

# C63V35E630

Circuit breaker, ComPacT NSX630HB1,  
75kA/690VAC, 3 poles, MicroLogic 5.3E trip  
unit 630A



## Main

|                                                      |                                                                                                                                                                                      |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                               |
| Product name                                         | ComPacT NSX new generation                                                                                                                                                           |
| Device short name                                    | NSX630HB1                                                                                                                                                                            |
| Product or component type                            | Circuit breaker                                                                                                                                                                      |
| Device application                                   | Distribution                                                                                                                                                                         |
| Poles description                                    | 3P                                                                                                                                                                                   |
| Protected poles description                          | 3D                                                                                                                                                                                   |
| [In] rated current                                   | 630 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 5.3 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                               | 15000 cycles                                                                                                                                                             |
| Electrical durability                               | 8000 Cycles at 440 V In/2<br>4000 Cycles at 440 V In<br>6000 Cycles at 690 V In/2<br>2000 cycles at 690 V In                                                             |
| Power dissipation per pole                          | 39.69 W                                                                                                                                                                  |
| Mounting support                                    | Backplate                                                                                                                                                                |
| Mounting position                                   | Horizontal and vertical<br>Flat on the back                                                                                                                              |
| Upside connection                                   | Front                                                                                                                                                                    |
| Downside connection                                 | Front                                                                                                                                                                    |
| Connection pitch                                    | 45 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                                                      | 630 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       | 250...630 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 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...11 x I <sub>n</sub>                                                                                                                                                                                                      |
| Earth-leakage protection                                              | Without                                                                                                                                                                                                                        |
| Zone selective interlocking ZSI                                       | With                                                                                                                                                                                                                           |
| Number of slots for electrical auxiliaries                            | 6 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                                                 | Energy metering<br>Maximeters/Minimeters<br>Protection and alarm settings<br>Maintenance indicators<br>Instantaneous and demand values<br>Power quality<br>Time-stamped histories and event tables<br>Demand current and power |
| Width (W)                                                             | 140 mm                                                                                                                                                                                                                         |
| Height (H)                                                            | 255 mm                                                                                                                                                                                                                         |
| Depth (D)                                                             | 110 mm                                                                                                                                                                                                                         |
| Net weight                                                            | 6.2 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   | -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             | 15.2 cm  |
| Package 1 Width              | 15.2 cm  |
| Package 1 Length             | 29.2 cm  |
| Package 1 Weight             | 5.857 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                                                                                                                             |
| Halogen content performance | Halogen free plastic parts product                                                                                              |