

# Product datasheet

Specifications



## Circuit breaker, ComPacT NSX100N, 50kA/415VAC, 4 poles, MicroLogic Vigi 4.2 trip unit 100A

C10N44V100

### Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| product name                                         | ComPacT NSX new generation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Device short name                                    | NSX100N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Product or component type                            | Earth leakage circuit breaker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Poles description                                    | 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Protected poles description                          | 4D<br>3D + N/2<br>3D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Neutral position                                     | Left                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| [In] rated current                                   | 100 A at 40 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| [Ue] rated operational voltage                       | 440 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 | 90 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>50 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>50 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>36 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>35 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>10 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2<br>85 kA Icu at 240 V AC 50/60 Hz conforming to UL 60947-4-1<br>50 kA Icu at 480 V AC 50/60 Hz conforming to UL 60947-4-1<br>10 kA Icu at 600 V AC 50/60 Hz conforming to UL 60947-4-1 |
| Performance level                                    | N 50 kA 415 V AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Trip unit name                                       | MicroLogic 4.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Trip unit technology                                 | Electronic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Trip unit protection functions                       | LSolR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Control type                                         | Toggle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Circuit breaker mounting mode                        | Fixed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

### Complementary

|                                        |                   |
|----------------------------------------|-------------------|
| [UI] rated insulation voltage          | 500 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>         | 90 kA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>50 kA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>50 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>36 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>35 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>10 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| <b>Mechanical durability</b>                                       | 50000 cycles                                                                                                                                                                                                                                                                                                                                             |
| <b>Electrical durability</b>                                       | 50000 cycles at 440 V In/2<br>30000 cycles at 440 V In<br>20000 cycles at 690 V In/2<br>10000 cycles at 690 V In                                                                                                                                                                                                                                         |
| <b>Power dissipation per pole</b>                                  | 5.8 W N<br>5.8 W L1 and L3<br>4.9 W L2                                                                                                                                                                                                                                                                                                                   |
| <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>So : for short time short-circuit protection with fixed delay<br>I : for instantaneous short-circuit protection<br>R : for earth-leakage 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>               | Fixed                                                                                                                                                                                                                                                                                                                                                    |
| <b>[tr] long-time protection delay adjustment range</b>            | 400 s at 1.5 x Ir<br>16 s at 6 x Ir<br>11 s at 7.2 x Ir                                                                                                                                                                                                                                                                                                  |
| <b>Neutral protection settings</b>                                 | 0.5 x Ir (3D + N/2)<br>1 x Ir (4D)<br>No protection (3D)                                                                                                                                                                                                                                                                                                 |
| <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>             | Fixed                                                                                                                                                                                                                                                                                                                                                    |
| <b>Instantaneous protection pick-up adjustment type Ii</b>         | Fixed                                                                                                                                                                                                                                                                                                                                                    |
| <b>[Ii] instantaneous protection pick-up adjustment range</b>      | 1500 A                                                                                                                                                                                                                                                                                                                                                   |
| <b>Earth-leakage protection</b>                                    | Integrated                                                                                                                                                                                                                                                                                                                                               |
| <b>Earth-leakage protection class</b>                              | Class A                                                                                                                                                                                                                                                                                                                                                  |
| <b>Earth-leakage protection sensitivity adjustment type IΔn</b>    | Adjustable                                                                                                                                                                                                                                                                                                                                               |
| <b>[IΔn] earth-leakage protection sensitivity adjustment range</b> | 30 mA<br>100 mA<br>300 mA<br>500 mA<br>1 A<br>3 A<br>5 A                                                                                                                                                                                                                                                                                                 |
| <b>Earth-leakage protection specific mode</b>                      | OFF using the IΔn rotary switch                                                                                                                                                                                                                                                                                                                          |

|                                                                     |                                                                                                                   |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Earth-leakage protection time delay adjustment type $\Delta t$      | Adjustable                                                                                                        |
| [ $\Delta t$ ] Earth-leakage protection time delay adjustment range | 0 ms<br>60 ms<br>150 ms<br>500 ms<br>1 s                                                                          |
| Zone selective interlocking ZSI                                     | Without                                                                                                           |
| Number of slots for electrical auxiliaries                          | 5 slot(s)                                                                                                         |
| Local signalling                                                    | Flashing LED (green) for ready to operate<br>LED 105 % Ir (red) for overload<br>LED 90 % Ir (orange) for overload |
| Width (W)                                                           | 140 mm                                                                                                            |
| Height (H)                                                          | 161 mm                                                                                                            |
| Depth (D)                                                           | 86 mm                                                                                                             |
| Net weight                                                          | 2.4 kg                                                                                                            |

## Environment

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Standards                             | EN/IEC 60947-2                                               |
| 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   | -50...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             | 14.000 cm |
| Package 1 Width              | 14.500 cm |
| Package 1 Length             | 19.000 cm |
| Package 1 Weight             | 2.529 kg  |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 4         |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 10.486 kg |

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 |                                               |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)                                                     | 115                                           |
| Environmental Disclosure                                                                                  | <a href="#">Product Environmental Profile</a> |

Use Better

|  Materials and Substances |                                   |
|------------------------------------------------------------------------------------------------------------|-----------------------------------|
| Recycled metal content at CR level                                                                         | 0                                 |
| <a href="#">EU RoHS Directive</a>                                                                          | Compliant with Exemptions         |
| REACH Regulation                                                                                           | <a href="#">REACH Declaration</a> |
| Silicon free                                                                                               | No                                |

Use Longer

|  Lifetime extension |    |
|--------------------------------------------------------------------------------------------------------|----|
| Upgradeability                                                                                         | No |

Use Again

|  Repack and remanufacture |                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Circularity Profile                                                                                          | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| WEEE                                                                                                         |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Halogen content performance                                                                                  | Product contains halogen above thresholds                                                                                                                                                                       |
| Take-back                                                                                                    | No                                                                                                                                                                                                              |