

Product data sheet

Characteristics

C160H450FM

Circuit breaker, ComPacT NS1600H, 70kA 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
Number of poles	4P
Protected poles description	4D
Neutral position	Left
(In) rated current up to 65 °C	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
[Icu] rated ultimate short-circuit breaking capacity	85 KA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 70 KA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 65 KA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 50 KA Icu at 500/525 V AC 50/60 Hz conforming to IEC 60947-2 42 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Performance level	H 70 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	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

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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 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	37.0 cm
Package 1 Width	38.0 cm
Package 1 Length	30.0 cm
Package 1 Weight	16.961 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins