



HES040NC

**Moulded Case Circuit Breaker h3+ P160 Energy 3P3D 40A 70kA CTC**

**Technical properties**

**Architecture**

Type of order	Toggle
Neutral position	without neutral
Number of protected poles	3
Number of poles	3 P
Type of pole	3P3D
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	ENERGY
Integrated earth fault protection	No

**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	40 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 <sub>cs</sub> t=0.4S 660-690 V AC according IEC 60947-2	1.6 kA
Rating current 10°C according to IEC 60947	40 A
Rating current 15°C according to IEC 60947	40 A
Rating current 20°C according to IEC 60947	40 A
Rating current 25°C according to IEC 60947	40 A
Rating current 30°C according to IEC 60947	40 A
Rating current 35°C according to IEC 60947	40 A
Rating current 40°C according to IEC 60947	40 A
Rating current 45°C according to IEC 60947	40 A
Rating current 50°C according to IEC 60947	40 A
Rating current 55°C according to IEC 60947	40 A
Rating current 60°C according to IEC 60947	40 A
Rating current 65°C according to IEC 60947	40 A
Rating current 70°C according to IEC 60947	40 A
Rated service breaking capacity I <sub>cs</sub> 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 <sub>cu</sub> under 230V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 240V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 400V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 415V AC IEC 60947-2	70 kA
Rated service breaking capacity I <sub>cs</sub> under 110-138V AC according IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 220V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 380V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity I <sub>cu</sub> under 660V AC IEC 60947-2	6 kA
<b>Dimensions</b>	
Depth of installed product	97 mm
Height of installed product	130 mm
Width of installed product	90 mm
<b>Frequency</b>	
Frequency	50 to 60 Hz
<b>Power</b>	
Total power loss under I <sub>N</sub>	1.68 W
Power loss per pole at I <sub>N</sub>	0.56 W
<b>Endurance</b>	
Electric endurance in number of cycles	10000

Subject to technical modifications

Number of mechanical operations	40000
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**Cover, door**

Interlockable	Yes
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**Installation, mounting**

Tightening torque	6Nm
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DIN rail mounting with optional adaptor	Yes
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Suitable for front mounting center	No
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Suitable for front mounting	No
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Suitable for ground mounting	Yes
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**Connection**

Connection cross-sect. flexible conductor	6 / 70mm <sup>2</sup>
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Connection cross-sect. rigid cable	6 / 95mm <sup>2</sup>
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Connection	Front connection
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Type of connection	with screw
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**Protection**

Instantaneous protection (II): type	adjustable
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**Cable**

Cable Material	Cu
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**Equipment**

Number of auxiliary contacts as normally closed contact	0
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Number of auxiliary contacts as normally open contact	0
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Number of auxiliary contacts as change-over contact	0
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Motor drive optional	No
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Can be accessorized	Yes
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**Use cases**

Category of use	A
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**Use**

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

Standard text	IEC 60947-2
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European directive WEEE	concerned
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**Safety**

Protection index IP	IP4X
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REACH conform	No
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RoHS conform	Yes
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Halogen free	No
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**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)