

# Product datasheet

Specifications



## Circuit breaker, ComPacT NSX160F, 36kA/415VAC, 4 poles, MicroLogic Vigi 4.2-AB trip unit 160A

C16F44B160

### Main

Range	ComPacT
Product name	ComPacT NSX
Device short name	NSX160F
Product or component type	Earth leakage circuit breaker
Device application	Special application
Poles description	4P
Protected poles description	4D 3D + N/2 3D
Neutral position	Left
[In] rated current	160 A at 40 °C
[Ue] rated operational voltage	440 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
Breaking capacity	85 kA Icu at 220/240 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 35 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 30 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 22 kA Icu at 525 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 240 V AC 50/60 Hz conforming to UL 60947-4-1 35 kA Icu at 480 V AC 50/60 Hz conforming to UL 60947-4-1 10 kA Icu at 600 V AC 50/60 Hz conforming to UL 60947-4-1
Breaking capacity code	F 36 kA 415 V AC
Trip unit name	MicroLogic 4.2 AB
Trip unit technology	Electronic
Trip unit protection functions	LSolR
Control type	Toggle
Circuit breaker mounting mode	Fixed

### Complementary

[UI] rated insulation voltage	500 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV

<b>[Ics] rated service breaking capacity</b>	85 kA at 220/240 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 35 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2 30 kA at 500 V AC 50/60 Hz conforming to IEC 60947-2 22 kA at 525 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
<b>Mechanical durability</b>	40000 cycles
<b>Electrical durability</b>	40000 cycles at 440 V In/2 20000 cycles at 440 V In 15000 cycles at 690 V In/2 7500 cycles at 690 V In
<b>Power dissipation per pole</b>	12.3 W N 12.3 W L1 and L3 10 W L2
<b>Mounting support</b>	Backplate
<b>Mounting position</b>	Horizontal and vertical Flat on the back
<b>Upside connection</b>	Front
<b>Downside connection</b>	Front
<b>Connection pitch</b>	35 mm
<b>Protection type</b>	L : for overload protection (long time) So : for short time short-circuit protection with fixed delay I : for instantaneous short-circuit protection R : for earth-leakage protection
<b>Trip unit rating</b>	160 A at 40 °C
<b>Long-time pick-up adjustment type Ir (thermal protection)</b>	Adjustable 9 settings
<b>[Ir] long-time protection pick-up adjustment range</b>	90...160 A
<b>Long-time protection delay adjustment type tr</b>	Fixed
<b>[tr] long-time delay adjustment range</b>	15 s at 1.5 x Ir 0.5 s at 6 x Ir 0.35 s at 7.2 x Ir
<b>Neutral protection setting</b>	0.5 x Ir (3D + N/2) 1 x Ir (4D) No protection (3D)
<b>Thermal memory</b>	20 minutes before and after tripping
<b>Short-time protection pick-up adjustment type Isd</b>	Adjustable
<b>[Isd] Short-time protection pick-up adjustment range</b>	1.5...10 x Ir
<b>Short-time protection delay adjustment type tsd</b>	Fixed
<b>Instantaneous protection pick-up adjustment type Ii</b>	Fixed
<b>[Ii] instantaneous protection pick-up adjustment range</b>	1600 A
<b>Earth-leakage protection</b>	Integrated
<b>Earth-leakage protection class</b>	Class A
<b>Earth-leakage protection sensitivity adjustment type IΔn</b>	Adjustable
<b>[IΔn] earth-leakage protection sensitivity adjustment range</b>	30 mA 100 mA 300 mA 500 mA 1 A 3 A 5 A
<b>Operating mode</b>	OFF using the IΔn rotary switch

Earth-leakage protection time delay adjustment type $\Delta t$	Adjustable
[ $\Delta t$ ] residual earth-leakage time delay adjustment	0 ms 60 ms 150 ms 500 ms 1 s
Zone selective interlocking ZSI	Without
Number of slots	5 slot(s)
Local signalling	Flashing LED (green) for ready to operate LED 105 % I <sub>r</sub> (red) for overload LED 90 % I <sub>r</sub> (orange) for overload
Width (W)	140 mm
Height (H)	161 mm
Depth (D)	86 mm
Net weight	2.6 kg

## Environment

Standards	EN/IEC 60947-2
Overvoltage category	IV
Electrical shock protection class	Class II on front face
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	-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	14.200 cm
Package 1 Width	15.200 cm
Package 1 Length	19.100 cm
Package 1 Weight	2.592 kg
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	10.738 kg

## Contractual warranty





## 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	213 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	22 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	186 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	1cc6e020-e2e4-4d89-9339-61a460082111
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>
Halogen-free status	Product contains halogen above thresholds
PVC free	Yes
Silicone-free	No

## Use Longer



### Lifetime extension

Repair	No
Updatability	No

## Use Again



### Repack and remanufacture

Recyclability potential, in %	55
End of life manual availability	<a href="#">End of Life Information</a>
Take-back	No

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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Offer Marketing Illustration

Product benefits / Features

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Offer Marketing Illustration

Product benefits / Features

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**ComPacT NSX**  
Range Accessories

Wireless auxiliary contact

Short terminal shield

Interphase barriers

Long terminal shield

Rotary handles

Standard auxiliary contact

MN undervoltage release

MX shunt release

Standard motor mechanism module

The image displays a collection of accessories for the ComPacT NSX circuit breaker range. At the top left, a large circuit breaker is shown against a green background. Below it, nine individual accessories are arranged in a 3x3 grid, each with a small image and a text label. The accessories include: a wireless auxiliary contact (green and black), a short terminal shield (black), interphase barriers (black), a long terminal shield (black), rotary handles (black with green accents), a standard auxiliary contact (white), an MN undervoltage release (black), an MX shunt release (yellow and black), and a standard motor mechanism module (black).

Offer Marketing Illustration

Product benefits / Features

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### ComPacT NSX

#### Technical Benefits

- Nominal current: 16 to 630 A and 9 breaking capacities for the 2 sizes of circuit breakers
- 1, 2, 3, and 4 pole versions available
- Large range of electronic and thermal-magnetic protections
- Plug and ready wiring system and communicating accessories
- Integrated earth leakage protection via MicroLogic Vigi (earth leakage circuit breaker - ELCB)
- Advanced trip unit with integrated power metering: I, U, P, E, THD, f, CosPhi

Offer Marketing Illustration

Product benefits / Features

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## ComPacT NSX Moulded Case Circuit Breaker



### Protection begins with prevention

Designed to prevent an electrical fire through integrated earth leakage protection with preventive maintenance thanks to its Everlink power connections.



### Maximize power availability

By providing corrective, preventive, and predictive maintenance for asset management thanks to our advanced MicroLogic trip units.



### Connectivity

Designed to connect to EcoStruxure Power, an IoT-connected architecture for improving every aspect of your power distribution system.

