



HNA081H

## Moulded Case Circuit Breaker X160 4P 40kA 80A

### Technical properties

#### Architecture

Type of order	Toggle
Number of poles	4 P
Type of pole	4P4D

#### Functions

Complete device with protection unit	Yes
Trip Unit	TM A/F
Integrated earth fault protection	No

#### Configuration

Number of modules	6
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#### Main electrical features

Rated operational voltage Ue	220 / 415 V
Frequency	50/60 Hz

#### Voltage

Rated insulation voltage	690 V
Rated impulse withstand voltage	8 kV
With under voltage release	No

#### Electric current

Rated current	80 A
Rated ultimate short-circuit breaking capacity Icu under 690V AC IEC 60947-2	6 kA
Thermal protection nob setting xIN	0.63 / 0.8 / 1
Thermal setting current on neutral pole	1 In
Breaking capacity on 1 pole for IT 230V NF 60947-2	51 kA
Breaking capacity on 1 pole for IT 400V NF 60947-2	9 kA
Rated service breaking capacity Ics AC according IEC 60947-2	50 %
Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2	40 kA
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	40 kA

### Current correction factors

Correction factor of rating current for 2 devices placed side-by-side	1
Correction factor of rating current for 3 devices placed side-by-side	1
Correction factor of rating current for 4 and 5 devices placed side-by-side	1
Correction factor of rating current for 6 devices placed side-by-side	1

### Power

Total power loss under IN	32.1 W
Power loss per pole at In	10.7 W

### Tripping

Trip mode	TM
Thermal protection trip time	0 ms
Time of response when opening	10 ms

### Electrical specifications

Magnetic trip delay time	0 ms
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### Endurance

Electric endurance in number of cycles	1000
Number of mechanical operations	4000

### Installation, mounting

DIN rail mounting with optional adaptor	No
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### Connection

Connection cross-sect. flexible conductor	4 / 70mm <sup>2</sup>
Connection cross-sect. rigid cable	4 / 95mm <sup>2</sup>
Connection	Front connection
Type of connection	with screw

### Settings

Range of the magnetic adjustment	1000 A
Setting type In or Ith	IN

### Equipment

Number of auxiliary contacts as normally closed contact	0
Number of auxiliary contacts as normally open contact	0
Number of auxiliary contacts as change-over contact	0
Motor drive optional	No

### Use cases

Category of use	A
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**Standards**

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Standard text	IEC 60947-2
European directive WEEE	concerned

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**Safety**

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Protection index IP	IP4X
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**Use conditions**

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Operating temperature	-25...70 °C
Altitude	2000 m
Air humidity protection	for all climates
Storage/transport temperature	-35...70 °C

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