



HHA161H

## Moulded Case Circuit Breaker X160 4P 25kA 160A

## **Technical properties**

Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	6 220 / 415 V
Functions         Complete device with protection unit         Trip Unit         With integrated earth leakage fault protection         Configuration         Number of modules         Main electrical features         Rated operational voltage Ue         Frequency         Voltage         Rated insulation voltage         With under voltage release         Electric current         Rated current         Rated ultimate short-circuit breaking capa- city icu under 690V AC IEC 60947-2         Thermal protection nob setting xIN         Thermal setting current on neutral pole         Breaking capacity on 1 pole for IT 230V NF 60947-2         Breaking capacity on 1 pole for IT 400V NF	Yes TM A/F No 220 / 415 V
Complete device with protection unit Trip Unit Trip Unit With integrated earth leakage fault protec- tion Configuration Number of modules Main electrical features Rated operational voltage Ue Frequency Voltage Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated current Rated current Rated current Rated current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	TM A/F No 220 / 415 V
Trip Unit With integrated earth leakage fault protec- tion Configuration Number of modules Main electrical features Rated operational voltage Ue Frequency Voltage Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated impulse withstand voltage With under voltage release Electric current Rated current Rated current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 200V NF	TM A/F No 220 / 415 V
With integrated earth leakage fault protec- tion Configuration Number of modules Main electrical features Rated operational voltage Ue Frequency Voltage Rated insulation voltage Rated insulation voltage Rated insulation voltage With under voltage release Electric current Rated current Rated current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	No 6 220 / 415 V
tion Configuration Number of modules Main electrical features Rated operational voltage Ue Frequency Voltage Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated inpulse withstand voltage With under voltage release Electric current Rated current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	220 / 415 V
Number of modules         Main electrical features         Rated operational voltage Ue         Frequency         Voltage         Rated insulation voltage         Rated inpulse withstand voltage         With under voltage release         Electric current         Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2         Thermal protection nob setting xIN         Thermal setting current on neutral pole         Breaking capacity on 1 pole for IT 230V NF         60947-2         Breaking capacity on 1 pole for IT 400V NF	220 / 415 V
Main electrical features         Rated operational voltage Ue         Frequency         Voltage         Rated insulation voltage         Rated impulse withstand voltage         With under voltage release         Electric current         Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2         Thermal protection nob setting xIN         Thermal setting current on neutral pole         Breaking capacity on 1 pole for IT 230V NF         60947-2         Breaking capacity on 1 pole for IT 400V NF	
Rated operational voltage Ue         Frequency         Voltage         Rated insulation voltage         Rated impulse withstand voltage         With under voltage release         Electric current         Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2         Thermal protection nob setting xIN         Thermal setting current on neutral pole         Breaking capacity on 1 pole for IT 230V NF         60947-2         Breaking capacity on 1 pole for IT 400V NF	220 / 415 V 50/60 Hz
Frequency Voltage Rated insulation voltage Rated inpulse withstand voltage With under voltage release Electric current Rated current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	
Voltage         Rated insulation voltage         Rated impulse withstand voltage         With under voltage release         Electric current         Rated current         Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2         Thermal protection nob setting xIN         Thermal setting current on neutral pole         Breaking capacity on 1 pole for IT 230V NF 60947-2         Breaking capacity on 1 pole for IT 400V NF	50/60 Hz
Rated insulation voltage Rated impulse withstand voltage With under voltage release Electric current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	
Rated impulse withstand voltage With under voltage release Electric current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	
With under voltage release  Electric current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	690 V
Electric current Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	8 kV
Rated current Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	No
Rated ultimate short-circuit breaking capa- city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	
city Icu under 690V AC IEC 60947-2 Thermal protection nob setting xIN Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	160 A
Thermal setting current on neutral pole Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	4 kA
Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF	0.63/0.8/1
60947-2 Breaking capacity on 1 pole for IT 400V NF	1 In
	21 kA
60947-2	9 kA
Rated service breaking capacity Ics AC according IEC 60947-2	80 %
Rated ultimate short-circuit breaking capa- city Icu under 230V AC IEC 60947-2	35 kA
Rated ultimate short-circuit breaking capa- city Icu under 240V AC IEC 60947-2	
Rated ultimate short-circuit breaking capa- city Icu under 400V AC IEC 60947-2	
Rated ultimate short-circuit breaking capa- city Icu under 415V AC IEC 60947-2	35 kA 25 kA

Current correction factors	
Correction factor of rating surrent for 2	
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	43.8 W
Power loss per pole at In	14.6 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 Installation, mounting	4000
DIN rail mounting with optional adaptator	No
Connection	
Connection cross-sect. flexible conductor	4 / 70mm²
Connection cross-sect. rigid cable	4 / 95mm²
Connection	Front connection
Type of connection	with screw
Settings	
Range of the magnetic adjustment	1600 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	C
Motor drive optional	Nc
Use cases	
Category of use	А

## Standards

Standard text	IEC 60947-2
Use conditions	
Operating temperature	-2570 °C
Altitude	2000 m
Air humidity protection	for all climates

Storage/transport temperature

-35...70 °C