



HNA040U

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

## **Technical properties**

|   | 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   |
| 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  | 40 A  |
|   |   |
| Rated ultimate short-circuit breaking capa-<br>city Icu under 690V AC IEC 60947-2   |   |
|   | 6 kA<br>0.63 / 0.8 / 1  |
| city Icu under 690V AC IEC 60947-2<br>Thermal protection nob setting xIN<br>Breaking capacity on 1 pole for IT 230V NF  | 6 kA<br>0.63 / 0.8 / 1  |
| city Icu under 690V AC IEC 60947-2<br>Thermal protection nob setting xIN<br>Breaking capacity on 1 pole for IT 230V NF<br>60947-2<br>Breaking capacity on 1 pole for IT 400V NF   | 6 kA<br>0.63 / 0.8 / 1<br>51 kA                                   |
| city Icu under 690V AC IEC 60947-2<br>Thermal protection nob setting xIN<br>Breaking capacity on 1 pole for IT 230V NF<br>60947-2<br>Breaking capacity on 1 pole for IT 400V NF<br>60947-2<br>Rated service breaking capacity Ics AC  | 6 kA<br>0.63 / 0.8 / 1<br>51 kA<br>9 kA                           |
| city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Rated service breaking capacity Ics AC according IEC 60947-2 Rated ultimate short-circuit breaking capa-  | 6 kA<br>0.63 / 0.8 / 1<br>51 kA<br>9 kA<br>50 %                   |
| city Icu under 690V AC IEC 60947-2<br>Thermal protection nob setting xIN<br>Breaking capacity on 1 pole for IT 230V NF<br>60947-2<br>Breaking capacity on 1 pole for IT 400V NF<br>60947-2<br>Rated service breaking capacity Ics AC<br>according IEC 60947-2<br>Rated ultimate short-circuit breaking capa-<br>city Icu under 230V AC IEC 60947-2<br>Rated ultimate short-circuit breaking capa-   | 6 kA<br>0.63 / 0.8 / 1<br>51 kA<br>9 kA<br>50 %<br>85 kA          |
| city Icu under 690V AC IEC 60947-2<br>Thermal protection nob setting xIN<br>Breaking capacity on 1 pole for IT 230V NF<br>60947-2<br>Breaking capacity on 1 pole for IT 400V NF<br>60947-2<br>Rated service breaking capacity Ics AC<br>according IEC 60947-2<br>Rated ultimate short-circuit breaking capa-<br>city Icu under 230V AC IEC 60947-2<br>Rated ultimate short-circuit breaking capa-<br>city Icu under 240V AC IEC 60947-2<br>Rated ultimate short-circuit breaking capa-<br>city Icu under 240V AC IEC 60947-2<br>Rated ultimate short-circuit breaking capa- | 6 kA<br>0.63 / 0.8 / 1<br>51 kA<br>9 kA<br>50 %<br>85 kA<br>85 kA |
| city Icu under 690V AC IEC 60947-2  | 6 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<br>5 devices placed side-by-side  | 1                                     |
| Correction factor of rating current for 6<br>devices placed side-by-side  | 1                                     |
| Power   |                                       |
| Total power loss under IN   | 11 W                                  |
| Power loss per pole at In   | 3.7 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                                  |
| Endurance   |                                       |
| Electric endurance in number of cycles  | 1000                                  |
| Number of mechanical operations   | 4000                                  |
| Installation, mounting  |                                       |
| DIN rail mounting with optional adaptator   | Yes                                   |
|   |                                       |
| Connection  |                                       |
| Connection cross-sect. flexible conductor   | 4 / 70mm <sup>2</sup>                 |
| Connection cross-sect. rigid cable  | 4 / 95mm²                             |
| Connection  | Front connection                      |
| Type of connection  | with screw                            |
| Settings  |                                       |
| Range of the magnetic adjustment  |                                       |
| Setting type In or Ith  | 600 A                                 |
| Equipment   |                                       |
|   |                                       |
|   | IN                                    |
| closed contact<br>Number of auxiliary contacts as normally  | IN<br>C                               |
| closed contact<br>Number of auxiliary contacts as normally<br>open contact<br>Number of auxiliary contacts as change-   | IN<br>(                               |
| closed contact<br>Number of auxiliary contacts as normally<br>open contact<br>Number of auxiliary contacts as change-<br>over contact   | IN<br>(                               |
| closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change- over contact Motor drive optional  | IN<br>C<br>C                          |
| Number of auxiliary contacts as normally<br>closed contact<br>Number of auxiliary contacts as normally<br>open contact<br>Number of auxiliary contacts as change-<br>over contact<br>Motor drive optional<br>Use cases<br>Category of use | A 000<br>IN<br>C<br>C<br>C<br>NC<br>A |
| closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change- over contact Motor drive optional Use cases  | IN<br>C<br>C<br>C<br>Nc               |
| closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change- over contact Motor drive optional Use cases Category of use  |                                       |

## **Use conditions**

Altitude

Air humidity protection

2000 m

for all climates