



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 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 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 <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**

Standard text	IEC 60947-2
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European directive WEEE

not concerned

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**Safety**

Protection index IP

IP4X

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**Use conditions**

Altitude

2000 m

Air humidity protection

for all climates