

# Product datasheet

Specifications



## Circuit breaker, VigiComPact NSX160F, 36kA/415VAC, TM-D trip unit 80A, add-on Vigi MH module, 4P 4d

LV430953

! Discontinued

! Discontinued on: 1 Dec 2021

### Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Product name                                         | ComPact NSX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Range of product                                     | ComPact NSX100...250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Device short name                                    | VigiCompact NSX160F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Product or component type                            | Circuit breaker with Vigi add-on                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Number of poles                                      | 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Protected poles description                          | 4t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Neutral position                                     | Left                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [In] rated current                                   | 80 A at 40 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| [Ue] rated operational voltage                       | 440 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 | 10 kA at 600 V AC 50/60 Hz conforming to UL 508<br>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 |
| Performance level                                    | 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

|                                                             |                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Ics] rated service short-circuit breaking capacity         | 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 |
| Mechanical durability                                       | 40000 cycles                                                                                                                                                                                                                                                                                                                                            |
| Electrical durability                                       | 7500 cycles at 690 V In<br>15000 cycles at 690 V In/2<br>20000 cycles at 440 V In<br>40000 cycles at 440 V In/2                                                                                                                                                                                                                                         |
| Mounting support                                            | Backplate                                                                                                                                                                                                                                                                                                                                               |
| Upside connection                                           | Front                                                                                                                                                                                                                                                                                                                                                   |
| Downside connection                                         | Front                                                                                                                                                                                                                                                                                                                                                   |
| Connection pitch                                            | 35 mm                                                                                                                                                                                                                                                                                                                                                   |
| Protection type                                             | L : for overload protection (thermal)<br>I : for short-circuit protection (magnetic)                                                                                                                                                                                                                                                                    |
| Trip unit rating                                            | 80 A at 40 °C                                                                                                                                                                                                                                                                                                                                           |
| Long-time pick-up adjustment type Ir (thermal protection)   | Adjustable                                                                                                                                                                                                                                                                                                                                              |
| [Ir] long-time protection pick-up adjustment range          | 0.7...1 x In                                                                                                                                                                                                                                                                                                                                            |
| Long-time protection delay adjustment type tr               | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| [tr] long-time protection delay adjustment range            | 120...400 s at 1.5 x In<br>15 s at 6 x Ir                                                                                                                                                                                                                                                                                                               |
| Short-time protection pick-up adjustment type Isd           | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| [Isd] Short-time protection pick-up adjustment range        | 640 A                                                                                                                                                                                                                                                                                                                                                   |
| Short-time protection delay adjustment type tsd             | Fixed                                                                                                                                                                                                                                                                                                                                                   |
| Earth-leakage protection                                    | With                                                                                                                                                                                                                                                                                                                                                    |
| Earth-leakage add-on module name                            | MH                                                                                                                                                                                                                                                                                                                                                      |
| Earth-leakage protection class                              | Class A                                                                                                                                                                                                                                                                                                                                                 |
| Earth-leakage protection sensitivity adjustment type IΔn    | Adjustable 5 settings                                                                                                                                                                                                                                                                                                                                   |
| [IΔn] earth-leakage protection sensitivity adjustment range | 0.03...10 A                                                                                                                                                                                                                                                                                                                                             |
| Earth-leakage protection time delay adjustment type Δt      | Adjustable 4 settings                                                                                                                                                                                                                                                                                                                                   |
| Neutral protection settings                                 | 1 x Ir (4t)                                                                                                                                                                                                                                                                                                                                             |
| Number of slots for electrical auxiliaries                  | 6 slot(s)                                                                                                                                                                                                                                                                                                                                               |
| Width (W)                                                   | 140 mm                                                                                                                                                                                                                                                                                                                                                  |
| Height (H)                                                  | 236 mm                                                                                                                                                                                                                                                                                                                                                  |
| Depth (D)                                                   | 86 mm                                                                                                                                                                                                                                                                                                                                                   |
| Net weight                                                  | 2.6 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   |



## 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 >](#)

### Use Better

| Materials and Substances |                           |
|--------------------------|---------------------------|
| EU RoHS Directive        | <a href="#">Compliant</a> |
| PVC free                 | Yes                       |

### Use Longer

| Lifetime extension |    |
|--------------------|----|
| Repair             | No |