



HNA080H

## Moulded Case Circuit Breaker X160 3P 40kA 80A

### Technical properties

#### Architecture

Number of poles	3 P
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#### Functions

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

#### Configuration

Number of modules	4.5
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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
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
Rated ultimate short-circuit breaking capacity Icu under 440V AC IEC 60947-2	25 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 I <sub>N</sub>	32.1 W
Power loss per pole at I <sub>N</sub>	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. rigid cable	4 / 95mm <sup>2</sup>
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#### Settings

Range of the magnetic adjustment	1000 A
Setting type I <sub>N</sub> or I <sub>th</sub>	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

Standard text	IEC 60947-2
European directive WEEE	concerned

#### Use conditions

Operating temperature	-25...70 °C
Altitude	2000 m

Subject to technical modifications

