

Product datasheet

Specifications



Circuit breaker, ComPacT NSX250HB2, 100kA/690VAC, 4 poles, MicroLogic 5.2E trip unit 100A

C25W45E100

⚠ To be discontinued

⚠ Discontinued on: 1 Dec 2024

Main

Range	ComPacT
Product name	ComPacT NSX
Device short name	NSX250HB2
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	100 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	100 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Breaking capacity code	HB2 100 kA 690 V AC
Trip unit name	MicroLogic 5.2 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	100 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2 100 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2 100 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2

Excluding VAT, FCA Jabal Ali & amp; are subject to change – check with your local distributor.

Mechanical durability	20000 cycles
Electrical durability	20000 cycles at 440 V In/2 10000 cycles at 440 V In 10000 cycles at 690 V In/2 5000 cycles at 690 V In
Power dissipation per pole	17.6 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 (long time) S : for short time short-circuit protection I : for instantaneous short-circuit protection
Trip unit rating	100 A at 40 °C
Long-time pick-up adjustment type Ir (thermal protection)	Adjustable 9 settings
[Ir] long-time protection pick-up adjustment range	40...100 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...15 x In
Earth-leakage protection	Without
Zone selective interlocking ZSI	With
Number of slots	5 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 Maintenance indicators Time-stamped histories and event tables Power quality Maximeters/minimeters Demand current and power Instantaneous and demand values Protection and alarm settings

Width (W)	140 mm
Height (H)	161 mm
Depth (D)	86 mm
Net weight	2.8 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	14.000 cm
Package 1 Width	15.000 cm
Package 1 Length	20.000 cm
Package 1 Weight	2.800 kg
Unit Type of Package 2	S03
Number of Units in Package 2	3
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.820 kg
Unit Type of Package 3	P12
Number of Units in Package 3	24
Package 3 Height	45.000 cm
Package 3 Width	80.000 cm
Package 3 Length	120.000 cm
Package 3 Weight	82.560 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	74 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	25 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.4 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]	44 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	811c5f45-220d-4e22-b512-f9d771b72680
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 %	58
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 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



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 with green accents), 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



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

