

Product data sheet

Characteristics

C40V45E400

Circuit breaker, ComPacT NSX400HB1,
75kA/690VAC, 4 poles, MicroLogic 5.3E trip
unit 400A



Main

Range	ComPacT new generation
Product name	ComPacT NSX new generation
Device short name	NSX400HB1
Product or component type	Circuit breaker
Device application	Distribution
Poles description	4P
Protected poles description	4D 3D + OSN 3D + N/2 3D
Neutral position	Left
[In] rated current	400 A at 40 °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 5.3 E
Trip unit technology	Electronic
Trip unit protection functions	LSI
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
Electrical durability	12000 Cycles at 440 V In/2 6000 Cycles at 440 V In 6000 Cycles at 690 V In/2 3000 cycles at 690 V In
Power dissipation per pole	19.2 W
Mounting support	Backplate
Mounting position	Horizontal and vertical Flat on the back
Upside connection	Front

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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
Trip unit rating	400 A at 40 °C
Long-time pick-up adjustment type I_r (thermal protection)	Adjustable 9 settings
[I_r] long-time protection pick-up adjustment range	160...400 A
Long-time protection delay adjustment type t_r	Adjustable
[t_r] long-time protection delay adjustment range	15...400 S at 1.5 x I_r 0.5...16 S at 6 x I_r 0.35...11 s at 7.2 x I_r
Neutral protection settings	0.5 x I_r (3D + N/2) 1 x I_r (4D) 1.6 x I_r (3D + OSN) No protection (3D)
Thermal memory	20 minutes before and after tripping
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 5 settings
[t_{sd}] Short-time protection delay adjustment range	0...0.4 S $I^2t=off$ 0.1...0.4 s $I^2t=on$
Instantaneous protection pick-up adjustment type I_i	Adjustable
[I_i] instantaneous protection pick-up adjustment range	1.5...12 x I_r
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 105 % I_r (red) for overload LED 90 % I_r (orange) for overload
Display type	LCD display
Type of measurement	Energy meter
Communication of data	Energy metering Demand current and power Power quality Maintenance indicators Maximeters/Minimeters Protection and alarm settings Instantaneous and demand values Time-stamped histories and event tables
Width (W)	185 mm
Height (H)	255 mm
Depth (D)	110 mm
Net weight	7.9 kg

Environment

Standards	EN/IEC 60947
Product certifications	Marine[RETURN]EAC[RETURN]CCC
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	20.3 cm
Package 1 Length	29.2 cm
Package 1 Weight	7.554 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
PVC free	Yes
Halogen content performance	Halogen free plastic parts product