



# Circuit breaker, ComPacT NSX160F, 36kA/415VAC, 4 poles, MicroLogic 2.2 trip unit 160A

C16F42D160

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Range	ComPacT new generation
Product name	ComPacT NSX new generation
Device short name	NSX160F
Product or component type	Circuit breaker
Device application	Distribution
Poles description	4P
Protected poles description	3t 4t 3t + N/2
Neutral position	Left
[In] rated current	160 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
Suitability for isolation Utilisation category	Yes conforming to EN/IEC 60947-2  Category A
Utilisation category  [Icu] rated ultimate short-circuit	Category A  10 kA at 600 V AC 50/60 Hz conforming to UL 508  85 kA at 240 V AC 50/60 Hz conforming to UL 508  22 kA lcu at 525 V AC 50/60 Hz conforming to IEC 60947-2  35 kA lcu at 440 V AC 50/60 Hz conforming to IEC 60947-2  36 kA lcu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2  8 kA lcu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2  85 kA lcu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2  35 kA at 480 V AC 50/60 Hz conforming to UL 508
Utilisation category  [Icu] rated ultimate short-circuit breaking capacity	Category A  10 kA at 600 V AC 50/60 Hz conforming to UL 508  85 kA at 240 V AC 50/60 Hz conforming to UL 508  22 kA lcu at 525 V AC 50/60 Hz conforming to IEC 60947-2  35 kA lcu at 440 V AC 50/60 Hz conforming to IEC 60947-2  36 kA lcu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2  8 kA lcu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2  85 kA lcu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2  35 kA at 480 V AC 50/60 Hz conforming to IEC 60947-2  36 kA lcu at 500 V AC 50/60 Hz conforming to IEC 60947-2
Utilisation category  [Icu] rated ultimate short-circuit breaking capacity  Performance level	Category A  10 kA at 600 V AC 50/60 Hz conforming to UL 508 85 kA at 240 V AC 50/60 Hz conforming to UL 508 22 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 35 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 36 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 8 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 85 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 35 kA at 480 V AC 50/60 Hz conforming to UL 508 30 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2
Utilisation category  [Icu] rated ultimate short-circuit breaking capacity  Performance level  Trip unit name	Category A  10 kA at 600 V AC 50/60 Hz conforming to UL 508 85 kA at 240 V AC 50/60 Hz conforming to UL 508 22 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 35 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 36 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 8 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 85 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 35 kA at 480 V AC 50/60 Hz conforming to UL 508 30 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 F 36 kA 415 V AC  Micrologic 2.2
Utilisation category  [Icu] rated ultimate short-circuit breaking capacity  Performance level  Trip unit name  Trip unit technology	Category A  10 kA at 600 V AC 50/60 Hz conforming to UL 508 85 kA at 240 V AC 50/60 Hz conforming to UL 508 22 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 35 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 36 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 8 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 85 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 35 kA at 480 V AC 50/60 Hz conforming to UL 508 30 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2  F 36 kA 415 V AC  Micrologic 2.2  Electronic

#### **Complementary**

[Ui] rated insulation voltage 800 V AC 50/60 Hz

[Uimp] rated impulse withstand voltage	8 kV	
[lcs] rated service short-circuit breaking capacity	35 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2 36 kA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 85 kA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 22 kA at 525 V AC 50/60 Hz conforming to IEC 60947-2 30 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2 8 kA at 660/690 V AC 50/60 Hz conforming to IEC 60947-2	
Mechanical durability	40000 cycles	
Electrical durability	7500 cycles at 690 V In 15000 cycles at 690 V In/2 20000 cycles at 440 V In 40000 cycles at 440 V In/2	
Power losses	9.22 W	
Mounting support	Backplate	
Upside connection	Front	
Downside connection	Front	
Connection pitch	35 mm	
Protection type	L : for overload protection (long time) So : for short time short-circuit protection with fixed delay I : for instantaneous short-circuit protection	
Trip unit rating	160 A at 40 °C	
Long-time pick-up adjustment type Ir (thermal protection)	Adjustable 9 settings	
[Ir] long-time protection pick-up adjustment range	63160 A	
Long-time protection delay adjustment type tr	Fixed	
[Tr] long-time protection delay adjustment range	11 s at 7.2 x lr 16 s at 6 x lr 400 s at 1.5 x lr	
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	1.510 x lr	
Short-time protection delay adjustment type tsd	Fixed	
Instantaneous protection pick- up adjustment type li	Fixed	
[li] instantaneous protection pick-up adjustment range	2400 A	
Earth-leakage protection	Without	
Neutral protection settings	0.5 x lr (3t + N/2) 1 x lr (4t) No protection (3t)	
Zone selective interlocking ZSI	Without	
Number of slots for electrical auxiliaries	5 slot(s)	
Local signalling	Flashing LED (green) for ready to operate LED 105 % Ir (red) for overload LED 90 % Ir (orange) for overload	
Width (W)	140 mm	
Height (H)	161 mm	
Depth (D)	86 mm	
Net weight	2.6 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	-2570 °C
Ambient air temperature for storage	-5085 °C
Relative humidity	095 %
Operating altitude	02000 m without derating 2000 m5000 m with derating

## **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	2.45 kg
Package 1 Height	14.2 cm
Package 1 width	14.8 cm
Package 1 Length	19.4 cm
Unit Type of Package 2	S03
Number of Units in Package 2	6
Package 2 Weight	15.094 kg
Package 2 Height	30 cm
Package 2 width	30 cm
Package 2 Length	40 cm

### Offer Sustainability

REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov