Product data sheet
Characteristics

C160N450FM
Circuit breaker, ComPacT NS1600N, 50kA at 415VAC, 4P, fixed, manually operated, MicroLogic 5.0 control unit, 1600A



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
Poles description	4P
Protected poles description	4D
Neutral position	Left
[In] rated current	1600 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
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	37 KA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 37 KA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 37 KA at 440 V AC 50/60 Hz conforming to IEC 60947-2 30 KA at 500/525 V AC 50/60 Hz conforming to IEC 60947-2 22 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	1000 Cycles at 690 V In 2000 Cycles at 690 V In/2 2000 Cycles at 440 V In 5000 Cycles at 440 V In/2
Power losses	74 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	1600 A at 50 °C
Long time pick-up adjustment type Ir	Adjustable 9 settings
Long time pick-up adjustment range	0.4...1 x In
Long time delay adjustment type	Adjustable 9 settings
[tr] long-time delay adjustment range	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
Thermal memory	20 mn
Short-time pick-up adjustment type Isd	Adjustable 9 settings
[Isd] short-time pick-up adjustment range	1.5...10 x Ir
Short-time delay adjustment type	Adjustable
[tsd] short-time delay adjustment range	0.1…0.4 S I²t=on 0…0.4 S I²t=off
Instantaneous pick-up adjustment type Ii	Adjustable
Instantaneous pick-up adjustment range	Off 2...15 x In
Earth-leakage protection	Without
Neutral protection setting	No protection (3D) 0.5 x Ir (3D + N/2) 1 x Ir (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	280 Mm
Height	327 Mm
Depth	147 Mm
Net weight	18 Kg

Environment

Standards	EN/IEC 60947-2
Product certifications	IECEE CB Scheme
Overvoltage category	III
Electrical shock protection class	Class II on front face
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	30.000 Cm
Package 1 Width	40.000 Cm
Package 1 Length	60.000 Cm
Package 1 Weight	15.800 Kg

Offer Sustainability

Recyclability potential, in %	56
Total lifecycle Carbon footprint	1 590 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	220.96012784658413
Carbon footprint of the manufacturing phase [A1 to A3]	221 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	4.55454095085897
Carbon footprint of the distribution phase [A4]	5 kg CO2 eq.
Carbon footprint of the installation phase [A5]	1.9731378345984818
Carbon footprint of the installation phase [A5]	2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1339.931832709839
Carbon footprint of the use phase [B2, B3, B4, B6]	1 340 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	23.01762684778266
Carbon footprint of the end-of-life phase [C1 to C4]	23 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	1590
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	76c2e213-3b51-4d8b-afdf-632ded42d731
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
Halogen-free status	Product contains halogen above thresholds
PVC free	Yes
Silicone-free	No
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised