

# Product data sheet

Specifications



## Circuit breaker, ComPacT NSX100N, 50kA/415VAC, 3 poles, TMD trip unit 100A

C10N3TM100

### Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                                                                                                                                                                                                                           |
| Product name                                         | ComPacT NSX new generation                                                                                                                                                                                                                                                                                                                                                       |
| Device short name                                    | NSX100N                                                                                                                                                                                                                                                                                                                                                                          |
| Product or component type                            | Circuit breaker                                                                                                                                                                                                                                                                                                                                                                  |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                     |
| Poles description                                    | 3P                                                                                                                                                                                                                                                                                                                                                                               |
| Protected poles description                          | 3D                                                                                                                                                                                                                                                                                                                                                                               |
| [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                                                                                                                                                                                                                                                                                                                                                                       |
| [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 |
| Performance level                                    | N 50 kA 415 V AC                                                                                                                                                                                                                                                                                                                                                                 |
| Trip unit name                                       | TM-D                                                                                                                                                                                                                                                                                                                                                                             |
| Trip unit technology                                 | Thermal-magnetic                                                                                                                                                                                                                                                                                                                                                                 |
| Trip unit protection functions                       | LI                                                                                                                                                                                                                                                                                                                                                                               |
| 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 short-circuit breaking capacity | 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 |

|                                                           |                                                                                                                  |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Mechanical durability                                     | 50000 cycles                                                                                                     |
| Electrical durability                                     | 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 |
| Power dissipation per pole                                | 8.8 W                                                                                                            |
| Mounting support                                          | Backplate                                                                                                        |
| Mounting position                                         | Horizontal and vertical<br>Flat on the back                                                                      |
| Upside connection                                         | Front                                                                                                            |
| Downside connection                                       | Front                                                                                                            |
| Connection pitch                                          | 35 mm                                                                                                            |
| Protection type                                           | L : for overload protection (thermal)<br>I : for short-circuit protection (magnetic)                             |
| Trip unit rating                                          | 100 A at 40 °C                                                                                                   |
| Long-time pick-up adjustment type Ir (thermal protection) | Adjustable                                                                                                       |
| [Ir] long-time protection pick-up adjustment range        | 0.7...1 x In                                                                                                     |
| Long-time protection delay adjustment type tr             | Fixed                                                                                                            |
| [Tr] long-time protection delay adjustment range          | 120...400 s at 1.5 x In<br>15 s at 6 x Ir                                                                        |
| Instantaneous protection pick-up adjustment type li       | Fixed                                                                                                            |
| [li] instantaneous protection pick-up adjustment range    | 800 A                                                                                                            |
| Earth-leakage protection                                  | Without                                                                                                          |
| Number of slots for electrical auxiliaries                | 5 slot(s)                                                                                                        |
| Width (W)                                                 | 105 mm                                                                                                           |
| Height (H)                                                | 161 mm                                                                                                           |
| Depth (D)                                                 | 86 mm                                                                                                            |
| Net weight                                                | 2.05 kg                                                                                                          |

Environment

|                                       |                              |
|---------------------------------------|------------------------------|
| Standards                             | EN/IEC 60947                 |
| Product certifications                | CCC<br>EAC<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   | -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       | Db        |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 14.0 cm   |
| Package 1 Width              | 11.0 cm   |
| Package 1 Length             | 19.5 cm   |
| Package 1 Weight             | 1.786 kg  |
| Unit Type of Package 2       | Doboz     |
| Number of Units in Package 2 | 7         |
| Package 2 Height             | 30.0 cm   |
| Package 2 Width              | 30.0 cm   |
| Package 2 Length             | 40.0 cm   |
| Package 2 Weight             | 12.876 kg |

### Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                           |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                                                            |
| Mercury free               | Yes                                                                                                                                                                                                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information                                                                                                                                                                       |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                                                         |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                                                                                                                                                                                               |
| Circularity Profile        | <a href="#">End of Life Information</a>                                                                                                                                                                                                                                                     |
| PVC free                   | Yes                                                                                                                                                                                                                                                                                         |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

### Recommended replacement(s)