

# Product datasheet

Specifications



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

C080N45EFM

## 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	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
Breaking capacity	85 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 50 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 50 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 40 kA Icu at 500/525 V AC 50/60 Hz conforming to IEC 60947-2 30 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Breaking capacity code	N 50 kA 415 V AC
Trip unit name	MicroLogic 5.0 E
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 breaking capacity	50 kA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 50 kA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 50 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2 40 kA at 500/525 V AC 50/60 Hz conforming to IEC 60947-2 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

<b>Mechanical durability</b>	10000 cycles
<b>Electrical durability</b>	2000 cycles at 690 V In 4000 cycles at 690 V In/2 5000 cycles at 440 V In 6000 cycles at 440 V In/2
<b>Power losses</b>	15 W
<b>Mounting support</b>	Backplate
<b>Upside connection</b>	Front
<b>Downside connection</b>	Front
<b>Connection pitch</b>	70 mm
<b>Protection type</b>	L : for overload protection (long time) S : for short time short-circuit protection I : for instantaneous short-circuit protection
<b>Trip unit rating</b>	800 A at 50 °C
<b>Long-time pick-up adjustment type Ir (thermal protection)</b>	Adjustable 9 settings
<b>[Ir] long-time protection pick-up adjustment range</b>	0.4...1 x In
<b>Long-time protection delay adjustment type tr</b>	Adjustable 9 settings
<b>[tr] long-time delay adjustment range</b>	12.5...600 s at 1.5 x Ir 0.5...24 s at 6 x Ir 0.7...16.6 s at 7.2 x Ir
<b>Thermal memory</b>	20 mn
<b>Short-time protection pick-up adjustment type Isd</b>	Adjustable 9 settings
<b>[Isd] Short-time protection pick-up adjustment range</b>	1.5...10 x Ir
<b>Short-time protection delay adjustment type tsd</b>	Adjustable
<b>[tsd] short-time delay adjustment range</b>	0.1...0.4 s I <sup>2</sup> t=on 0...0.4 s I <sup>2</sup> t=off
<b>Instantaneous protection pick-up adjustment type Ii</b>	Adjustable
<b>[Ii] instantaneous protection pick-up adjustment range</b>	Off 2...15 x In
<b>Earth-leakage protection</b>	Without
<b>Neutral protection setting</b>	No protection (3D) 0.5 x Ir (3D + N/2) 1 x Ir (4D)
<b>Zone selective interlocking ZSI</b>	With
<b>Auxiliary contact composition</b>	1 NO/NC
<b>Local signalling</b>	4 LEDs (red) for fault indication 1 LED (yellow) for overload
<b>Display type</b>	LCD display
<b>Type of measurement</b>	Energy meter
<b>Width (W)</b>	280 mm
<b>Height (H)</b>	327 mm
<b>Depth (D)</b>	147 mm
<b>Net weight</b>	18 kg

## Environment

<b>Standards</b>	EN/IEC 60947-2
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<b>Product certifications</b>	IECEE CB Scheme
<b>Overvoltage category</b>	III
<b>Electrical shock protection class</b>	Class II on front face
<b>Pollution degree</b>	3 conforming to IEC 60947
<b>IP degree of protection</b>	IP40 conforming to IEC 60529
<b>IK degree of protection</b>	IK07 conforming to EN 50102
<b>Ambient air temperature for operation</b>	-25...70 °C
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Relative humidity</b>	0...95 %
<b>Operating altitude</b>	0...2000 m without derating 2000 m...5000 m with derating

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	30.000 cm
<b>Package 1 Width</b>	40.000 cm
<b>Package 1 Length</b>	60.000 cm
<b>Package 1 Weight</b>	16.331 kg

## Contractual warranty

<b>Warranty (in months)</b>	18
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## 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 >](#)



### Environmental footprint

Total lifecycle Carbon footprint	650 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	228 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	5 kg CO2 eq.
Carbon footprint of the installation phase [A5]	2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	392 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	24 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	76c2e213-3b51-4d8b-afdf-632ded42d731
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>
Halogen-free status	Product contains halogen above thresholds
PVC free	No
Silicone-free	No

## Use Longer



### Lifetime extension

Repair	No
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## Use Again



### Repack and remanufacture

Recyclability potential, in %	56
End of life manual availability	<a href="#">End of Life Information</a>
Removable battery	User replaceable
Take-back	Nej

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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Technical Illustration

Assembly's dimensions

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