HHS161DC

MCCB h3+ P160 TM 4x160A 25kA

Product Datasheet

Architecture

Type of order	Toggle
Neutral position	left
Number of protected poles	4
Number of poles	4 P
Type of pole	4P4D N:0/100%
Fixing mode	fixing plate
Type of case	Fixed built-in

Functions

Complete device with protection unit	yes
Reversing switch	no
Version as main switch	yes
Version as emergency stop installation	no
Version as safety switch	no
Version as maintenance-/service switch	yes
Trip Unit	TM A/A
Integrated earth fault protection	no
Concurrently switching N-neutral	yes
Version as switch disconnector compact	yes
Isolation suitability	yes
Sealable	yes

Compatibility

Compatible with DIN rail mounting	no
Compatible with RCD AOB	no

Controls and indicators

Motor drive integrated	no
With Contact position indicator	yes
With fault indicator	yes

Connectivity

ACP connection (communication)	no
CIP connection (communication)	no
MIP connection (communication)	no
OAC connection (communication)	no
PTA connection (communication)	no
ZSI connection (communication)	no

Main electrical features

Rated operational voltage Ue	220 / 690 V
Type of supply voltage	AC
Frequency	50/60 Hz

Voltage

Rated insulation voltage	800 V
Rated impulse withstand voltage	8 kV
With under voltage release	no

Electric current

Rated current	160 A
Rated ultimate short-circuit breaking capacity Icu under 110-138V AC IEC 60947-2	35 kA
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
Rating current 10°C according to IEC 60947	192,1 A
Rating current 150°C according to IEC 60947	188,4 A
Rating current 20°C according to IEC 60947	184,6 A
Rating current 25°C according to IEC 60947	180,7 A
Rating current 30°C according to IEC 60947	176,8 A
Rating current 35°C according to IEC 60947	172,7 A
Rating current 40°C according to IEC 60947	168,6 A
Rating current 45°C according to IEC 60947	164,4 A
Rating current 50°C according to IEC 60947	160 A
Rating current 55°C according to IEC 60947	155,5 A
Rating current 60°C according to IEC 60947	150,9 A
Rating current 65°C according to IEC 60947	146,2 A
Rating current 70°C according to IEC 60947	141,2 A
Rated service breaking capacity Ics under 220V AC according IEC 60947-2	35 kA
Rated service breaking capacity Ics under 230V AC according IEC 60947-2	35 kA
Rated service breaking capacity Ics under 240V AC according IEC 60947-2	35 kA
Rated service breaking capacity Ics under 380V AC according IEC 60947-2	25 kA
Rated service breaking capacity Ics under 400V AC according IEC 60947-2	25 kA
Rated service breaking capacity Ics under 415V AC according IEC 60947-2	25 kA
Rated service breaking capacity Ics under 660V AC according IEC 60947-2	6 kA
Rated service breaking capacity Ics under 690V AC according IEC 60947-2	6 kA
Breaking capacity on 1 pole for IT 230V NF 60947-2	6 kA
Breaking capacity on 1 pole for IT 400V NF 60947-2	6 kA
Breaking capacity on 1 pole for IT 415V NF 60947-2	6 kA
Breaking capacity on 1 pole for IT 690V NF 60947-2	2,5 kA
Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2	35 kA
Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	35 kA
Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2	25 kA
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	25 kA
Range of the thermal adjustment	100 / 125 / 160 A
Rated short-circuit making capacity Icm under 110-138V AC according IEC 60947-2	73,5 kA

Rated short-circuit making capacity Icm under 220V AC according IEC 60947-2	73,5 kA
Rated short-circuit making capacity Icm under 230V AC according IEC 60947-2	73,5 kA
Rated short-circuit making capacity Icm under 240V AC according IEC 60947-2	73,5 kA
Rated short-circuit making capacity Icm under 380V AC according IEC 60947-2	52,5 kA
Rated short-circuit making capacity Icm under 400V AC according IEC 60947-2	52,5 kA
Rated short-circuit making capacity Icm under 415V AC according IEC 60947-2	52,5 kA
Rated short-circuit making capacity Icm under 660V AC according IEC 60947-2	9 kA
Rated short-circuit making capacity Icm under 690V AC according IEC 60947-2	9 kA
Rated service breaking capacity Ics under 110-138V AC according IEC 60947-2	35 kA
Rated ultimate short-circuit breaking capacity Icu under 220V AC IEC 60947-2	35 kA
Rated ultimate short-circuit breaking capacity Icu under 380V AC IEC 60947-2	25 kA
Rated ultimate short-circuit breaking capacity Icu under 660V AC IEC 60947-2	6 kA

Frequency

Frequency	50 to 60 Hz

Power

Power loss per pole at 0.63*In	5,78 W
Power loss per pole at 0.8*In	9,02 W
Total power loss at 0.63*In	17,33 W
Total power loss at 0.8*In	27,07 W
Total power loss under IN	42,3 W
Power loss per pole at In	14,1 W

Tripping

Short-time delayed tripping	no

Endurance

Electric endurance in number of cycles	10000
Number of mechanical operations	40000

Cover, door

Interlockable	yes

Dimensions

Depth of installed product	97 mm
Height of installed product	130 mm
Width of installed product	120 mm
Critical distance switching emission/earthed part bottom	50 mm
Critical distance switching emission/earthed part left	50 mm
Critical distance switching emission/earthed part right	50 mm
Critical distance switching emission/earthed part top	50 mm
Critical distance switching emission/live part	75 mm

Installation, mounting

Tightening torque	6Nm
DIN rail mounting with optional adaptator	yes
Suitable for front mounting center	no
Suitable for distribution board installation	yes
Suitable for front mounting	no
Suitable for ground mounting	yes
Suitable for intermediate mounting	no

Connection

Connection cross-sect. flexible conductor	6 / 70mm²
Connection cross-sect. rigid cable	6 / 95mm²
Connection	Front connection
Type of connection	with screw

Protection

Earth fault protection (GF)	no
Instantaneous protection (Ii)	yes
Instantaneous protection (Ii): deactivatable	no
Instantaneous protection (Ii): type	fixed
Instantaneous protection (Ii): reference for current setting	Ii… x In
Instantaneous protection (Ii): dial setting coefficient	6 / 7 / 8 / 9 / 10
Long Time overload protection (ltd)	yes
Long time delay protection (ltd): deactivatable	no
Long Time protection (ltd): delay type	fixed
Neutral overload protection (NP)	yes
Neutral overload protection (NP): current (IN)	100 %
Pre-Trip Alarm (PTA)	no
Short time protection (std)	no
Short time protection by I²t curve	no

Cable

Cable Material	Cu

Settings

Range of the magnetic adjustment	960 / 1120 / 1280 / 1440 / 1600 A
Magnetic protection nob setting xIN	6 / 7 / 8 / 9 / 10
Time adjustable	no

Equipment

Motor drive optional	no
Can be accessorized	yes
Accept terminal cover	yes
With optional voltage release	yes

Use cases

Category of use	A

Use

Vibrations and shocks withstand	IEC 68068-2-52 Test FC

Standards

Standard text	IEC 60947-2
European directive WEEE	concerned
Product categories described in the W3E directive 2012/19/EU	Category 5

Safety

Protection index IP	IP4X

Use conditions

Degree of pollution according to IEC 60664 / IEC 60947-2	3
Altitude	2000 m
Air humidity protection	95%HR 55°C sev Kn (IEC 68-2-30/52)

temperatur

Temperature of calibration	50 °C