

# C10W32M050

Circuit breaker, ComPacT NSX100HB2,  
100kA/690VAC, 3 poles, MicroLogic 2.2M trip  
unit 50A



## Main

|                                                      |                                                                                                                                                                                         |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                                  |
| Product name                                         | ComPacT NSX new generation                                                                                                                                                              |
| Device short name                                    | NSX100HB2                                                                                                                                                                               |
| Product or component type                            | Circuit breaker                                                                                                                                                                         |
| Device application                                   | Motor protection                                                                                                                                                                        |
| Poles description                                    | 3P                                                                                                                                                                                      |
| Protected poles description                          | 3D                                                                                                                                                                                      |
| [In] rated current                                   | 50 A at 65 °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 | 100 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>100 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>100 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Performance level                                    | HB2 100 kA 690 V AC                                                                                                                                                                     |
| Trip unit name                                       | MicroLogic 2.2 M                                                                                                                                                                        |
| 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 | 100 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>100 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>100 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                          | 1.18 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                                          | 50 A at 65 °C                                                                                                                                                                                                                                                                                                                                  |
| Motor tripping class                                      | 10<br>5<br>20                                                                                                                                                                                                                                                                                                                                  |
| Complementary motor protection                            | Phase unbalance                                                                                                                                                                                                                                                                                                                                |
| Long-time pick-up adjustment type Ir (thermal protection) | Adjustable 9 settings                                                                                                                                                                                                                                                                                                                          |
| [Ir] long-time protection pick-up adjustment range        | 25...50 A                                                                                                                                                                                                                                                                                                                                      |
| Long-time protection delay adjustment type tr             | Fixed                                                                                                                                                                                                                                                                                                                                          |
| [tr] long-time protection delay adjustment range          | 120 S at 1.5 x Ir for trip class 5<br>6.5 S at 6 x Ir for trip class 5<br>5 S at 7.2 x Ir for trip class 5<br>240 S at 1.5 x Ir for trip class 10<br>13.5 S at 6 x Ir for trip class 10<br>10 S at 7.2 x Ir for trip class 10<br>480 S at 1.5 x Ir for trip class 20<br>26 S at 6 x Ir for trip class 20<br>20 s at 7.2 x Ir for trip class 20 |
| 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      | 5...13 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    | 750 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 95 % lth (red) for temperature over set point                                                                                                                                                                                                                                                 |
| 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]CCC[RETURN]EAC                                 |
| 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             | 20.0 cm |
| Package 1 Weight             | 1.8 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             | 7.2 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>       |