# Product datasheet

Specifications

## Circuit breaker ComPacT NSX160F, 36kA at 415VAC, MicroLogic 4.2 Vigi trip unit 160A, 3 poles 3d

C16F34V160

## Main

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|---|---|
| **Range** | ComPacT new generation |
| **Product Name** | ComPacT NSX new generation |
| **Device Short Name** | NSX160F |
| **Product Or Component Type** | Earth leakage circuit breaker |
| **Device Application** | Distribution |
| **Poles Description** | 3P |
| **Protected Poles Description** | 3D |
| **[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 EN/IEC 60947-2 |
| **Utilisation Category** | Category A |
| **[Icu] Rated Ultimate Short-Circuit 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 |
| **Performance Level** | F 36 kA 415 V AC |
| **Trip Unit Name** | MicroLogic 4.2 |
| **Trip Unit Technology** | Electronic |
| **Trip Unit Protection Functions** | LSoIR |
| **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** | 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 |

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

| | |
|---|---|
| **Mechanical Durability** | 40000 cycles |
| **Electrical Durability** | 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 |
| **Power Dissipation Per Pole** | 12.29 W N<br>12.29 W L1 and L3<br>9.98 W L2 |
| **Mounting Support** | Backplate |
| **Mounting Position** | Horizontal and vertical<br>Flat on the back |
| **Upside Connection** | Front |
| **Downside Connection** | Front |
| **Connection Pitch** | 35 mm |
| **Protection Type** | L : for overload protection (long time)<br>So : for short time short-circuit protection with fixed delay<br>I : for instantaneous short-circuit protection<br>R : for earth-leakage protection |
| **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** | 400 s at 1.5 x Ir<br>16 s at 6 x Ir<br>11 s at 7.2 x Ir |
| **Thermal Memory** | 20 minutes before and after tripping |
| **Short-Time Protection Pick-Up Adjustment Type Isd** | Adjustable |
| **[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 Ii** | Fixed |
| **[Ii] Instantaneous Protection Pick-Up Adjustment Range** | 2400 A |
| **Earth-Leakage Protection** | Integrated |
| **Earth-Leakage Protection Class** | Class A |
| **Earth-Leakage Protection Sensitity 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 Protection Specific Mode** | OFF using the IΔn rotary switch |
| **Earth-Leakage Protection Time Delay Adjustement Type Δt** | Adjustable |
| **[Δt] Earth-Leakage Protection Time Delay Adjustment Range** | 0 ms<br>60 ms<br>150 ms<br>500 ms<br>1 s |
| **Zone Selective Interlocking Zsi** | Without |

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|---|---|
| **Number Of Slots For Electrical Auxiliaries** | 5 slot(s) |
| **Local Signalling** | Flashing LED (green) for ready to operate<br>LED 105 % Ir (red) for overload<br>LED 90 % Ir (orange) for overload |
| **Width (W)** | 105 mm |
| **Height (H)** | 161 mm |
| **Depth (D)** | 86 mm |
| **Net Weight** | 2.2 kg |

## Environment

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|---|---|
| **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

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|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 14.200 cm |
| **Package 1 Width** | 11.300 cm |
| **Package 1 Length** | 18.300 cm |
| **Package 1 Weight** | 1.978 kg |
| **Unit Type Of Package 2** | S03 |
| **Number Of Units In Package 2** | 4 |
| **Package 2 Height** | 30.000 cm |
| **Package 2 Width** | 30.000 cm |
| **Package 2 Length** | 40.000 cm |
| **Package 2 Weight** | 8.290 kg |

## Sustainability

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## Well-being performance

Mercury Free

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| Rohs Exemption Information | Yes |

## Certifications & Standards

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|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Compliant<br>EU RoHS Declaration |
| **China Rohs Regulation** | China RoHS declaration<br>Product out of China RoHS scope. Substance declaration for your information |
| **Environmental Disclosure** | Product Environmental Profile |
| **Circularity Profile** | End of Life Information |