

# C25V45E100

Circuit breaker, ComPacT NSX250HB1,  
75kA/690VAC, 4 poles, MicroLogic 5.2E trip  
unit 100A



## Main

|  |  |
|--|--|
| Range  | ComPacT new generation   |
| Product name   | ComPacT NSX new generation   |
| Device short name                                    | NSX250HB1  |
| Product or component type                            | Circuit breaker  |
| Device application                                   | Distribution   |
| Poles description                                    | 4P   |
| Protected poles description                          | 4D<br>3D + OSN<br>3D + N/2<br>3D   |
| Neutral position                                     | Left   |
| [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 | 85 KA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>80 KA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>75 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Performance level                                    | HB1 75 kA 690 V AC   |
| Trip unit name                                       | MicroLogic 5.2 E   |
| Trip unit technology                                 | Electronic   |
| Trip unit protection functions                       | LSI  |
| 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 | 85 KA at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>80 KA at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>75 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| 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                          | 2.7 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>S : for short time short-circuit protection<br>I : for instantaneous short-circuit protection   |
| Trip unit rating  | 100 A at 40 °C   |
| Long-time pick-up adjustment type I <sub>r</sub> (thermal protection) | Adjustable 9 settings  |
| [I <sub>r</sub> ] long-time protection pick-up adjustment range       | 40...100 A   |
| Long-time protection delay adjustment type t <sub>r</sub>             | Adjustable   |
| [t <sub>r</sub> ] long-time protection delay adjustment range         | 15...400 S at 1.5 x I <sub>r</sub><br>0.5...16 S at 6 x I <sub>r</sub><br>0.35...11 s at 7.2 x I <sub>r</sub>  |
| Neutral protection settings   | 0.5 x I <sub>r</sub> (3D + N/2)<br>1 x I <sub>r</sub> (4D)<br>1.6 x I <sub>r</sub> (3D + OSN)<br>No protection (3D)  |
| Thermal memory  | 20 minutes before and after tripping   |
| Short-time protection pick-up adjustment type I <sub>sd</sub>         | Adjustable 9 settings  |
| [I <sub>sd</sub> ] Short-time protection pick-up adjustment range     | 1.5...10 x I <sub>r</sub>  |
| Short-time protection delay adjustment type t <sub>sd</sub>           | Adjustable 5 settings  |
| [t <sub>sd</sub> ] Short-time protection delay adjustment range       | 0...0.4 S I <sup>2</sup> t=off<br>0.1...0.4 s I <sup>2</sup> t=on  |
| Instantaneous protection pick-up adjustment type I <sub>i</sub>       | Adjustable   |
| [I <sub>i</sub> ] instantaneous protection pick-up adjustment range   | 1.5...15 x I <sub>n</sub>  |
| Earth-leakage protection  | Without  |
| Zone selective interlocking ZSI                                       | With   |
| Number of slots for electrical auxiliaries                            | 5 slot(s)  |
| Local signalling  | Flashing LED (green) for ready to operate<br>LED 105 % I <sub>r</sub> (red) for overload<br>LED 90 % I <sub>r</sub> (orange) for overload  |
| Display type  | LCD display  |
| Type of measurement   | Energy meter   |
| Communication of data   | Power quality<br>Instantaneous and demand values<br>Maximeters/Minimeters<br>Maintenance indicators<br>Protection and alarm settings<br>Time-stamped histories and event tables<br>Energy metering<br>Demand current and power |
| Width (W)   | 140 mm   |
| Height (H)  | 161 mm   |
| Depth (D)   | 86 mm  |
| Net weight  | 2.8 kg   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Standards                             | EN/IEC 60947   |
| Product certifications                | EAC[RETURN]CCC[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   | -40...85 °C  |
| Relative humidity                     | 0...95 %   |
| Operating altitude                    | 0...2000 m without derating<br>2000 m...5000 m with derating |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 14.0 cm |
| Package 1 Width              | 15.0 cm |
| Package 1 Length             | 20.0 cm |
| Package 1 Weight             | 2.8 kg  |
| Unit Type of Package 2       | S03     |
| Number of Units in Package 2 | 3       |
| Package 2 Height             | 30.0 cm |
| Package 2 Width              | 30.0 cm |
| Package 2 Length             | 40.0 cm |
| Package 2 Weight             | 8.4 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>     |