



**RCD/RCB, 20A, 30mA, miniature circuit-breaker trip curve: C, 1pole+N, residual current circuit-breaker trip characteristic: AC**



**Part no. HNB-C20/1N/003**  
**Catalog No. 195128**

### Delivery program

Basic function			Combined RCD/RCB devices
Number of poles			1 pole+N
Tripping characteristic			C
Rated current	$I_n$	A	20
Rated switching capacity according to IEC/EN 61009		kA	6
Rated fault current	$I_{\Delta N}$	A	0.03
Type			Type AC
Product range			HNB
Impulse withstand current			Partly surge-proof 250 A

### Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	20
Equipment heat dissipation, current-dependent	$P_{vid}$	W	5.4
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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 be observed.
10.12 Electromagnetic compatibility			
			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			
			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

### Technical data ETIM 7.0

Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker (EC000905)

Number of poles (total)			2
Number of protected poles			1
Rated voltage		V	230
Rated insulation voltage $U_i$		V	500
Rated impulse withstand voltage $U_{imp}$		kV	4
Rated current		A	20
Rated fault current		A	0.03
Leakage current type			AC
Current limiting class			3
Rated short-circuit breaking capacity acc. EN 61009		kA	6
Rated short-circuit breaking capacity IEC 60947-2		kA	0
Rated short-circuit breaking capacity $I_{cn}$ acc. EN 61009-1		kA	6
Disconnection characteristic			
Surge current capacity		kA	0.25
Voltage type			AC
Frequency			50 Hz
Release characteristic			C
Concurrently switching N-neutral			Yes
With interlocking device			No
Over voltage category			3
Pollution degree			2
Ambient temperature during operating		°C	-25 - 40
Width in number of modular spacings			2
Built-in depth		mm	69.5
Suitable for flush-mounted installation			No
Anti-nuisance tripping version			No
Degree of protection (IP)			IP20
Connectable conductor cross section solid-core		mm <sup>2</sup>	1 - 25
Connectable conductor cross section multi-wired		mm <sup>2</sup>	1 - 25