



HES161GC

**Moulded Case Circuit Breaker h3+ P160 LSNI 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%
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	LSNI
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 $I_{cw}$ $t=0.4S$ 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	159 A
Rating current 65°C according to IEC 60947	145 A
Rating current 70°C according to IEC 60947	135 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
Number of mechanical operations	40000
<b>Cover, door</b>	
Interlockable	Yes
<b>Installation, mounting</b>	
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
<b>Connection</b>	
Connection cross-sect. flexible conductor	6 / 70mm <sup>2</sup>
Connection cross-sect. rigid cable	6 / 95mm <sup>2</sup>
Connection	Front connection
Type of connection	with screw
<b>Protection</b>	
Instantaneous protection (Ii): type	fixed
<b>Cable</b>	
Cable Material	Cu
<b>Equipment</b>	
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
<b>Use cases</b>	
Category of use	A
<b>Use</b>	
Vibrations and shocks withstand	IEC 68068-2-52 Test FC
<b>Standards</b>	
Standard text	IEC 60947-2
European directive WEEE	concerned
<b>Safety</b>	
Protection index IP	IP4X
REACH conform	No
RoHS conform	Yes
Halogen free	No
<b>Use conditions</b>	

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Altitude 2000 m

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Air humidity protection 95%HR 55°C sev Kn (IEC 68-2-30/52)

**temperatur**

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Temperature of calibration 50 °C