

# Product datasheet

Specifications



## Circuit breaker, ComPact NSX400HB1, 75kA/690VAC, MicroLogic 6.3E trip unit 400A, 4 poles 4d

LV433629

! Discontinued

! Discontinued on: 31 Mar 2022

### Main

|                                                      |                                                                                                                                                                                      |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPact                                                                                                                                                                              |
| Product name                                         | ComPact NSX                                                                                                                                                                          |
| Range of product                                     | ComPact NSX400...630                                                                                                                                                                 |
| Device short name                                    | NSX400HB1                                                                                                                                                                            |
| Product or component type                            | Circuit breaker                                                                                                                                                                      |
| Device application                                   | Distribution                                                                                                                                                                         |
| Number of poles                                      | 4P                                                                                                                                                                                   |
| Protected poles description                          | 3t + OSN<br>4t<br>3t + N/2<br>3t                                                                                                                                                     |
| 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                                                                                                                                                                           |
| [Icu] rated ultimate short-circuit 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 |
| Performance level                                    | HB1 75 kA 690 V AC                                                                                                                                                                   |
| Trip unit name                                       | MicroLogic 6.3 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              |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                                                  |                                                                                                                                                                             |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Ics] rated service short-circuit breaking capacity</b>       | 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    |
| <b>Mechanical durability</b>                                     | 15000 cycles                                                                                                                                                                |
| <b>Electrical durability</b>                                     | 3000 cycles at 690 V In<br>6000 cycles at 690 V In/2<br>6000 cycles at 440 V In<br>12000 cycles at 440 V In/2                                                               |
| <b>Mounting support</b>                                          | Backplate                                                                                                                                                                   |
| <b>Upside connection</b>                                         | Front                                                                                                                                                                       |
| <b>Downside connection</b>                                       | Front                                                                                                                                                                       |
| <b>Connection pitch</b>                                          | 45 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>                                          | 400 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>        | 160...400 A                                                                                                                                                                 |
| <b>Long-time protection delay adjustment type tr</b>             | Adjustable                                                                                                                                                                  |
| <b>[tr] long-time protection delay adjustment range</b>          | 15...400 s at 1.5 x Ir<br>0.35...11 s at 7.2 x Ir<br>0.5...16 s at 6 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...12 x In                                                                                                                                                               |
| <b>Short-time protection delay adjustment type tsd</b>           | Adjustable 5 settings                                                                                                                                                       |
| <b>[tsd] Short-time protection delay adjustment range</b>        | 0...0.4 s                                                                                                                                                                   |
| <b>Instantaneous protection pick-up adjustment type Ii</b>       | Adjustable                                                                                                                                                                  |
| <b>[Ii] instantaneous protection pick-up adjustment range</b>    | 1.5...12 x In                                                                                                                                                               |
| <b>Ground-fault protection pick-up adjustment type Ig</b>        | Adjustable 9 settings                                                                                                                                                       |
| <b>[Ig] ground-fault protection 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                                                                                                                                                                  |
| <b>[tg] ground-fault protection 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>Neutral protection settings</b>                               | 0.5 x Ir (3t + N/2)<br>1 x Ir (4t)<br>1.6 x Ir (3t + OSN)<br>No protection (3t)                                                                                             |
| <b>Zone selective interlocking ZSI</b>                           | With                                                                                                                                                                        |
| <b>Number of slots for electrical auxiliaries</b>                | 6 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                                                                                                                                                                 |

|                       |                                                                                                                                                                                                                                |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of measurement   | Energy meter                                                                                                                                                                                                                   |
| Communication of data | Demand current and power<br>Time-stamped histories and event tables<br>Protection and alarm settings<br>Energy metering<br>Maximeters/minimeters<br>Maintenance indicators<br>Power quality<br>Instantaneous and demand values |
| Width (W)             | 185 mm                                                                                                                                                                                                                         |
| Height (H)            | 255 mm                                                                                                                                                                                                                         |
| Depth (D)             | 110 mm                                                                                                                                                                                                                         |
| Net weight            | 7.9 kg                                                                                                                                                                                                                         |

## Environment

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Standards                             | EN/IEC 60947                                                 |
| Product certifications                | EAC<br>CCC<br>Marine                                         |
| Overvoltage category                  | Class II                                                     |
| Electrical shock protection class     | Class II                                                     |
| 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<br>2000 m...5000 m with derating |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 15.2 cm |
| Package 1 Width              | 20.3 cm |
| Package 1 Length             | 29.2 cm |
| Package 1 Weight             | 8.06 kg |

## Contractual warranty

|                      |    |
|----------------------|----|
| 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 >](#)

## Use Better



### Materials and Substances

EU RoHS Directive

[Compliant](#)

## Use Longer



### Lifetime extension

Repair

No

## Use Again



### Repack and remanufacture

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins