

# C25V36E160

Circuit breaker, ComPacT NSX250HB1,  
75kA/690VAC, 3 poles, MicroLogic 6.2E trip  
unit 160A



## 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                                    | 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 | 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 6.2 E                                                                                                                                                                     |
| Trip unit technology                                 | Electronic                                                                                                                                                                           |
| Trip unit protection functions                       | LSIG                                                                                                                                                                                 |
| 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                          | 7.17 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<br>G : for ground fault protection                                                    |
| Trip unit rating                                                      | 160 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       | 63...160 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>                                                                                                                  |
| Thermal memory                                                        | 20 minutes before and after tripping                                                                                                                                                                                           |
| Short-time protection pick-up adjustment type I <sub>sd</sub>         | Adjustable                                                                                                                                                                                                                     |
| [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>                                                                                                                                                                                                      |
| Ground-fault protection pick-up adjustment type I <sub>g</sub>        | Adjustable 9 settings                                                                                                                                                                                                          |
| [I <sub>g</sub> ] ground-fault protection pick-up adjustment range    | 0.4...1 x I <sub>n</sub> for I <sub>n</sub> = 40 A<br>0.2...1 x I <sub>n</sub> for I <sub>n</sub> > 40 A<br>I <sub>g</sub> enable on/off                                                                                       |
| Ground-fault protection time delay adjustment type t <sub>g</sub>     | Adjustable 5 settings                                                                                                                                                                                                          |
| [t <sub>g</sub> ] ground-fault protection time 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                                                                                                                                                              |
| 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                                                 | Protection and alarm settings<br>Maximeters/Minimeters<br>Demand current and power<br>Power quality<br>Time-stamped histories and event tables<br>Energy metering<br>Instantaneous and demand values<br>Maintenance indicators |
| Width (W)                                                             | 105 mm                                                                                                                                                                                                                         |
| Height (H)                                                            | 161 mm                                                                                                                                                                                                                         |
| Depth (D)                                                             | 86 mm                                                                                                                                                                                                                          |
| Net weight                                                            | 2.4 kg                                                                                                                                                                                                                         |

## Environment

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Standards                             | EN/IEC 60947                                                 |
| Product certifications                | EAC[RETURN]Marine[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   | -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             | 11.0 cm |
| Package 1 Width              | 14.0 cm |
| Package 1 Length             | 20.0 cm |
| Package 1 Weight             | 2.11 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             | 8.44 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>     |