

Compact NSXm

NG160 substitution and technical guide

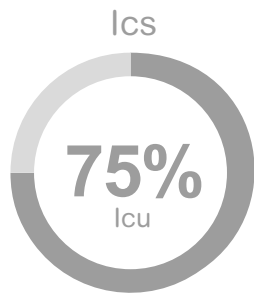
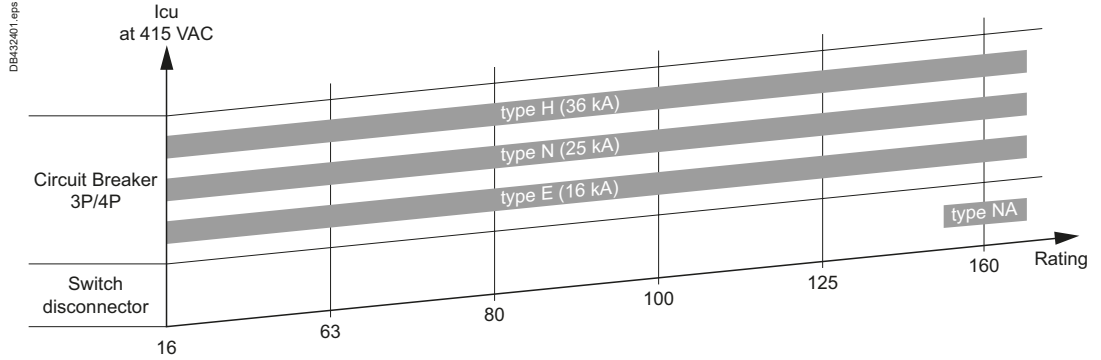
Guide 2018
Circuit breakers
and switch-disconnectors



From Compact NG160 ...

Modular incoming circuit breakers and switch-disconnectors for DIN-panel installation

> Characteristics



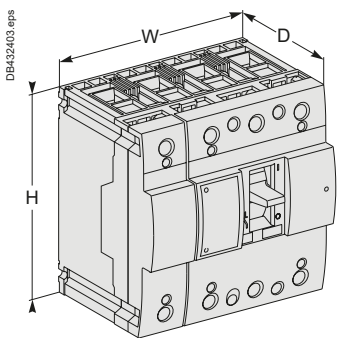
Standard

- > IEC 60 947-1 / -2 / -3 / -5-1
- > EAC

Protection

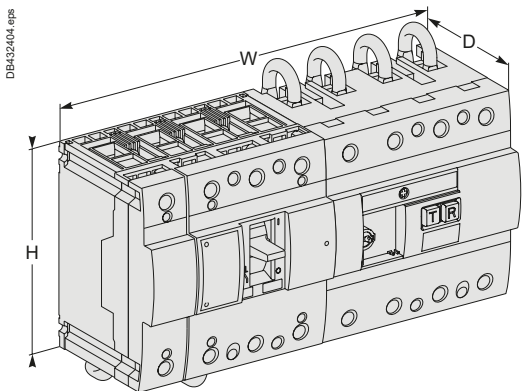
Thermo-Magnetic with fixed threshold

> Dimensions



Dimensions (mm)	3P	4P
Width	90	120
Depth	82.5	82.5
Height	120	120

> Earth leakage

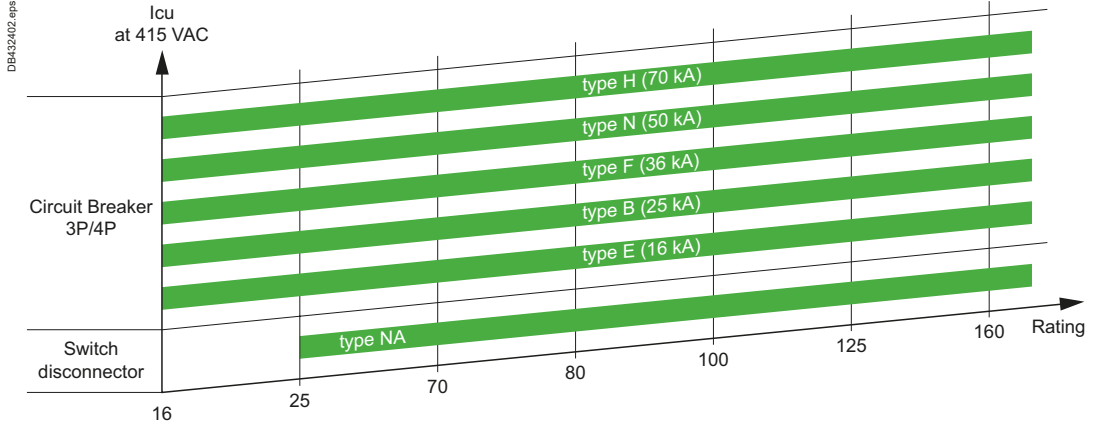


- > Vigi earth-leakage protection add-on module for side-by-side mounting
- > Thermo-Magnetic with fixed threshold
- > Time delay: from 0 to 150 ms
- > Sensitivity: from 30 mA to 3 A

Dimensions (mm)	3P	4P
Width	210	240
Depth	82.5	82.5
Height	120	120

Modular incoming circuit breakers and switch-disconnectors for DIN-panel installation

> Characteristics



Ics

100%
Icu *

* up to 440 V

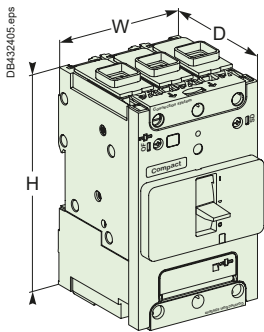
Standard

- > IEC 60 947-1 / -2
- > CCC
- > EAC
- > Marine

Protection

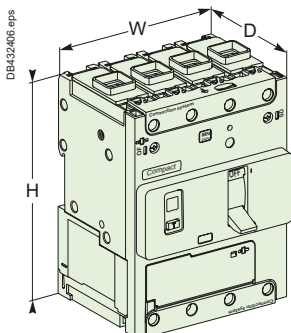
Thermo-Magnetic with **Thermal Setting** (0.7 up to 1)

> Dimensions



Dimensions (mm)	3P	4P
Width	81	108
Depth	80	80
Height	137	137

> Earth leakage



- > Embedded earth leakage protection with Micrologic vigi 4.1
- > Trip alarming contacts: earth leakage, thermal, short circuit
- > Pre Alarm contact: for earth leakage at 50% IΔn
- > Time delay: from 0 to 1000 ms
- > Sensitivity: from 3 mA to 5 A

Dimensions (mm)	4P
Width	108
Depth	80
Height	144

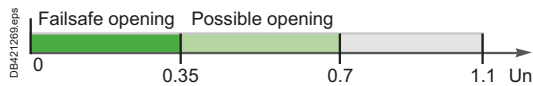
> MX shunt release / MN undervoltage release



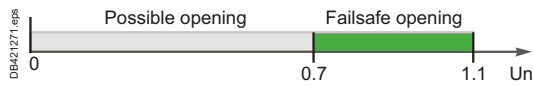
Opening conditions of the MX release



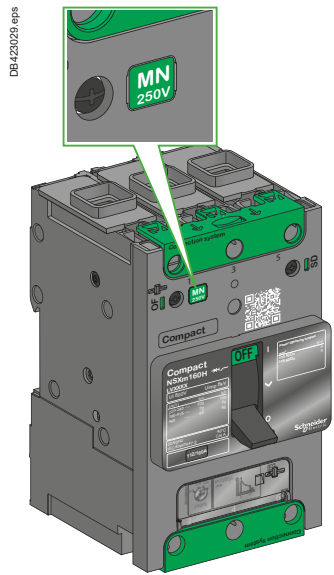
Opening conditions of the MN release



Closing conditions of the MN release



Visible presence of MN undervoltage release in circuit breaker cavity, visible rated voltage through the window.



Operating voltages for MN/MX.

From Compact NG160 ... Auxiliaries

> OF / SD indication contacts

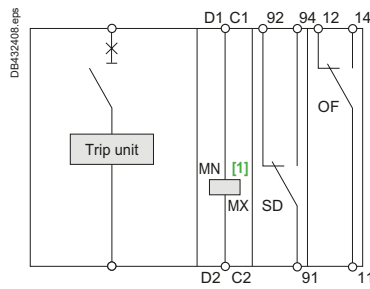


To wire

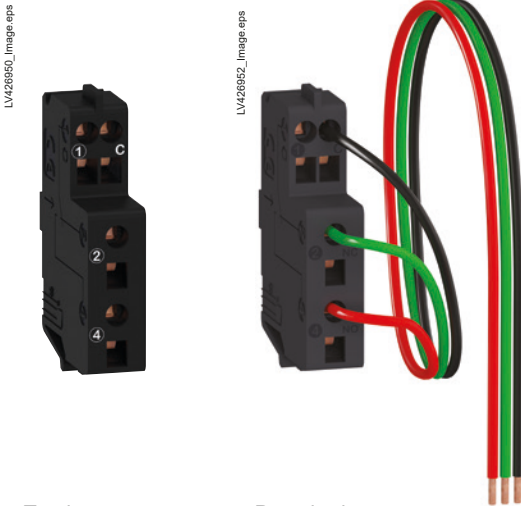
Standard contacts

Rated thermal current (A)	6	
Utilisation category (IEC 60947-5-1)	AC12	AC15
Operational current (A)	220/240 V	6
	380/440 V	6
		4
		2

Wiring diagram



> OF / SD indication contacts



To wire

Pre-wired

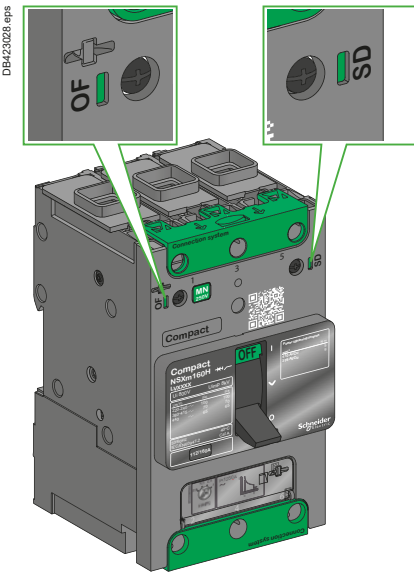
Note: Each NO and NC spring terminal may be connected by one 0.5...1.5 mm² flexible copper wire and by two for the common point.

Installation and connection

- > The auxiliary switch (OF) and alarm switch (SD) indication contacts snap into cavities behind the front accessory cover of the circuit breaker and their presence is visible on the front face through green flags.
- > One model serves for all indication functions depending on where it is fitted in the circuit breaker.
- > Each NO and NC spring terminal may be connected by one 0.5...1.5 mm² flexible copper wire and by two for the common point.

Electrical characteristics of auxiliary contacts

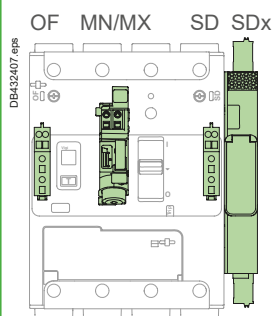
Characteristics						
Rated thermal current (A)	5					
Minimum load	2 mA at 17 V DC					
Utilization cat. (IEC 60947-5-1)	AC12	AC15	DC12	DC13	DC14	
Operational current (A)	24 V AC/DC	5	5	5	2.5	1
	48 V AC/DC	5	5	2.5	1.2	0.2
	110...127 V AC / 110 V DC	5	4	0.6	0.35	0.05
	220/240 V AC	5	3	-	-	-
	250 V DC	-	-	0.3	0.05	0.03
	380/440 V AC	5	2.5	-	-	-
	660/690 V AC	5	0.1	-	-	-



OF / SD indication contacts

Additional informations

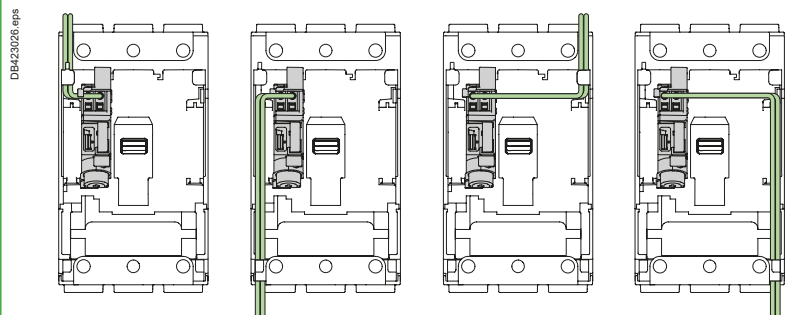
Installable auxiliary numbers



- 1 OF
- 1 SD
- 1 MN or 1 MX
- 1 SDx (for Earth leakage circuit breaker)

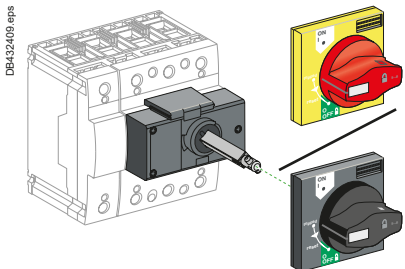
Wiring

Electrical accessory wire routing can be exited out any of the four corners of the breaker, under the accessory cover even when using long terminal shield



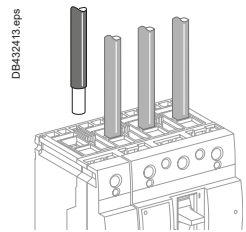
From Compact NG160 ... Accessories

> Rotary handles

Direct rotary handles	Extended rotary handles	Side rotary handles (left or right)
NA		NA

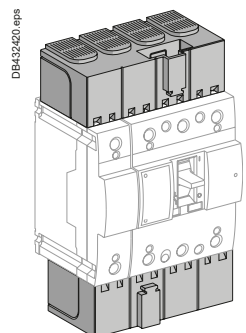
> Connection

Distribution connectors

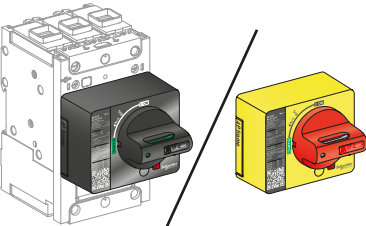
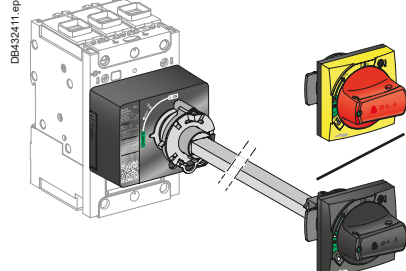
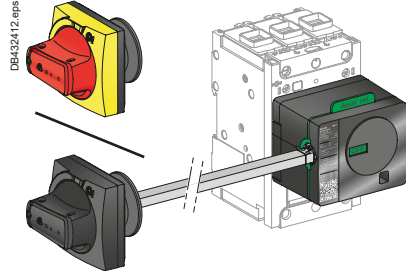


> Insulation of live parts

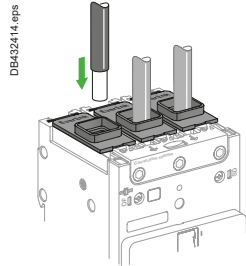
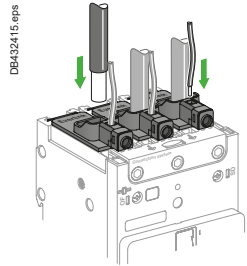
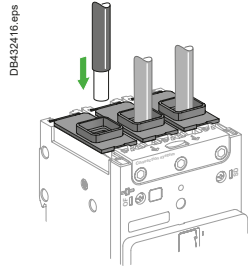
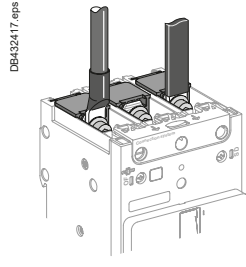
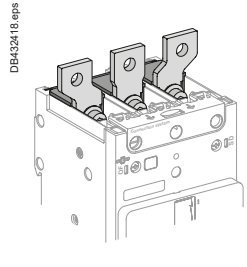
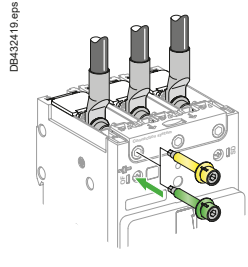
Terminal shields



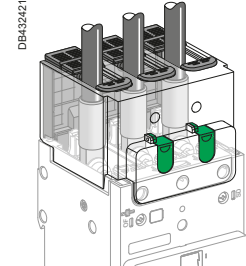
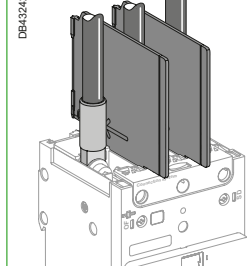
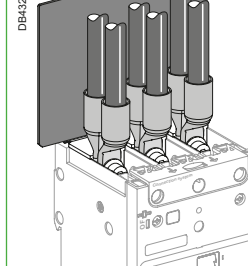
> Rotary handles

Direct rotary handles	Extended rotary handles	Side rotary handles (left or right)
<p>DB432410.eps</p> 	<p>DB432411.eps</p> 	<p>DB432412.eps</p> 

> Connection

<p>EverLink™ lug connector</p> <p>DB432414.eps</p> 	<p>EverLink™ lug connector with voltage tap</p> <p>DB432415.eps</p> 	<p>Aluminium mechanical connectors up to 125 A</p> <p>DB432416.eps</p> 
<p>Compression lug / busbar connectors</p> <p>DB432417.eps</p> 	<p>Spreaders</p> <p>DB432418.eps</p> 	<p>Torque limiting breakaway bits</p> <p>DB432419.eps</p> 

> Insulation of live parts

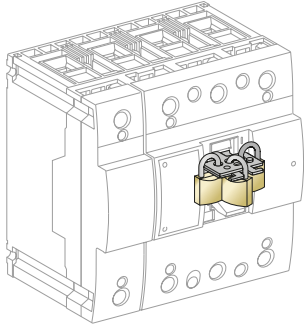
<p>Transparent terminal shields</p> <p>DB432421.AI</p> 	<p>Interphase barriers</p> <p>DB432422.eps</p> 	<p>Rear insulating screens</p> <p>DB432423.eps</p> 
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Substitution guide

From Compact NG160 ... Accessories

> Locking

DB432424.eps



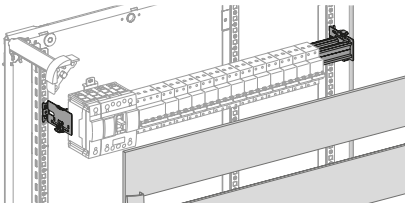
Toggle locking using a removable device

- > The circuit breaker can be locked in OFF position by fitting a removable accessory on the toggle.
- > This locking system complies with the isolation requirements of IEC 60947-2.

> Installation

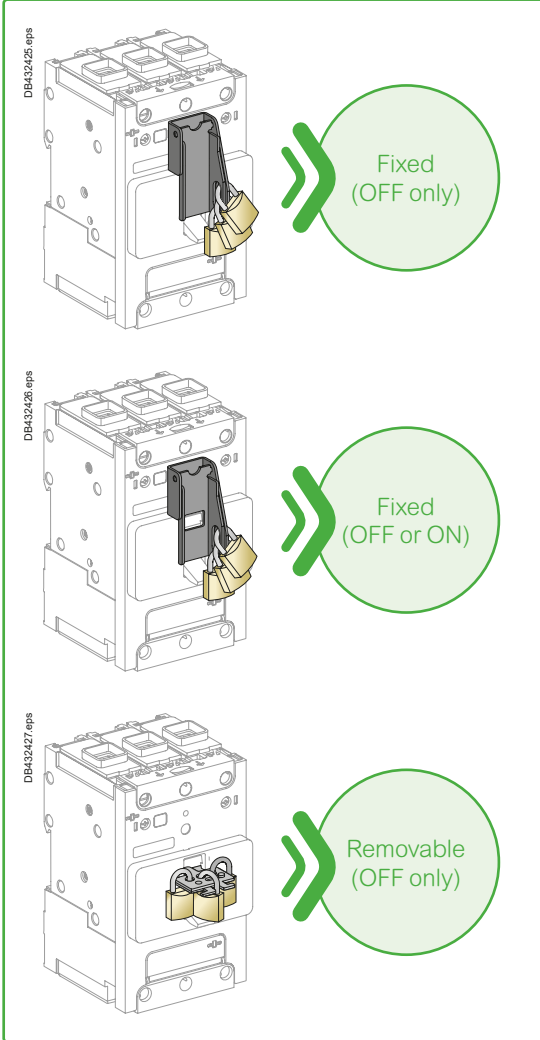
On DIN rail

DB432428.eps



> Locking

Handle padlocking device



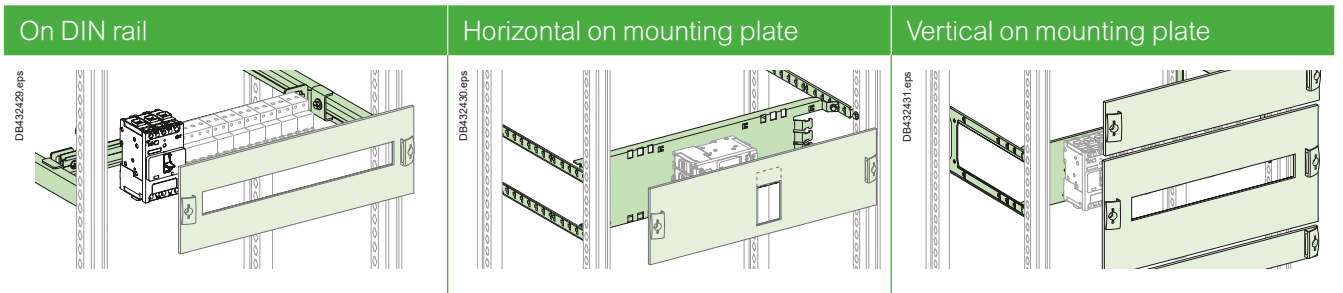
Locks

- > Padlocking systems can receive up to three padlocks with diameters of 5-8 mm ; padlocks not supplied.
- > Locking in the OFF position guarantees isolation as per IEC 60947-2.

Control device	Function	Means	Required accessories
Toggle	Lock in OFF position	Padlock	Removable device
	Lock in OFF or ON position	Padlock	Fixed device
	Lock in OFF position	Padlock	Fixed device
Direct rotary handle ^[1]	Lock in ■ OFF position ■ OFF or ON position ^[2]	Padlock	-
Extended/side rotary handle ^[1]	Lock in ■ OFF position ■ OFF or ON position ^[3] with door opening prevented	Padlock	-

[1] Rotary handle has integrated padlocking capability.
 [2] Following a simple modification of the mechanism.
 [3] Following a simple modification of the mechanism - black handle only.

> Installation



From Compact NG160 to Compact NSXm

References

Current reference	Designation	Substituted by	Designation
28265	Switch-disconnector Compact NG160NA 3P 160 A	LV426602 ^[1]	Switch-disconnector Compact NSXm NA 3P 160 A
28267	Switch-disconnector Compact NG160NA 4P 160 A	LV426612 ^[2]	Switch-disconnector Compact NSXm NA 4P 160 A
28600	CB Compact NG160E (16kA at 380/415V) 3P TMD160A	LV426109	CB Compact NSXm E (16kA at 380/415V) 3P TMD160A
28601	CB Compact NG160E (16kA at 380/415V) 3P TMD125A	LV426108	CB Compact NSXm E (16kA at 380/415V) 3P TMD125A
28602	CB Compact NG160E (16kA at 380/415V) 3P TMD100A	LV426107	CB Compact NSXm E (16kA at 380/415V) 3P TMD100A
28603	CB Compact NG160E (16kA at 380/415V) 3P TMD80A	LV426106	CB Compact NSXm E (16kA at 380/415V) 3P TMD80A
28604	CB Compact NG160E (16kA at 380/415V) 3P TMD63A	LV426105	CB Compact NSXm E (16kA at 380/415V) 3P TMD63A
28605	CB Compact NG160E (16kA at 380/415V) 3P TMD50A	LV426104	CB Compact NSXm E (16kA at 380/415V) 3P TMD50A
28606	CB Compact NG160E (16kA at 380/415V) 3P TMD40A	LV426103	CB Compact NSXm E (16kA at 380/415V) 3P TMD40A
28607	CB Compact NG160E (16kA at 380/415V) 3P TMD32A	LV426102	CB Compact NSXm E (16kA at 380/415V) 3P TMD32A
28608	CB Compact NG160E (16kA at 380/415V) 3P TMD25A	LV426101	CB Compact NSXm E (16kA at 380/415V) 3P TMD25A
28609	CB Compact NG160E (16kA at 380/415V) 3P TMD16A	LV426100	CB Compact NSXm E (16kA at 380/415V) 3P TMD16A
28610	CB Compact NG160E (16kA at 380/415V) 4P TMD160A	LV426129	CB Compact NSXm E (16kA at 380/415V) 4P TMD160A
28611	CB Compact NG160E (16kA at 380/415V) 4P TMD125A	LV426128	CB Compact NSXm E (16kA at 380/415V) 4P TMD125A
28612	CB Compact NG160E (16kA at 380/415V) 4P TMD100A	LV426127	CB Compact NSXm E (16kA at 380/415V) 4P TMD100A
28613	CB Compact NG160E (16kA at 380/415V) 4P TMD80A	LV426126	CB Compact NSXm E (16kA at 380/415V) 4P TMD80A
28614	CB Compact NG160E (16kA at 380/415V) 4P TMD63A	LV426125	CB Compact NSXm E (16kA at 380/415V) 4P TMD63A
28615	CB Compact NG160E (16kA at 380/415V) 4P TMD50A	LV426124	CB Compact NSXm E (16kA at 380/415V) 4P TMD50A
28616	CB Compact NG160E (16kA at 380/415V) 4P TMD40A	LV426123	CB Compact NSXm E (16kA at 380/415V) 4P TMD40A
28617	CB Compact NG160E (16kA at 380/415V) 4P TMD32A	LV426122	CB Compact NSXm E (16kA at 380/415V) 4P TMD32A
28618	CB Compact NG160E (16kA at 380/415V) 4P TMD25A	LV426121	CB Compact NSXm E (16kA at 380/415V) 4P TMD25A
28619	CB Compact NG160E (16kA at 380/415V) 4P TMD16A	LV426120	CB Compact NSXm E (16kA at 380/415V) 4P TMD16A
28620	CB Compact NG160N (25kA at 380/415V) 3P TMD160A	LV426209	CB Compact NSXm B (25kA at 380/415V) 3P TMD160A
28621	CB Compact NG160N (25kA at 380/415V) 3P TMD125A	LV426208	CB Compact NSXm B (25kA at 380/415V) 3P TMD125A
28622	CB Compact NG160N (25kA at 380/415V) 3P TMD100A	LV426207	CB Compact NSXm B (25kA at 380/415V) 3P TMD100A
28623	CB Compact NG160N (25kA at 380/415V) 3P TMD80A	LV426206	CB Compact NSXm B (25kA at 380/415V) 3P TMD80A
28624	CB Compact NG160N (25kA at 380/415V) 3P TMD63A	LV426205	CB Compact NSXm B (25kA at 380/415V) 3P TMD63A
28625	CB Compact NG160N (25kA at 380/415V) 3P TMD50A	LV426204	CB Compact NSXm B (25kA at 380/415V) 3P TMD50A
28626	CB Compact NG160N (25kA at 380/415V) 3P TMD40A	LV426203	CB Compact NSXm B (25kA at 380/415V) 3P TMD40A
28627	CB Compact NG160N (25kA at 380/415V) 3P TMD32A	LV426202	CB Compact NSXm B (25kA at 380/415V) 3P TMD32A
28628	CB Compact NG160N (25kA at 380/415V) 3P TMD25A	LV426201	CB Compact NSXm B (25kA at 380/415V) 3P TMD25A
28629	CB Compact NG160N (25kA at 380/415V) 3P TMD16A	LV426200	CB Compact NSXm B (25kA at 380/415V) 3P TMD16A
28630	CB Compact NG160N (25kA at 380/415V) 4P TMD160A	LV426229	CB Compact NSXm B (25kA at 380/415V) 4P TMD160A
28631	CB Compact NG160N (25kA at 380/415V) 4P TMD125A	LV426228	CB Compact NSXm B (25kA at 380/415V) 4P TMD125A
28632	CB Compact NG160N (25kA at 380/415V) 4P TMD100A	LV426227	CB Compact NSXm B (25kA at 380/415V) 4P TMD100A
28633	CB Compact NG160N (25kA at 380/415V) 4P TMD80A	LV426226	CB Compact NSXm B (25kA at 380/415V) 4P TMD80A
28634	CB Compact NG160N (25kA at 380/415V) 4P TMD63A	LV426225	CB Compact NSXm B (25kA at 380/415V) 4P TMD63A
28635	CB Compact NG160N (25kA at 380/415V) 4P TMD50A	LV426224	CB Compact NSXm B (25kA at 380/415V) 4P TMD50A
28636	CB Compact NG160N (25kA at 380/415V) 4P TMD40A	LV426223	CB Compact NSXm B (25kA at 380/415V) 4P TMD40A
28637	CB Compact NG160N (25kA at 380/415V) 4P TMD32A	LV426222	CB Compact NSXm B (25kA at 380/415V) 4P TMD32A
28638	CB Compact NG160N (25kA at 380/415V) 4P TMD25A	LV426221	CB Compact NSXm B (25kA at 380/415V) 4P TMD25A
28639	CB Compact NG160N (25kA at 380/415V) 4P TMD16A	LV426220	CB Compact NSXm B (25kA at 380/415V) 4P TMD16A
28640	CB Compact NG160H (36kA at 380/415V) 3P TMD160A	LV426309	CB Compact NSXm F (36kA at 380/415V) 3P TMD160A
28641	CB Compact NG160H (36kA at 380/415V) 3P TMD125A	LV426308	CB Compact NSXm F (36kA at 380/415V) 3P TMD125A
28642	CB Compact NG160H (36kA at 380/415V) 3P TMD100A	LV426307	CB Compact NSXm F (36kA at 380/415V) 3P TMD100A
28643	CB Compact NG160H (36kA at 380/415V) 3P TMD80A	LV426306	CB Compact NSXm F (36kA at 380/415V) 3P TMD80A
28644	CB Compact NG160H (36kA at 380/415V) 3P TMD63A	LV426305	CB Compact NSXm F (36kA at 380/415V) 3P TMD63A
28645	CB Compact NG160H (36kA at 380/415V) 3P TMD50A	LV426304	CB Compact NSXm F (36kA at 380/415V) 3P TMD50A
28646	CB Compact NG160H (36kA at 380/415V) 3P TMD40A	LV426303	CB Compact NSXm F (36kA at 380/415V) 3P TMD40A
28647	CB Compact NG160H (36kA at 380/415V) 3P TMD32A	LV426302	CB Compact NSXm F (36kA at 380/415V) 3P TMD32A
28648	CB Compact NG160H (36kA at 380/415V) 3P TMD25A	LV426301	CB Compact NSXm F (36kA at 380/415V) 3P TMD25A
28649	CB Compact NG160H (36kA at 380/415V) 3P TMD16A	LV426300	CB Compact NSXm F (36kA at 380/415V) 3P TMD16A
28650	CB Compact NG160H (36kA at 380/415V) 4P TMD160A	LV426329	CB Compact NSXm F (36kA at 380/415V) 4P TMD160A
28651	CB Compact NG160H (36kA at 380/415V) 4P TMD125A	LV426328	CB Compact NSXm F (36kA at 380/415V) 4P TMD125A
28652	CB Compact NG160H (36kA at 380/415V) 4P TMD100A	LV426327	CB Compact NSXm F (36kA at 380/415V) 4P TMD100A
28653	CB Compact NG160H (36kA at 380/415V) 4P TMD80A	LV426326	CB Compact NSXm F (36kA at 380/415V) 4P TMD80A

[1] 100 A is also proposed: LV426601.

[2] 100 A is also proposed: LV426611.

Substitution guide

From Compact NG160 to Compact NSXm

References

Current reference	Designation	Substituted by	Designation
28654	CB Compact NG160H (36kA at 380/415V) 4P TMD63A	LV426325	CB Compact NSXm F (36kA at 380/415V) 4P TMD63A
28655	CB Compact NG160H (36kA at 380/415V) 4P TMD50A	LV426324	CB Compact NSXm F (36kA at 380/415V) 4P TMD50A
28656	CB Compact NG160H (36kA at 380/415V) 4P TMD40A	LV426323	CB Compact NSXm F (36kA at 380/415V) 4P TMD40A
28657	CB Compact NG160H (36kA at 380/415V) 4P TMD32A	LV426322	CB Compact NSXm F (36kA at 380/415V) 4P TMD32A
28658	CB Compact NG160H (36kA at 380/415V) 4P TMD25A	LV426321	CB Compact NSXm F (36kA at 380/415V) 4P TMD25A
28659	CB Compact NG160H (36kA at 380/415V) 4P TMD16A	LV426320	CB Compact NSXm F (36kA at 380/415V) 4P TMD16A
28034	Long terminal shield (1 pair) 3P	LV426912	Long terminal shield (1 pair) 3P
28035	Long terminal shield (1 pair) 4P	LV426913	Long terminal shield (1 pair) 4P
28060	Extended Rotary handle black	LV426933	Extended Rotary handle black
28061	Extended Rotary handle red	LV426932	Extended Rotary handle red
28070	MX Voltage release AC 48V	LV426842	MX Voltage release AC 48V
28071	MX Voltage release AC 110/130V	LV426843	MX Voltage release AC 110/130V
28072	MX Voltage release AC 220/240V	LV426844	MX Voltage release AC 220/240V
28073	MX Voltage release AC 380/415V	LV426846	MX Voltage release AC 380/415V
28074	MX Voltage release AC 440/480V	LV426846	MX Voltage release AC 440/480V
28075	MX Voltage release DC 24V	LV426841	MX Voltage release DC 24V
28076	MX Voltage release DC 48V	LV426842	MX Voltage release DC 48V
28077	MX Voltage release DC 110/125V	LV426843	MX Voltage release DC 110/125V
28078	MX Voltage release DC 250V	LV426844	MX Voltage release DC 250V
28080	MN Voltage release AC 48V	LV426802	MN Voltage release AC 48V
28081	MN Voltage release AC 110/130V	LV426803	MN Voltage release AC 110/130V
28082	MN Voltage release AC 220/240V	LV426804	MN Voltage release AC 220/240V
28083	MN Voltage release AC 380/415V	LV426806	MN Voltage release AC 380/415V
28084	MN Voltage release AC 440/480V	LV426807	MN Voltage release AC 440/480V
28085	MN Voltage release DC 24V	LV426801	MN Voltage release DC 24V
28086	MN Voltage release DC 48V	LV426802	MN Voltage release DC 48V
28087	MN Voltage release DC 125V	LV426803	MN Voltage release DC 125V
28088	MN Voltage release DC 250V	LV426811	MN Voltage release DC 250V
28310	Add-on Vigi-module Bottom out 3P	LV426713 ^[3]	ELCB ^[7] Compact NSXm B (25kA at 380/415V) 3P TMD160A
28311	Add-on Vigi-module Bottom out 4P	LV426718 ^[4]	ELCB ^[7] Compact NSXm B (25kA at 380/415V) 4P TMD160A
28312	Add-on Vigi-module Top out 3P	LV426723 ^[5]	ELCB ^[7] Compact NSXm F (36kA at 380/415V) 3P TMD160A
28313	Add-on Vigi-module Top out 4P	LV426728 ^[6]	ELCB ^[7] Compact NSXm F (36kA at 380/415V) 4P TMD160A

[3] 100A - 25kA is also proposed: LV426712.

[4] 100A - 25kA is also proposed: LV426717.

[5] 100A - 36kA is also proposed: LV426722.

[6] 100A - 36kA is also proposed: LV426727.

[7] ELCB: Earth Leakage Circuit breaker.

All references of Circuit Breakers are proposed with Everlink connectors.

For any further information, please refer to catalogue Compact NSXm: [LVPED217032EN](#)





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