

# Product datasheet

Specifications



## Circuit breaker, ComPacT NSX100HB1, 75kA/690VAC, 4 poles, MicroLogic 6.2E trip unit 100A

C10V46E100

### Main

|                                |  |
|--------------------------------|--|
| Range                          | ComPacT  |
| Product name                   | ComPacT NSX  |
| Device short name              | NSX100HB1  |
| Product or component type      | Circuit breaker  |
| Device application             | Distribution   |
| Poles description              | 4P   |
| Protected poles description    | 4D<br>3D + OSN<br>3D + N/2<br>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              | 85 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>80 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>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 6.2 E   |
| Trip unit technology           | Electronic   |
| Trip unit protection functions | LSIG   |
| 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<br>80 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>75 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Mechanical durability                  | 20000 cycles   |

|  |   |
|--|---|
| <b>Electrical durability</b>                                     | 20000 cycles at 440 V In/2<br>10000 cycles at 440 V In<br>10000 cycles at 690 V In/2<br>5000 cycles at 690 V In   |
| <b>Power dissipation per pole</b>                                | 4.7 W   |
| <b>Mounting support</b>  | Backplate   |
| <b>Mounting position</b>   | Horizontal and vertical<br>Flat on the back   |
| <b>Upside connection</b>   | Front   |
| <b>Downside connection</b>                                       | Front   |
| <b>Connection pitch</b>  | 35 mm   |
| <b>Protection type</b>   | L : for overload protection (long time)<br>S : for short time short-circuit protection<br>I : for instantaneous short-circuit protection<br>G : for ground fault protection |
| <b>Trip unit rating</b>  | 100 A at 40 °C  |
| <b>Long-time pick-up adjustment type Ir (thermal protection)</b> | Adjustable 9 settings   |
| <b>[Ir] long-time protection pick-up adjustment range</b>        | 40...100 A  |
| <b>Long-time protection delay adjustment type tr</b>             | Adjustable  |
| <b>[tr] long-time delay adjustment range</b>                     | 15...400 s at 1.5 x Ir<br>0.5...16 s at 6 x Ir<br>0.35...11 s at 7.2 x Ir   |
| <b>Thermal memory</b>  | 20 minutes before and after tripping  |
| <b>Short-time protection pick-up adjustment type Isd</b>         | Adjustable  |
| <b>[Isd] Short-time protection pick-up adjustment range</b>      | 1.5...10 x Ir   |
| <b>Short-time protection delay adjustment type tsd</b>           | Adjustable 5 settings   |
| <b>[tsd] short-time delay adjustment range</b>                   | 0...0.4 s I <sup>2</sup> t=off<br>0.1...0.4 s I <sup>2</sup> t=on   |
| <b>Instantaneous protection pick-up adjustment type Ii</b>       | Adjustable  |
| <b>[Ii] instantaneous protection pick-up adjustment range</b>    | 1.5...15 x In   |
| <b>Ground-fault protection pick-up adjustment type Ig</b>        | Adjustable 9 settings   |
| <b>[Ig] ground-fault pick-up adjustment range</b>                | 0.4...1 x In for In = 40 A<br>0.2...1 x In for In > 40 A<br>Ig enable on/off  |
| <b>Ground-fault protection time delay adjustment type tg</b>     | Adjustable 5 settings   |
| <b>[tg] Ground-fault time delay adjustment range</b>             | 0...0.4 s I <sup>2</sup> t=off<br>0.1...0.4 s I <sup>2</sup> t=on   |
| <b>Earth-leakage protection</b>                                  | Without   |
| <b>Zone selective interlocking ZSI</b>                           | With  |
| <b>Number of slots</b>   | 5 slot(s)   |
| <b>Local signalling</b>  | Flashing LED (green) for ready to operate<br>LED 105 % Ir (red) for overload<br>LED 90 % Ir (orange) for overload   |
| <b>Display type</b>  | LCD display   |
| <b>Type of measurement</b>                                       | Energy meter  |

|                              |  |
|------------------------------|--|
| <b>Communication of data</b> | Instantaneous and demand values<br>Protection and alarm settings<br>Power quality<br>Maximeters/minimeters<br>Energy metering<br>Maintenance indicators<br>Demand current and power<br>Time-stamped histories and event tables |
| <b>Width (W)</b>             | 140 mm   |
| <b>Height (H)</b>            | 161 mm   |
| <b>Depth (D)</b>             | 86 mm  |
| <b>Net weight</b>            | 2.4 kg   |

## Environment

|  |  |
|--|--|
| <b>Standards</b>                             | EN/IEC 60947-2   |
| <b>Overvoltage category</b>                  | III  |
| <b>Electrical shock protection class</b>     | Class II on front face                                       |
| <b>Pollution degree</b>                      | 3 conforming to IEC 60664-1                                  |
| <b>IP degree of protection</b>               | IP40 conforming to IEC 60529                                 |
| <b>IK degree of protection</b>               | IK07 conforming to IEC 62262                                 |
| <b>Ambient air temperature for operation</b> | -25...70 °C  |
| <b>Ambient air temperature for storage</b>   | -40...85 °C  |
| <b>Relative humidity</b>                     | 0...95 %   |
| <b>Operating altitude</b>                    | 0...2000 m without derating<br>2000 m...5000 m with derating |

## Packing Units

|                                     |            |
|-------------------------------------|------------|
| <b>Unit Type of Package 1</b>       | PCE        |
| <b>Number of Units in Package 1</b> | 1          |
| <b>Package 1 Height</b>             | 14.000 cm  |
| <b>Package 1 Width</b>              | 15.000 cm  |
| <b>Package 1 Length</b>             | 20.000 cm  |
| <b>Package 1 Weight</b>             | 2.440 kg   |
| <b>Unit Type of Package 2</b>       | S03        |
| <b>Number of Units in Package 2</b> | 4          |
| <b>Package 2 Height</b>             | 30.000 cm  |
| <b>Package 2 Width</b>              | 30.000 cm  |
| <b>Package 2 Length</b>             | 40.000 cm  |
| <b>Package 2 Weight</b>             | 10.180 kg  |
| <b>Unit Type of Package 3</b>       | P12        |
| <b>Number of Units in Package 3</b> | 32         |
| <b>Package 3 Height</b>             | 45.000 cm  |
| <b>Package 3 Width</b>              | 80.000 cm  |
| <b>Package 3 Length</b>             | 120.000 cm |
| <b>Package 3 Weight</b>             | 93.440 kg  |

# Contractual warranty

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Warranty (in months)

18



## 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                       | 103 kg CO2 eq.                                |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |
| Carbon footprint of the manufacturing phase [A1 to A3] | 22 kg CO2 eq.                                 |
| Carbon footprint of the distribution phase [A4]        | 0.3 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]     | 76 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                            | 811c5f45-220d-4e22-b512-f9d771b72680   |
| EU RoHS Directive                      | <a href="#">Compliant By Exemption</a>   |
| REACH Regulation                       | <a href="#">Reference contains Substances of Very High Concern above the threshold</a> |
| 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 | <a href="#">End of Life Information</a> |
| 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

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Offer Marketing Illustration

Product benefits / Features

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Offer Marketing Illustration

Product benefits / Features

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**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 large image shows a circuit breaker with a green arc behind it. Below this, nine individual accessories are arranged in a 3x3 grid, each with a small image and a 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

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**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

Offer Marketing Illustration

Product benefits / Features

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## 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.



Technical Illustration

Assembly's dimensions

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