

# C16N32D160

Circuit breaker ComPacT NSX160N. 50kA at 415VAC. MicroLogic 2.2 trip unit 160A. 3 poles 3d



## Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                                                                                                                                                                                                                           |
| Product name                                         | ComPacT NSX new generation                                                                                                                                                                                                                                                                                                                                                       |
| Device short name                                    | NSX160N                                                                                                                                                                                                                                                                                                                                                                          |
| Product or component type                            | Circuit breaker                                                                                                                                                                                                                                                                                                                                                                  |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                     |
| Poles description                                    | 3P                                                                                                                                                                                                                                                                                                                                                                               |
| Protected poles description                          | 3D                                                                                                                                                                                                                                                                                                                                                                               |
| [In] rated current                                   | 160 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                                       | MicroLogic 2.2                                                                                                                                                                                                                                                                                                                                                                   |
| Trip unit technology                                 | Electronic                                                                                                                                                                                                                                                                                                                                                                       |
| Trip unit protection functions                       | LSol                                                                                                                                                                                                                                                                                                                                                                             |
| 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<br>10 KA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Mechanical durability                               | 40000 cycles                                                                                                                                                                                                                                                                                                                                             |
| Electrical durability                               | 40000 Cycles at 440 V In/2<br>20000 Cycles at 440 V In<br>15000 Cycles at 690 V In/2<br>7500 cycles at 690 V In                                                                                                                                                                                                                                          |
| Power dissipation per pole                          | 9.22 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 (long time)<br>So : for short time short-circuit protection with fixed delay<br>I : for instantaneous short-circuit protection |
| Trip unit rating                                          | 160 A at 40 °C                                                                                                                                             |
| Long-time pick-up adjustment type Ir (thermal protection) | Adjustable 9 settings                                                                                                                                      |
| [Ir] long-time protection pick-up adjustment range        | 63...160 A                                                                                                                                                 |
| Long-time protection delay adjustment type tr             | Fixed                                                                                                                                                      |
| [tr] long-time protection delay adjustment range          | 400 S at 1.5 x Ir<br>16 S at 6 x Ir<br>11 s at 7.2 x Ir                                                                                                    |
| Thermal memory                                            | 20 minutes before and after tripping                                                                                                                       |
| Short-time protection pick-up adjustment type Isd         | Adjustable 9 settings                                                                                                                                      |
| [Isd] Short-time protection pick-up adjustment range      | 1.5...10 x Ir                                                                                                                                              |
| Short-time protection delay adjustment type tsd           | Fixed                                                                                                                                                      |
| Instantaneous protection pick-up adjustment type li       | Fixed                                                                                                                                                      |
| [li] instantaneous protection pick-up adjustment range    | 2400 A                                                                                                                                                     |
| Earth-leakage protection                                  | Without                                                                                                                                                    |
| 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)                                                 | 105 mm                                                                                                                                                     |
| Height (H)                                                | 161 mm                                                                                                                                                     |
| Depth (D)                                                 | 86 mm                                                                                                                                                      |
| Net weight                                                | 2.2 kg                                                                                                                                                     |

## Environment

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Standards                             | EN/IEC 60947                                                 |
| Product certifications                | CCC[RETURN]EAC[RETURN]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       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 14.0 cm  |
| Package 1 Width              | 11.0 cm  |
| Package 1 Length             | 19.2 cm  |
| Package 1 Weight             | 1.873 kg |
| Unit Type of Package 2       | S03      |
| 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 | 13.493 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>       |