



HES160DC

**Moulded Case Circuit Breaker h3+ P160 TM ADJ 3P3D 160A 70kA CTC**

**Technical properties**

**Architecture**

Neutral position	without neutral
Number of protected poles	3
Number of poles	3 P
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

**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
Thermal protection nob setting xIN	0.63 / 0.8 / 1
Rating current 10°C according to IEC 60947	192.1 A
Rating current 15°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 660V 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	85 kA
Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	70 kA
Range of the thermal adjustment	100 / 125 / 160 A
Rated service breaking capacity Ics under 110-138V AC according IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity Icu under 220V AC IEC 60947-2	85 kA
Rated ultimate short-circuit breaking capacity Icu under 380V AC IEC 60947-2	70 kA
Rated ultimate short-circuit breaking capacity Icu 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>	
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
<b>Tripping</b>	
Short-time delayed tripping	No

<b>Endurance</b>	
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. rigid cable	6 / 95mm <sup>2</sup>
<b>Protection</b>	
Instantaneous protection (li): type	fixed
<b>Cable</b>	
Cable Material	Cu
<b>Settings</b>	
Range of the magnetic adjustment	960 / 1120 / 1280 / 1440 / 1600 A
Magnetic protection nob setting xIN	6 / 7 / 8 / 9 / 10
<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>Use conditions</b>	
Degree of pollution according to IEC 60664 / IEC 60947-2	3
Altitude	2000 m
<b>temperatur</b>	

