard IEC 60068-2-6 for the levels required by merchant-marine inspection organisations (Veritas, Lloyd's, etc.):</p> <ul style="list-style-type: none"> <li>■ 2 to 13.2 Hz: amplitude of ±1 mm</li> <li>■ 13.2 to 100 Hz: constant acceleration of 0.7 g.</li> </ul>
<p><b>WEEE directive (Waste of Electrical and Electronic Equipment)</b></p>	<p>European directive on managing the waste of electrical and electronic equipment. Circuit breakers are not included in the list of concerned products. However, ComPact NSX products respect the WEEE directive.</p>

## Harmonics.....



<p><b>Current harmonics</b></p>	<p>Non-linear loads cause harmonic currents that flow in the 50 Hz (or 60 Hz) distribution system. Total harmonic current is the sum of sinusoidal AC currents for which the rms values can be measured and broken down into:</p> <ul style="list-style-type: none"> <li>■ the fundamental current at the 50/60 Hz frequency of the distribution system, with an rms value of <math>I_{H_1}</math></li> <li>■ harmonic currents with whole, odd multiples (3, 5, 7, etc.) of the 50/60 Hz frequency, called the third-order, fifth-order, etc. harmonics. For example, <math>I_{H_3}</math>, the third-order harmonic at 150/180 Hz, <math>I_{H_5}</math>, the fifth-order harmonic at 250/300 Hz, etc. The presence of harmonics in the system must be monitored and limited because it results in temperature rise, currents in the neutral (caused by the third-order harmonics and multiples), malfunctions of sensitive electronic devices, etc. MicroLogic E trip units take into account harmonics up to order 15 in the THDI and THDU calculations.</li> </ul>
<p><b>Non-linear load</b></p>	<p>Systems producing harmonics are present in all industrial, commercial and residential sectors. Harmonics are caused by non-linear loads. A load is said to be non-linear when the current drawn does not have the same waveform as the supply voltage. Typically, loads using power electronics are non-linear. Examples of non-linear loads include computers, rectifiers, variable-speed drives, arc furnaces and fluorescent lighting.</p>
<p><b>Total harmonic distortion of current (THDI)</b></p>	<p>THDI characterises the distortion of the current wave by harmonics. It indicates the quantity of harmonics in the resulting waveform. It is expressed in percent. The higher the THDI, the more the current is distorted by harmonics. THDI should remain below 10%. Above that level, there is said to be harmonic pollution that is considered severe when it rises above 50%.</p>

<b>Total harmonic distortion of voltage (THDU)</b>	THDU characterises the distortion of the voltage wave by harmonics. It indicates the quantity of harmonics in the resulting waveform. It is expressed in percent. The higher the THDU, the more the system voltage is distorted by harmonics. It is advised not to exceed 5% for low-voltage systems.
<b>Voltage harmonics</b>	For each current harmonic $I_{Hk}$ , there is a voltage harmonic $U_{Hk}$ of the same order $k$ , where the resulting voltage is the sum of the two waves. The voltage wave is therefore distorted with respect to the standard sinusoidal wave.

## Measurements .....

<b>Contact wear</b>	Each time ComPact NSX opens, the MicroLogic 5 / 6 trip unit measures the interrupted current and increments the contact-wear indicator as a function of the interrupted current, according to test results stored in memory.
<b>Current transformer with iron-core toroid</b>	It is made up of a coil wound around an iron frame through which a power busbar runs. The current flowing in the bar, on passing through the sensor, induces a magnetic field that reverses for each half period. This variation in the field in turn creates an induced current in the coil. This current is proportional to the current flowing in the bar. It is sufficient to supply the measurement electronics. The disadvantage of iron-core measurement current transformers (CT) is that they rapidly saturate for currents $> 10 I_n$ .
<b>Current transformer with Rogowski toroid or air-core CT</b>	It is made up of a coil without an iron frame, through which a power busbar runs. The output voltage at the coil terminals is proportional to the current flowing through the bar. The result is a current transformer (CT) with a voltage output. The advantage is that it never saturates whatever the primary current and thus enables measurement of high currents. The output is however a very low current that is too low to supply the measurement electronics. For MicroLogic, Rogowski CTs measure the current and a second CT, with an iron core, provides the electrical supply.
<b>Demand current, demand power and peak values</b>	Average of the instantaneous current or power values over an adjustable fixed or sliding time interval. The highest value observed over the time interval is the peak value. The time interval runs from the last reset.
<b>Instantaneous current</b>	True rms value of the current measured by the current transformers over a sliding time interval. Available on MicroLogic 5/6 A or E.
<b>Instantaneous voltage</b>	True rms value of the voltage measured by the voltage sensors over a sliding time interval. Available on MicroLogic 5/6 A or E.
<b>Maximeters/minimeters</b>	MicroLogic 5 and 6 A or E can record the minimum and maximum values of electrical parameters over set time periods.
<b>Overvoltage category (OVC - Overvoltage category) IEC 60947-1. Annex H</b>	Standard IEC 60664-1 stipulates that it is up to the user to select a measurement device with a sufficient overvoltage category, depending on the network voltage and the transient overvoltages likely to occur. Four overvoltage categories define the field of use for a device. <ul style="list-style-type: none"> <li>■ Cat. I. Devices supplied by a SELV isolating transformer or a battery.</li> <li>■ Cat. II. Residential distribution, handheld or laboratory tools and devices connected to standardised 2P + earth electrical outlets (230 V).</li> <li>■ Cat. III. Industrial distribution, fixed distribution circuits in buildings (main low voltage switchboards, rising mains, elevators, etc.).</li> <li>■ Cat. IV. Utility substations, overhead lines, certain industrial equipment.</li> </ul>
<b>Percent load</b>	Percentage of current flowing through the circuit breaker with respect to its rated current. MicroLogic 6 E-M offers this information and can sum it over the total operating time to provide the load profile for the following ranges, 0 to 49%, 50 to 79%, 80 to 89% and $\geq 90\%$ .
<b>Phase sequence</b>	The order in which the phases are connected (L1, L2, L3 or L1, L3, L2) determines the direction of rotation for three-phase asynchronous motors. MicroLogic 6 E-M trip units provide this information.
<b>Power and energy metering (consumption)</b>	The digital electronics in MicroLogic 5/6 E calculate the instantaneous power levels, apparent (S in kVA), active (P in kW) and (Q in kV), and integrate over a time interval to determine the corresponding energies (kVAh, kWh kvarh). Calculations are for each phase and for the total.

# Glossary

## Time-stamped histories

MicroLogic trip units store information on events (e.g. alarms and their cause) that are time-stamped to within a millisecond.

## Protection .....

### Ground-fault protection G (Ig)

Protection function specific to electronic circuit breakers, symbolised by G (Ground). This protection can calculate high-threshold residual earth-leakage currents (in the order of tens of Amperes) on the basis of phase-current measurements. MicroLogic 5/6 offers this protection function with adjustable pick-up Ig and time delay.

### Instantaneous protection I (Ii)

This protection supplements I<sub>sd</sub>. It provokes instantaneous opening of the device. The pick-up may be adjustable or fixed (built-in). This value is always lower than the contact-repulsion level.

### Long-time protection L (I<sub>r</sub>)

Protection function where the adjustable I<sub>r</sub> pick-up determines a protection curve similar to the thermal-protection curve (inverse-time curve I<sup>2</sup>t). The curve is generally determined on the basis of the I<sub>r</sub> setting which corresponds to a theoretically infinite tripping time (asymptote) and of the point at 6 I<sub>r</sub> at which the tripping time depends on the rating.

### Magnetic protection (I<sub>m</sub>)

Short-circuit protection provided by magnetic trip units (see this term). The pick-up setting may be fixed or adjustable.

### Neutral protection (I<sub>N</sub>)

The neutral is protected because all circuit-breaker poles are interrupted. The setting may be that used for the phases or specific to the neutral, i.e. reduced neutral (0.5 times the phase current) or OSN (oversized neutral) at 1.6 times the phase current. For OSN protection, the maximum device setting is limited to 0.63 I<sub>n</sub>.

### Residual-current earth-leakage protection (I<sub>Δn</sub>)

Protection provided by Vigi add-on, in which the residual-current toroids directly detect low-threshold earth-leakage currents (in the order of tens of mA) caused by insulation faults.

### Short-delay protection S (I<sub>sd</sub>)

Protection function specific to electronic circuit breakers, symbolised by S (Short delay or short time). This protection supplements thermal protection. The reaction time is very short, but has a slight time delay to enable selectivity with the upstream device. The short-delay pick-up I<sub>sd</sub> is adjustable from approximately 1.5 to 10 I<sub>r</sub>.

### Short-delay protection with fixed time delay S<sub>o</sub> (I<sub>sd</sub>)

Short-delay protection, but with a fixed time delay. This function is available on MicroLogic 2. It is symbolised by S<sub>o</sub>. It ensures selectivity with downstream devices.

### Thermal protection (I<sub>r</sub>)

Overload protection provided by thermal trip units (see this term) using an inverse-time curve (I<sup>2</sup>t).

## Relays and auxiliary contacts .....

### Auxiliary contact IEC 60947-1

"Contact included in an auxiliary circuit and mechanically operated by the switching device".

### Break contact IEC 60947-1

"Control or auxiliary contact which is open when the main contacts of the mechanical switching device are closed and closed when they are open".

### Make contact IEC 60947-1

"Control or auxiliary contact which is closed when the main contacts of the mechanical switching device are closed and open when they are open".

### Relay (electrical) IEC 60947-1

"Device designed to produce sudden, predetermined changes in one or more electrical output circuits when certain conditions are fulfilled in the electrical input circuits controlling the device".

### Relay module with static output

Output of a relay made up of a thyristor or triac electronic component. The low interrupting capacity means that a power relay is required. This is the case for the SDx and SDTAM outputs.

## Switchgear .....

**Circuit breaker**  
IEC 60947-2



"Mechanical switching device, capable of making, carrying and breaking currents under normal circuit conditions and also making, carrying for a specified time and breaking currents under specified abnormal circuit conditions such as those of short circuit". Circuit breakers are the device of choice for protection against overloads and short-circuits. Circuit breakers may, as is the case for ComPact NSX, be suitable for isolation.

**Circuit-breaker utilisation category**  
IEC 60947-2

The standard defines two utilisation categories, A and B, depending on breaker selectivity with upstream breakers under short-circuit conditions.

- Category A. Circuit breakers not specifically designed for selectivity applications.
- Category B. Circuit breakers specifically designed for selectivity, which requires a short time-delay (which may be adjustable) and a rated short-time withstand current in compliance with the standard.

ComPact NSX100 to 630 circuit breakers are category A, however, by design, they provide selectivity with downstream devices (see the Complementary technical information guide).

**Contactor**  
IEC 60947-1



"Mechanical switching device having only one position of rest, operated otherwise than by hand, capable of making, carrying and breaking currents under normal circuit conditions including operating overload conditions". A contactor is provided for frequent opening and closing of circuits under load or slight overload conditions. It must be combined and coordinated with a protective device against overloads and short-circuits, such as a circuit breaker.

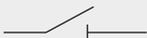
**Contactor utilisation categories**  
IEC 60947-4-1

The standard defines four utilisation categories, AC1, AC2, AC3 and AC4 depending on the load and the control functions provided by the contactor. The class depends on the current, voltage and power factor, as well as contactor withstand capacity in terms of frequency of operation and endurance.

**Current-limiting circuit breaker**  
IEC 60947-2

"A circuit-breaker with a break-time short enough to prevent the short-circuit current reaching its otherwise attainable peak value".

**Disconnecter**  
IEC 60947-3



"Mechanical switching device which, in the open position, complies with the requirements specified for the isolating function". A disconnector serves to isolate upstream and downstream circuits. It is used to open or close circuits under no-load conditions or with a negligible current level. It can carry the rated circuit current and, for a specified time, the short-circuit current.

**Switch-disconnector**  
IEC 60947-3



"Switch which, in the open position, satisfies the isolating requirements specified for a disconnector". A switch-disconnector serves for switching and isolation. The switch function breaks the circuit under load conditions and the disconnection function isolates the circuit. Protection is not provided. It may be capable of making short-circuit currents if it has the necessary making capacity, but it cannot break short-circuit currents. ComPact NSX100 to 630 NA switch-disconnectors have a making capacity.

**Switch-disconnector utilisation category**  
IEC 60947-3

The standard defines six utilisation categories, AC-21A or B, AC-22 A or B, AC23 A or B. They depend on the rated operational current and the mechanical durability (A for frequent operation or B for infrequent operation). ComPact NSX NA switch-disconnectors comply with utilisation categories AC22A or AC23A.



## Three-phase asynchronous motors and their protection .....

**Locked-rotor protection (Ijam)**

This function steps in when the motor shaft cannot or can no longer drive the load. The result is a high overcurrent.

**Long-start protection (Ilong)**

An overly long start means the current drawn remains too high or too low for too long, with respect to the starting current. In all cases, the load cannot be driven and the start must be interrupted. The resulting temperature rise must be taken into account before restarting.

**Phase-unbalance or phase- loss protection (Iunbal)**

This protection function steps in if the current values and/or the unbalance in the three phases supplying the motor exceeds tolerances. Currents should be equal and displacement should be one third of a period. Phase loss is a special case of phase unbalance.

# Glossary

<b>Starting current</b>	Start-up of a three-phase, asynchronous motor is characterised by: <ul style="list-style-type: none"> <li>■ a high inrush current, approximately 14 I<sub>n</sub> for 10 to 15 ms</li> <li>■ a starting current, approximately 7.2 I<sub>n</sub> for 5 to 30 seconds</li> <li>■ return to the rated current after the starting time.</li> </ul>
<b>Starting time</b>	Time after which the motor ceases to draw the starting current and falls back to the operating current I <sub>r</sub> (≤ I <sub>n</sub> ).
<b>Thermal image of the rotor and stator</b>	The thermal image models the thermal behaviour of a motor rotor and stator, taking into account temperature rise caused by overloads or successive starts, and the cooling constants. For each motor power rating, the algorithm takes into account a theoretical amount of iron and copper which modifies the cooling constants.
<b>Thermal protection</b>	Protection against overcurrents following an inverse time curve I <sup>2</sup> t = constant, which defines the maximum permissible temperature rise for the motor. Tripping occurs after a time delay that decreases with increasing current.
<b>Trip class IEC 60947-4-1</b>	The trip class determines the trip curve of the thermal protection device for a motor feeder. The standard defines trip classes 5, 10, 20 and 30. These classes are the maximum durations, in seconds, for motor starting with a starting current of 7.2 I <sub>r</sub> , where I <sub>r</sub> is the thermal setting indicated on the motor rating plate.
<b>Under-load protection (Iund)</b>	This function steps in when the driven load is too low. It detects a set minimum phase current which signals incorrect operation of the driven machine. In the example of a pump, under-load protection detects when the pump is no longer primed.

## Trip units

<b>Electronic trip unit (MicroLogic)</b>	Trip unit that continuously measures the current flowing through each phase and the neutral if it exists. For MicroLogic, the measurements are provided by built-in current sensors linked to an analog-digital converter with a high sampling frequency. The measurement values are continuously compared by the ASIC to the protection settings. If a setting is overrun, a Mitop release trips the circuit-breaker operating mechanism. This type of trip unit offers much better pick-up and delay setting accuracy than thermal-magnetic trip units. It also provides a wider range of protection functions.
<b>Magnetic release</b>	Release actuated by a coil or a lever. A major increase in the current (e.g. a short-circuit) produces in the coil or the lever a change in the magnetic field that moves a core. This trips the circuit breaker operating mechanism. Action is instantaneous. The pick-up setting may be adjustable.
<b>Reflex tripping</b>	ComPact NSX circuit breakers have a patented reflex-tripping system based on the energy of the arc and that is independent of the other protection functions. It operates extremely fast, before the other protection functions. It is an additional safety function that operates before the others in the event of a very high short-circuit.
<b>Release IEC 60947-1</b>	Device, mechanically connected to a mechanical switching device (e.g. a circuit breaker), which releases the holding means and permits the opening or the closing of the switching device. For circuit breakers, releases are often integrated in a trip unit.
<b>Shunt release (MX)</b>	This type of release operates when supplied with current. The MX release provokes circuit-breaker opening when it receives a pulse-type or maintained command.
<b>Thermal-magnetic trip unit</b>	Trip unit combining thermal protection for overloads and magnetic protection.
<b>Thermal release</b>	Release in which a bimetal strip is heated by the Joule effect. Above a temperature-rise threshold that is a function of the current and its duration (I <sup>2</sup> t curve = constant, which is representative of temperature rise in cables), the bimetal strip bends and releases the circuit-breaker opening mechanism. The pick-up setting may be adjustable.
<b>Undervoltage release (MN)</b>	This type of release operates when the supply voltage drops below the set minimum.

## Additional characteristics

### ComPact NSXm up to 160 A

TMD magnetic trip units, tripping curves	
Protection of distribution systems .....	H-2
MicroLogic Vigi 4.1, tripping curves	
Protection of distribution systems .....	H-4

### ComPact NSX100 to 250

TMD magnetic trip units, tripping curves	
Protection of distribution systems .....	H-5
MicroLogic 2.2, 4.2 and 2.2 G electronic trip units, tripping curves - Protection of distribution systems .....	H-11
MicroLogic 5.2 and 6.2 A or E and 7.2 E electronic trip units, tripping curves - Protection of distribution systems .....	H-12
MA magnetic trip units, MicroLogic 2.2 M electronic trip units, tripping curves - Motor protection .....	H-13
MicroLogic 6.2 E-M electronic trip units, tripping curves	
Motor protection .....	H-14

### ComPact NSX400 to 630

MicroLogic 2.3, 4.3, 5.3 and 6.3 A or E and 7.3 E electronic trip units, tripping curves - Protection of distribution systems.....	H-15
MicroLogic 6.3 A or E and 7.3 E electronic trip units, tripping curves - Protection of distribution systems .....	H-16
MicroLogic 1.3 M and 2.3 M electronic trip units, tripping curves - Motor protection .....	H-17
MicroLogic 6.3 E-M electronic trip units, tripping curves	
Motor protection .....	H-18

### Tripping curves ComPact NSXm and NSX..... H-19

### Current and energy limiting curves..... H-20

ComPact NSXm .....	H-21
ComPact NSX .....	H-22

#### Other chapters

Select your circuit breakers and switch-disconnectors .....	A-1
Select your protection .....	B-1
Customize your circuit breaker with accessories .....	C-1
Smart Panel integration .....	D-1
Switchboard integration .....	E-1
Catalog numbers .....	F-1
Glossary .....	G-1

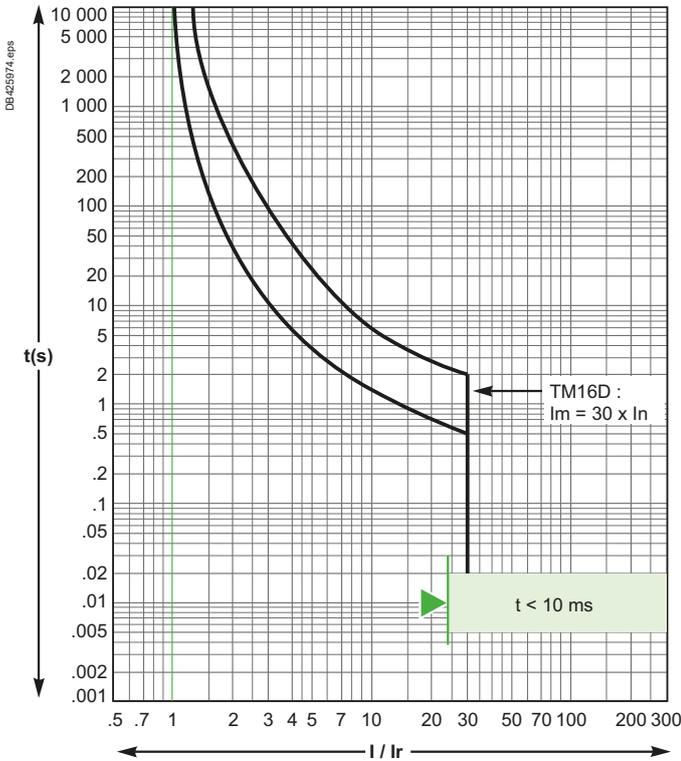


# ComPact NSXm up to 160 A

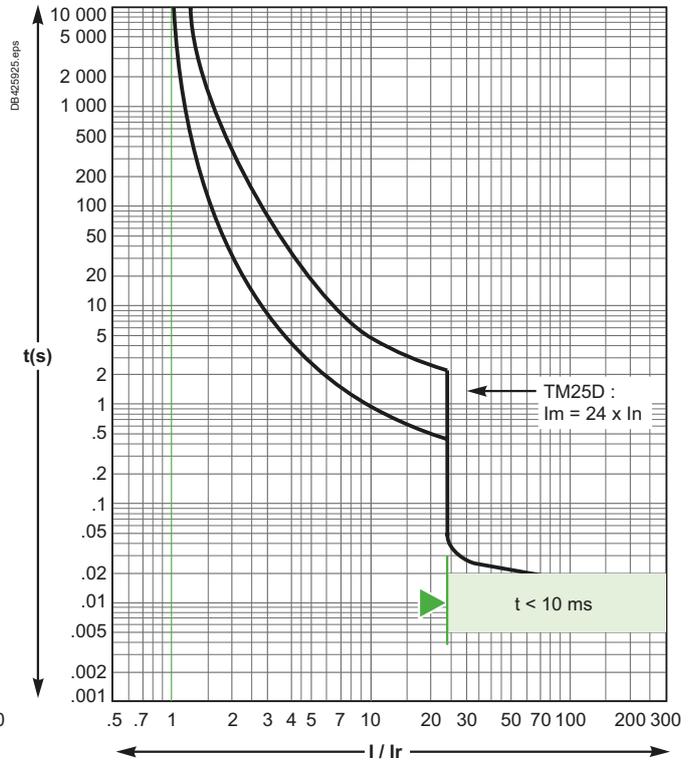
## TMD magnetic trip units, tripping curves

### Protection of distribution systems

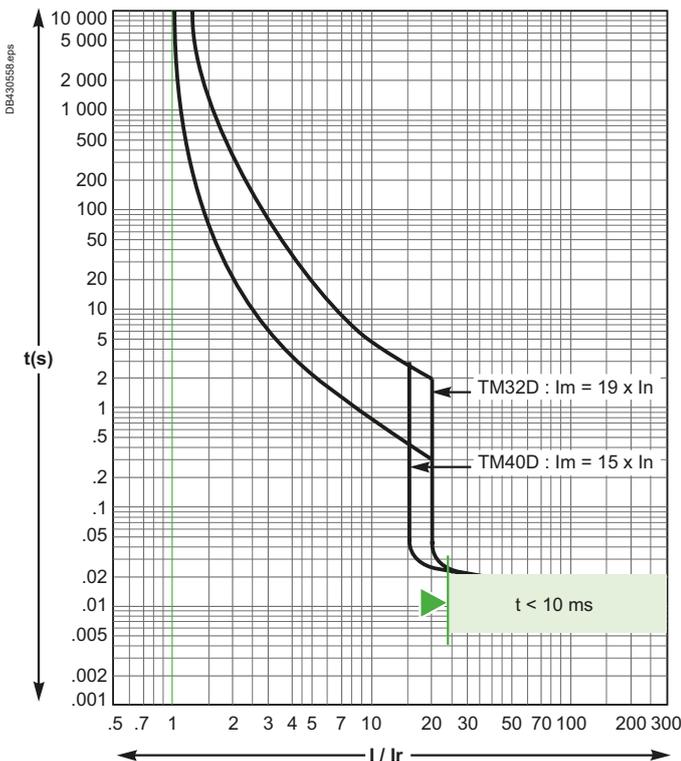
TM16D



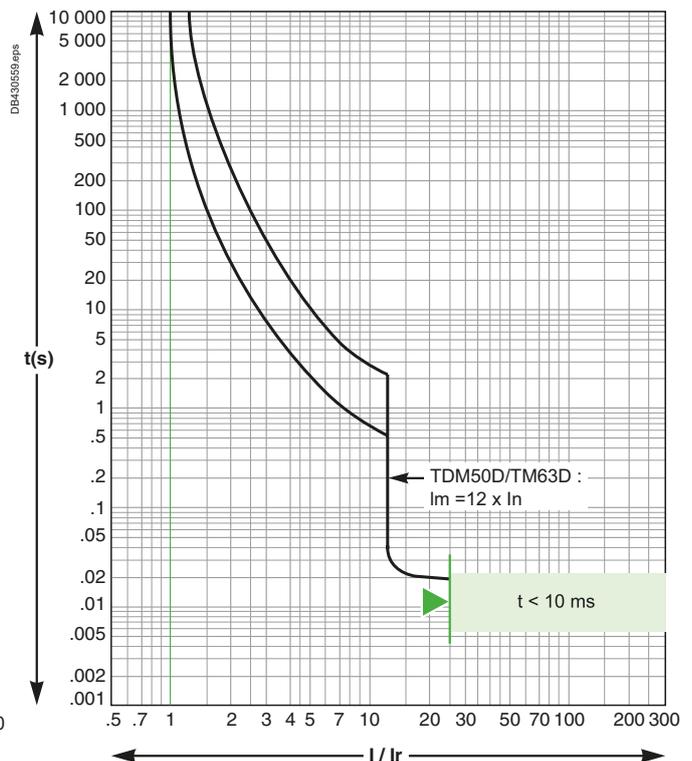
TM25D



TM32D / TM40D



TM50D / TM63D



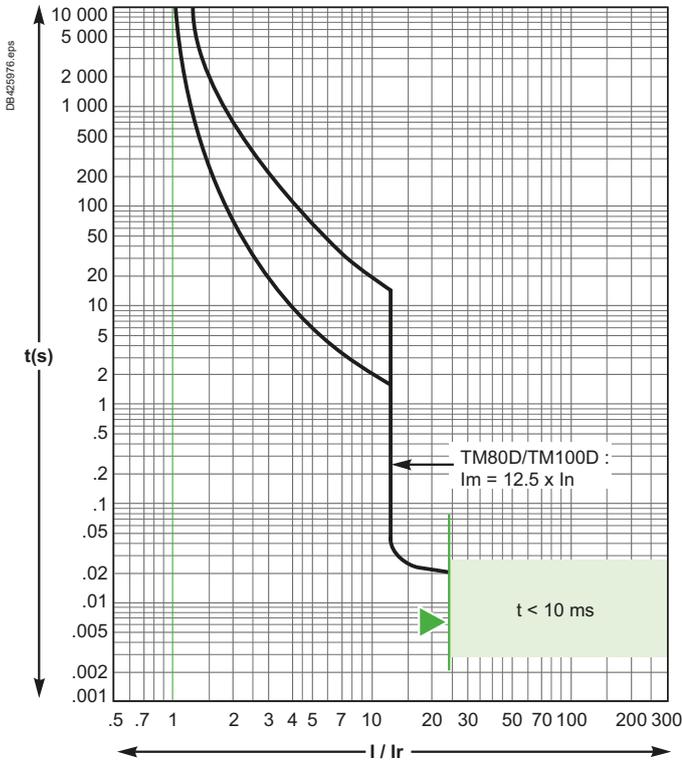
H

# ComPact NSXm up to 160 A

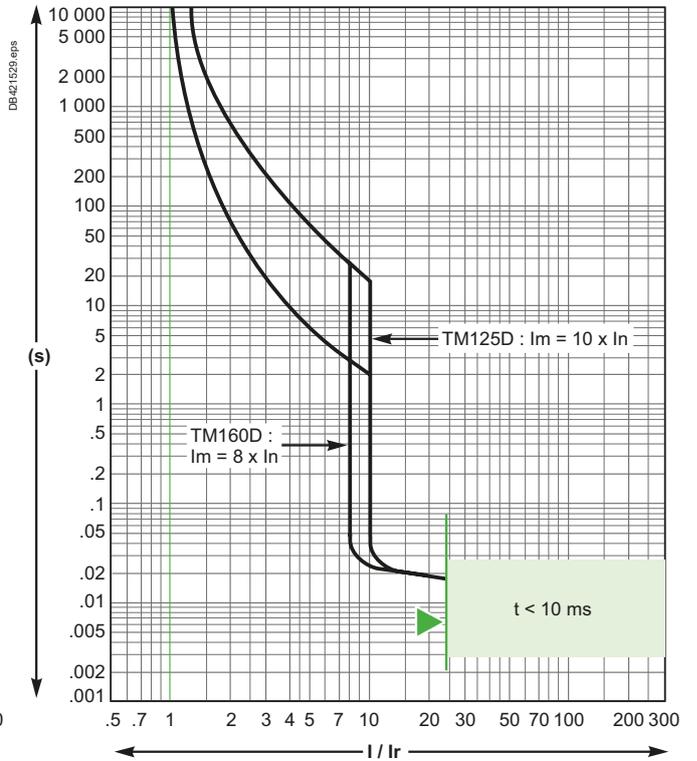
## TMD magnetic trip units, tripping curves

### Protection of distribution systems

TM80D / TM100D



TM125D / TM160D



Reflex tripping.

For all TMD curves :  
 Values are given for 40 °C ambient,  $I_r = 1 \times I_n$ , 3 poles loaded, cold start.  
 For  $I_r = k \times I_n$ , read the time corresponding to  $1/k$  times given current.  
 For 1 pole tripping, read the time corresponding to 0.85 times given current.  
 For hot start ( $0.9 \times I_r$ ), divide max. time by 2, min. time by 4.

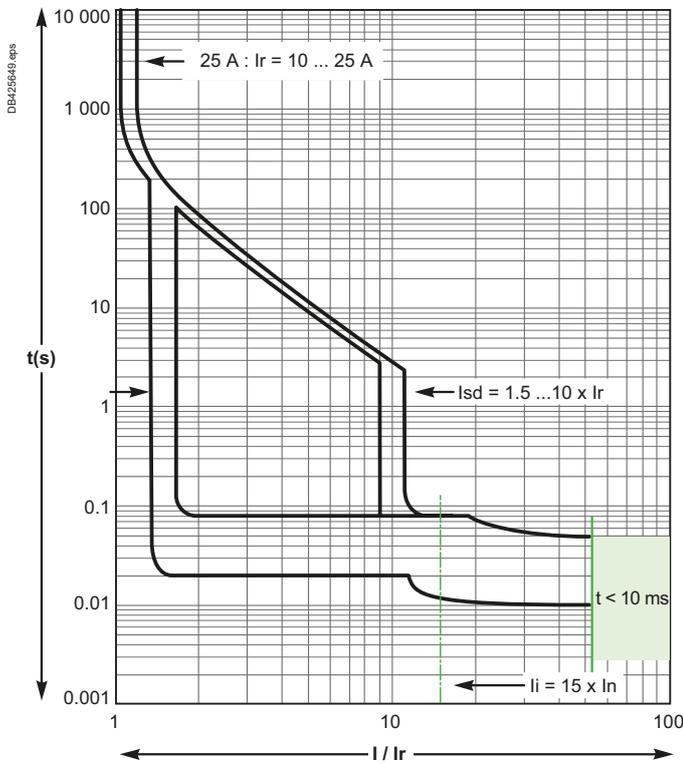


# ComPact NSXm up to 160 A

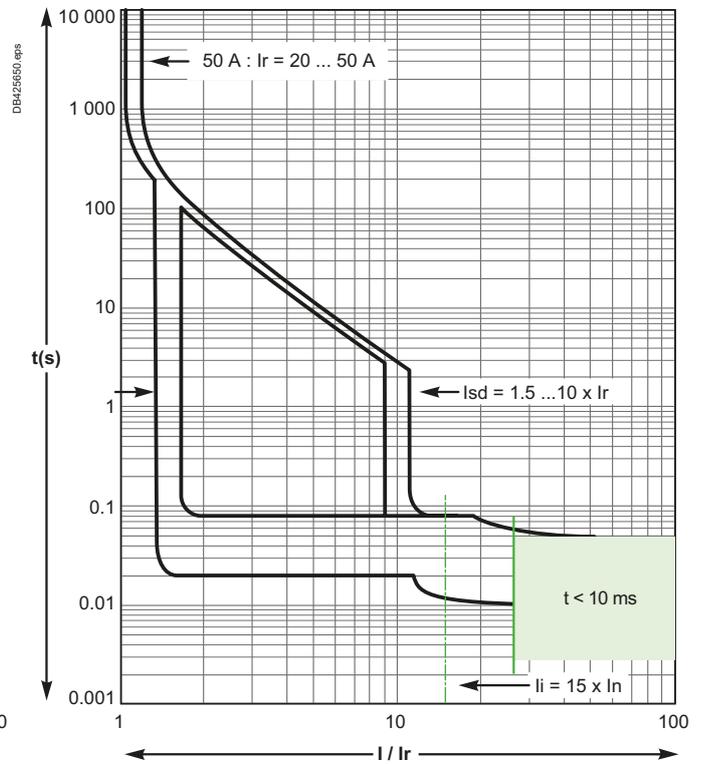
## MicroLogic Vigi 4.1, tripping curves

### Protection of distribution systems

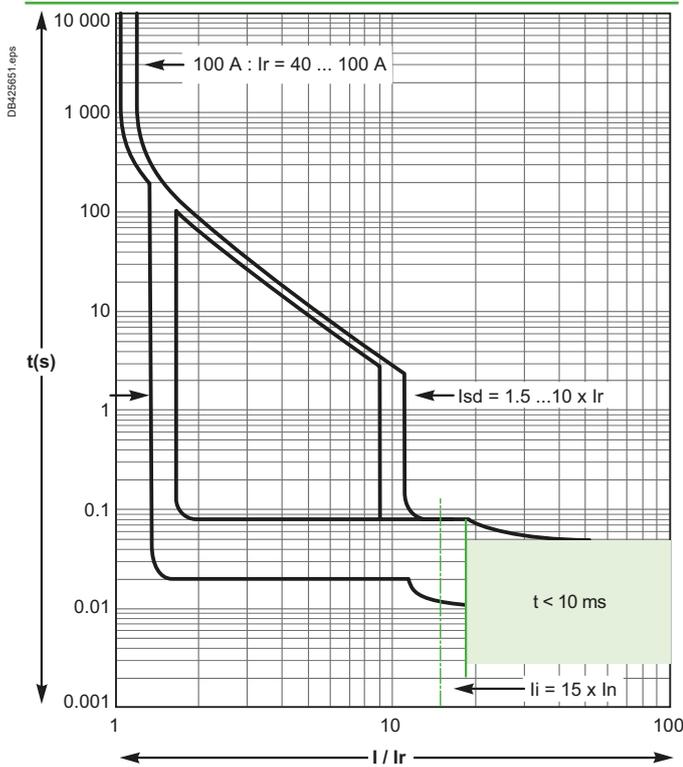
25 A



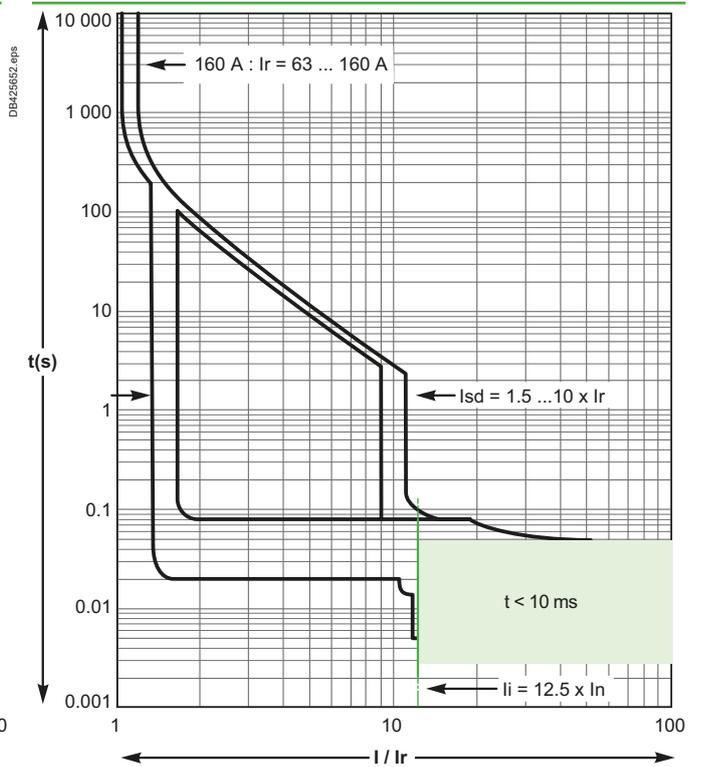
50 A



100 A



160 A



Reflex tripping.

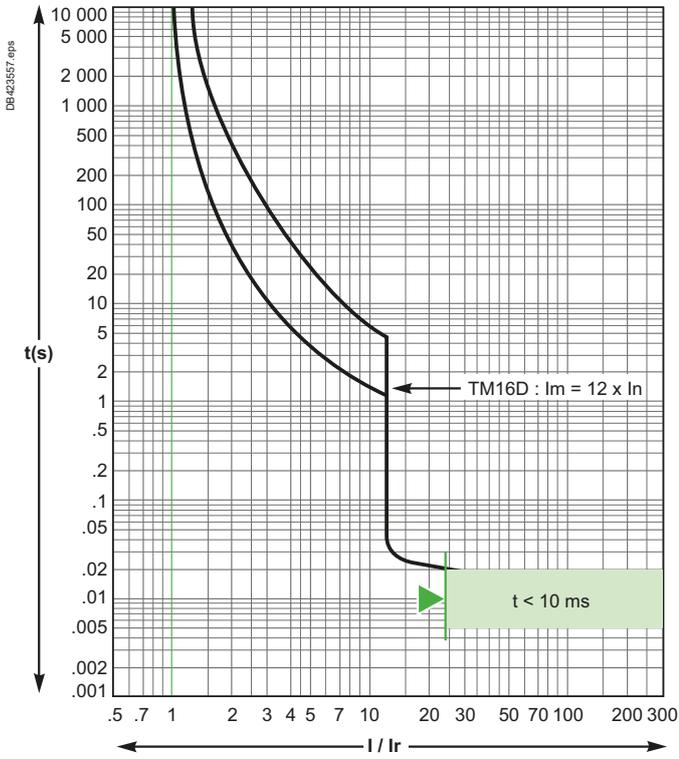
H

# ComPact NSX100 to 250

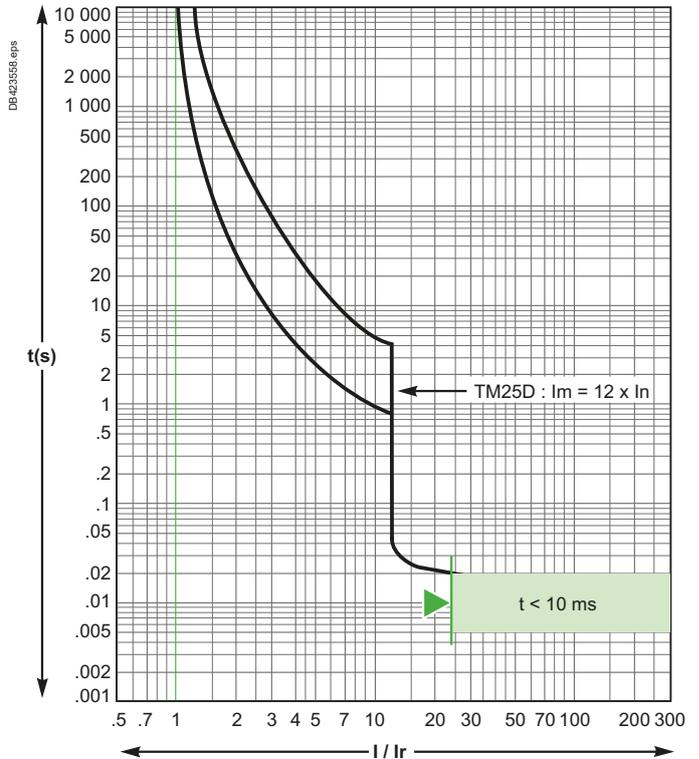
## TMD magnetic trip units, tripping curves

### Protection of distribution systems

TM16D

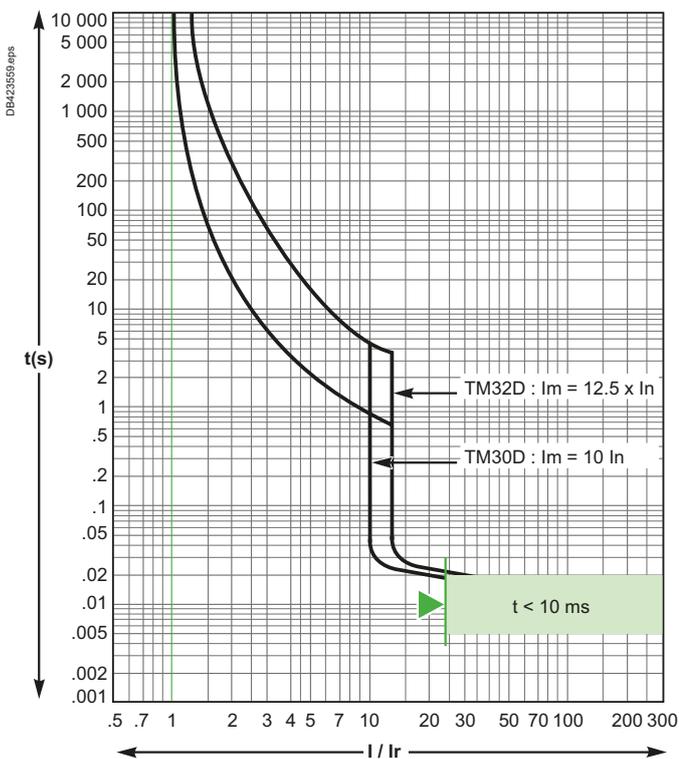


TM25D

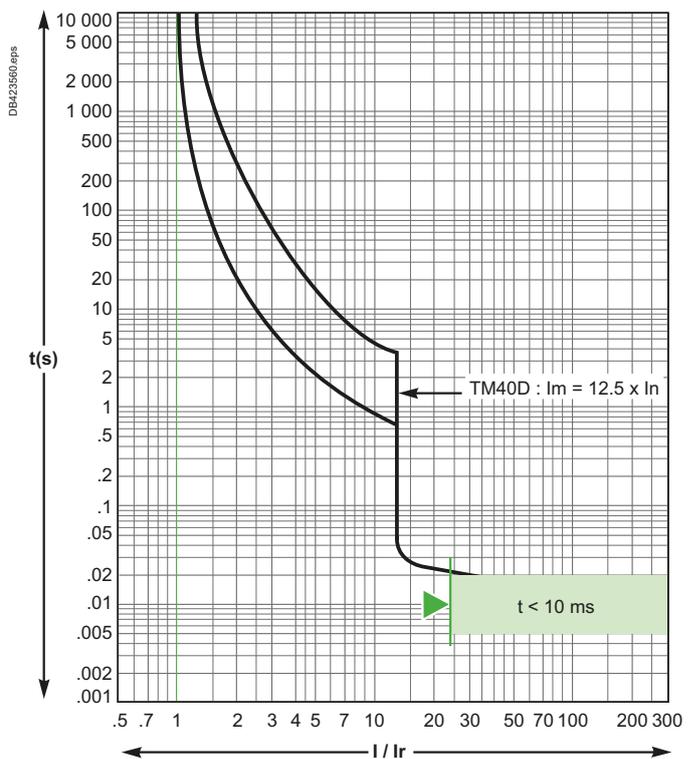


Reflex tripping.

TM30D / TM32D



TM40D



Reflex tripping.

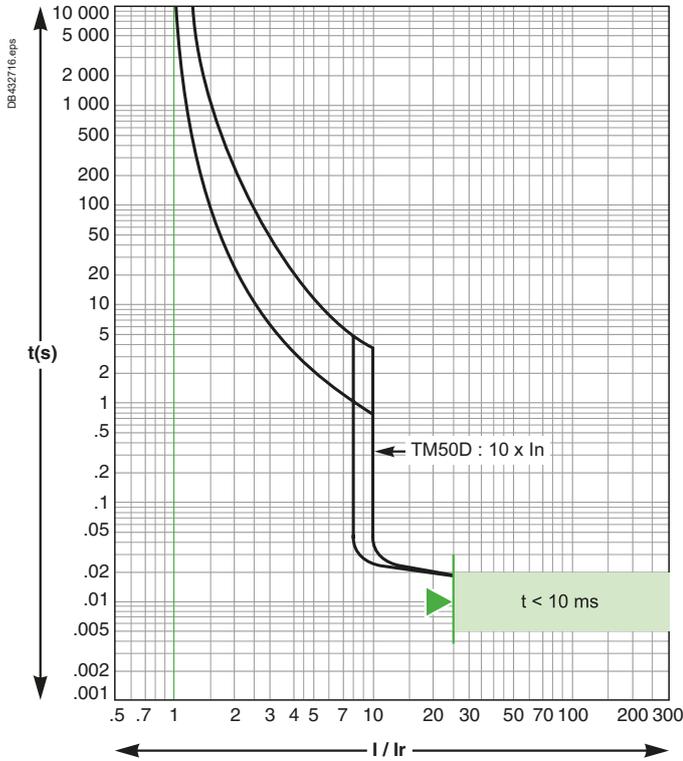


# ComPact NSX100 to 250

## TMD magnetic trip units, tripping curves

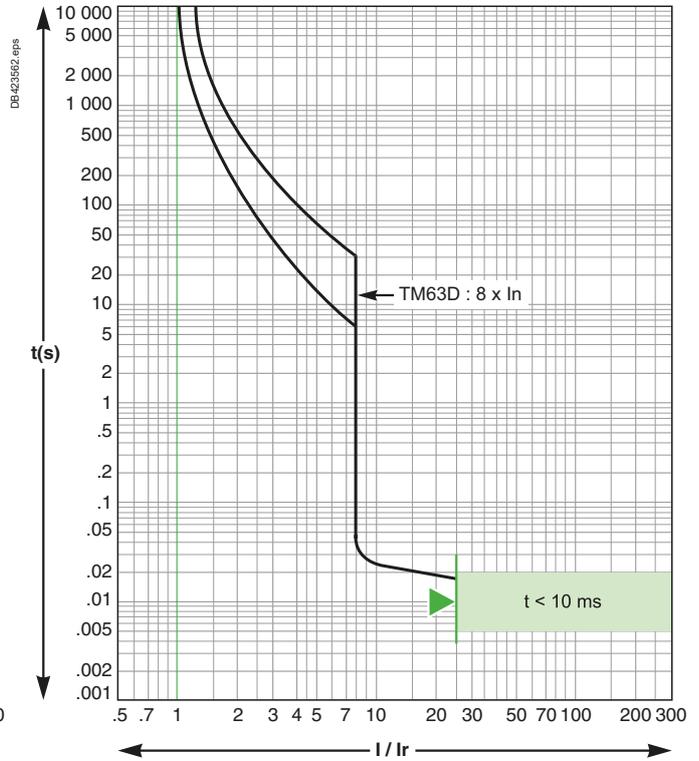
### Protection of distribution systems

TM50D

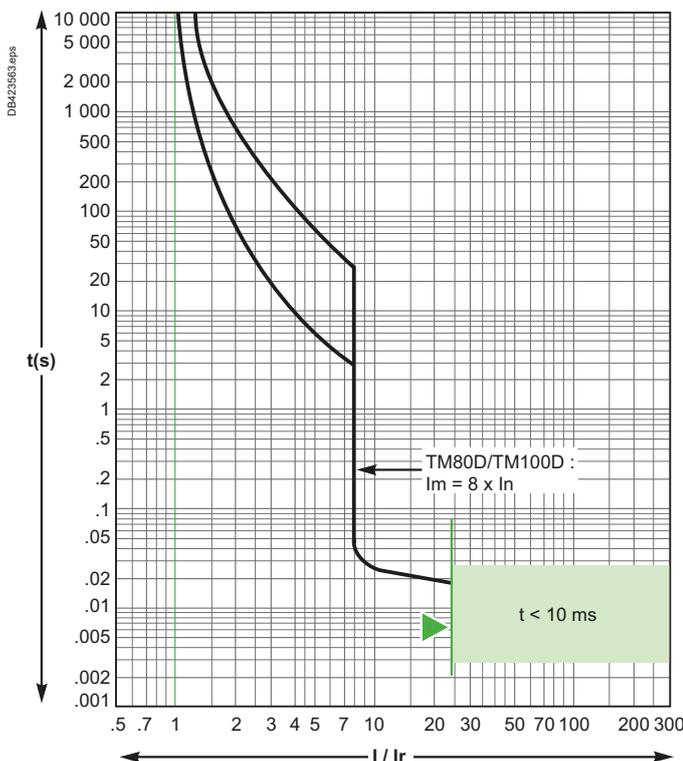


Reflex tripping.

TM63D

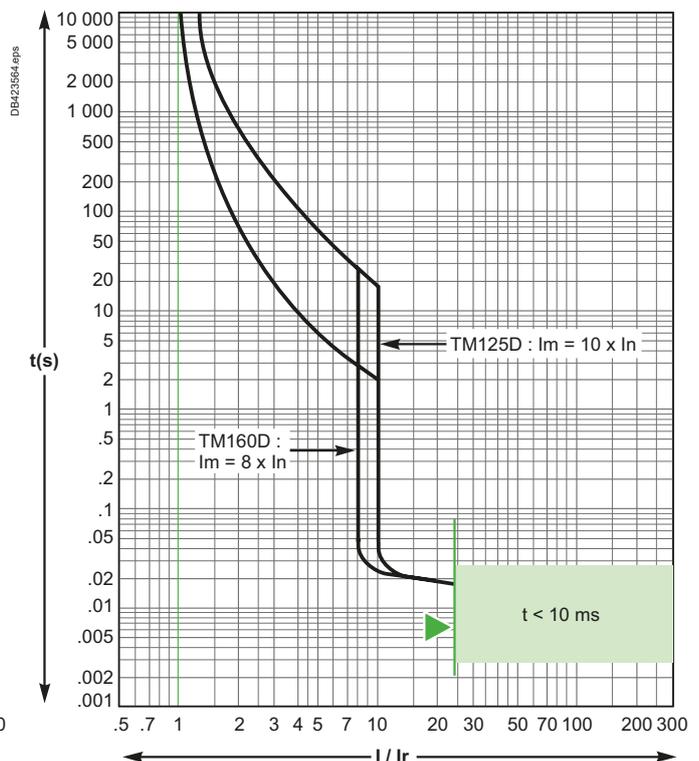


TM80D / TM100D



Reflex tripping.

TM125D / TM160D



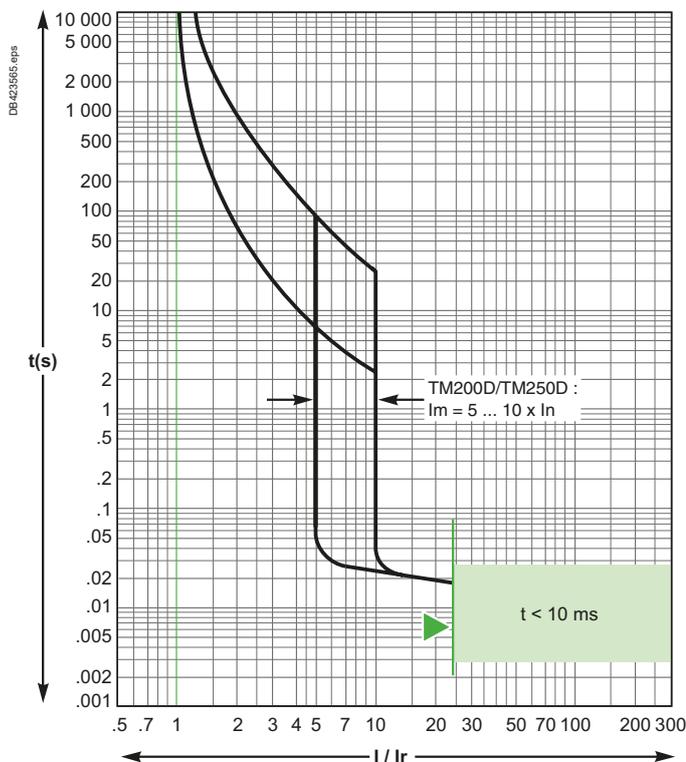
# Additional characteristics

## ComPact NSX100 to 250

### TMD magnetic trip units, tripping curves

#### Protection of distribution systems

### TM200D / TM250D



Reflex tripping.

**For all TDM curves :**  
 Values are given for 40 °C ambient,  $I_r = 1 \times I_n$ , 3 poles loaded, cold start.  
 For  $I_r = k \times I_n$ , read the time corresponding to  $1/k$  times given current.  
 For 1 pole tripping, read the time corresponding to 0.85 times given current.  
 For hot start ( $0.9 \times I_r$ ), divide max. time by 2, min. time by 4.

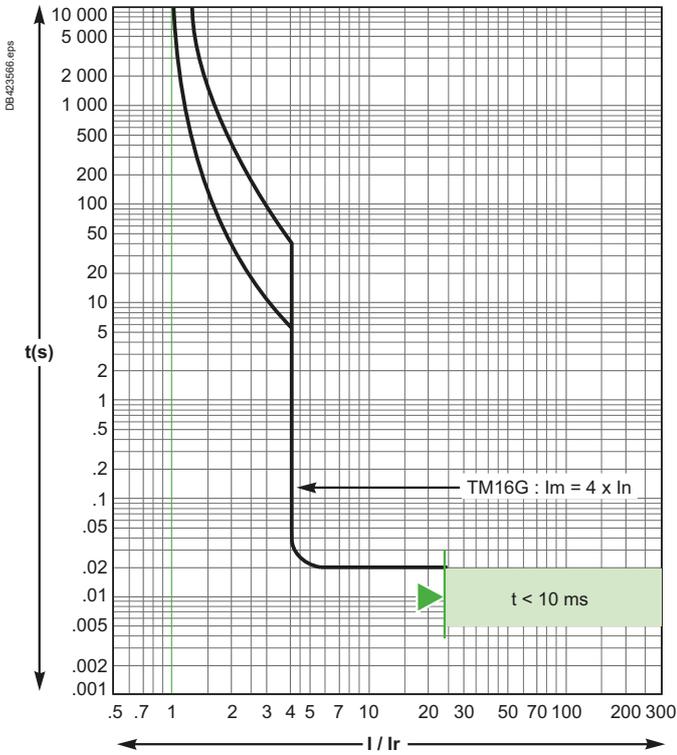


# ComPact NSX100 to 250

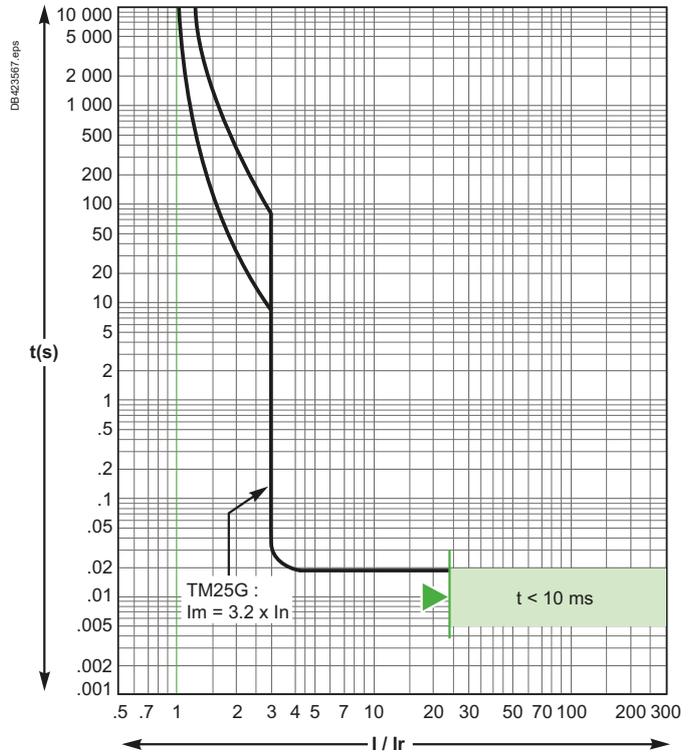
## TMG magnetic trip units, tripping curves

### Protection of distribution systems

TM16G

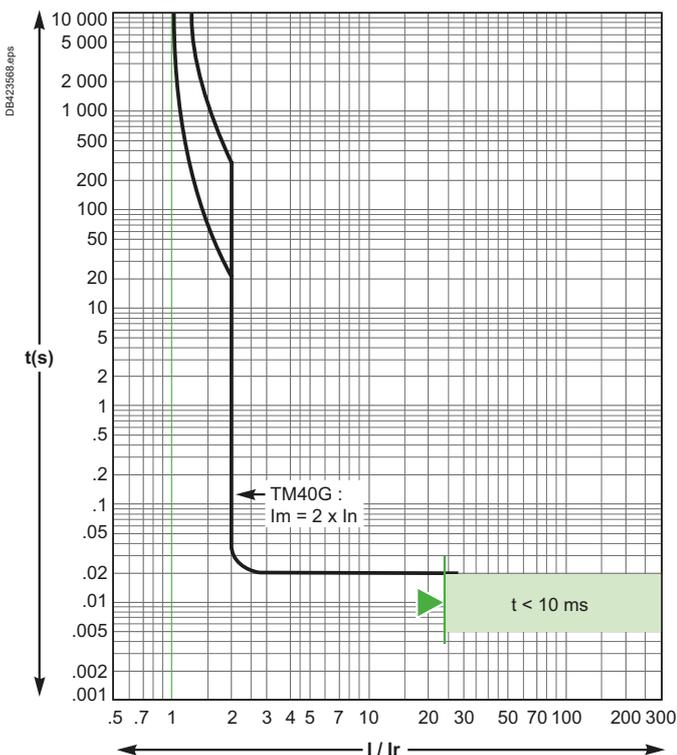


TM25G

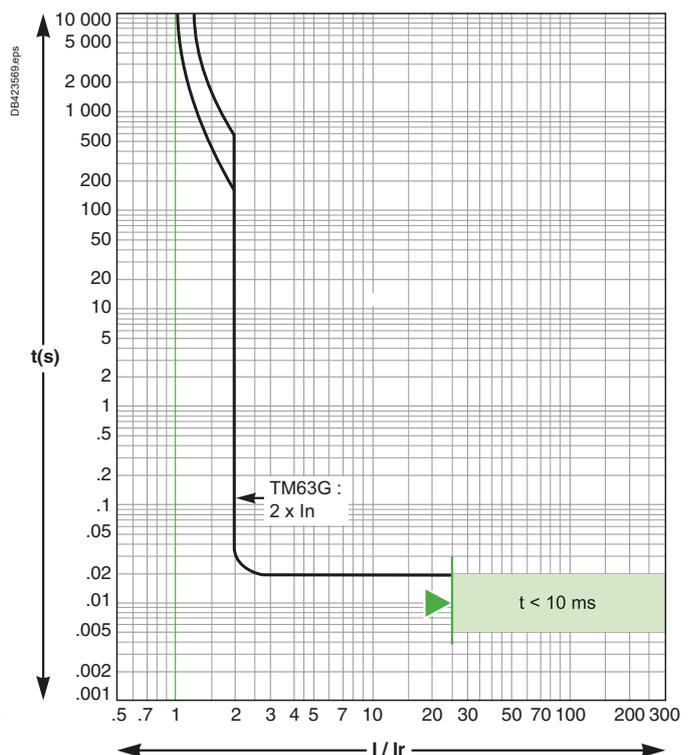


Reflex tripping.

TM40G



TM63G

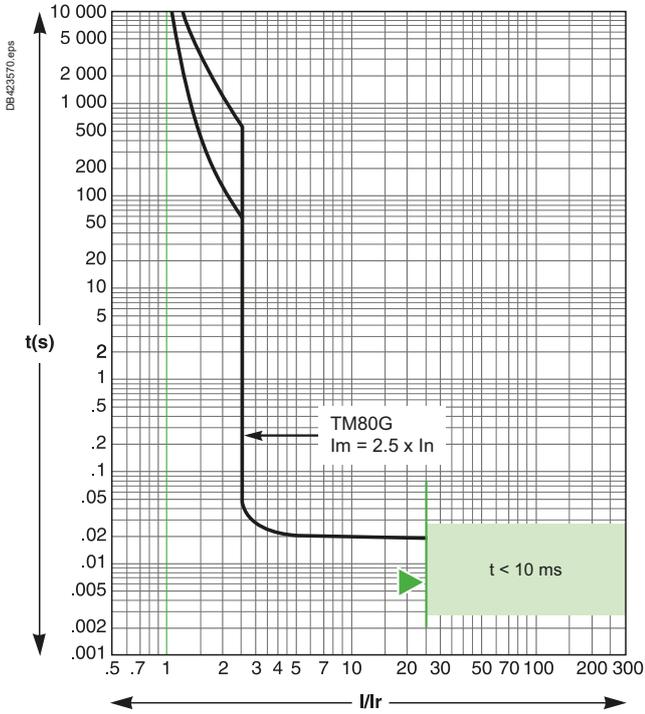


Reflex tripping.

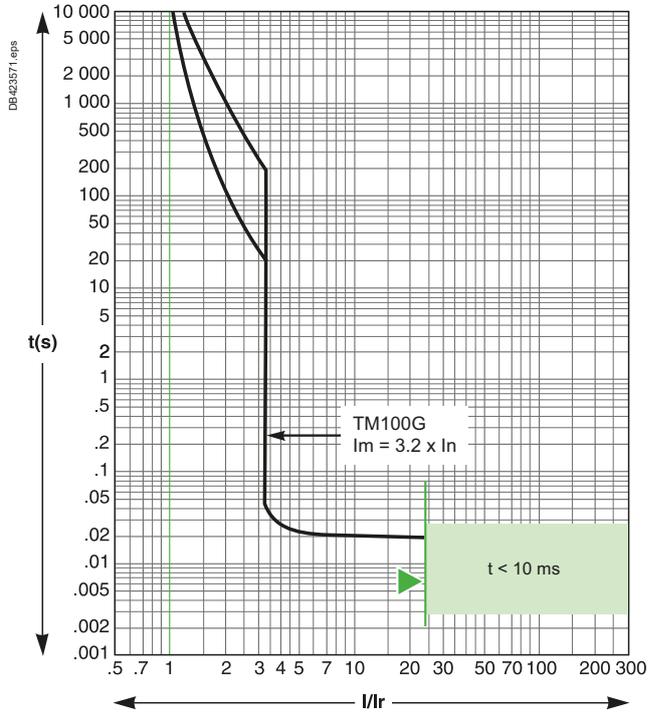


# ComPact NSX100 to 250 TMG magnetic trip units, tripping curves Protection of distribution systems

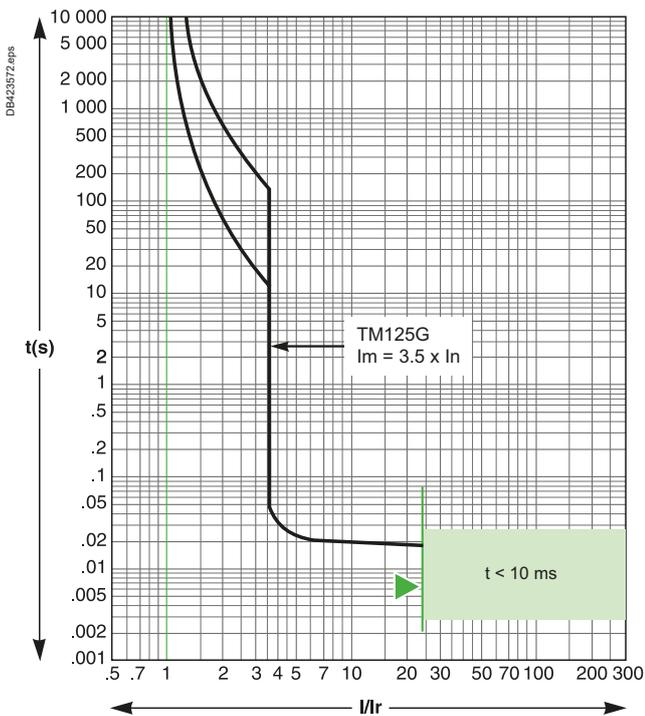
TM80G



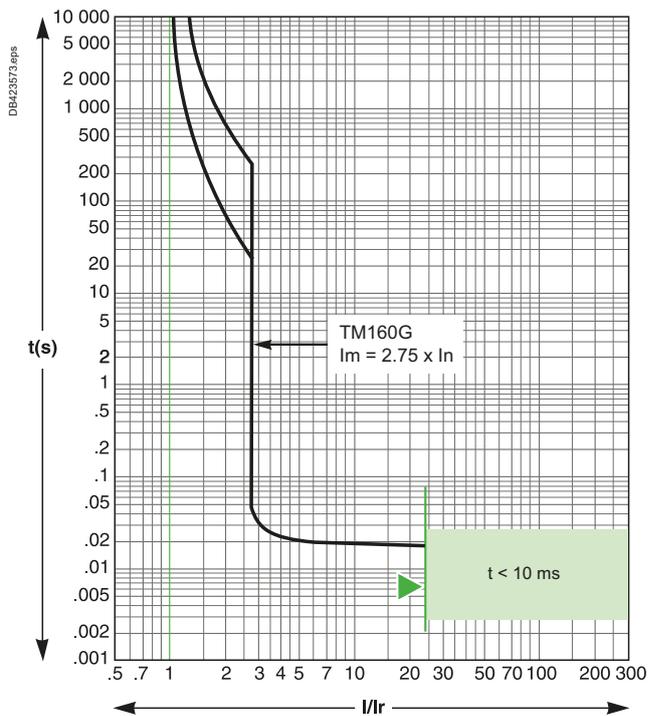
TM100G



TM125G



TM160G

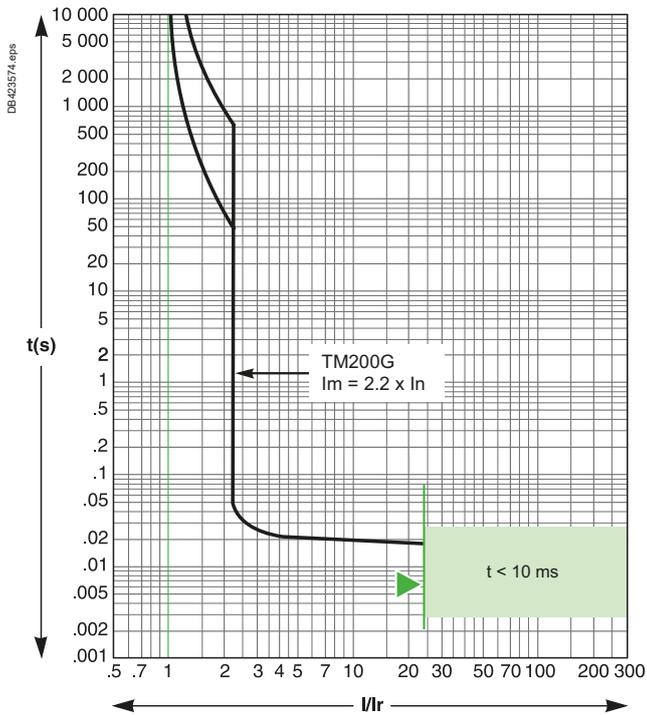


# ComPact NSX100 to 250

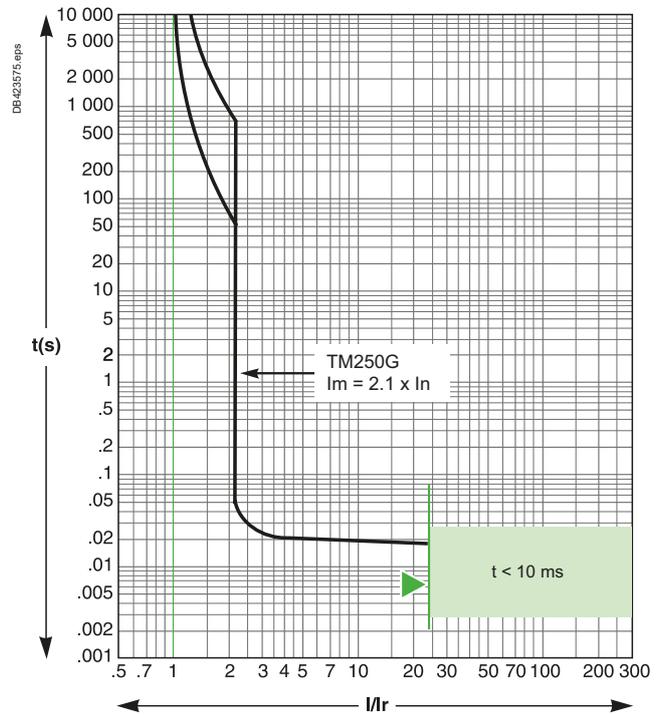
TMG magnetic trip units, tripping curves

Protection of distribution systems

TM200G



TM250G



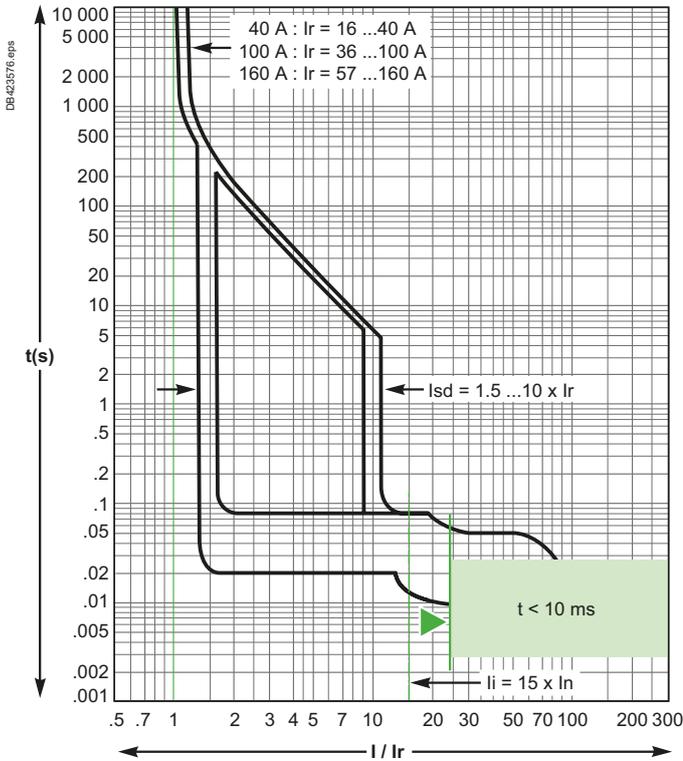
Reflex tripping.



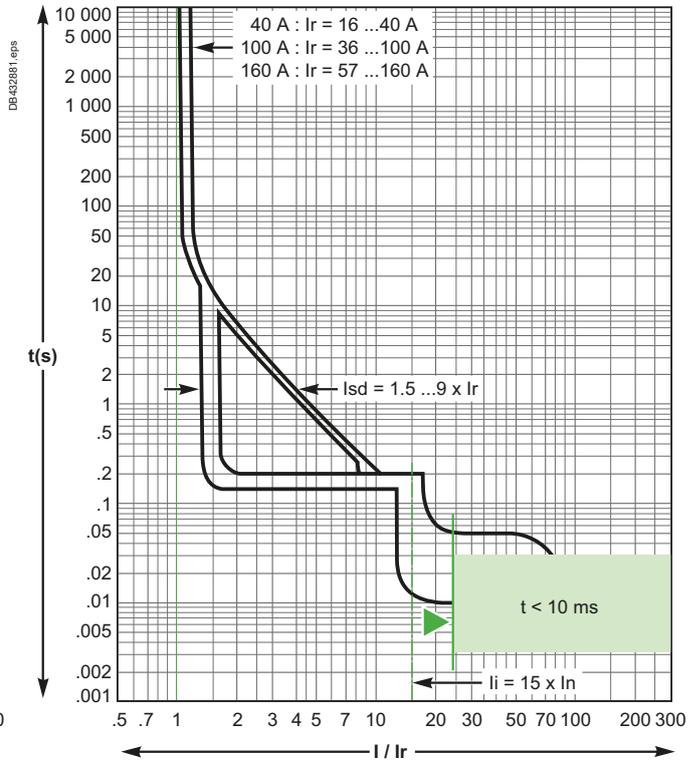
# ComPact NSX100 to 250

## MicroLogic 2.2, 4.2 and 2.2 G electronic trip units, tripping curves Protection of distribution systems

MicroLogic 2.2, 4.2 - 40... 160 A

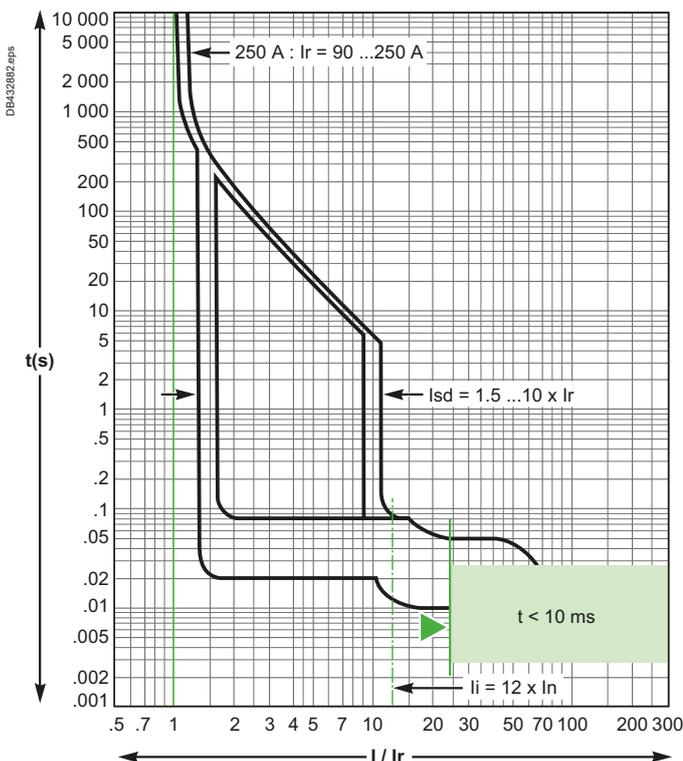


MicroLogic 2.2, 4.2 - 250 A

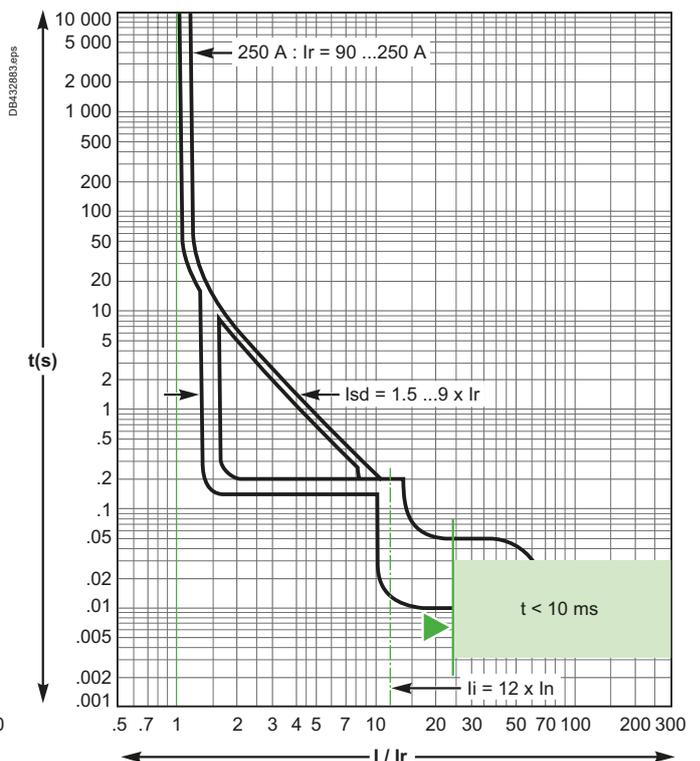


Reflex tripping.

MicroLogic 2.2 G - 40... 160 A



MicroLogic 2.2 G - 250 A



Reflex tripping.

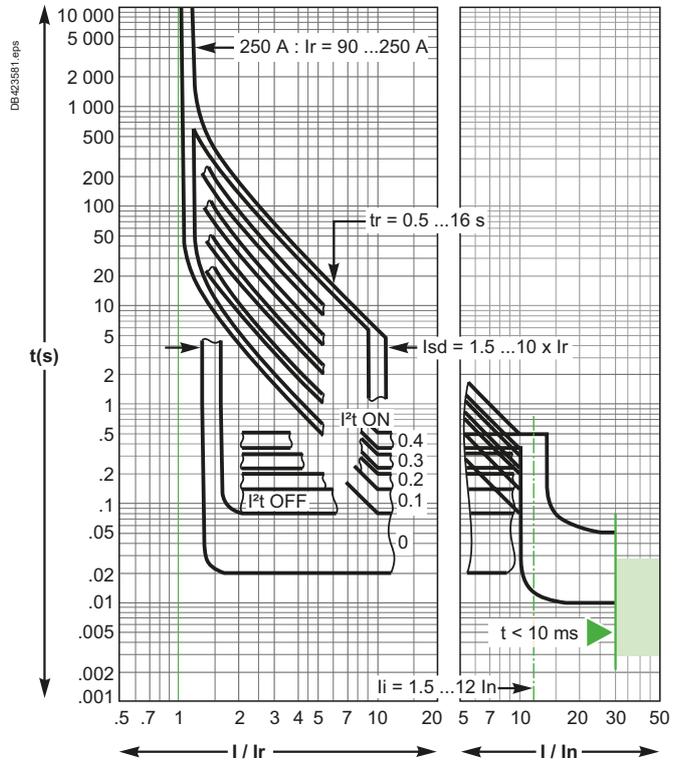
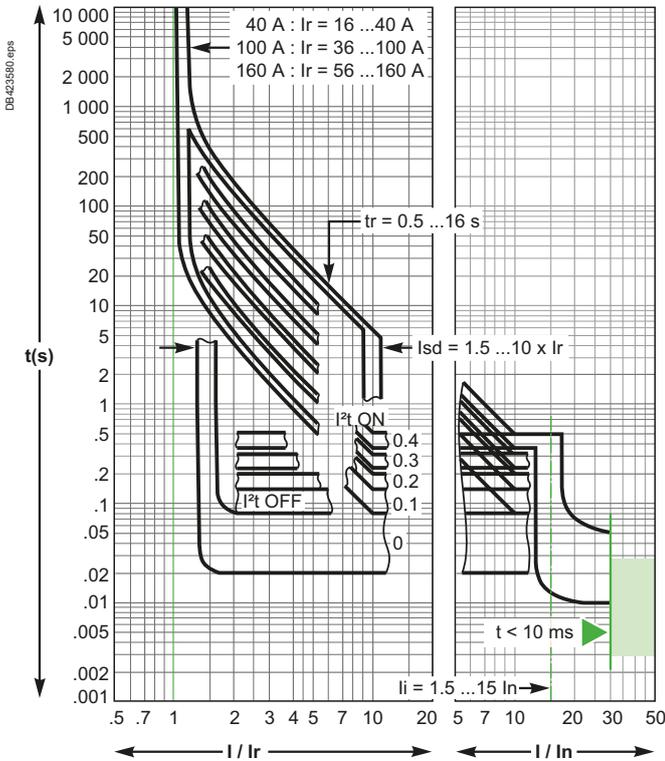


# ComPact NSX100 to 250

MicroLogic 5.2 and 6.2 A or E and 7.2 E electronic trip units, tripping curves - Protection of distribution systems

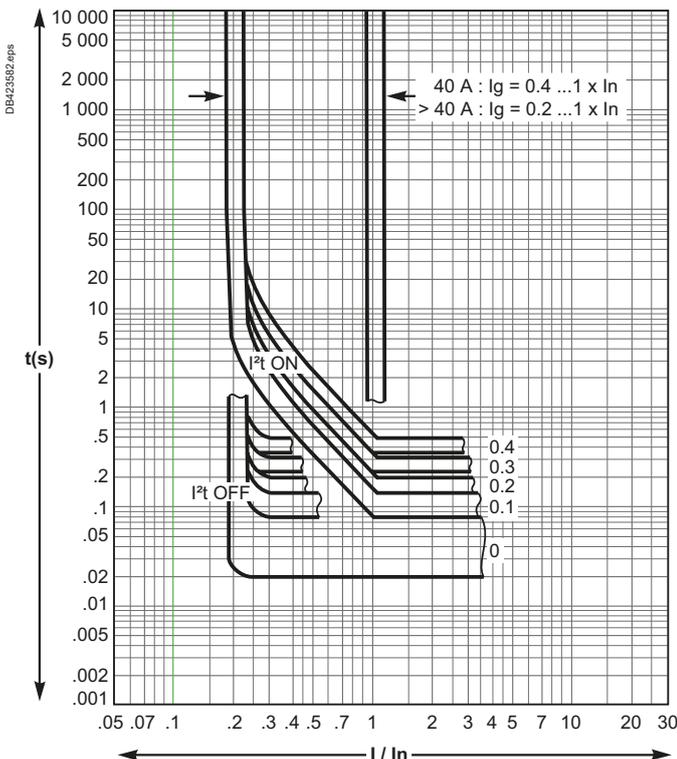
MicroLogic 5.2 and 6.2 A or E and 7.2 E - 40... 160 A

MicroLogic 5.2 and 6.2 A or E and 7.2 E - 250 A



Reflex tripping.

MicroLogic 6.2 A or E (ground-fault protection)



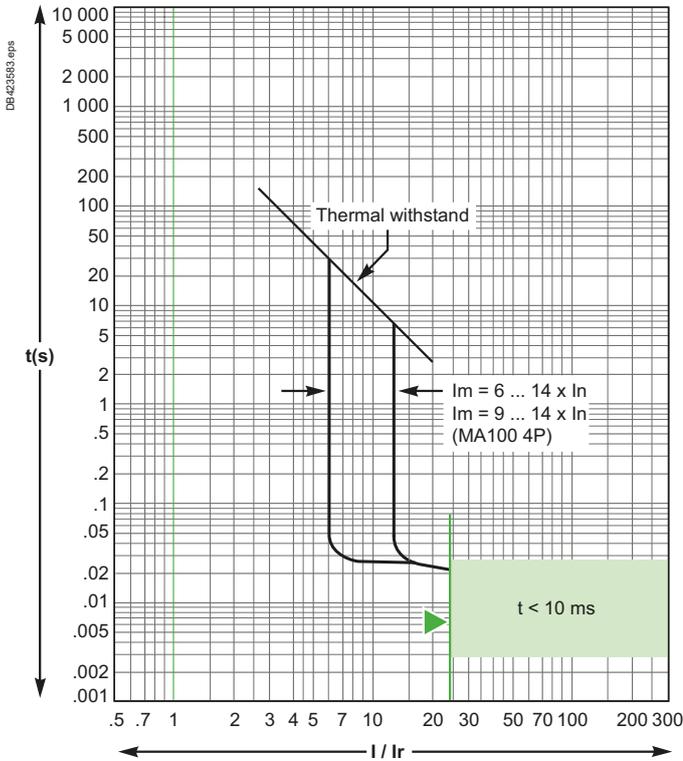
Reflex tripping.



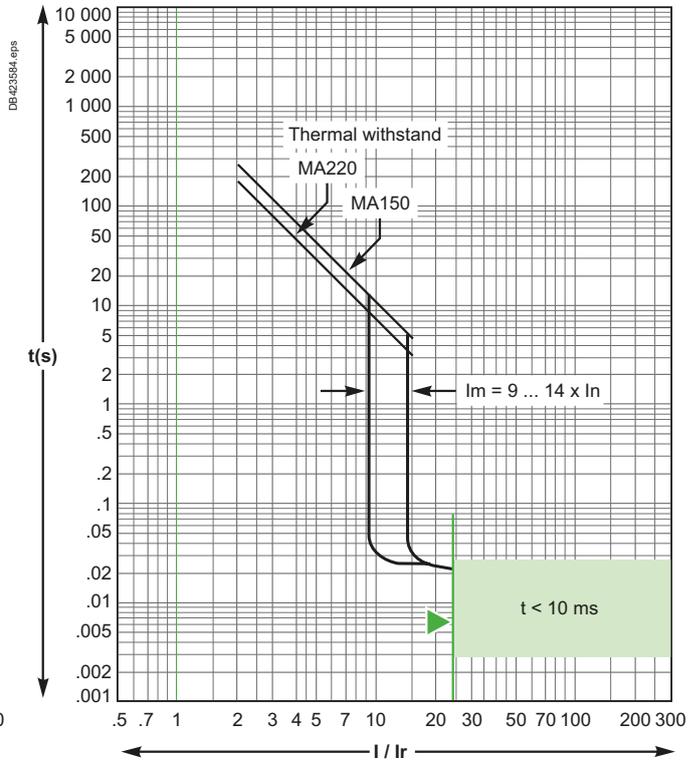
# ComPact NSX100 to 250

## MA magnetic trip units, MicroLogic 2.2 M electronic trip units, tripping curves - Motor protection

MA2.5... MA100

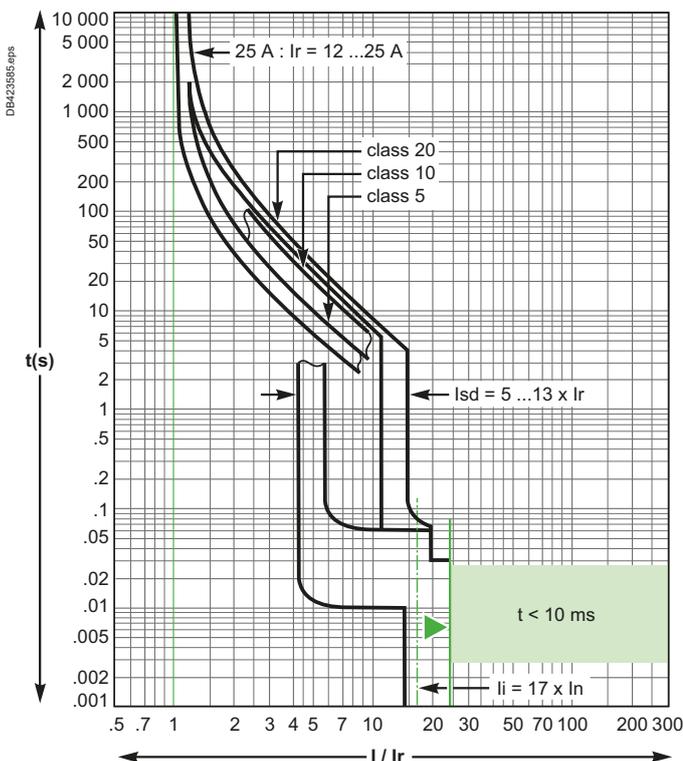


MA150 and MA220

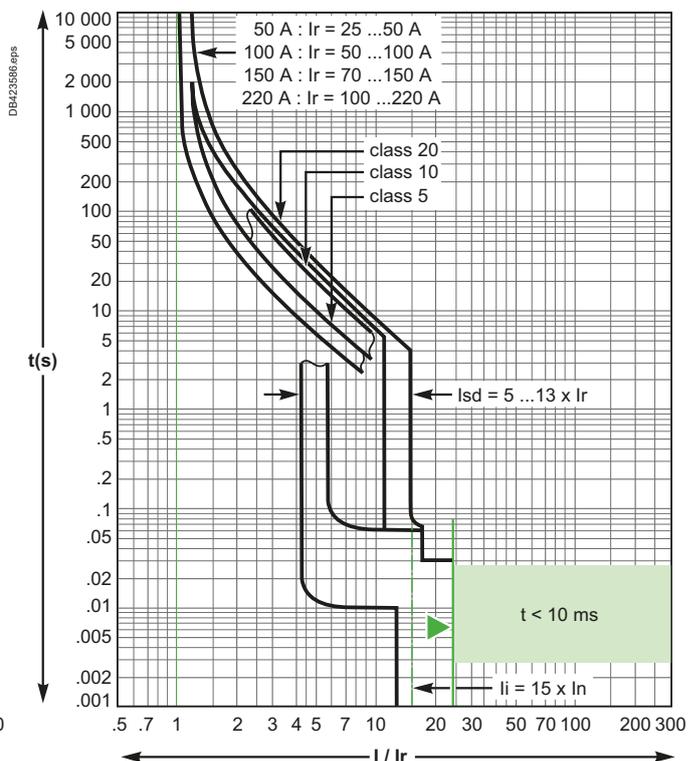


Reflex tripping.

MicroLogic 2.2 M - 25 A



MicroLogic 2.2 M - 50... 220 A



Reflex tripping.

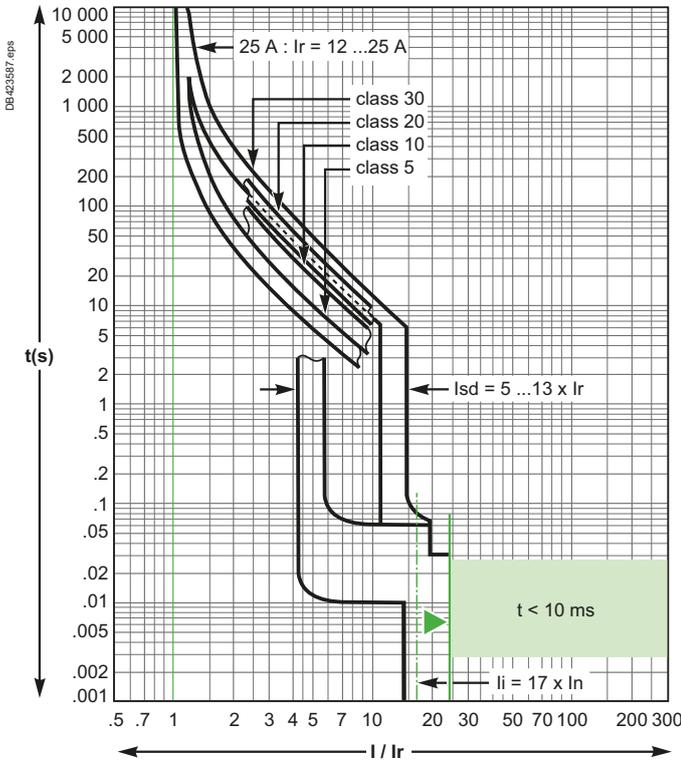


# ComPact NSX100 to 250

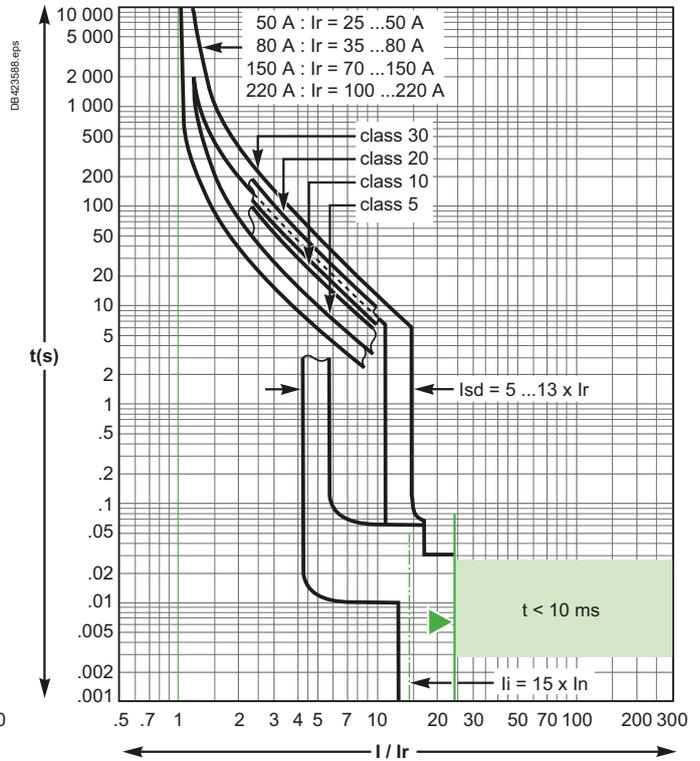
## MicroLogic 6.2 E-M electronic trip units, tripping curves

### Motor protection

MicroLogic 6.2 E-M - 25 A

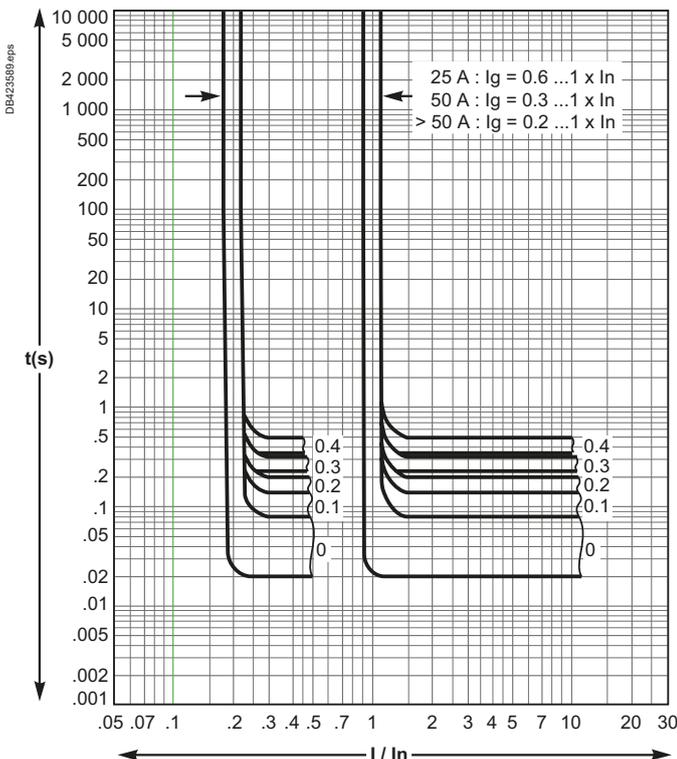


MicroLogic 6.2 E-M - 50... 220 A



Reflex tripping.

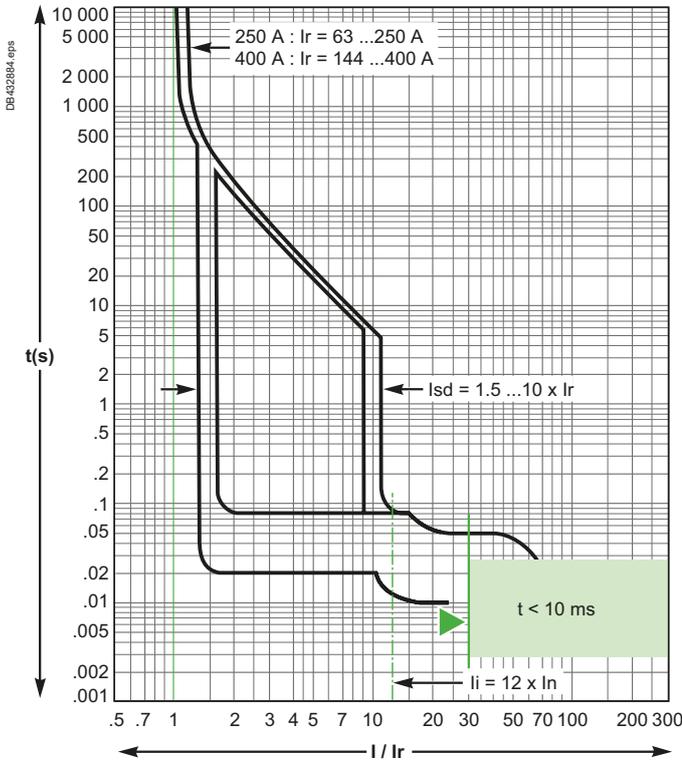
MicroLogic 6.2 E-M (ground-fault protection)



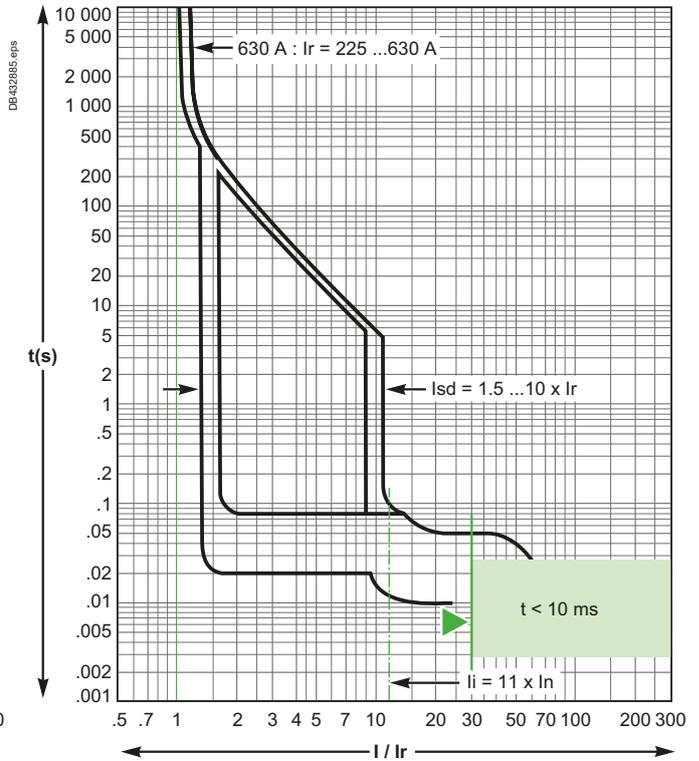
# ComPact NSX400 to 630

MicroLogic 2.3, 4.3, 5.3 and 6.3 A or E and 7.3 E electronic trip units, tripping curves - Protection of distribution systems

MicroLogic 2.3, 4.3 - 250... 400 A

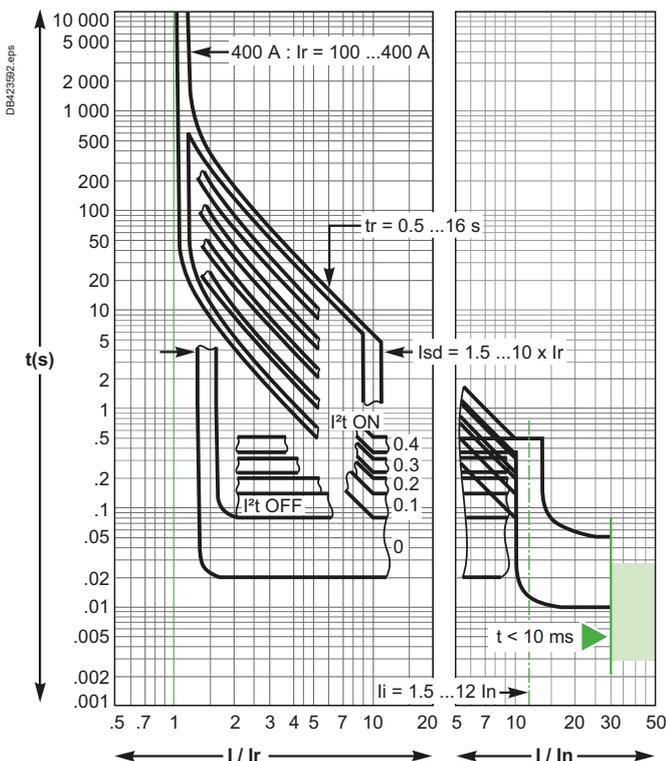


MicroLogic 2.3, 4.3 - 630 A

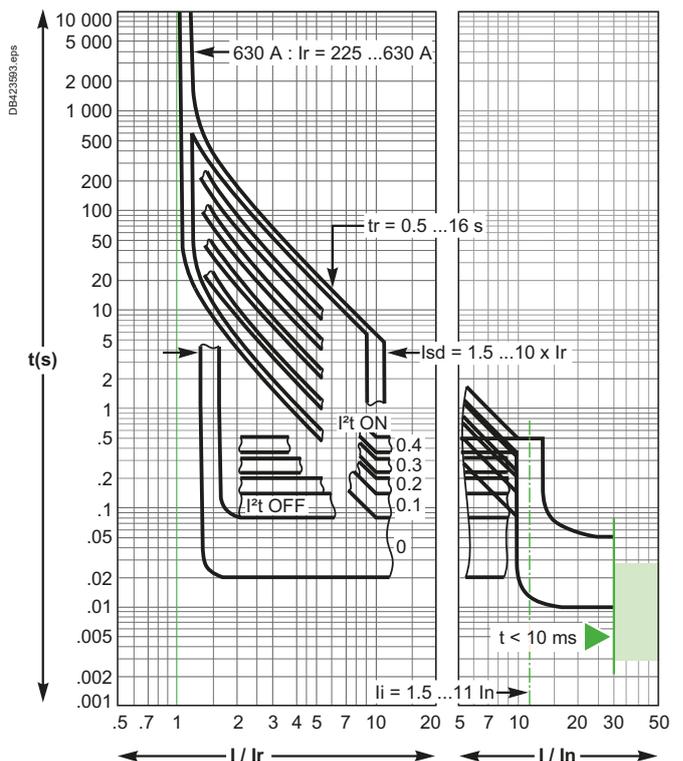


Reflex tripping.

MicroLogic 5.3 and 6.3 A or E and 7.3 E - 400 A



MicroLogic 5.3 and 6.3 A or E and 7.3E (up to 570 A) - 630 A



Reflex tripping.

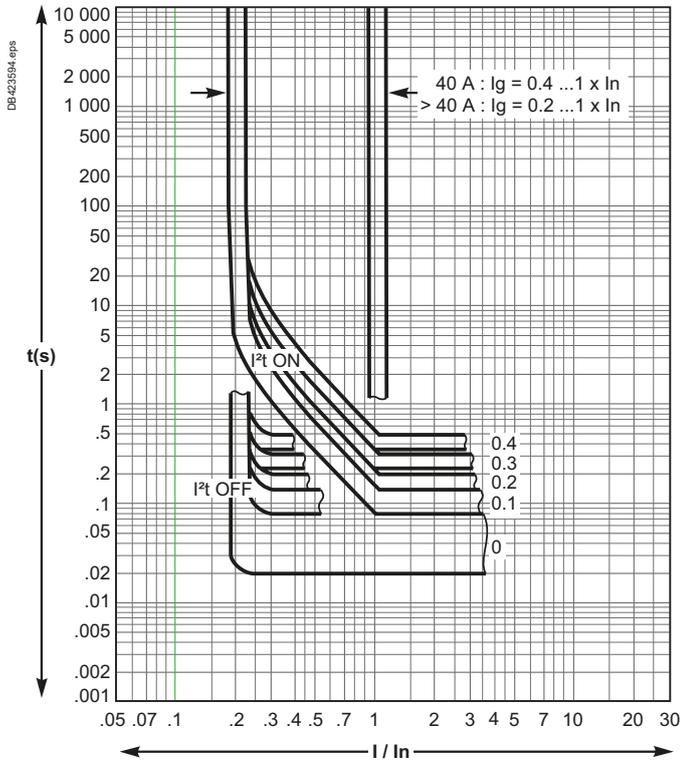


### Additional characteristics

## ComPact NSX400 to 630

MicroLogic 6.3 A or E and 7.3 E electronic trip units, tripping curves - Protection of distribution systems

MicroLogic 6.3 A or E and 7.3 E (up to 570 A)  
(ground-fault protection)

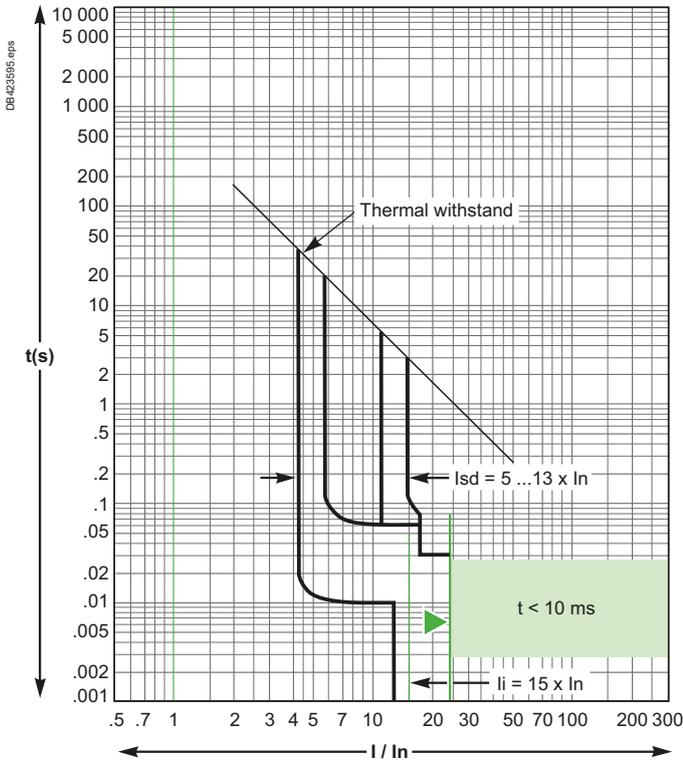


# ComPact NSX400 to 630

## MicroLogic 1.3 M and 2.3 M electronic trip units, tripping curves

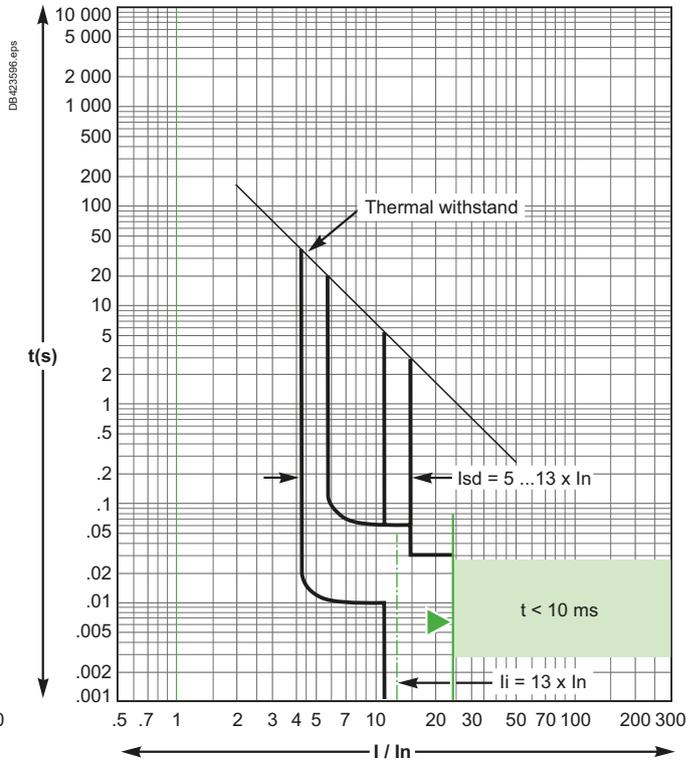
### Motor protection

MicroLogic 1.3 M - 320 A

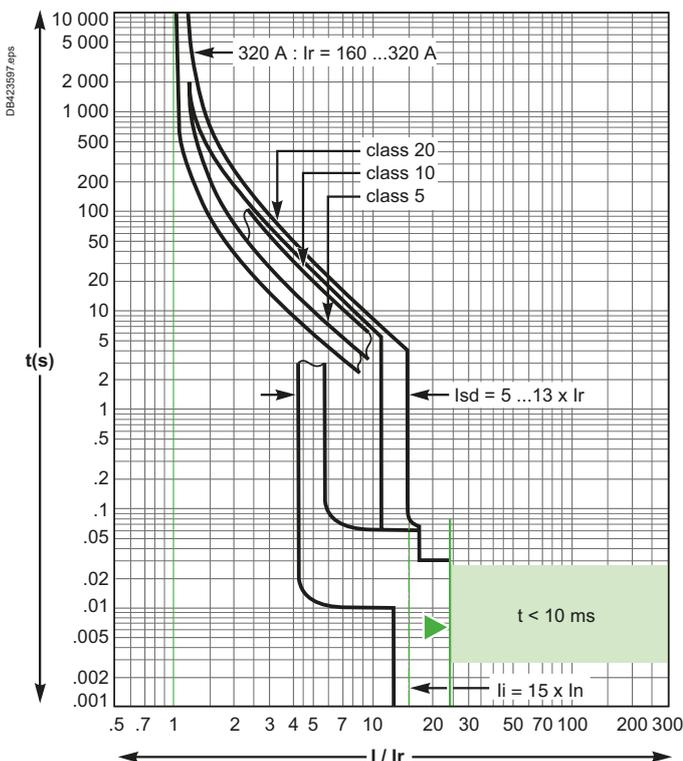


Reflex tripping.

MicroLogic 1.3 M - 500 A

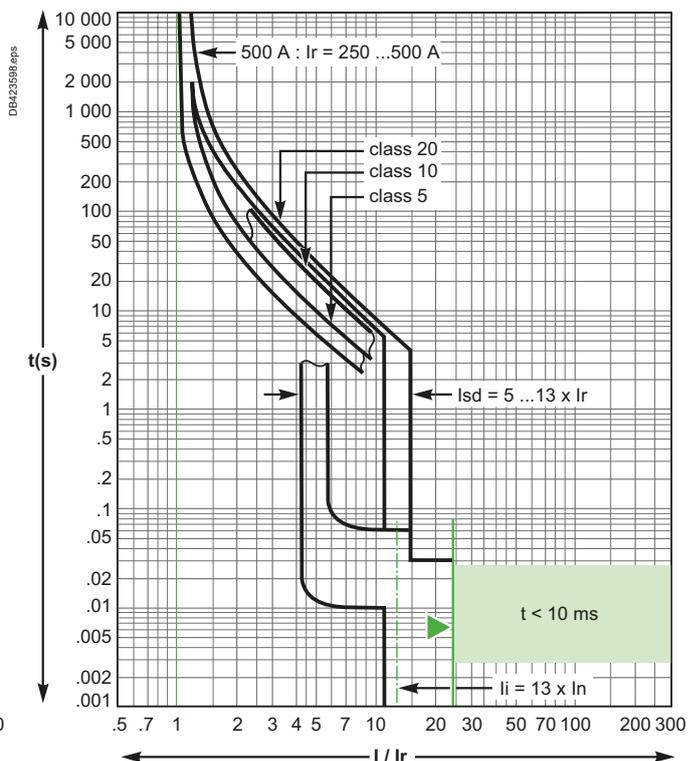


MicroLogic 2.3 M - 320 A



Reflex tripping.

MicroLogic 2.3 M - 500 A

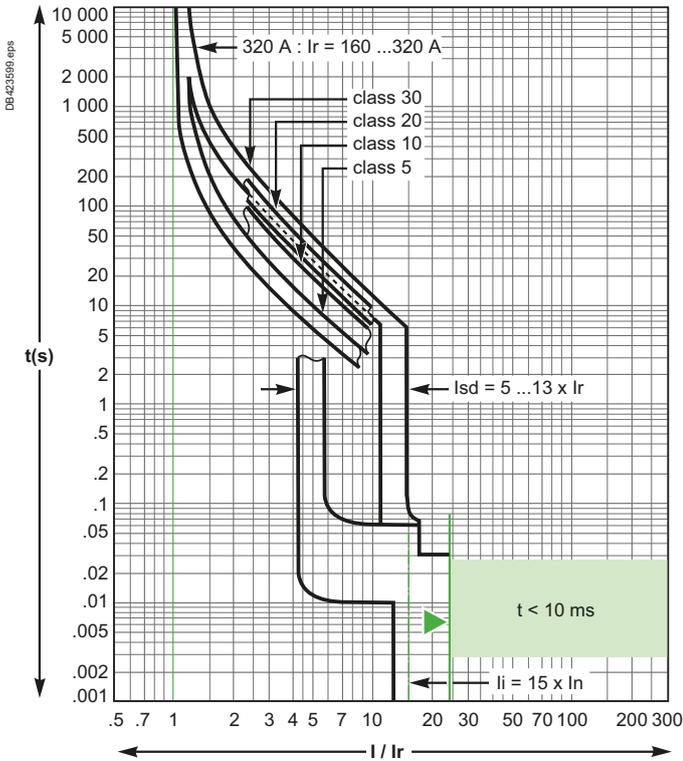


# ComPact NSX400 to 630

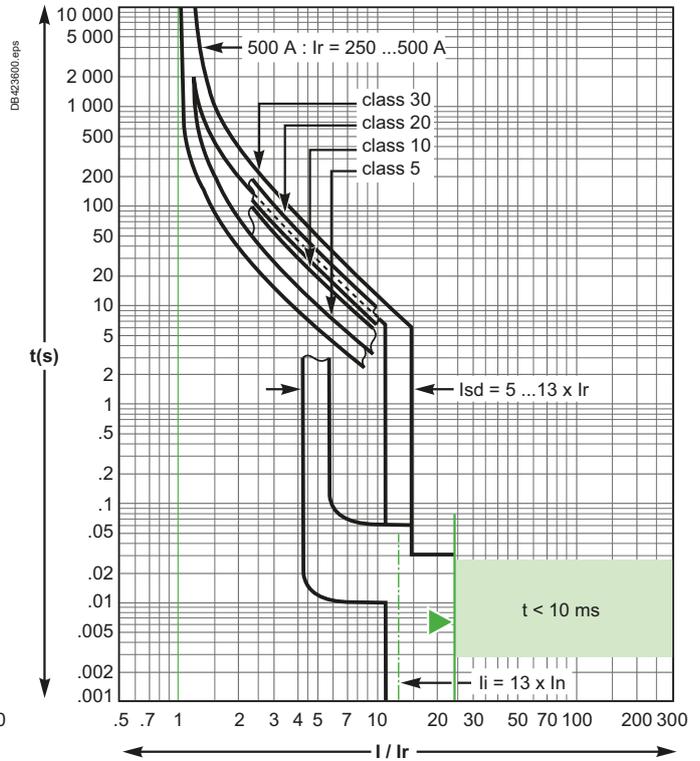
## MicroLogic 6.3 E-M electronic trip units, tripping curves

### Motor protection

MicroLogic 6.3 E-M - 320 A

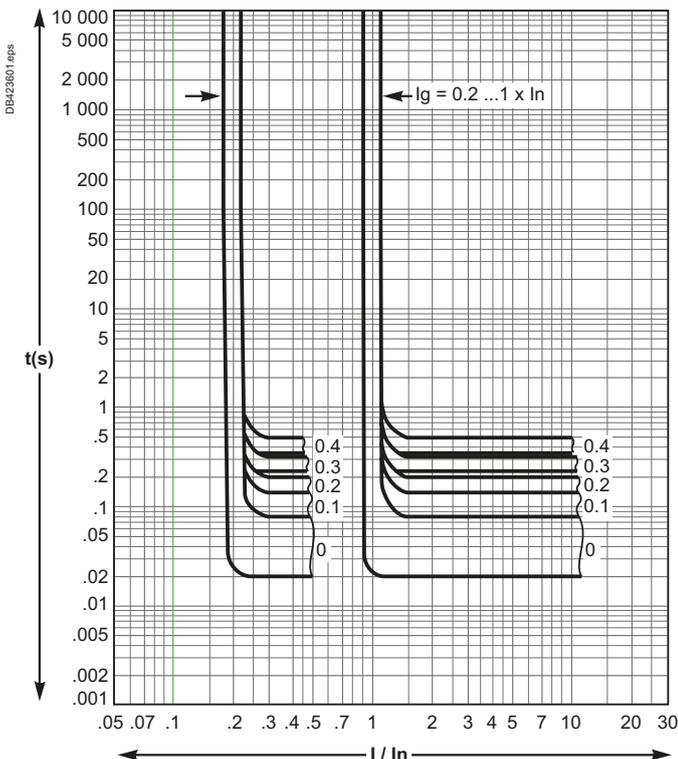


MicroLogic 6.3 E-M - 500 A



Reflex tripping.

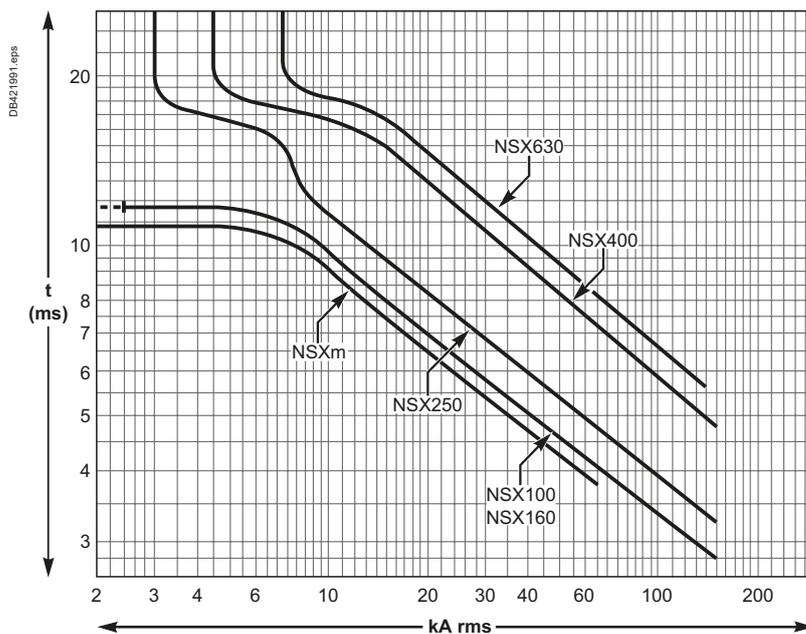
MicroLogic 6.3 E-M (ground fault protection)



# Tripping curves ComPact NSXm and NSX

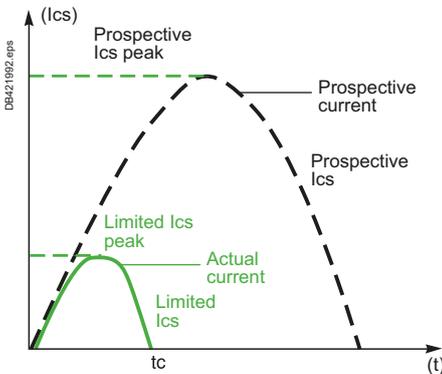
## Reflex tripping

ComPact NSXm and NSX100 to 630 devices incorporate the exclusive reflex-tripping system. This system breaks very high fault currents. The device is mechanically tripped via a "piston" actuated directly by the pressure produced in the breaking units by the short-circuit. For high short-circuits, this system provides a faster break, thereby ensuring selectivity. Reflex-tripping curves are exclusively a function of the circuit-breaker rating.



# Current and energy limiting curves

The limiting capacity of a circuit breaker is its aptitude to let through a current, during a short-circuit, that is less than the prospective short-circuit current.



The exceptional limiting capacity of the ComPact range is due to the rotating double-break technique (very rapid natural repulsion of contacts and the appearance of two arc voltages in-series with a very steep wave front).

### Ics = 100 % Icu

The exceptional limiting capacity of the ComPact NSX and NSXm ranges greatly reduces the forces created by fault currents in devices. The result is a major increase in breaking performance. In particular, the service breaking capacity Ics is equal to 100 % of Icu. The Ics value, defined by IEC standard 60947-2, is guaranteed by tests comprising the following steps:

- break three times consecutively a fault current equal to 100 % of Icu
- check that the device continues to function normally, that is:
  - it conducts the rated current without abnormal temperature rise
  - protection functions perform within the limits specified by the standard
  - suitability for isolation is not impaired.

### Longer service life of electrical installations

Current-limiting circuit breakers greatly reduce the negative effects of short-circuits on installations.

#### Thermal effects

Less temperature rise in conductors, therefore longer service life for cables.

#### Mechanical effects

Reduced electrodynamic forces, therefore less risk of electrical contacts or busbars being deformed or broken.

#### Electromagnetic effects

Fewer disturbances for measuring devices located near electrical circuits.

### Economy by means of cascading

Cascading is a technique directly derived from current limiting. Circuit breakers with breaking capacities less than the prospective short-circuit current may be installed downstream of a limiting circuit breaker. The breaking capacity is reinforced by the limiting capacity of the upstream device. It follows that substantial savings can be made on downstream equipment and enclosures.

### Current and energy limiting curves

The limiting capacity of a circuit breaker is expressed by two curves which are a function of the prospective short-circuit current (the current which would flow if no protection devices were installed):

- the actual peak current (limited current)
- thermal stress (A<sup>2</sup>s), i.e. the energy dissipated by the short-circuit in a conductor with a resistance of 1 Ω.

#### Example

What is the real value of a 70 kA rms prospective short-circuit (i.e. 100 kA peak) limited by an NSXm160H upstream ?

The answer is 20 kA peak.

### Maximum permissible cable stresses

The table below indicates the maximum permissible thermal stresses for cables depending on their insulation, conductor (Cu or Al) and their cross-sectional area (CSA). CSA values are given in mm<sup>2</sup> and thermal stresses in A<sup>2</sup>s.

CSA		1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>
PVC	Cu	2.97x10 <sup>4</sup>	8.26x10 <sup>4</sup>	2.12x10 <sup>5</sup>	4.76x10 <sup>5</sup>	1.32x10 <sup>6</sup>
	Al					5.41x10 <sup>5</sup>
PRC	Cu	4.10x10 <sup>4</sup>	1.39x10 <sup>5</sup>	2.92x10 <sup>5</sup>	6.56x10 <sup>5</sup>	1.82x10 <sup>6</sup>
	Al					7.52x10 <sup>5</sup>
PVC	Cu	3.4x10 <sup>6</sup>	8.26x10 <sup>6</sup>	1.62x10 <sup>7</sup>	3.31x10 <sup>7</sup>	
	Al	1.39x10 <sup>6</sup>	3.38x10 <sup>6</sup>	6.64x10 <sup>6</sup>	1.35x10 <sup>7</sup>	
PRC	Cu	4.69x10 <sup>6</sup>	1.39x10 <sup>7</sup>	2.23x10 <sup>7</sup>	4.56x10 <sup>7</sup>	
	Al	1.93x10 <sup>6</sup>	4.70x10 <sup>6</sup>	9.23x10 <sup>6</sup>	1.88x10 <sup>7</sup>	

#### Example

Is a Cu/PVC cable with a CSA of 10 mm<sup>2</sup> adequately protected by an NSX160F?

The table above indicates that the permissible stress is 1.32x10<sup>6</sup> A<sup>2</sup>s.

All short-circuit currents at the point where an NSX160F (Icu = 35 kA) is installed are limited with a thermal stress less than 6x10<sup>5</sup> A<sup>2</sup>s.

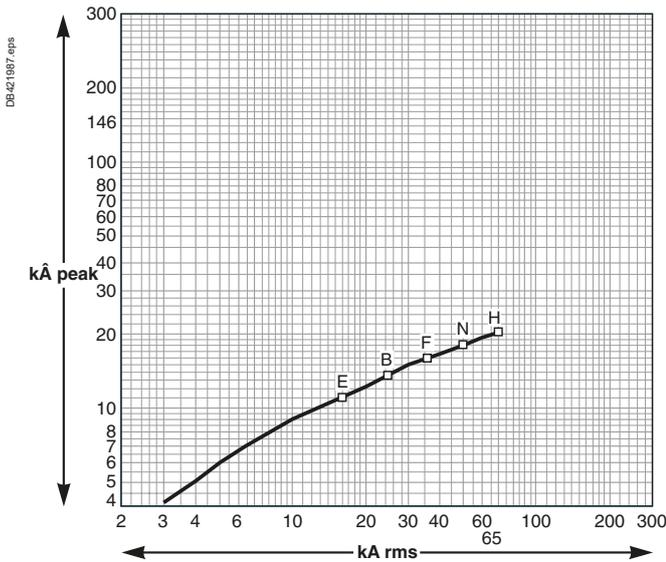
Cable protection is therefore ensured up to the limit of the breaking capacity of the circuit breaker.

# Current and energy limiting curves ComPact NSXm

## Current-limiting curves

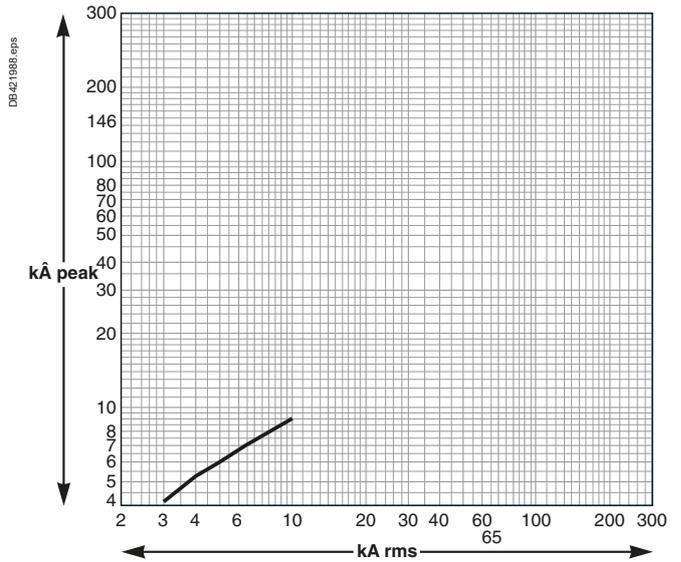
### Voltage 400/440 V AC

Limited short-circuit current (kA peak)



### Voltage 660/690 V AC

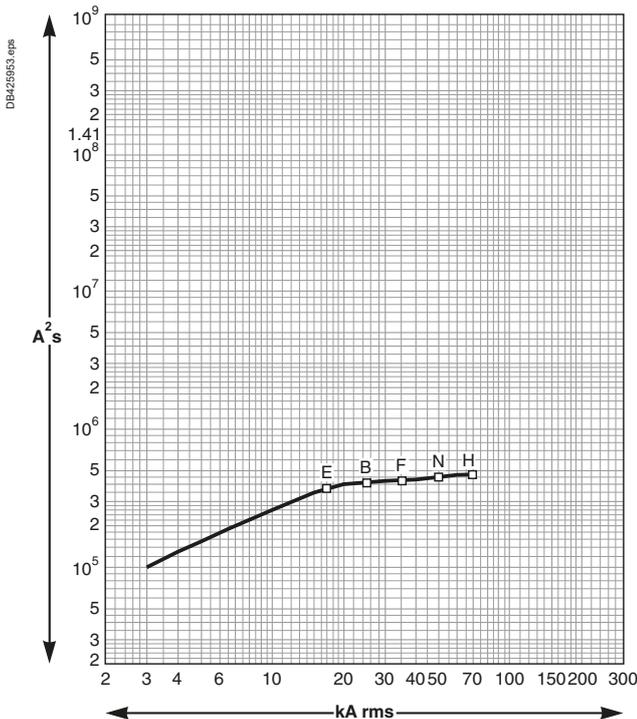
Limited short-circuit current (kA peak)



## Energy-limiting curves

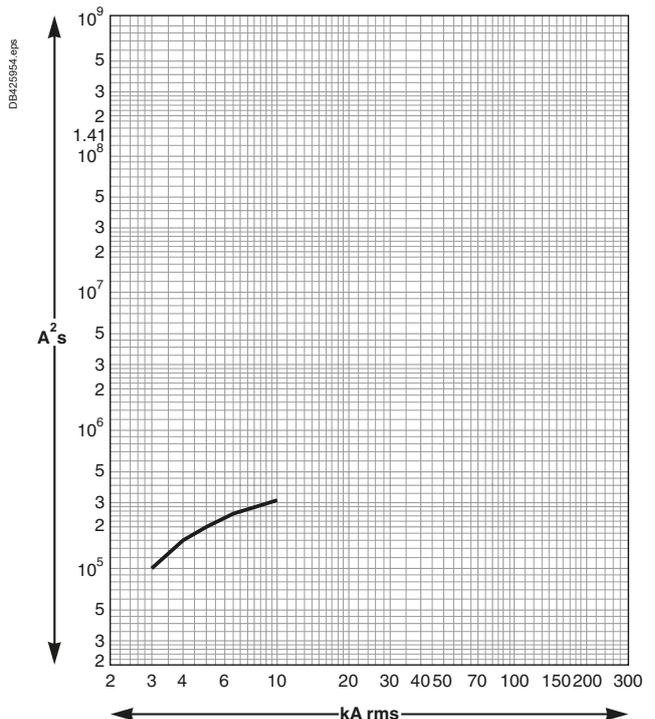
### Voltage 400/440 V AC

Limited energy



### Voltage 660/690 V AC

Limited energy



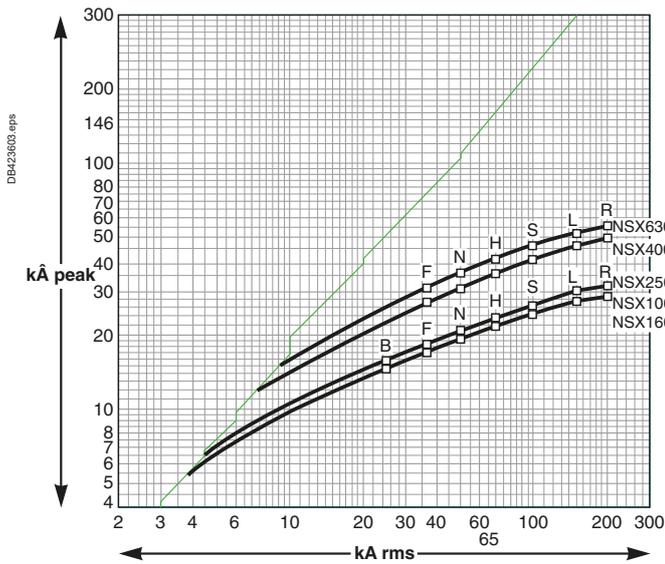
# Current and energy limiting curves

## ComPact NSX

### Current-limiting curves

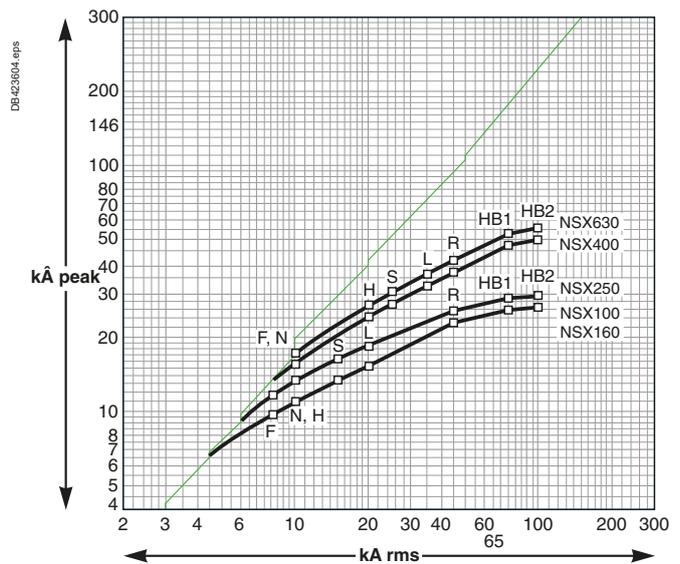
#### Voltage 400/440 V AC

Limited short-circuit current (kA peak)



#### Voltage 660/690 V AC

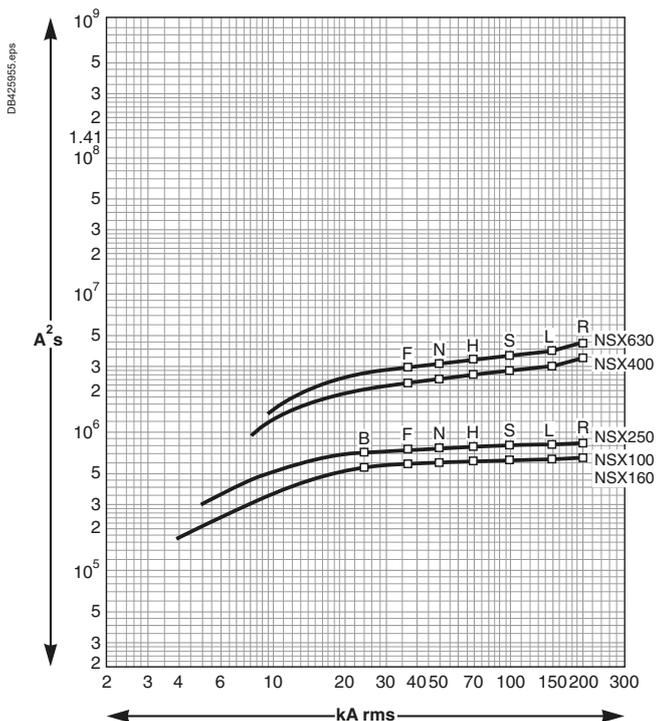
Limited short-circuit current (kA peak)



### Energy-limiting curves

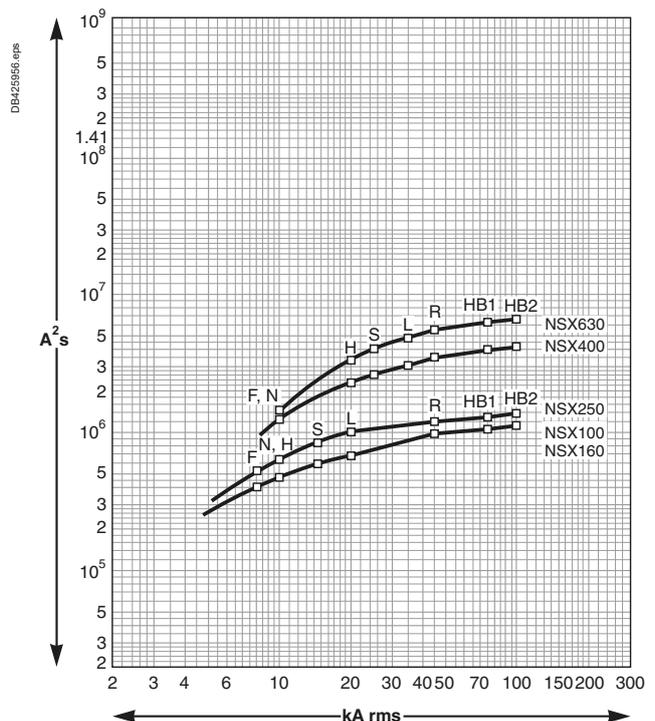
#### Voltage 400/440 V AC

Limited energy



#### Voltage 660/690 V AC

Limited energy



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# Note

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