



HNA080U

MCCB X160 3P 40kA 80A

Architecture

Type of order	Toggle
Type of case	Fixed built-in
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

Compatibility

Compatible with DIN rail mounting	no
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Controls and indicators

Motor drive integrated	no
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Main electrical features

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

Voltage

Rated insulation voltage	690 V
Rated impulse withstand voltage	8000 V
With under voltage release	no

Electric current

Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2	40 kA
Rated service breaking capacity Ics AC according IEC 60947-2	50 %
Breaking capacity on 1 pole with 230 V NF 60947-2	51 kA
Breaking capacity on 1 pole with 400 V NF 60947-2	9 kA
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

#### Technical Properties

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
Rated ultimate short-circuit breaking capacity Icu under 690V AC IEC 60947-2	6 kA
Thermal protection nob setting xI <sub>N</sub>	0,63/0,8/1

#### Current correction factors

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

#### Power

Power loss per pole at I <sub>N</sub>	10,7 W
Power loss per pole at 0.63*I <sub>N</sub>	4,2 W
Power loss per pole at 0.8*I <sub>N</sub>	6,6 W
Total power loss under I <sub>N</sub>	32,1 W
Total power loss at 0.63*I <sub>N</sub>	12,5 W
Total power loss at 0.8*I <sub>N</sub>	19,9 W

#### Tripping

Trip mode	TM
Time of response when opening	10 ms

#### Endurance

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

#### Installation, mounting

Tightening torque	6Nm
DIN rail mounting with optional adaptor	yes

#### Connection

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

#### Settings

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

#### Equipment

Motor drive optional	no
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#### Use cases

Category of use	A
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#### Standards

Standard text	IEC 60947-2
European directive WEEE	concerned

#### Safety

Protection index IP	IP4X
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#### Use conditions

Altitude	2000 m
Storage temperature	-35 to 70 °C
Air humidity protection	for all climates