

# Product datasheet

Specifications



## circuit breaker Compact NSX250F - Micrologic 2.2 - 250 A - 4 poles 4d

LV431780

⚠ Discontinued on: 2 May 2023

⚠ Discontinued

### Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Product name                                         | ComPact NSX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Range of product                                     | ComPact NSX100...250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Device short name                                    | NSX250F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Product or component type                            | Circuit breaker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Number of poles                                      | 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Protected poles description                          | 3t + N/2<br>3t<br>4t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Neutral position                                     | Left                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [In] rated current                                   | 250 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 at 240 V AC 50/60 Hz conforming to UL 508<br>22 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>35 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>36 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>8 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2<br>85 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>35 kA at 480 V AC 50/60 Hz conforming to UL 508<br>30 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>15 kA at 600 V AC 50/60 Hz conforming to UL 508 |
| Performance level                                    | F 36 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 |
|-------------------------------|-------------------|

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                                                  |                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Uimp] rated impulse withstand voltage</b>                    | 8 kV                                                                                                                                                                                                                                                                                                                                                    |
| <b>[Ics] rated service short-circuit breaking capacity</b>       | 35 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>36 kA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>85 kA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>22 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>30 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>8 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| <b>Mechanical durability</b>                                     | 20000 cycles                                                                                                                                                                                                                                                                                                                                            |
| <b>Electrical durability</b>                                     | 5000 cycles at 690 V In<br>10000 cycles at 690 V In/2<br>10000 cycles at 440 V In<br>20000 cycles at 440 V In/2                                                                                                                                                                                                                                         |
| <b>Mounting support</b>                                          | Backplate                                                                                                                                                                                                                                                                                                                                               |
| <b>Upside connection</b>                                         | Front                                                                                                                                                                                                                                                                                                                                                   |
| <b>Downside connection</b>                                       | Front                                                                                                                                                                                                                                                                                                                                                   |
| <b>Connection pitch</b>                                          | 35 mm                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protection type</b>                                           | L : for overload protection (long time)<br>So : for short time short-circuit protection with fixed delay<br>I : for instantaneous short-circuit protection                                                                                                                                                                                              |
| <b>Trip unit rating</b>                                          | 250 A at 40 °C                                                                                                                                                                                                                                                                                                                                          |
| <b>Long-time pick-up adjustment type Ir (thermal protection)</b> | Adjustable 9 settings                                                                                                                                                                                                                                                                                                                                   |
| <b>[Ir] long-time protection pick-up adjustment range</b>        | 100...250 A                                                                                                                                                                                                                                                                                                                                             |
| <b>Long-time protection delay adjustment type tr</b>             | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| <b>[tr] long-time protection delay adjustment range</b>          | 11 s at 7.2 x Ir<br>16 s at 6 x Ir<br>400 s at 1.5 x Ir                                                                                                                                                                                                                                                                                                 |
| <b>Thermal memory</b>                                            | 20 minutes before and after tripping                                                                                                                                                                                                                                                                                                                    |
| <b>Short-time protection pick-up adjustment type Isd</b>         | Adjustable 9 settings                                                                                                                                                                                                                                                                                                                                   |
| <b>[Isd] Short-time protection pick-up adjustment range</b>      | 1.5...10 x Ir                                                                                                                                                                                                                                                                                                                                           |
| <b>Short-time protection delay adjustment type tsd</b>           | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| <b>Instantaneous protection pick-up adjustment type Ii</b>       | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| <b>[Ii] instantaneous protection pick-up adjustment range</b>    | 3000 A                                                                                                                                                                                                                                                                                                                                                  |
| <b>Earth-leakage protection</b>                                  | Without                                                                                                                                                                                                                                                                                                                                                 |
| <b>Neutral protection settings</b>                               | 0.5 x Ir (3t + N/2)<br>1 x Ir (4t)<br>No protection (3t)                                                                                                                                                                                                                                                                                                |
| <b>Zone selective interlocking ZSI</b>                           | Without                                                                                                                                                                                                                                                                                                                                                 |
| <b>Number of slots for electrical auxiliaries</b>                | 5 slot(s)                                                                                                                                                                                                                                                                                                                                               |
| <b>Local signalling</b>                                          | Flashing LED (green) for ready to operate<br>LED 105 % Ir (red) for overload<br>LED 90 % Ir (orange) for overload                                                                                                                                                                                                                                       |
| <b>Width (W)</b>                                                 | 140 mm                                                                                                                                                                                                                                                                                                                                                  |
| <b>Height (H)</b>                                                | 161 mm                                                                                                                                                                                                                                                                                                                                                  |
| <b>Depth (D)</b>                                                 | 86 mm                                                                                                                                                                                                                                                                                                                                                   |
| <b>Net weight</b>                                                | 2.8 kg                                                                                                                                                                                                                                                                                                                                                  |

## Environment

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Standards                             | EN/IEC 60947                                                 |
| Product certifications                | CCC<br>Marine<br>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             | 14.400 cm |
| Package 1 Width              | 14.000 cm |
| Package 1 Length             | 19.300 cm |
| Package 1 Weight             | 2.606 kg  |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 720 kg CO2 eq.                                |
| Carbon footprint of the manufacturing phase [A1 to A3] | 14 kg CO2 eq.                                 |
| Carbon footprint of the distribution phase [A4]        | 0.6 kg CO2 eq.                                |
| Carbon footprint of the installation phase [A5]        | 0.3 kg CO2 eq.                                |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 706 kg CO2 eq.                                |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 0.4 kg CO2 eq.                                |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |

## Use Better



### Materials and Substances

|                   |                                        |
|-------------------|----------------------------------------|
| SCIP Number       | 811c5f45-220d-4e22-b512-f9d771b72680   |
| EU RoHS Directive | <a href="#">Compliant By Exemption</a> |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



### Repack and remanufacture

|                                 |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| End of life manual availability | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| WEEE Label                      |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |