

# C25R46E160

Circuit breaker, ComPacT NSX250R,  
200kA/415VAC, 4 poles, MicroLogic 6.2E trip  
unit 160A



## Main

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                                | ComPacT new generation                                                                                                                                                                                                                                                                                                                                                              |
| Product name                                         | ComPacT NSX new generation                                                                                                                                                                                                                                                                                                                                                          |
| Device short name                                    | NSX250R                                                                                                                                                                                                                                                                                                                                                                             |
| Product or component type                            | Circuit breaker                                                                                                                                                                                                                                                                                                                                                                     |
| Device application                                   | Distribution                                                                                                                                                                                                                                                                                                                                                                        |
| Poles description                                    | 4P                                                                                                                                                                                                                                                                                                                                                                                  |
| Protected poles description                          | 4D<br>3D + OSN<br>3D + N/2<br>3D                                                                                                                                                                                                                                                                                                                                                    |
| Neutral position                                     | Left                                                                                                                                                                                                                                                                                                                                                                                |
| [In] rated current                                   | 160 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 | 200 KA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>200 KA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>200 KA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>80 KA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>65 KA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>45 KA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Performance level                                    | R 200 kA 415 V AC                                                                                                                                                                                                                                                                                                                                                                   |
| Trip unit name                                       | MicroLogic 6.2 E                                                                                                                                                                                                                                                                                                                                                                    |
| Trip unit technology                                 | Electronic                                                                                                                                                                                                                                                                                                                                                                          |
| Trip unit protection functions                       | LSIG                                                                                                                                                                                                                                                                                                                                                                                |
| Control type                                         | Toggle                                                                                                                                                                                                                                                                                                                                                                              |
| Circuit breaker mounting mode                        | Fixed                                                                                                                                                                                                                                                                                                                                                                               |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Complementary

|                                                           |                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Ui] rated insulation voltage                             | 800 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                           |
| [Uimp] rated impulse withstand voltage                    | 8 kV                                                                                                                                                                                                                                                                                                                                                        |
| [Ics] rated service short-circuit breaking capacity       | 200 kA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>200 kA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>200 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>80 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>65 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>45 kA at 660/690 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                                | 7.17 W                                                                                                                                                                                                                                                                                                                                                      |
| 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>S : for short time short-circuit protection<br>I : for instantaneous short-circuit protection<br>G : for ground fault 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             | Adjustable                                                                                                                                                                                                                                                                                                                                                  |
| [tr] long-time protection delay adjustment range          | 15...400 S at 1.5 x Ir<br>0.5...16 S at 6 x Ir<br>0.35...11 s at 7.2 x Ir                                                                                                                                                                                                                                                                                   |
| Neutral protection settings                               | 0.5 x Ir (3D + N/2)<br>1 x Ir (4D)<br>1.6 x Ir (3D + OSN)<br>No protection (3D)                                                                                                                                                                                                                                                                             |
| 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           | Adjustable 5 settings                                                                                                                                                                                                                                                                                                                                       |
| [tsd] Short-time protection delay adjustment range        | 0...0.4 S I <sup>2</sup> t=off<br>0.1...0.4 s I <sup>2</sup> t=on                                                                                                                                                                                                                                                                                           |
| Instantaneous protection pick-up adjustment type li       | Adjustable                                                                                                                                                                                                                                                                                                                                                  |
| [li] instantaneous protection pick-up adjustment range    | 1.5...15 x In                                                                                                                                                                                                                                                                                                                                               |
| Ground-fault protection pick-up adjustment type Ig        | Adjustable 9 settings                                                                                                                                                                                                                                                                                                                                       |
| [Ig] ground-fault protection pick-up adjustment range     | 0.4...1 x In for In = 40 A<br>0.2...1 x In for In > 40 A<br>Ig enable on/off                                                                                                                                                                                                                                                                                |
| Ground-fault protection time delay adjustment type tg     | Adjustable 5 settings                                                                                                                                                                                                                                                                                                                                       |
| [tg] ground-fault protection time delay adjustment range  | 0...0.4 S I <sup>2</sup> t=off<br>0.1...0.4 s I <sup>2</sup> t=on                                                                                                                                                                                                                                                                                           |
| Earth-leakage protection                                  | Without                                                                                                                                                                                                                                                                                                                                                     |
| Zone selective interlocking ZSI                           | With                                                                                                                                                                                                                                                                                                                                                        |
| 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                                                                                                                                                                                                                                           |
| Display type                                              | LCD display                                                                                                                                                                                                                                                                                                                                                 |
| Type of measurement                                       | Energy meter                                                                                                                                                                                                                                                                                                                                                |

|                       |                                                                                                                                                                                                                                |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication of data | Demand current and power<br>Protection and alarm settings<br>Energy metering<br>Power quality<br>Instantaneous and demand values<br>Time-stamped histories and event tables<br>Maximeters/Minimeters<br>Maintenance indicators |
| Width (W)             | 140 mm                                                                                                                                                                                                                         |
| Height (H)            | 161 mm                                                                                                                                                                                                                         |
| Depth (D)             | 86 mm                                                                                                                                                                                                                          |
| Net weight            | 2.8 kg                                                                                                                                                                                                                         |

## Environment

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Standards                             | EN/IEC 60947                                                 |
| Product certifications                | Marine[RETURN]EAC[RETURN]CCC                                 |
| 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   | -40...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             | 14.0 cm |
| Package 1 Width              | 15.0 cm |
| Package 1 Length             | 20.0 cm |
| Package 1 Weight             | 2.75 kg |
| Unit Type of Package 2       | S03     |
| Number of Units in Package 2 | 3       |
| Package 2 Height             | 30.0 cm |
| Package 2 Width              | 30.0 cm |
| Package 2 Length             | 40.0 cm |
| Package 2 Weight             | 8.25 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>       |