

Product datasheet

Specifications



circuit breaker Compact NSX630HB1 - Micrologic 6.3 E-M - 500 A - 3 poles 3d

LV433728

⚠ Discontinued on: 30 Jun 2023

⚠ Discontinued

Main

Range	ComPact
Product name	ComPact NSX
Range of product	ComPact NSX400...630
Device short name	NSX630HB1
Product or component type	Circuit breaker
Device application	Motor
Number of poles	3P
Protected poles description	3t
[In] rated current	500 A at 65 °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 A
[Icu] rated ultimate short-circuit breaking capacity	85 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 80 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 75 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Performance level	HB1 75 kA 690 V AC
Trip unit name	MicroLogic 6.3 E-M
Trip unit technology	Electronic
Trip unit protection functions	LSIG
Control type	Toggle
Circuit breaker mounting mode	Fixed

Complementary

[Ui] rated insulation voltage	800 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV
[Ics] rated service short-circuit breaking capacity	85 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2 80 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2 75 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2
Mechanical durability	15000 cycles

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Electrical durability	2000 cycles at 690 V In 6000 cycles at 690 V In/2 4000 cycles at 440 V In 8000 cycles at 440 V In/2
Mounting support	Backplate
Upside connection	Front
Downside connection	Front
Connection pitch	45 mm
Protection type	L : for overload protection (long time) S : for short time short-circuit protection I : for instantaneous short-circuit protection G : for ground fault protection
Trip unit rating	500 A at 65 °C
Motor tripping class	20 5 30 10
Complementary motor protection	Protracted starting time Stalled rotor Phase unbalance Underload
Long-time pick-up adjustment type Ir (thermal protection)	Adjustable 9 settings
[Ir] long-time protection pick-up adjustment range	250...500 A
Long-time protection delay adjustment type tr	Adjustable
[tr] long-time protection delay adjustment range	10 s at 7.2 x Ir for trip class 10 120 s at 1.5 x Ir for trip class 5 20 s at 7.2 x Ir for trip class 20 240 s at 1.5 x Ir for trip class 10 26 s at 6 x Ir for trip class 20 480 s at 1.5 x Ir for trip class 20 5 s at 7.2 x Ir for trip class 5 13.5 s at 6 x Ir for trip class 10 6.5 s at 6 x Ir for trip class 5 30 s at 7.2 x Ir for trip class 30 38 s at 6 x Ir for trip class 30 720 s at 1.5 x Ir for trip class 30
Thermal memory	20 minutes before and after tripping
Short-time protection pick-up adjustment type Isd	Adjustable 9 settings
[Isd] Short-time protection pick-up adjustment range	5...13 x Ir
Short-time protection delay adjustment type tsd	Fixed
Instantaneous protection pick-up adjustment type Ii	Fixed
[Ii] instantaneous protection pick-up adjustment range	6500 A
Ground-fault protection pick-up adjustment type Ig	Adjustable 9 settings
[Ig] ground-fault protection pick-up adjustment range	0.6...1 x In for In = 25 A 0.3...1 x In for In = 50 A 0.2...1 x In for In > 50 A Ig enable on/off
Ground-fault protection time delay adjustment type tg	Adjustable
[tg] ground-fault protection time delay adjustment range	0...0.4 s
Earth-leakage protection	Without
Zone selective interlocking ZSI	With
Number of slots for electrical auxiliaries	6 slot(s)

Local signalling	Flashing LED (green) for ready to operate LED 95 % lth (red) for temperature over set point
Display type	LCD display
Type of measurement	Energy meter
Communication of data	Protection and alarm settings Demand current and power Power quality Thermal image function Energy metering Time-stamped histories and event tables Maximeters/minimeters Instantaneous and demand values Phase sequence Maintenance indicators
Width (W)	140 mm
Height (H)	255 mm
Depth (D)	110 mm
Net weight	6.2 kg

Environment

Standards	EN/IEC 60947
Product certifications	CCC EAC Marine
Overvoltage category	Class II
Electrical shock protection class	Class II
Pollution degree	3 conforming to IEC 60664-1
IP degree of protection	IP40 conforming to IEC 60529
IK degree of protection	IK07 conforming to IEC 62262
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...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	15.2 cm
Package 1 Width	15.2 cm
Package 1 Length	29.2 cm
Package 1 Weight	5.81 kg

Contractual warranty

Warranty (in months)	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	1 035 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	30 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.6 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 002 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.9 kg CO2 eq.

Use Better



Materials and Substances

EU RoHS Directive	Compliant By Exemption
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Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

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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