

# C10R3TM050

Circuit breaker, ComPacT NSX100R,  
200kA/415VAC, 3 poles, TMD trip unit 50A



## Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                                                                                                                                                                                                                              |
| Product name                                         | ComPacT NSX new generation                                                                                                                                                                                                                                                                                                                                                          |
| Device short name                                    | NSX100R                                                                                                                                                                                                                                                                                                                                                                             |
| Product or component type                            | Circuit breaker                                                                                                                                                                                                                                                                                                                                                                     |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                        |
| Poles description                                    | 3P                                                                                                                                                                                                                                                                                                                                                                                  |
| Protected poles description                          | 3D                                                                                                                                                                                                                                                                                                                                                                                  |
| [In] rated current                                   | 50 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 | 200 KA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>200 KA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>200 KA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>80 KA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>65 KA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>45 KA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Performance level                                    | R 200 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 | 200 KA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>200 KA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>200 KA at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>80 KA at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>65 KA at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>45 KA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Mechanical durability                               | 20000 cycles                                                                                                                                                                                                                                                                                                                                                |
| Electrical durability                               | 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                                                                                                                                                                                                                                             |
| Power dissipation per pole                          | 4.11 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                                                      | 50 A at 40 °C                                                                        |
| Long-time pick-up adjustment type I <sub>r</sub> (thermal protection) | Adjustable                                                                           |
| [I <sub>r</sub> ] long-time protection pick-up adjustment range       | 0.7...1 x I <sub>n</sub>                                                             |
| Long-time protection delay adjustment type t <sub>r</sub>             | Fixed                                                                                |
| [t <sub>r</sub> ] long-time protection delay adjustment range         | 120...400 S at 1.5 x I <sub>n</sub><br>15 s at 6 x I <sub>r</sub>                    |
| Instantaneous protection pick-up adjustment type I <sub>i</sub>       | Fixed                                                                                |
| [I <sub>i</sub> ] instantaneous protection pick-up adjustment range   | 500 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                | Marine[RETURN]EAC[RETURN]CCC                                 |
| 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             | 13.9 cm  |
| Package 1 Width              | 11.7 cm  |
| Package 1 Length             | 19.4 cm  |
| Package 1 Weight             | 1.812 kg |
| Unit Type of Package 2       | S03      |
| Number of Units in Package 2 | 4        |
| Package 2 Height             | 30.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 7.622 kg |

## Offer Sustainability

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                           |
| REACH Regulation           | <a href="#"> REACH Declaration</a>             |
| EU RoHS Directive          | Compliant with Exemptions                                                                                                       |
| Mercury free               | Yes                                                                                                                             |
| China RoHS Regulation      | <a href="#"> China RoHS Declaration</a>        |
| 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                                                                                                                             |