

Product datasheet

Specifications



Circuit breaker, ComPacT NSX160N, 50kA/415VAC, 4 poles 4D (neutral fully protected), TMD trip unit 80A

C16N4TM080

Main

Range	ComPacT
Product name	ComPacT NSX
Device short name	NSX160N
Product or component type	Circuit breaker
Device application	Distribution
Poles description	4P
Protected poles description	4D
Neutral position	Left
[In] rated current	80 A at 40 °C
[Ue] rated operational voltage	690 V AC 50/60 Hz
Network type	AC
Network frequency	50/60 Hz
Suitability for isolation	Yes conforming to EN/IEC 60947-2
Utilisation category	Category A
Breaking capacity	90 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 50 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 50 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 36 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 35 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 10 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 85 kA Icu at 240 V AC 50/60 Hz conforming to UL 60947-4-1 50 kA Icu at 480 V AC 50/60 Hz conforming to UL 60947-4-1 10 kA Icu at 600 V AC 50/60 Hz conforming to UL 60947-4-1
Breaking capacity code	N 50 kA 415 V AC
Trip unit name	TM-D
Trip unit technology	Thermal-magnetic
Trip unit protection functions	LI
Control type	Toggle
Circuit breaker mounting mode	Fixed

Complementary

[Ui] rated insulation voltage	800 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV

[Ics] rated service breaking capacity	90 kA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 50 kA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 50 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2 36 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2 35 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2 10 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Mechanical durability	40000 cycles
Electrical durability	40000 cycles at 440 V In/2 20000 cycles at 440 V In 15000 cycles at 690 V In/2 7500 cycles at 690 V In
Power dissipation per pole	8.06 W
Mounting support	Backplate
Mounting position	Horizontal and vertical Flat on the back
Upside connection	Front
Downside connection	Front
Connection pitch	35 mm
Protection type	L : for overload protection (thermal) I : for short-circuit protection (magnetic)
Trip unit rating	80 A at 40 °C
Long-time pick-up adjustment type Ir (thermal protection)	Adjustable
[Ir] long-time protection pick-up adjustment range	0.7...1 x In
Long-time protection delay adjustment type tr	Fixed
[tr] long-time delay adjustment range	120...400 s at 1.5 x In 15 s at 6 x Ir
Neutral protection setting	1 x Ir (4D)
Instantaneous protection pick-up adjustment type Ii	Fixed
[Ii] instantaneous protection pick-up adjustment range	640 A
Earth-leakage protection	Without
Number of slots	5 slot(s)
Width (W)	140 mm
Height (H)	161 mm
Depth (D)	86 mm
Net weight	2.6 kg

Environment

Standards	EN/IEC 60947-2
Overvoltage category	III
Electrical shock protection class	Class II on front face
Pollution degree	3 conforming to IEC 60664-1
IP degree of protection	IP40 conforming to IEC 60529
IK degree of protection	IK07 conforming to IEC 62262
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-50...85 °C

Relative humidity	0...95 %
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Operating altitude	0...2000 m without derating 2000 m...5000 m with derating
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Packing Units

Unit Type of Package 1	PCE
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Number of Units in Package 1	1
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Package 1 Height	14 cm
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Package 1 Width	15 cm
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Package 1 Length	19 cm
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Package 1 Weight	2.83 kg
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Unit Type of Package 2	S03
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Number of Units in Package 2	6
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Package 2 Height	30 cm
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Package 2 Width	30 cm
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Package 2 Length	40 cm
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Package 2 Weight	16.98 kg
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Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	152 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	16 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.8 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	130 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	3874e08b-fcb8-4aa9-87c4-d36abebf2833
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
Halogen-free status	Product contains halogen above thresholds
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	54
End of life manual availability	End of Life Information
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Offer Marketing Illustration

Product benefits / Features



ComPacT NSX
Range Accessories

Wireless auxiliary contact

Short terminal shield

Interphase barriers

Long terminal shield

Rotary handles

Standard auxiliary contact

MN undervoltage release

MX shunt release

Standard motor mechanism module

The image displays a collection of nine accessories for the ComPacT NSX circuit breaker range. Each accessory is shown with a small photograph and a corresponding text label. The accessories include: a wireless auxiliary contact (green and black), a short terminal shield (black), interphase barriers (black), a long terminal shield (black), rotary handles (black and green), a standard auxiliary contact (grey), an MN undervoltage release (black), an MX shunt release (yellow and black), and a standard motor mechanism module (black).

Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

ComPacT NSX Moulded Case Circuit Breaker



Protection begins with prevention

Designed to prevent an electrical fire through integrated earth leakage protection with preventive maintenance thanks to its Everlink power connections.



Maximize power availability

By providing corrective, preventive, and predictive maintenance for asset management thanks to our advanced MicroLogic trip units.



Connectivity

Designed to connect to EcoStruxure Power, an IoT-connected architecture for improving every aspect of your power distribution system.



Offer Marketing Illustration

Product benefits / Features



ComPacT NSX
Technical Benefits

- Nominal current: 16 to 630 A and 9 breaking capacities for the 2 sizes of circuit breakers
- 1, 2, 3, and 4 pole versions available
- Large range of electronic and thermal-magnetic protections
- Plug and ready wiring system and communicating accessories
- Integrated earth leakage protection via MicroLogic Vigi (earth leakage circuit breaker - ELCB)
- Advanced trip unit with integrated power metering: I, U, P, E, THD, f, CosPhi

Technical Illustration

Assembly's dimensions

