

# C080N450FM

Circuit breaker, ComPacT NS800N, 50kA at 415VAC, 4P, fixed, manually operated, MicroLogic 5.0 control unit, 800A



## Main

|  |  |
|--|--|
| Range  | ComPacT  |
| Product name   | ComPacT NS new generation  |
| Range of product                                     | ComPacT NS630b...1600 new generation   |
| Product or component type                            | Circuit breaker  |
| Device application                                   | Distribution   |
| Number of poles                                      | 4P   |
| Protected poles description                          | 4D   |
| Neutral position                                     | Left   |
| (In) rated current up to 65 °C                       | 800 A at 50 °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 B   |
| [Icu] rated ultimate short-circuit breaking capacity | 85 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<br>40 KA Icu at 500/525 V AC 50/60 Hz conforming to IEC 60947-2<br>30 KA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Performance level                                    | N 50 kA 415 V AC   |
| Trip unit name                                       | MicroLogic 5.0   |
| Trip unit technology                                 | Electronic   |
| Trip unit protection functions                       | LSI  |
| Control type   | Manually operated  |
| Mounting mode  | Fixed  |

## Complementary

|   |  |
|---|--|
| [Ui] rated insulation voltage                       | 800 V AC 50/60 Hz conforming to IEC 60947-2  |
| [Uimp] rated impulse withstand voltage              | 8 kV conforming to IEC 60947-2   |
| [Ics] rated service short-circuit breaking capacity | 50 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<br>40 KA at 500/525 V AC 50/60 Hz conforming to IEC 60947-2<br>30 KA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| [Icw] rated short-time withstand current            | 19.2 kA 1 s conforming to IEC 60947-2  |
| Mechanical durability                               | 10000 cycles   |
| Electrical durability                               | 2000 Cycles at 690 V In<br>4000 Cycles at 690 V In/2<br>5000 Cycles at 440 V In<br>6000 cycles at 440 V In/2   |
| Power losses  | 15 W   |

|   |  |
|---|--|
| Mounting support  | Backplate  |
| Upside connection   | Front  |
| Downside connection   | Front  |
| Connection pitch  | 70 mm  |
| Protection type   | L : for overload protection (long time)<br>S : for short time short-circuit protection<br>I : for instantaneous short-circuit protection |
| Trip unit rating  | 800 A at 50 °C   |
| Long-time pick-up adjustment type I <sub>r</sub> (thermal protection) | Adjustable 9 settings  |
| [I <sub>r</sub> ] long-time protection pick-up adjustment range       | 0.4...1 x I <sub>n</sub>   |
| Long-time protection delay adjustment type t <sub>r</sub>             | Adjustable 9 settings  |
| [t <sub>r</sub> ] long-time protection delay adjustment range         | 12.5...600 S at 1.5 x I <sub>r</sub><br>0.5...24 S at 6 x I <sub>r</sub><br>0.7...16.6 s at 7.2 x I <sub>r</sub>                         |
| Thermal memory  | 20 mn  |
| Short-time protection pick-up adjustment type I <sub>sd</sub>         | Adjustable 9 settings  |
| [I <sub>sd</sub> ] Short-time protection pick-up adjustment range     | 1.5...10 x I <sub>r</sub>  |
| Short-time protection delay adjustment type t <sub>sd</sub>           | Adjustable   |
| [t <sub>sd</sub> ] Short-time protection delay adjustment range       | 0.1...0.4 S I <sup>2</sup> t=on<br>0...0.4 s I <sup>2</sup> t=off  |
| Instantaneous protection pick-up adjustment type I <sub>i</sub>       | Adjustable   |
| [I <sub>i</sub> ] instantaneous protection pick-up adjustment range   | Off<br>2...15 x I <sub>n</sub>   |
| Earth-leakage protection  | Without  |
| Neutral protection settings   | No protection (3D)<br>0.5 x I <sub>r</sub> (3D + N/2)<br>1 x I <sub>r</sub> (4D)   |
| Zone selective interlocking ZSI                                       | Without  |
| Auxiliary contact composition   | 1 NO/NC  |
| Local signalling  | 4 LEDs (red) for fault indication<br>1 LED (yellow) for overload   |
| Width (W)   | 280 mm   |
| Height (H)  | 327 mm   |
| Depth (D)   | 147 mm   |
| Net weight  | 18 kg  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Standards                             | EN/IEC 60947-2   |
| Product certifications                | IECEE CB Scheme  |
| Pollution degree                      | 3 conforming to IEC 60947                                    |
| IP degree of protection               | IP40 conforming to IEC 60529                                 |
| IK degree of protection               | IK07 conforming to EN 50102                                  |
| 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        |
| Package 1 Height             | 30.0 cm  |
| Package 1 Width              | 40.0 cm  |
| Package 1 Length             | 60.0 cm  |
| Package 1 Weight             | 15.79 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>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |