



HNA080U

Moulded Case Circuit Breaker X160 3P 40kA 80A

Technical properties

Architecture

Type of order	Toggle
Number of poles	3 P
Type of pole	3P3D

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 U_e	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 I_{cu} 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 I_{cs} AC according IEC 60947-2	50 %
Rated ultimate short-circuit breaking capacity I_{cu} under 230V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I_{cu} under 240V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I_{cu} under 400V AC IEC 60947-2	40 kA
Rated ultimate short-circuit breaking capacity I_{cu} under 415V AC IEC 60947-2	40 kA
Rated ultimate short-circuit breaking capacity I_{cu} 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 IN	32.1 W
Power loss per pole at In	10.7 W

Tripping

Tripmode	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	Yes
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Connection

Connection cross-sect. flexible conductor	4 / 70mm ²
Connection cross-sect. rigid cable	4 / 95mm ²
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

Standard text	IEC 60947-2
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Safety

Protection index IP	IP4X
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Use conditions

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