

# C12N44V160B

Circuit breaker, ComPacT NSXm 160N,  
50kA/415VAC, 4 poles, MicroLogic 4.1 trip unit  
160A, lugs/busbars



## Main

|                                                      |                                                                                                                                                                                              |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                                       |
| Product name                                         | ComPacT NSXm new generation                                                                                                                                                                  |
| Range of product                                     | ComPacT NSXm new generation                                                                                                                                                                  |
| Device short name                                    | NSXm 160N                                                                                                                                                                                    |
| Product or component type                            | Earth leakage circuit breaker                                                                                                                                                                |
| Device application                                   | Distribution                                                                                                                                                                                 |
| Poles description                                    | 4P                                                                                                                                                                                           |
| Protected poles description                          | 4D                                                                                                                                                                                           |
| Neutral position                                     | Left                                                                                                                                                                                         |
| [In] rated current                                   | 160 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 IEC 60947-2                                                                                                                                                                |
| Utilisation category                                 | Category A                                                                                                                                                                                   |
| [Icu] rated ultimate short-circuit breaking capacity | 90 KA Icu at 220...240 V AC 50/60 Hz conforming to IEC 60947-2<br>50 KA Icu at 380...415 V AC 50/60 Hz conforming to IEC 60947-2<br>50 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 4.1                                                                                                                                                                               |
| Trip unit technology                                 | Electronic                                                                                                                                                                                   |
| Trip unit protection functions                       | LSolR                                                                                                                                                                                        |
| Control type                                         | Toggle                                                                                                                                                                                       |
| Circuit breaker mounting mode                        | Fixed                                                                                                                                                                                        |

## Complementary

|                                                     |                                                                                                                                                                                  |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Ui] rated insulation voltage                       | 500 V AC 50/60 Hz                                                                                                                                                                |
| [Uimp] rated impulse withstand voltage              | 8 kV                                                                                                                                                                             |
| [Ics] rated service short-circuit breaking capacity | 90 KA at 220...240 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>50 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2 |
| Mechanical durability                               | 20000 cycles                                                                                                                                                                     |
| Electrical durability                               | 20000 Cycles at 440 V In/2<br>10000 Cycles at 440 V In<br>10000 Cycles at 690 V In/2<br>5000 cycles at 690 V In                                                                  |
| Power dissipation per pole                          | 12.21 W                                                                                                                                                                          |
| Mounting support                                    | Backplate                                                                                                                                                                        |
| Mounting position                                   | Horizontal and vertical<br>Flat on the back                                                                                                                                      |
| Upside connection                                   | Front                                                                                                                                                                            |

|                                                             |                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Downside connection                                         | Front                                                                                                                                                                                                                                                         |
| Connection terminals                                        | Compression lug/busbar                                                                                                                                                                                                                                        |
| Connection pitch                                            | 35 Mm with spreaders<br>27 mm without spreaders                                                                                                                                                                                                               |
| 9 mm pitches                                                | 12 module                                                                                                                                                                                                                                                     |
| Trip unit rating                                            | 160 A at 40 °C                                                                                                                                                                                                                                                |
| Long-time pick-up adjustment type Ir (thermal protection)   | Adjustable 9 settings                                                                                                                                                                                                                                         |
| [Ir] long-time protection pick-up adjustment range          | 63...160 A                                                                                                                                                                                                                                                    |
| Long-time protection delay adjustment type tr               | Fixed                                                                                                                                                                                                                                                         |
| [tr] long-time protection delay adjustment range            | 200 S at 1.5 x Ir<br>8 S at 6 x Ir<br>5 s at 7.2 x Ir                                                                                                                                                                                                         |
| Neutral protection settings                                 | 1 x Ir (4D)                                                                                                                                                                                                                                                   |
| Thermal memory                                              | 20 minutes before and after tripping                                                                                                                                                                                                                          |
| Short-time protection pick-up adjustment type Isd           | Adjustable 9 settings                                                                                                                                                                                                                                         |
| [Isd] Short-time protection pick-up adjustment range        | 1.5...10 x Ir                                                                                                                                                                                                                                                 |
| Short-time protection delay adjustment type tsd             | Fixed                                                                                                                                                                                                                                                         |
| Instantaneous protection pick-up adjustment type li         | Fixed                                                                                                                                                                                                                                                         |
| [li] instantaneous protection pick-up adjustment range      | 2000 A                                                                                                                                                                                                                                                        |
| Earth-leakage protection                                    | Integrated                                                                                                                                                                                                                                                    |
| Earth-leakage protection class                              | Class A<br>Class AC                                                                                                                                                                                                                                           |
| Earth-leakage protection sensitivity adjustment type IΔn    | Adjustable                                                                                                                                                                                                                                                    |
| [IΔn] earth-leakage protection sensitivity adjustment range | 30 MA<br>100 MA<br>300 MA<br>500 MA<br>1 A<br>3 A<br>5 A                                                                                                                                                                                                      |
| Earth-leakage sensitivity                                   | 30 MA for class A<br>100 MA for class A<br>300 MA for class A<br>500 MA for class A<br>1 A for class A<br>30 MA for class AC<br>100 MA for class AC<br>300 MA for class AC<br>500 MA for class AC<br>1 A for class AC<br>3 A for class AC<br>5 A for class AC |
| Earth-leakage protection time delay adjustment type Δt      | Adjustable                                                                                                                                                                                                                                                    |
| [Δt] Earth-leakage protection time delay adjustment range   | 0 Ms<br>60 Ms<br>150 Ms<br>500 Ms<br>1000 ms                                                                                                                                                                                                                  |
| Number of slots for electrical auxiliaries                  | 1 slot(s) for auxiliary switch OF<br>1 slot(s) for alarm switch SD<br>1 slot(s) for voltage release MN or MX                                                                                                                                                  |
| Local signalling                                            | Flag (green) for presence of auxiliary contacts                                                                                                                                                                                                               |
| Width (W)                                                   | 108 mm                                                                                                                                                                                                                                                        |
| Height (H)                                                  | 144 mm                                                                                                                                                                                                                                                        |
| Depth (D)                                                   | 80 mm                                                                                                                                                                                                                                                         |
| Net weight                                                  | 1.63 kg                                                                                                                                                                                                                                                       |
| Colour                                                      | Grey (RAL 7016)                                                                                                                                                                                                                                               |

## Environment

|                                       |                                                 |
|---------------------------------------|-------------------------------------------------|
| Standards                             | EN/IEC 60947                                    |
| 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   | -40...85 °C                                     |
| Relative humidity                     | 0...95 %                                        |
| Operating altitude                    | 2000 m without derating<br>5000 m with derating |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 15.0 cm  |
| Package 1 Width              | 13.0 cm  |
| Package 1 Length             | 19.0 cm  |
| Package 1 Weight             | 1.654 kg |
| Unit Type of Package 2       | S03      |
| Number of Units in Package 2 | 4        |
| Package 2 Height             | 30.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 6.998 kg |

## Offer Sustainability

|                             |                                                                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status    | Green Premium product                                                                                                             |
| REACH Regulation            |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive           | Compliant with Exemptions                                                                                                         |
| Mercury free                | Yes                                                                                                                               |
| China RoHS Regulation       |  <a href="#">China RoHS Declaration</a>        |
| RoHS exemption information  |  <a href="#">Yes</a>                           |
| Environmental Disclosure    |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile         |  <a href="#">End Of Life Information</a>       |
| Halogen content performance | Halogen free plastic parts product                                                                                                |