

# Product datasheet

Specifications



circuit breaker Compact NSX630N,  
50 kA at 415 VAC, Micrologic 2.3  
trip unit 630 A, 4 poles 4d

LV432894

! Discontinued on: 31 December 2022

! To be discontinued

## Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Product name                                         | ComPact NSX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Range of product                                     | ComPact NSX400...630                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Device short name                                    | NSX630N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Product or component type                            | Circuit breaker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Number of poles                                      | 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Protected poles description                          | 4t<br>3t<br>3t + N/2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Neutral position                                     | Left                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [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 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>85 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>10 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2<br>30 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>20 kA at 600 V AC 50/60 Hz conforming to UL 508<br>50 kA at 480 V AC 50/60 Hz conforming to UL 508<br>50 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>42 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 |
| Performance level                                    | N 50 kA 415 V AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Trip unit name                                       | MicroLogic 2.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Trip unit technology                                 | Electronic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Trip unit protection functions                       | LSol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Control type                                         | Toggle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Circuit breaker mounting mode                        | Fixed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Complementary

|                                                                  |                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Ui] rated insulation voltage</b>                             | 800 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                        |
| <b>[Uimp] rated impulse withstand voltage</b>                    | 8 kV                                                                                                                                                                                                                                                                                                                                                     |
| <b>[Ics] rated service short-circuit breaking capacity</b>       | 11 kA at 525 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>10 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2<br>50 kA at 380/415 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>42 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2 |
| <b>Mechanical durability</b>                                     | 15000 cycles                                                                                                                                                                                                                                                                                                                                             |
| <b>Electrical durability</b>                                     | 2000 cycles at 690 V In<br>6000 cycles at 690 V In/2<br>4000 cycles at 440 V In<br>8000 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>                                          | 45 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>                                          | 630 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>        | 250...630 A                                                                                                                                                                                                                                                                                                                                              |
| <b>Long-time protection delay adjustment type tr</b>             | Fixed                                                                                                                                                                                                                                                                                                                                                    |
| <b>[Tr] long-time protection delay adjustment range</b>          | 16 s at 6 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>    | 6900 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>                | 6 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>                                                 | 185 mm                                                                                                                                                                                                                                                                                                                                                   |
| <b>Height (H)</b>                                                | 255 mm                                                                                                                                                                                                                                                                                                                                                   |
| <b>Depth (D)</b>                                                 | 110 mm                                                                                                                                                                                                                                                                                                                                                   |

|            |         |
|------------|---------|
| Net weight | 8.13 kg |
|------------|---------|

## Environment

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Standards                             | EN/IEC 60947                                                 |
| Product certifications                | CCC<br>EAC<br>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   | -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             | 14.7 cm   |
| Package 1 Width              | 20.0 cm   |
| Package 1 Length             | 28.9 cm   |
| Package 1 Weight             | 7.43 kg   |
| Unit Type of Package 2       | S04       |
| Number of Units in Package 2 | 3         |
| Package 2 Height             | 30.0 cm   |
| Package 2 Width              | 40.0 cm   |
| Package 2 Length             | 60.0 cm   |
| Package 2 Weight             | 23.158 kg |

## Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                            |
| Mercury free               | Yes                                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| RoHS exemption information | Yes                                                                                                                         |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

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Warranty

18 months

## Recommended replacement(s)

LV432894 is replaced by:

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1x



Circuit breaker, ComPacT NSX630N, 50kA/415VAC, 4 poles, MicroLogic 2.3 trip unit  
630A  
C63N42D630

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