



HMS160GC

Moulded Case Circuit Breaker h3+ P160 LSnI 3P3D 160A 50kA CTC

Technical properties

Arc	h	it	ec	t	u	r	e
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Architecture	
Neutral position	without neutral
Number of protected poles	3
Number of poles	3 P
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
Controls and indicators	
Motor drive integrated	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 690V AC IEC 60947-2	6 kA
Rated short-time withstand current lcw	1.6 kA
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 Icw 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 Rating current 20°C according to IEC 60947 Rating current 30°C according to IEC 60947 Rating current 35°C according to IEC 60947 Rating current 35°C according to IEC 60947 Rating current 40°C according to IEC 60947 Rating current 45°C according to IEC 60947 Rating current 50°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	160 A 159 A 145 A 135 A 2.5 kA
Rating current 25°C according to IEC 60947 Rating current 30°C according to IEC 60947 Rating current 35°C according to IEC 60947 Rating current 40°C according to IEC 60947 Rating current 45°C according to IEC 60947 Rating current 50°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	160 A 159 A 145 A 135 A 6 kA 2.5 kA
Rating current 30°C according to IEC 60947 Rating current 40°C according to IEC 60947 Rating current 45°C according to IEC 60947 Rating current 50°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	160 A 159 A 145 A 135 A 6 kA 2.5 kA
Rating current 35°C according to IEC 60947 Rating current 40°C according to IEC 60947 Rating current 45°C according to IEC 60947 Rating current 50°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	160 A 160 A 160 A 160 A 160 A 160 A 159 A 145 A 135 A 6 kA 2.5 kA
Rating current 40°C according to IEC 60947 Rating current 50°C according to IEC 60947 Rating current 50°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking	160 A 160 A 160 A 160 A 160 A 159 A 145 A 135 A 6 kA 2.5 kA
Rating current 45°C according to IEC 60947 Rating current 50°C according to IEC 60947 Rating current 55°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking	160 A 160 A 160 A 159 A 145 A 135 A 6 kA 2.5 kA
Rating current 50°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking	160 A 160 A 159 A 145 A 135 A 6 kA 2.5 kA
Rating current 55°C according to IEC 60947 Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	160 A 159 A 145 A 135 A 6 kA 2.5 kA
Rating current 60°C according to IEC 60947 Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	159 A 145 A 135 A 6 kA 2.5 kA
Rating current 65°C according to IEC 60947 Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	145 A 135 A 6 kA 2.5 kA
Rating current 70°C according to IEC 60947 Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	135 A 6 kA 2.5 kA 2.5 kA
Rated service breaking capacity Ics under 660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	6 kA 2.5 kA 2.5 kA
660V AC according IEC 60947-2 Breaking capacity on 1 pole for IT 230V NF 60947-2 Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	2.5 kA 2.5 kA
Breaking capacity on 1 pole for IT 400V NF 60947-2 Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	2.5 kA
Breaking capacity on 1 pole for IT 415V NF 60947-2 Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	
Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking	2 5 kA
capacity Icu under 230V AC IEC 60947-2 Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking	2.3 KA
capacity Icu under 240V AC IEC 60947-2 Rated ultimate short-circuit breaking	65 kA
	65 kA
	50 kA
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	50 kA
Rated service breaking capacity Ics under 110-138V AC according IEC 60947-2	65 kA
Rated ultimate short-circuit breaking capacity Icu under 220V AC IEC 60947-2	65 kA
Rated ultimate short-circuit breaking capacity Icu under 380V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity Icu 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	90 mm
Frequency	
Frequency	50 to 60 Hz
Power	
Total power loss under IN	27 W
Power loss per pole at In	9 W
Endurance	
Electric endurance in number of cycles	10000
Number of mechanical operations	40000
Cover, door	

Interlockable	Yes
Installation, mounting	
Tightening torque	6Nm
DIN rail mounting with optional adaptator	Yes
Suitable for front mounting center	No
Suitable for front mounting	No
Suitable for ground mounting	Yes
Connection	
Connection cross-sect. rigid cable	6 / 95mm²
Type of connection	with screw
Protection	
Instantaneous protection (Ii): type	fixed
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	
Vibrations and shocks withstand	IEC 68068-2-52 Test FC
Standards	
European directive WEEE	concerned
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
temperatur	
Temperature of calibration	50 °C