

# Product datasheet

Specifications



## Circuit breaker ComPacT NSX160F, 36kA at 415VAC, TMD trip unit 125A, 3 poles 3d

C16F3TM125

### Main

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | ComPacT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product name                   | ComPacT NSX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Device short name              | NSX160F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product or component type      | Circuit breaker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Device application             | Distribution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Poles description              | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Protected poles description    | 3D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [In] rated current             | 125 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Breaking capacity              | 85 kA Icu at 220/240 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>35 kA Icu at 440 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>22 kA Icu at 525 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 240 V AC 50/60 Hz conforming to UL 60947-4-1<br>35 kA Icu at 480 V AC 50/60 Hz conforming to UL 60947-4-1<br>10 kA Icu at 600 V AC 50/60 Hz conforming to UL 60947-4-1 |
| Breaking capacity code         | F 36 kA 415 V AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Trip unit name                 | TM-D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Trip unit technology           | Thermal-magnetic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Trip unit protection functions | LI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 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              |

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>[Ics] rated service breaking capacity</b>                     | 85 kA at 220/240 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>35 kA at 440 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>22 kA at 525 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>                                     | 40000 cycles                                                                                                                                                                                                                                                                                                                                            |
| <b>Electrical durability</b>                                     | 40000 cycles at 440 V In/2<br>20000 cycles at 440 V In<br>15000 cycles at 690 V In/2<br>7500 cycles at 690 V In                                                                                                                                                                                                                                         |
| <b>Power dissipation per pole</b>                                | 10.78 W                                                                                                                                                                                                                                                                                                                                                 |
| <b>Mounting support</b>                                          | Backplate                                                                                                                                                                                                                                                                                                                                               |
| <b>Mounting position</b>                                         | Horizontal and vertical<br>Flat on the back                                                                                                                                                                                                                                                                                                             |
| <b>Upside connection</b>                                         | Front                                                                                                                                                                                                                                                                                                                                                   |
| <b>Downside connection</b>                                       | Front                                                                                                                                                                                                                                                                                                                                                   |
| <b>Connection pitch</b>                                          | 35 mm                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protection type</b>                                           | L : for overload protection (thermal)<br>I : for short-circuit protection (magnetic)                                                                                                                                                                                                                                                                    |
| <b>Trip unit rating</b>                                          | 125 A at 40 °C                                                                                                                                                                                                                                                                                                                                          |
| <b>Long-time pick-up adjustment type Ir (thermal protection)</b> | Adjustable                                                                                                                                                                                                                                                                                                                                              |
| <b>[Ir] long-time protection pick-up adjustment range</b>        | 0.7...1 x In                                                                                                                                                                                                                                                                                                                                            |
| <b>Long-time protection delay adjustment type tr</b>             | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| <b>[tr] long-time delay adjustment range</b>                     | 120...400 s at 1.5 x In<br>15 s at 6 x Ir                                                                                                                                                                                                                                                                                                               |
| <b>Instantaneous protection pick-up adjustment type Ii</b>       | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| <b>[Ii] instantaneous protection pick-up adjustment range</b>    | 1250 A                                                                                                                                                                                                                                                                                                                                                  |
| <b>Earth-leakage protection</b>                                  | Without                                                                                                                                                                                                                                                                                                                                                 |
| <b>Number of slots</b>                                           | 5 slot(s)                                                                                                                                                                                                                                                                                                                                               |
| <b>Width (W)</b>                                                 | 105 mm                                                                                                                                                                                                                                                                                                                                                  |
| <b>Height (H)</b>                                                | 161 mm                                                                                                                                                                                                                                                                                                                                                  |
| <b>Depth (D)</b>                                                 | 86 mm                                                                                                                                                                                                                                                                                                                                                   |
| <b>Net weight</b>                                                | 2.2 kg                                                                                                                                                                                                                                                                                                                                                  |

## Environment

|                                              |                              |
|----------------------------------------------|------------------------------|
| <b>Standards</b>                             | EN/IEC 60947-2               |
| <b>Overvoltage category</b>                  | III                          |
| <b>Electrical shock protection class</b>     | Class II on front face       |
| <b>Pollution degree</b>                      | 3 conforming to IEC 60664-1  |
| <b>IP degree of protection</b>               | IP40 conforming to IEC 60529 |
| <b>IK degree of protection</b>               | IK07 conforming to IEC 62262 |
| <b>Ambient air temperature for operation</b> | -25...70 °C                  |
| <b>Ambient air temperature for storage</b>   | -50...85 °C                  |
| <b>Relative humidity</b>                     | 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             | 14.000 cm |
| Package 1 Width              | 11.500 cm |
| Package 1 Length             | 19.000 cm |
| Package 1 Weight             | 1.795 kg  |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 7         |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 12.966 kg |

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                                                                          | 188                                           |
| Environmental Disclosure                                                                                  | <a href="#">Product Environmental Profile</a> |

Use Better

|  Materials and Substances |                                           |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Packaging made with recycled cardboard                                                                     | Yes                                       |
| Packaging without single use plastic                                                                       | Yes                                       |
| <a href="#">EU RoHS Directive</a>                                                                          | Compliant with Exemptions                 |
| SCIP Number                                                                                                | 3874e08b-fcb8-4aa9-87c4-d36abebf2833      |
| REACH Regulation                                                                                           | <a href="#">REACH Declaration</a>         |
| Halogen-free status                                                                                        | Product contains halogen above thresholds |
| PVC free                                                                                                   | Yes                                       |

Use Again

|  Repack and remanufacture |                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recyclability potential, in %                                                                                | 54                                                                                                                                                                                                              |
| End of life manual availability                                                                              | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| Take-back                                                                                                    | No                                                                                                                                                                                                              |
| WEEE Label                                                                                                   |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Offer Marketing Illustration

Product benefits / Features

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### ComPacT NSX

#### Technical Benefits

- Nominal current: 16 to 630 A and 9 breaking capacities for the 2 sizes of circuit breakers
- 1, 2, 3, and 4 pole versions available
- Large range of electronic and thermal-magnetic protections
- Plug and ready wiring system and communicating accessories
- Integrated earth leakage protection via MicroLogic Vigi (earth leakage circuit breaker - ELCB)
- Advanced trip unit with integrated power metering: I, U, P, E, THD, f, CosPhi

Offer Marketing Illustration

Product benefits / Features

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## ComPacT NSX

### Moulded Case Circuit Breaker



#### Protection begins with prevention

Designed to prevent an electrical fire through integrated earth leakage protection with preventive maintenance thanks to its Everlink power connections.



#### Maximize power availability

By providing corrective, preventive, and predictive maintenance for asset management thanks to our advanced MicroLogic trip units.



#### Connectivity

Designed to connect to EcoStruxure Power, an IoT-connected architecture for improving every aspect of your power distribution system.



Offer Marketing Illustration

Product benefits / Features

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### ComPacT NSX Range Accessories



Wireless auxiliary contact



Short terminal shield



Interphase barriers



Long terminal shield



Rotary handles



Standard auxiliary contact



MN undervoltage release



MX shunt release



Standard motor mechanism module

Offer Marketing Illustration

Product benefits / Features

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Technical Illustration

Assembly's dimensions

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