



Compact NSX & NSXm

Catalogue 2018

Moulded-case circuit breakers
and switch-disconnectors
from 16 to 630 A - up to 690 V



• WEB1 cat.2018

schneider-electric.com

Life Is On

Schneider
Electric



Green Premium™

Endorsing eco-friendly products in the industry



Green Premium™ Product

Green Premium is the only label that allows you to effectively develop and promote an environmental policy whilst preserving your business efficiency. This ecolabel guarantees compliance with up-to-date environmental regulations, but it does more than this.

Over 75% of Schneider Electric manufactured products have been awarded the Green Premium ecolabel



Discover what we mean by green ...

Check your products!

Schneider Electric's Green Premium ecolabel is committed to offering transparency, by disclosing extensive and reliable information related to the environmental impact of its products:

RoHS

Schneider Electric products are subject to RoHS requirements at a worldwide level, even for the many products that are not required to comply with the terms of the regulation. Compliance certificates are available for products that fulfil the criteria of this European initiative, which aims to eliminate hazardous substances.

REACH

Schneider Electric applies the strict REACH regulation on its products at a worldwide level, and discloses extensive information concerning the presence of SVHC (Substances of Very High Concern) in all of its products.

PEP: Product Environmental Profile

Schneider Electric publishes complete set of environmental data, including carbon footprint and energy consumption data for each of the lifecycle phases on all of its products, in compliance with the ISO 14025 PEP ecopassport program. PEP is especially useful for monitoring, controlling, saving energy, and/or reducing carbon emissions.

EoLI: End of Life Instructions

Available at the click of a button, these instructions provide:

- Recyclability rates for Schneider Electric products.
- Guidance to mitigate personnel hazards during the dismantling of products and before recycling operations.
- Parts identification for recycling or for selective treatment, to mitigate environmental hazards/ incompatibility with standard recycling processes.

Life Is On

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Electric

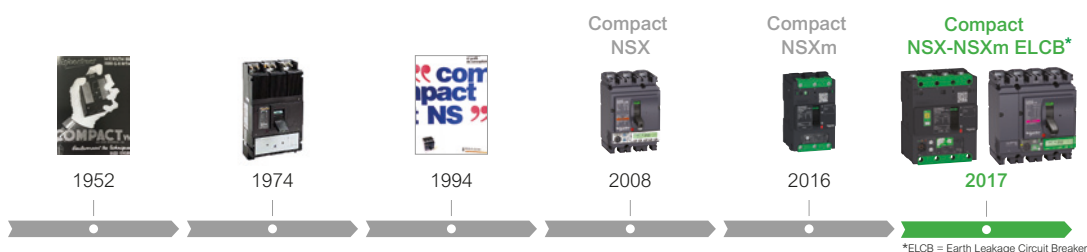
Compact NSX and NSXm Molded case circuit breakers



The world is becoming more electric, digitized, decarbonized and decentralized. Our digitized LV products are powered by innovation at every level enabling enhanced connectivity, real-time operations and smart analytics. They bring improved safety and security. They help you to improve reliability and performance – and to prepare for the future of power distribution.

Built on 60 years of innovative and reliable protection, Compact™ NSX molded case circuit breakers up to 630A are the industry leader across the globe. The newcomer to the Compact family, the NSXm, is bringing more innovation and an ergonomic design. The comprehensive and optimized Compact NSX and NSXm range of circuit breakers covers all your protection needs.

Compact is an integral part of EcoStruxure™ Power – Schneider's open, interoperable, IoT-enabled system architecture. Through this platform, we deliver enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers. We leverage technologies in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level. This includes Connected Products, Edge Control, and Apps, Analytics & Services. EcoStruxure has been deployed in 450,000+ installations, with the support of 9,000 system integrators, connecting over 1 billion devices.



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Watch the video

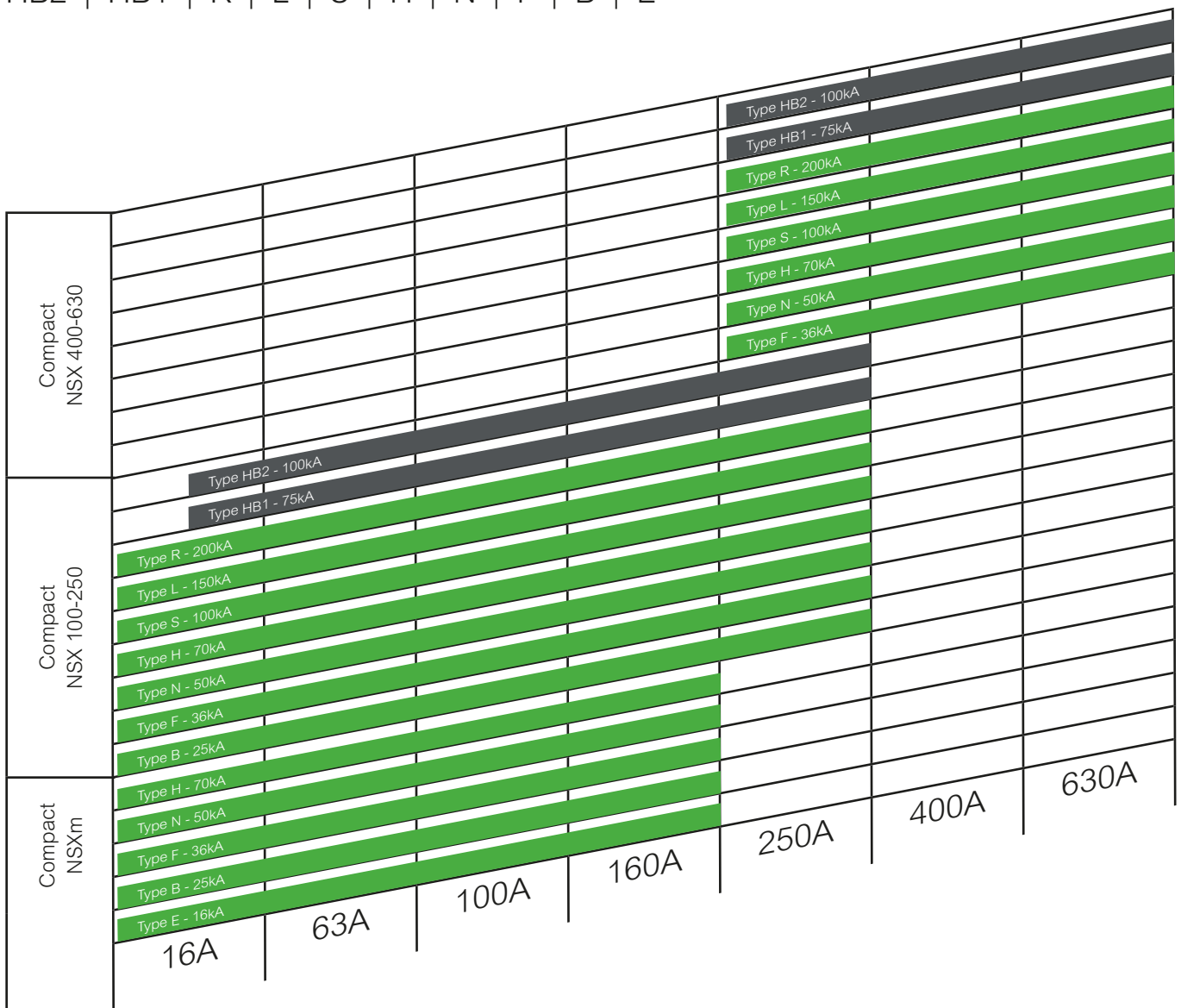
Compact NSX and NSXm, even more innovative and efficient

Compact circuit breakers feature Schneider Electric's exclusive Roto-Active Breaking System; it reduces the effects of short circuits of your installation.

Today, the Compact range is optimized with a high level of breaking capacities, outstanding discrimination and cascading. It offers more advanced functions and ergonomic designs for easy installation and operations.

Ten performance levels

HB2 | HB1 | R | L | S | H | N | F | B | E



Icu = (kA rms) at 690V AC
 Icu = (kA rms) at 415V AC

Brand new innovation: add functions to your panel with the same footprint

The smallest earth leakage circuit breaker*:



Compact NSXm with Micrologic Vigi 4.1 embedded:

- Save space: earth leakage protection in the MCCB frame size
- For safety and security: thermal, short-circuit and earth leakage protection
- Trip alarming contacts: earth leakage, thermal, short circuit
- Pre Alarm contact: for earth leakage at 50% I_{Δn}



Compact NSX with Micrologic Vigi 4:

- Save space: earth leakage protection in the MCCB frame size
- For safety and security: thermal, short-circuit and earth leakage protection
- Easy to use, the system is simplified with the same frame size and for the same panel support
- Trip alarming contacts: earth leakage, thermal, short circuit.
- Micrologic "Alarm" version: signals the earth leakage fault without tripping



Compact NSX with Micrologic Vigi 7 E:

- Save space: earth leakage protection in the MCCB frame size.
- Trip alarming: earth leakage, thermal, short circuit
- Pre Alarm function (contact or COM): for earth leakage from 50 to 80% I_{Δn}
- Digital capability with COM and Data management (settings, measurement, trip & test history)
- Earth leakage function self-test without tripping for all the electronic chain
- Micrologic "Alarm" version: signals the earth leakage fault without tripping



* Embedded earth leakage protection in Compact NSX and NSXm comes with additional overload and short-circuit protection.

With EcoStruxure Power, your electrical system has something to say



Give it a voice with Smart Panels, an EcoStruxure Power solution. Improve uptime with our integrated energy and asset-monitoring technologies. By combining cutting-edge hardware and software with unparalleled connectivity, Smart Panels enable you to pinpoint overloads and inefficiencies proactively, make informed decisions that improve operational efficiency ... and finally stop chasing vague alarms.

Compact NSX with Micrologic 5, 6 and 7 E contributes to energy efficiency.

1. Measure



Monitor power usage, power quality, and asset status, and discover opportunities to save energy.

2. Connect



Because Smart Panels connect via Ethernet, they use minimal bandwidth and allow you to monitor your building in real time.

3. Act



Comprehensive data and detailed email alerts help you proactively increase operational efficiency, energy efficiency, reliability, and safety.

With Compact NSX, upgrade quickly to smarter functions

The trip units are interchangeable, you remain flexible to upgrade your panel from basic to advanced functions. You can also add PowerTag NSX to your basic circuit breakers in order to have energy measurement and alarming.



As Compact NSX is part of the Smart Panels system, all measurement provided by Compact NSX can be digitized for transmission to local and remote management software and solutions.

When incorporated into Smart Panels, these data can be computed by energy management software, enabling thorough analysis of energy consumptions across the building and identification of potential savings.

With Compact NSX, address high-demanding applications

Compact NSX remains the highest-rated breaking capacity in its class:

- 100kA at 690V.
- Extended breaking capacity comes in the same space-saving frame sizes as Compact NSX models.



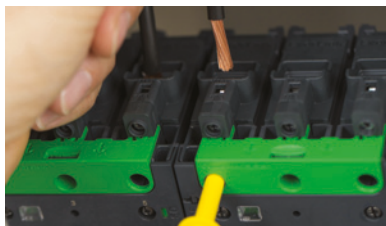
With Compact NSXm, experience efficiency that clicks

Compact NSXm, optimized for your needs:

The Compact NSXm range of circuit breakers and switch disconnectors is a new comer in the Compact NSX family. It is one of the smallest on the market with innovative features.

It features:

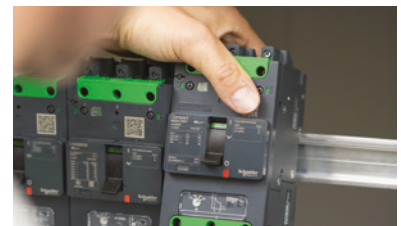
- EverLink connectors
- Spring type auxiliaries externally visible
- Built-in DIN rail and plate mount capability



Improving wiring efficiency
Reliable connections with patented and proven EverLink™ Technology.



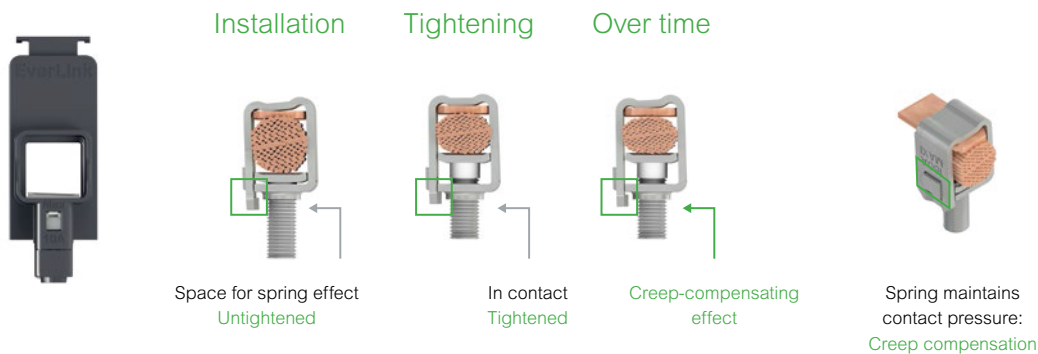
One-click auxiliaries
Field-installable, externally visible, and easy to wire.



Flexible installation
Click your breaker into place with built-in DIN rail and plate mount capability

EverLink Patented Technology

EverLink is a new connection method on circuit breakers with patented creep compensation technology built directly into the terminal. Bare cables are safe as compression lugs and you save space and time in your panel assembly.



With Compact NSX and NSXm, cover all standard and specific applications



Schneider Electric helps on your work every step of the way

1 Design

Ecodial software

Single-line diagram design software that calculates and sizes your electric installation.

Ecoreal software

Quick configuration and quotation tool for switchboards.

3 Build

Build faster

Flexible installation in your switchboards, EverLink patented connectors for easy, safe and reliable cable connections. Work with field-installable accessories and auxiliaries.



4 Operate and maintain

Upgrade and support

Upgrade your installation with smarter functions.

Quick access to customer care center and expert support.

Continuity of service

Bring the best solution to your customer.

2 Configure and order

MyPact

Configure and order Compact NSX and Compact NSXm and ensure accuracy.

General contents

Compact NSXm & NSX

Presentation

Select your circuit breakers and switch-disconnectors

Select your protection

Customize your circuit breaker with accessories

Smart Panel integration

Switchboard integration

Catalogue numbers

Glossary

Additional characteristics

A

B

C

D

E

F

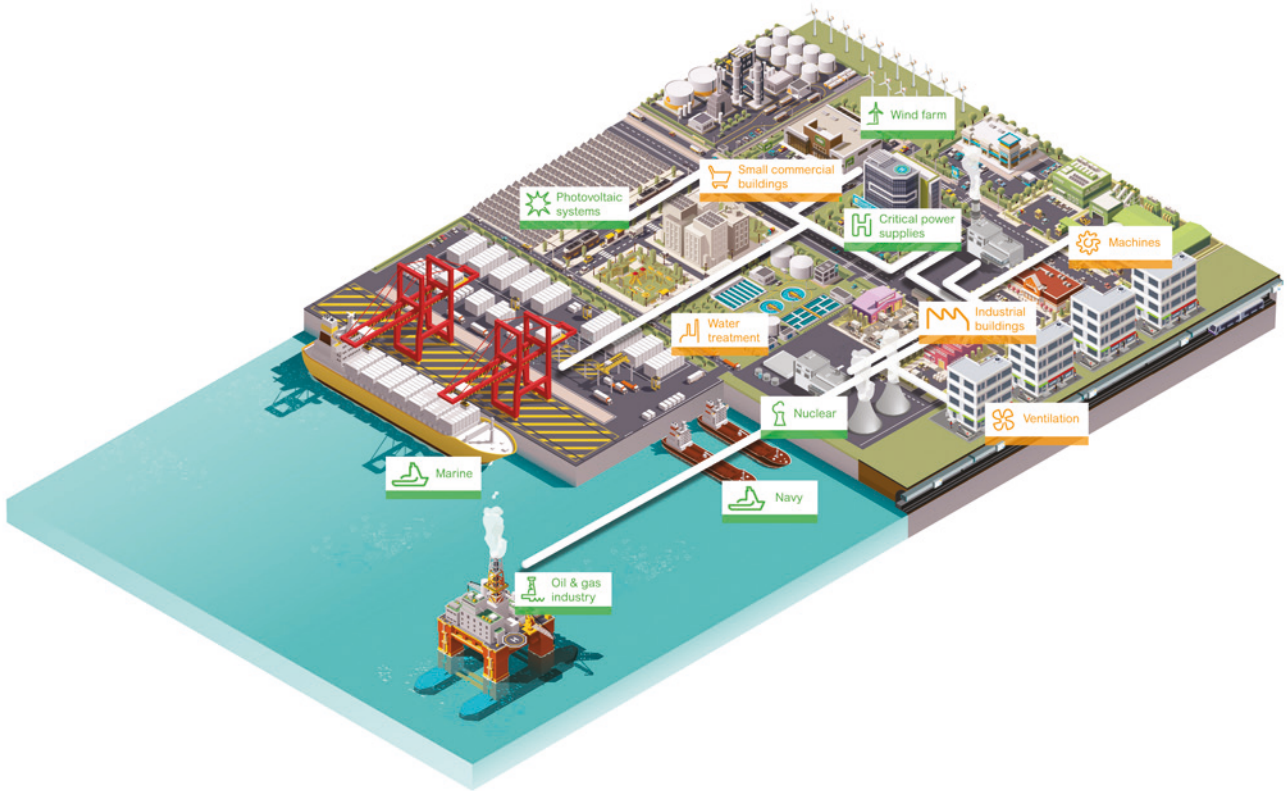
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Compact NSXm & NSX

Overview of applications

The Compact NSX and NSXm circuit breakers and switch-disconnectors are the best choice for all standards and specific applications.



> Compact INS/INV [a]



LVPED213024EN

> Fupact [a]



LVPED216031EN

> Substitution and technical guide Compact NSX high performances [b]



LVPED508025EN

> Compact NSX, Compact INS/INV, Masterpact NW DC - DC PV [c]



LVPED208006EN

> Transferpact (source-changeover systems [d])



LVPED216028EN

> Complementary technical information



LVPED308005EN

Compact NSXm & NSX

Overview of applications

Buildings

Compact NSXm devices up to 160 A (70 kA/415 V) are equipped with thermal magnetic trip units.

Compact NSX devices up to 630 A (200kA/415V) are equipped with Magnetic, Thermal Magnetic, basic electronic trip units (Micrologic 2) and advanced electronic trip units (Micrologic 5/6) which offer embedded metering and communication.

Both devices can protect against insulation faults thanks to their embedded earth leakage protection.

Compact NSXm & NSX can be easily installed at all levels in distribution systems, from main LV switchboard to the subdistribution boards and enclosures.

Industrial buildings, Machines, Ventilation and Water Treatment

The Compact NSX range includes a number of versions to protect motor applications:

- basic short-circuit protection with MA magnetic trip units or the electronic Micrologic 1-M version, combined with an external relay to provide thermal protection

- protection against overloads, short-circuits with additional motor-specific protection (phase unbalance, locked rotor, underload and long start) with Micrologic 6 E-M trip units.

These versions also offer communication, metering and operating assistance.

The exceptional limiting capacity of Compact NSX circuit breakers automatically provides type-2 coordination with the motor starter, in compliance with standard IEC 60947-4-1.

Buildings and Industrial buildings

A switch-disconnector version of Compact NSXm & NSX circuit breakers is available for circuit control and isolation. All add-on functions of both circuit breakers may be combine with the basic switch-disconnector function.

For information on other switch-disconnector ranges, see the Compact INS/INV catalog and for fusegear protection see Fupact catalog ^[a].

Marine

Compact NSX HB1/HB2 up to 630 A circuit breakers have the best-in-class breaking capacity for Marine applications (100 kA/690 V).

Devices can be equipped with Thermal Magnetic, basic electronic trip units (Micrologic 2) and advanced electronic trip units (Micrologic 5/6) which offer embedded metering and communication.

Standard Compact NSX breakers AC and DC ranges can be used for military navy inside the main and emergency switchboards ^[b].

Special applications

The Compact NSX range offers a number of versions for special protection applications:

- Service connection to public distribution systems
- Generators
- Industrial control panels
- 16 Hz 2/3 systems
- 400 Hz systems ^[1].

For all these applications, circuit breakers in the Compact NSX range offer positive contact indication and are suitable for isolation in accordance with standards IEC 60947-1 and 2.

[1] Compact NSXm maybe used on 400 Hz systems.

Photovoltaic

Compact NSX DC PV range up to 500 A (1000V DC) is the best choice for photovoltaic generation from 10 kW to 500 kW.

Circuit breakers can be used for over-current protection.

Circuit breakers and switches can be used for isolation during maintenance phase

Compact NSX is part of a Schneider Electric photovoltaic architecture which offers AC and DC protection, control and metering, inverters for DC to AC voltages and PV modules ^[c].

Oil & Gas

Compact NSX up to 630 A offers the Highest breaking capacity in its class mainly required in Oil&Gas industry:

- up to 100 kA at 690 V

- up to 200 kA at 415 V.

Devices can be equipped with Thermal Magnetic, basic electronic trip units (Micrologic 2) and advanced electronic trip units (Micrologic 5/6) which offer embedded metering and communication

Compact NSX range offers outstanding discrimination at 415 V and 690 V ^[b].

Critical Power Supplies

Compact NSX DC range up to 1200 A (5 kA/600 V DC) perfectly meets the requirements of UPS manufacturers keeping the same compact footprint as the standard Compact NSX range.

Batteries are usually used for emergency power supply and circuit breakers are used to protect the battery circuit (between the battery and the circuit) ^[c].

To ensure a continuous supply of power, some electrical installations are connected to two power sources ^[d]:

- a normal source

- a replacement source to supply the installation when the normal source is not available.

A mechanical and/or electrical interlocking system between two circuit breakers or switch-disconnectors avoids all risk of parallel connection of the sources during switching.

A source-changeover system can be:

- manual with mechanical device interlocking

- remote controlled with mechnaical and/or electrical device interlocking

- automatic by adding a controller to manage switching from one source to the other on the basis of external parameters.



Select your circuit breakers and switch-disconnectors



Characteristics and performance

- Compact NSXm circuit breakers from 16 to 160 A up to 690 V A-2
- Compact NSX circuit breakers from 100 to 250 A up to 690 V A-4
- Compact NSX circuit breakers from 400 to 630 A up to 690 V A-8
- Compact NSXm switch-disconnectors from 50 to 160 A NA A-10
- Compact NSX switch-disconnectors from 100 to 630 A NA A-12

General characteristics of the Compact range..... A-14

Compact NSX special applications

- High performances at 690 V..... A-16

Other chapters

- Select your protection B-1
- Customize your circuit breaker with accessories C-1
- Smart Panel integration D-1
- Switchboard integration E-1
- Catalogue numbers F-1
- Glossary G-1
- Additional characteristics H-1

Characteristics and performance

Compact NSXm circuit breakers from 16 to 160 A up to 690 V

A

PB114894_L=41 eps



Compact NSXm.

Common characteristics

Rated voltages	Insulation voltage (V)	Ui	800
	Insulation voltage for ELCB [1] (V)	Ui	500
	Impulse withstand voltage (kV)	Uimp	8
	Operational voltage (V)	Ue AC 50/60 Hz	690
	Operational voltage for ELCB [1] (V)	Ue AC 50/60 Hz	440
Suitability for isolation	IEC/EN 60947-2		yes
Utilisation category			A
Pollution degree	IEC 60664-1		3

Circuit breakers

Breaking capacity levels

Breaking capacity (kA rms)

Icu	AC 50/60 Hz	220...240 V
		380...415 V
		440 V
		500 V
		525 V
		660...690 V

Service breaking capacity (kA rms)

Ics	AC 50/60 Hz	220...240 V
		380...415 V
		440 V
		500 V
		525 V
		660...690 V

Durability (C-O cycles)

Mechanical

Electrical

440 V	In/2
	In
690 V	In/2
	In

Protection and measurements

Overload / short-circuit protection	Thermal magnetic
	Electronic with Earth Leakage Protection (ELCB)
Options	Device status/control
	For ELCB [1]: alarming and fault differentiation

Installation / connections

Dimensions and weights

Dimensions (mm)	3P
	4P
W x H x D	ELCB [1]
	3P
	4P
Weight (kg)	ELCB [1]
	3P
	4P

Connections

Pitch (mm)	Standard
	With spreaders
EverLink lug Cu or Al [2] cables	Cross-section (mm ²)
	Rigid
Crimp lugs Cu or Al	Cross-section (mm ²)
	Flexible
	Rigid
	Flexible

Source changeover system

Manual mechanical interlocking

[1] ELCB: Earth Leakage Circuit Breaker (Micrologic Vigi 4.1).

[2] Al up to 100 A.

Characteristics and performance

Compact NSXm circuit breakers from 16 to 160 A up to 690 V

A

Common characteristics

Control	Manual	With toggle	<input checked="" type="radio"/>
		With direct or extended rotary handle	<input checked="" type="radio"/>
		With side rotary handle	<input checked="" type="radio"/>
Versions	Fixed		<input checked="" type="radio"/>

NSXm up to 63 A						NSXm from 80 to 160 A and ELCB [1]				
E	B	F	N	H		E	B	F	N	H
25	50	85	90	100		25	50	85	90	100
16	25	36	50	70		16	25	36	50	70
10	20	35	50	65		10	20	35	50	65
8	10	15	25	30		-	-	-	-	-
-	-	10	15	22		-	-	-	-	-
-	-	-	10	10		-	-	-	-	-
25	50	85	90	100		25	50	85	90	100
16	25	36	50	70		16	25	36	50	70
10	20	30	50	65		10	20	30	50	65
8	10	10	25	30		-	-	-	-	-
-	-	10	15	22		-	-	-	-	-
-	-	-	2.5	2.5		-	-	-	-	-
20000										
20000										
10000										
10000										
5000										
<input checked="" type="radio"/>						<input checked="" type="radio"/>				
<input checked="" type="radio"/>						<input checked="" type="radio"/>				
<input checked="" type="radio"/>										
81 x 137 x 80										
108 x 137 x 80										
108 x 144 x 80										
1.06										
1.42										
1.63										
27										
35										
95										
70										
120										
95										
<input checked="" type="radio"/>						<input checked="" type="radio"/>				

Characteristics and performance

Compact NSX circuit breakers from 100 to 250 A up to 690 V

A



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Compact NSX single-pole.



PB107524_23.eps

Compact NSX two-pole.

Compact circuit breakers

Number of poles		
Control	manual	toggle direct or extended rotary handle
Connections	electric	
	fixed	front connection rear connection
	withdrawable	front connection rear connection

Electrical characteristics as per IEC/EN 60947-2

Rated current (A)	In	40 °C
Rated insulation voltage (V)	Ui	
Rated impulse withstand voltage (kV)	Uimp	
Rated operational voltage (V)	Ue	AC 50/60 Hz DC

Type of circuit breaker

Ultimate breaking capacity (kA rms)	Icu	AC	220/240 V
		50/60 Hz	380/415 V 440 V 500/525 V 660/690 V
Service breaking capacity (kA rms)	Ics	DC	250 V (1P) 500 V (2P)
		% Icu	

Suitability for isolation

Utilisation category

Durability (C-O cycles)	mechanical		
	electrical	277 V	In/2 In

Protection and measurements

Type of trip units

Ratings		In
Overload protection (thermal)	long time threshold	Ir
Short-circuit protection (magnetic)	instantaneous pickup	Im value indicated for AC [1] real value for DC

Add-on earth-leakage protection: Vigi add-on combination with Vigiex relay

Additional indication and control auxiliaries

Indication contacts	
Voltages releases	MX shunt release MN undervoltage release

Installation

Accessories	terminal extensions and spreaders terminal shields and interphase barriers escutcheons
-------------	--

Dimensions (mm)	W x H x D
Weight (kg)	

Source changeover system

Manual mechanical interlocking

[1] The thresholds for TMD and TMG 1-pole and 2-pole magnetic trip units up to 63 A are indicated for AC. The real DC thresholds are indicated on the following line.

Characteristics and performance

Compact NSX circuit breakers from 100 to 250 A up to 690 V

A

NSX100				NSX160				NSX250			
1		2		1		2		1			
⊙		⊙		⊙		⊙		⊙			
-		-		-		-		-			
-		-		-		-		-			
⊙		⊙		⊙		⊙		⊙			
⊙		⊙		⊙		⊙		⊙			
-		-		-		-		-			
-		-		-		-		-			
100		100		160		160		250			
750		750		750		750		750			
8		8		8		8		8			
277		690		277		690		277			
250		500		250		500		-			
F N M		F M S		F N M		F M S		N			
18 25 40		36 85 100		18 25 40		36 85 100		25			
- - -		18 25 70		- - -		18 25 70		-			
- - -		15 25 65		- - -		15 25 65		-			
- - -		10 18 35		- - -		10 18 35		-			
- - -		5 8 10		- - -		5 8 10		-			
36 50 85		36 85 100		36 50 85		36 85 100		-			
- - -		36 85 100		- - -		36 85 100		-			
100 %		100 %		100 %		100 %		100 %			
⊙		⊙		⊙		⊙		⊙			
A		A		A		A		A			
20000		20000		20000		20000		10000			
20000		20000		20000		20000		10000			
10000		10000		10000		10000		5000			
built-in thermal-magnetic				built-in thermal-magnetic				built-in thermal-magnetic			
16 20 25 30 40		50 63 80 100		125 160				160 200 250			
fixed		50 63 80 100		fixed				fixed			
16 20 25 30 40		50 63 80 100		125 160				160 200 250			
fixed		500 500 640 800		fixed				fixed			
190 190 300 300 500		700 700 800 1000		1000 1250				850 850 850			
260 260 400 400 700				1200 1250				- - -			
-		-		-		-		-			
-		⊙		-		⊙		-			
-		⊙		-		⊙		-			
-		⊙		-		⊙		-			
⊙		⊙		⊙		⊙		⊙			
⊙		⊙		⊙		⊙		⊙			
⊙		⊙		⊙		⊙		⊙			
35 x 161 x 86		70 x 161 x 86		35 x 161 x 86		70 x 161 x 86		35 x 161 x 86			
0.7		1.2		0.7		1.2		0.7			
⊙		⊙		⊙		⊙		⊙			

Characteristics and performance

Compact NSX circuit breakers from 100 to 250 A up to 690 V

A

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Compact NSX100/160/250.

PB110408_40.eps



Compact NSX250 R.

PB110420.eps



Compact NSX250 HB2.

[1] OSN: Over Sized Neutral protection for neutrals carrying high currents (e.g. 3rd harmonics).

[2] ZSI: Zone Selective Interlocking using pilot wires.

[3] Vigi add-on is not available for breaking capacity levels HB1/HB2.

[4] There is no 160 A frame, use 250 A frame with lower rating trip units for R, HB1, HB2.

[5] 2P circuit breaker in 3P case for B and F types, only with thermal-magnetic trip unit.

[6] Earth Leakage Circuit Breaker (Micrologic Vigi 4.2 and 7.2 E).

Common characteristics

Rated voltages	Insulation voltage (V)	Ui	800
	Insulation voltage for ELCB [6]	Ui	500
	Impulse withstand voltage (kV)	Uimp	8
	Operational voltage (V)	Ue	AC 50/60 Hz 690
	Operation voltage for ELCB [6]	Ue	AC 50/60 Hz 440
Suitability for isolation		IEC/EN 60947-2	yes
Utilisation category			A
Pollution degree		IEC 60664-1	3

Circuit breakers

Breaking capacity levels

Electrical characteristics as per IEC/EN 60947-2

Rated current (A)	In	40 °C
Number of poles		

Breaking capacity (kA rms)

	Icu	AC 50/60 Hz	220/240 V
			380/415 V
			440 V
			500 V
			525 V
			660/690 V

Service breaking capacity (kA rms)

	Ics	AC 50/60 Hz	220/240 V
			380/415 V
			440 V
			500 V
			525 V
			660/690 V

Durability (C-O cycles)

	Mechanical	Electrical	440 V	In/2	
				In	
				690 V	In/2
				In	

Characteristics as per UL 508

Breaking capacity (kA rms)	AC 50/60 Hz	240 V
		480 V
		600 V

Protection and measurements

Short-circuit protection	Magnetic only
Overload / short-circuit protection	Thermal magnetic
	Electronic
	with neutral protection (Off-0.5-1-OSN) [1]
	with ground-fault protection
	with zone selective interlocking (ZSI) [2]

Display / I, U, f, P, E, THD measurements / interrupted-current measurement

Options	Power Meter display on door
	Operating assistance
	Counters
	Histories and alarms
	Metering Com
	Device status/control Com

Earth-leakage protection

	By Vigi add-on [3]
	By Vigi relay

Installation / connections

Dimensions and weights

Dimensions (mm)	Fixed, front connections	2/3P
	W x H x D	4P
Weight (kg)	Fixed, front connections	2/3P
		4P

Connections

Connection terminals	Pitch	With/without spreaders
Large Cu or Al cables	Cross-section	mm ²

Source-changeover system

Manual mechanical interlocking

Automatic source-changeover

Characteristics and performance

Compact NSX circuit breakers from 400 to 630 A up to 690 V

A



Compact NSX400/630.



Compact NSX630 R.



Compact NSX630 HB2.

[1] OSN: Over Sized Neutral protection for neutrals carrying high currents (e.g. 3rd harmonics).

[2] ZSI: Zone Selective Interlocking using pilot wires.

[3] Vigi add-on is not available for breaking capacity levels HB1/HB2.

[4] Earth Leakage Circuit Breaker (Micrologic Vigi 4.3 and 7.3 E)

Common characteristics

Rated voltages	Insulation voltage (V)	Ui	800
	Insulation voltage for ELCB [4]		500
	Impulse withstand voltage (kV)	Uimp	8
	Operational voltage (V)	Ue AC 50/60 Hz	690
	Operation voltage for ELCB [4]	Ue AC 50/60 Hz	440
Suitability for isolation		IEC/EN 60947-2	yes
Utilisation category			A
Pollution degree		IEC 60664-1	3

Circuit breakers

Breaking capacity levels

Electrical characteristics as per IEC/EN 60947-2

Rated current (A)	In	40 °C
Number of poles		
Breaking capacity (kA rms)	Icu	AC 50/60 Hz
		220/240 V
		380/415 V
		440 V
		500 V
		525 V
		660/690 V

Service breaking capacity (kA rms)

	Ics	AC 50/60 Hz
		220/240 V
		380/415 V
		440 V
		500 V
		525 V
		660/690 V
Durability (C-O cycles)		Mechanical
		Electrical
		440 V
		In/2
		690 V
		In/2
		In

Characteristics as per UL 508

Breaking capacity (kA rms)	AC 50/60 Hz
	240 V
	480 V
	600 V

Protection and measurements

Short-circuit protection	Magnetic only
Overload / short-circuit protection	Thermal magnetic Electronic
	with neutral protection (Off-0.5-1-OSN) [1]
	with ground-fault protection
	with zone selective interlocking (ZSI) [2]
Display / I, U, f, P, E, THD measurements / interrupted-current measurement	
Options	Power Meter display on door Operating assistance Counters Histories and alarms Metering Com Device status/control Com
Earth-leakage protection	By Vigi add-on [3] By Vigirex relay

Installation / connections

Dimensions and weights

Dimensions (mm) W x H x D	Fixed, front connections	2/3P 4P
Weight (kg)	Fixed, front connections	2/3P 4P

Connections

Connection terminals	Pitch	With/without spreaders
Large Cu or Al cables	Cross-section	mm ²

Source-changeover system

Manual mechanical interlocking

Automatic source-changeover

Characteristics and performance

Compact NSX circuit breakers from 400 to 630 A up to 690 V

A

Common characteristics

Control	Manual	With toggle	<input checked="" type="radio"/>
		With direct or extended rotary handle	<input checked="" type="radio"/>
Versions	Electrical	With remote control	<input checked="" type="radio"/>
	Fixed		<input checked="" type="radio"/>
	Withdrawable	Plug-in base	<input checked="" type="radio"/>
		Chassis	<input checked="" type="radio"/>

NSX400									NSX630								
--------	--	--	--	--	--	--	--	--	--------	--	--	--	--	--	--	--	--

NSX400									NSX630										
F	N	H	S	L	R	HB1	HB2		F	N	H	S	L	R	HB1	HB2	Ir = 225 - 500 A	Ir = 501 - 630 A	
400					400					630					630				
3, 4					3, 4					3, 4					3, 4				
40	85	100	120	150	200	-	-		40	85	100	120	150	200	-	-	200	-	-
36	50	70	100	150	200	-	-		36	50	70	100	150	200	-	-	200	-	-
30	42	65	90	130	200	-	-		30	42	65	90	130	200	-	-	200	-	-
25	30	50	65	70	80	85	100		25	30	50	65	70	80	85	100	80	85	100
20	22	35	40	50	65	80	100		20	22	35	40	50	65	80	100	65	80	100
10	10	20	25	35	45	75	100		10	10	20	25	35	45	75	100	45	75	100
40	85	100	120	150	200	-	-		40	85	100	120	150	200	-	-	200	-	-
36	50	70	100	150	200	-	-		36	50	70	100	150	200	-	-	200	-	-
30	42	65	90	130	200	-	-		30	42	65	90	130	200	-	-	200	-	-
25	30	50	65	70	80	85	100		25	30	50	65	70	80	85	100	80	85	100
10	11	11	12	12	65	80	100		10	11	11	12	12	65	80	100	-	-	-
10	10	10	12	12	45	75	100		10	10	10	12	12	45	75	100	-	-	-
15000					15000				15000					15000					
12000					12000				8000					8000					
6000					6000				4000					4000					
6000					6000				6000					6000					
3000					3000				2000					2000					

85	85	85	-	-	-	-	-		85	85	85	-	-	-	-	-	-	-	-
35	50	65	-	-	-	-	-		35	50	65	-	-	-	-	-	-	-	-
20	10	20	-	-	-	-	-		20	20	20	-	-	-	-	-	-	-	-

<input checked="" type="radio"/>	<input checked="" type="radio"/>
-	-
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<input checked="" type="radio"/>	<input checked="" type="radio"/>
<input checked="" type="radio"/>	<input checked="" type="radio"/>
<input checked="" type="radio"/>	<input checked="" type="radio"/>
<input checked="" type="radio"/>	<input checked="" type="radio"/>

140 x 255 x 110	140 x 255 x 110
185 x 255 x 110	185 x 255 x 110
6.05	6.2
7.90	8.13

45/52.5 mm	45/52.5 mm
45/70 mm	45/70 mm
4 x 240	4 x 240

<input checked="" type="radio"/>	<input checked="" type="radio"/>
<input checked="" type="radio"/>	<input checked="" type="radio"/>

Characteristics and performance

Compact NSXm switch-disconnectors from 50 to 160 A NA

A

Installation standards require upstream protection. However Compact NSXm 50 to 160 NA switch-disconnectors are self-protected by their high-set magnetic release.



Compact NSXm switch-disconnectors.

Common characteristics

Rated voltages	Insulation voltage (V)	Ui	800
	Impulse withstand voltage (kV)	Uimp	8
	Operational voltage (V)	Ue	AC 50/60 Hz 690
Suitability for isolation		IEC/EN 60947-3	yes
Utilisation category		AC 22 A/AC 23 A	
Pollution degree		IEC 60664-1	3

Switch-disconnectors

Electrical characteristics as per IEC/EN 60947-3

Conventional thermal current (A) Ith 40 °C

Number of poles

Operational current (A) depending on the utilisation category	le	AC 50/60 Hz	220/240 V
			380/415 V
			440/480 V
			500/525 V
			660/690 V

Short-circuit making capacity (kA peak)	lcm	min. (switch-disconnector alone) max. (protection by upstream circuit breaker)
---	-----	---

Rated short-time withstand current (A rms)	lcw	for	1 s
			3 s
			20 s

Durability (C-O cycles)	mechanical		
	electrical	AC	
		440 V	le/2
		690 V	le
			le/2
			le

Positive contact indication

Pollution degree

Additional indication and control auxiliaries

Indication contacts

Voltage releases	MX shunt trip release
	MN undervoltage release

Installation / connections

Dimensions and weights

Dimensions (mm)	3P
W x H x D	4P
Weight (kg)	3P
	4P

Connections

Pitch (mm)	Standard
	With spreaders
EverLink lug Cu or Al [1] cables	Cross-section (mm ²)
	Rigid
	Flexible
Crimp lugs Cu or Al	Cross-section (mm ²)
	Rigid
	Flexible

Source-changeover systems

Manual mechanical interlocking

[1] Al up to 100 A.

Characteristics and performance

Compact NSXm switch-disconnectors from 50 to 160 A NA

A

Common characteristics			
Control	Manual	With toggle	<input checked="" type="radio"/>
		With direct or extended rotary handle	<input checked="" type="radio"/>
		With side rotary handle	<input checked="" type="radio"/>
Versions	Fixed		<input checked="" type="radio"/>

	NSXm50NA	NSXm100NA	NSXm160NA
	50	100	160
	3, 4	3, 4	3, 4
	AC22A / AC23A	AC22A / AC23A	AC22A / AC23A
	50	100	160 / 100
	50	100	160 / 100
	50	100	160 / 100
	50	100	160 / 100
	50	100	160 / 100
	1.28	2.13	2.13
	150	150	150
	900	1500	1500
	900	1500	1500
	200	335	335
	20000	20000	20000
	AC22A / AC23A	AC22A / AC23A	AC22A / AC23A
	20000 / 20000	20000 / 20000	20000 / 20000
	10000 / 10000	10000 / 10000	10000 / 10000
	10000 / 6000	10000 / 6000	10000 / 6000
	5000 / 3000	5000 / 3000	5000 / 3000
	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
	3	3	3
	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
	81 x 137 x 80		
	108 x 137 x 80		
	1.06		
	1.42		
	27		
	35		
	95		
	70		
	120		
	95		
	<input checked="" type="radio"/>		

Characteristics and performance

Compact NSX switch-disconnectors from 100 to 630 A NA

Installation standards require upstream protection. However Compact NSX100 to 630 NA switch-disconnectors are self-protected by their high-set magnetic release.

A



Compact NSX100 to 250 NA.



Compact NSX400 to 630 NA.

> Discover our specific switch-disconnectors offer: Compact INS/INV



LVPED213024EN

[1] 2P in 3P case.

Common characteristics

Rated voltages	Insulation voltage (V)	Ui	800
	Impulse withstand voltage (kV)	Uimp	8
	Operational voltage (V)	Ue	AC 50/60 Hz 690
Suitability for isolation		IEC/EN 60947-3	yes
Utilisation category		AC 22 A/AC 23 A - DC 22 A/DC 23 A	
Pollution degree		IEC 60664-1	3

Switch-disconnectors

Electrical characteristics as per IEC/EN 60947-3

Conventional thermal current (A)	Ith 60 °C		
Number of poles			
Operational current (A) depending on Ie the utilisation category		AC 50/60 Hz	
			220/240 V
			380/415 V
			440/480 V
			500/525 V
			660/690 V
		DC	
			250 V (1 pole)
			500 V (2 poles in series)
			750 V (3 poles in series)
Short-circuit making capacity (kA peak)	Icm	min. (switch-disconnector alone)	
		max. (protection by upstream circuit breaker)	
Rated short-time withstand current (A rms)	Icw	for	1 s 3 s 20 s
Durability (C-O cycles)	mechanical		
	electrical	AC	
			440 V In/2
			690 V In
			In/2
			In
		DC	
			250 V (1 pole) and In/2
			500 V (2 poles in series) In

Positive contact indication

Pollution degree

Protection

Add-on earth-leakage protection By Vigi add-on

By Vigiex relay

Additional indication and control auxiliaries

Indication contacts

Voltages releases

MX shunt release

MN undervoltage release

Voltage-presence indicator

Current-transformer module

Ammeter module

Insulation monitoring module

Remote communication by bus

Device-status indication

Device remote operation

Operation counter

Installation / connections

Dimensions (mm) fixed, front connections 2/3P

W x H x D 4P

Weight (kg) fixed, front connections 3P

4P

Source-changeover systems (see chapter on Source-changeover systems)

Manual mechanical interlocking

Automatic source-changeover

Characteristics and performance

Compact NSX switch-disconnectors from 100 to 630 A NA

A

Common characteristics

Control	Manual	With toggle	<input type="radio"/>
		With direct or extended rotary handle	<input type="radio"/>
Versions	Electrical	With remote control	<input type="radio"/>
	Fixed		<input type="radio"/>
	Withdrawable	Plug-in base	<input type="radio"/>
		Chassis	<input type="radio"/>

NSX100NA	NSX160NA	NSX250NA	NSX400NA	NSX630NA
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100	160	250	400	630
2 [1], 3, 4	2 [1], 3, 4	2 [1], 3, 4	3, 4	3, 4
AC22A / AC23A	AC22A / AC23A	AC22A / AC23A	AC22A / AC23A	AC22A / AC23A
100	160	250	400	630
100	160	250	400	630
100	160	250	400	630
100	160	250	400	630
DC22A / DC23A	DC22A / DC23A	DC22A / DC23A	-	-
100	160	250	-	-
100	160	250	-	-
100	160	250	-	-
2.6	3.6	4.9	7.1	8.5
330	330	330	330	330
1800	2500	3500	5000	6000
1800	2500	3500	5000	6000
690	960	1350	1930	2320
50000	40000	20000	15000	15000
AC22A / AC23A	AC22A / AC23A	AC22A / AC23A	AC22A / AC23A	AC22A / AC23A
35000	30000	15000	10000	6000
20000	15000	7500	5000	3000
15000	10000	6000	5000	3000
8000	5000	3000	2500	1500
10000	10000	10000	-	-
5000	5000	5000	-	-
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	3	3	3	3
<input type="radio"/>			<input type="radio"/>	
<input type="radio"/>			<input type="radio"/>	
<input type="radio"/>			<input type="radio"/>	
<input type="radio"/>			<input type="radio"/>	
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<input type="radio"/>			<input type="radio"/>	
<input type="radio"/>			<input type="radio"/>	
<input type="radio"/>			<input type="radio"/>	
105 x 161 x 86			140 x 255 x 110	
140 x 161 x 86			185 x 255 x 110	
1.5 to 1.8			5.2	
2.0 to 2.2			6.8	
<input type="radio"/>			<input type="radio"/>	
<input type="radio"/>			<input type="radio"/>	

Life Is On



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