

Product datasheet

Specifications



Circuit breaker, ComPacT NSX400HB1, 75kA/690VAC, 4 poles, MicroLogic 5.3E trip unit 400A

C40V45E400

Main

Range	ComPacT
Product name	ComPacT NSX
Device short name	NSX400HB1
Product or component type	Circuit breaker
Device application	Distribution
Poles description	4P
Protected poles description	4D 3D + OSN 3D + N/2 3D
Neutral position	Left
[In] rated current	400 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	85 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 80 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 75 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Breaking capacity code	HB1 75 kA 690 V AC
Trip unit name	MicroLogic 5.3 E
Trip unit technology	Electronic
Trip unit protection functions	LSI
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	85 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2 80 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2 75 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Mechanical durability	15000 cycles

Electrical durability	12000 cycles at 440 V In/2 6000 cycles at 440 V In 6000 cycles at 690 V In/2 3000 cycles at 690 V In
Power dissipation per pole	19.2 W
Mounting support	Backplate
Mounting position	Horizontal and vertical Flat on the back
Upside connection	Front
Downside connection	Front
Connection pitch	45 mm
Protection type	L : for overload protection (long time) S : for short time short-circuit protection I : for instantaneous short-circuit protection
Trip unit rating	400 A at 40 °C
Long-time pick-up adjustment type Ir (thermal protection)	Adjustable 9 settings
[Ir] long-time protection pick-up adjustment range	160...400 A
Long-time protection delay adjustment type tr	Adjustable
[tr] long-time delay adjustment range	15...400 s at 1.5 x Ir 0.5...16 s at 6 x Ir 0.35...11 s at 7.2 x Ir
Neutral protection setting	0.5 x Ir (3D + N/2) 1 x Ir (4D) 1.6 x Ir (3D + OSN) No protection (3D)
Thermal memory	20 minutes before and after tripping
Short-time protection pick-up adjustment type Isd	Adjustable 9 settings
[Isd] Short-time protection pick-up adjustment range	1.5...10 x Ir
Short-time protection delay adjustment type tsd	Adjustable 5 settings
[tsd] short-time delay adjustment range	0...0.4 s I ² t=off 0.1...0.4 s I ² t=on
Instantaneous protection pick-up adjustment type Ii	Adjustable
[Ii] instantaneous protection pick-up adjustment range	1.5...12 x In
Earth-leakage protection	Without
Zone selective interlocking ZSI	With
Number of slots	6 slot(s)
Local signalling	Flashing LED (green) for ready to operate LED 105 % Ir (red) for overload LED 90 % Ir (orange) for overload
Display type	LCD display
Type of measurement	Energy meter
Communication of data	Energy metering Demand current and power Power quality Maintenance indicators Maximeters/minimeters Protection and alarm settings Instantaneous and demand values Time-stamped histories and event tables
Width (W)	185 mm

Height (H)	255 mm
Depth (D)	110 mm
Net weight	7.9 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	-40...85 °C
Relative humidity	0...95 %
Operating altitude	0...2000 m without derating 2000 m...5000 m with derating

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	15.200 cm
Package 1 Width	20.300 cm
Package 1 Length	29.200 cm
Package 1 Weight	7.554 kg
Unit Type of Package 2	S04
Number of Units in Package 2	3
Package 2 Height	30 cm
Package 2 Width	40 cm
Package 2 Length	60 cm
Package 2 Weight	23.312 kg
Unit Type of Package 3	P12
Number of Units in Package 3	12
Package 3 Height	45.000 cm
Package 3 Width	80.000 cm
Package 3 Length	120.000 cm
Package 3 Weight	105.248 kg

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	381 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	54 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.8 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	310 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	15 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	25ca3248-85d0-423a-a9d8-5b7aeb52e7b6
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
Silicone-free	No

Use Longer



Lifetime extension

Repair	No
Updatability	Yes

Use Again



Repack and remanufacture

Recyclability potential, in %	60
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 accessories for the ComPacT NSX circuit breaker range. At the top left, a green circular graphic partially overlaps a photograph of the main circuit breaker unit. Below this, the title 'ComPacT NSX Range Accessories' is presented in a bold, sans-serif font. The accessories are arranged in a 3x3 grid, each accompanied by a small product photograph and a descriptive label. The labels are: 'Wireless auxiliary contact' (a green and white module), 'Short terminal shield' (a grey metal plate), 'Interphase barriers' (a black vertical plate), 'Long terminal shield' (a grey metal plate), 'Rotary handles' (two black handles with green accents), 'Standard auxiliary contact' (a grey module with two terminals), 'MN undervoltage release' (a black module with a white label), 'MX shunt release' (a grey module with a yellow label), and 'Standard motor mechanism module' (a black module with a grey handle).

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

