Miniature circuit breaker (MCB), 20 A, 3p, characteristic: C



Part no. HN-C20/3 194892

General specifications	
Product name	Eaton Moeller series xPole Home - HN/HN-HX MCB
Part no.	HN-C20/3
EAN	9010238063761
Product Length/Depth	85 millimetre
Product height	73 millimetre
Product width	53.1 millimetre
Product weight	0.36 kilogram
Compliances	RoHS conform
Product Tradename	xPole Home - HN/HN-HX
Product Type	MCB
Product Sub Type	None
Delivery program	
Application	Switchgear for residential and commercial applications xPole Home - Switchgear for residential applications
Number of poles	Three-pole
Number of poles (total)	3
Number of poles (protected)	3
Tripping characteristic	С
Release characteristic	С
Amperage Rating	20 A
Туре	HN Miniature circuit breaker
echnical Data - Electrical	
Voltage type	AC
Rated operational voltage (Ue) - max	230 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating - min	50 Hz
Frequency rating - max	60 Hz
Rated switching capacity (IEC/EN 60898-1)	6 kA
Rated short-circuit breaking capacity (EN 60898) at 230 V	6 kA
Rated short-circuit breaking capacity (EN 60898) at 400 V	6 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 230 V	0 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	0 kA
Overvoltage category	III
Pollution degree	3
Fechnical Data - Mechanical	
Width in number of modular spacings	3
Built-in depth	44 mm
Degree of protection	IP20
Connectable conductor cross section (solid-core) - min	1 mm²
Connectable conductor cross section (solid-core) - max	25 mm ²
Connectable conductor cross section (multi-wired) - min	1 mm²
Connectable conductor cross section (multi-wired) - max	25 mm ²
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	20 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	9.8 W

Static heat dissipation, non-current-dependent	0 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	75 °C
Design verification as per IEC/EN 61439	
10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of assemblies	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must bobserved.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must bobserved.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
dditional information	
Current limiting class	3
Features	Additional equipment possible
Special features	Ambient temperature hint: a 1 $^{\circ}\text{C}$ increase results in a 0.5% linear reduction of current carrying capacity
Suitable for	Flush-mounted installation

Technical data ETIM 9.0

Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss13-27-14-19-01 [AAB905019])

Release characteristic Number of poles (total) Number of protected poles Rated current Rated voltage Rated voltage Rated insulation voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC			
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Number of protected poles Rated current A 20 Rated voltage V 230 Rated insulation voltage Ui V 440 Rated insulation voltage Uimp KV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V KA 6 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V KA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V KA 0 Frequency Hz 50 - 60 Power loss W 10.2	Release characteristic		C
Rated current Rated voltage V 230 Rated insulation voltage Ui Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V RATED SO - 60 Power loss W 10.2	Number of poles (total)		3
Rated voltage Rated insulation voltage Ui Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V	Number of protected poles		3
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Rated impulse withstand voltage Uimp kV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 6 Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 6 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 0 Frequency Power loss W 10.2	Rated voltage	V	230
Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 6 Voltage type AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 6 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 0 Frequency Hz 50 - 60 Power loss W 10.2	Rated insulation voltage Ui	V	440
Voltage type AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Frequency Power loss AC AC AC POLITION 1 AC NA 0 LA 0 LA 1 1 1 1 1 1 1 1 1 1 1 1 1	Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 6 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 0 Frequency Hz 50 - 60 Power loss W 10.2	Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V	kA	6
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 0 Frequency Hz 50 - 60 Power loss W 10.2	Voltage type		AC
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 0 Frequency Hz 50 - 60 Power loss W 10.2	Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V	kA	6
Frequency Hz 50 - 60 Power loss W 10.2	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	kA	0
Power loss W 10.2	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V	kA	0
	Frequency	Hz	50 - 60
Current limiting class 3	Power loss	W	10.2
	Current limiting class		3

Flush-mounted installation		Yes
Concurrently switching neutral conductor		No
Over voltage category		3
Pollution degree		3
Additional equipment possible		Yes
Width in number of modular spacings		3
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	-25 - 75
Connectable conductor cross section multi-wired	mm²	1 - 25
Connectable conductor cross section solid-core	mm²	1 - 25
Explosion-proof		No