



HES161NC

Moulded Case Circuit Breaker h3+ P160 Energy 4P4D N0-50-100% 160A 70kA CTC

Technical properties

Architecture

Type of order	Toggle
Neutral position	left
Number of protected poles	4
Number of poles	4 P
Type of pole	4P4D N:0/50/100%
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	ENERGY
Integrated earth fault protection	No
Concurrently switching N-neutral	Yes

Controls and indicators

Motor drive integrated	No
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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 690V AC IEC 60947-2	6 kA
Rated short-time withstand current Icw t=0.4S 220-240 V AC according IEC 60947-2	1.6 kA
Rated short-time withstand current Icw t=0.4S 380-415 V AC according IEC 60947-2	1.6 kA

Rated short-time withstand current I _{cs} t=0.4S 660-690 V AC according IEC 60947-2	1.6 kA
Rating current 10°C according to IEC 60947	160 A
Rating current 15°C according to IEC 60947	160 A
Rating current 20°C according to IEC 60947	160 A
Rating current 25°C according to IEC 60947	160 A
Rating current 30°C according to IEC 60947	160 A
Rating current 35°C according to IEC 60947	160 A
Rating current 40°C according to IEC 60947	160 A
Rating current 45°C according to IEC 60947	160 A
Rating current 50°C according to IEC 60947	160 A
Rating current 55°C according to IEC 60947	160 A
Rating current 60°C according to IEC 60947	160 A
Rating current 65°C according to IEC 60947	160 A
Rating current 70°C according to IEC 60947	150 A
Rated service breaking capacity I _{cs} under 660V AC according IEC 60947-2	6 kA
Breaking capacity on 1 pole for IT 230V NF 60947-2	2.5 kA
Breaking capacity on 1 pole for IT 400V NF 60947-2	2.5 kA
Breaking capacity on 1 pole for IT 415V NF 60947-2	2.5 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 230V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 240V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 400V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 415V AC IEC 60947-2	70 kA
Rated service breaking capacity I _{cs} under 110-138V AC according IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 220V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 380V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity I _{cu} under 660V AC IEC 60947-2	6 kA

Dimensions

Depth of installed product	97 mm
Height of installed product	130 mm
Width of installed product	120 mm

Frequency

Frequency	50 to 60 Hz
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Power

Total power loss under I _N	27 W
Power loss per pole at I _N	9 W

Endurance

Electric endurance in number of cycles	10000
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Subject to technical modifications

Number of mechanical operations	40000
Cover, door	
Interlockable	Yes
Installation, mounting	
Tightening torque	6Nm
DIN rail mounting with optional adaptor	Yes
Suitable for front mounting center	No
Suitable for front mounting	No
Suitable for ground mounting	Yes
Connection	
Connection cross-sect. flexible conductor	6 / 70mm ²
Connection cross-sect. rigid cable	6 / 95mm ²
Connection	Front connection
Type of connection	with screw
Protection	
Instantaneous protection (II): type	adjustable
Cable	
Cable Material	Cu
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
Can be accessorized	Yes
Use cases	
Category of use	A
Use	
Vibrations and shocks withstand	IEC 68068-2-52 Test FC
Standards	
Standard text	IEC 60947-2
Safety	
REACH conform	No
RoHS conform	Yes
Halogen free	No
Use conditions	
Degree of pollution according to IEC 60664 / IEC 60947-2	3
Altitude	2000 m

