

# Product data sheet

## Characteristics

# 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 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
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
[Uiimp] 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 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
Mechanical durability	10000 cycles
Electrical durability	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
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) S : for short time short-circuit protection I : for instantaneous short-circuit protection
Trip unit rating	800 A at 50 °C
Long-time pick-up adjustment type $I_r$ (thermal protection)	Adjustable 9 settings
[ $I_r$ ] long-time protection pick-up adjustment range	0.4...1 x $I_r$
Long-time protection delay adjustment type $t_r$	Adjustable 9 settings
[ $t_r$ ] long-time protection delay adjustment range	12.5...600 S at 1.5 x $I_r$ 0.5...24 S at 6 x $I_r$ 0.7...16.6 s at 7.2 x $I_r$
Thermal memory	20 mn
Short-time protection pick-up adjustment type $I_{sd}$	Adjustable 9 settings
[ $I_{sd}$ ] Short-time protection pick-up adjustment range	1.5...10 x $I_r$
Short-time protection delay adjustment type $t_{sd}$	Adjustable
[ $t_{sd}$ ] Short-time protection delay adjustment range	0.1...0.4 S $I^2t=on$ 0...0.4 s $I^2t=off$
Instantaneous protection pick-up adjustment type $I_i$	Adjustable
[ $I_i$ ] instantaneous protection pick-up adjustment range	Off 2...15 x $I_r$
Earth-leakage protection	Without
Neutral protection settings	No protection (3D) 0.5 x $I_r$ (3D + N/2) 1 x $I_r$ (4D)
Zone selective interlocking ZSI	Without
Auxiliary contact composition	1 NO/NC
Local signalling	4 LEDs (red) for fault indication 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	IEC66 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 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	 Yes
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