# DATASHEET - HNC-25/2/003-A



# Residual current circuit breaker (RCCB), 25A, 2p, 30mA, type A

Part no. HNC-25/2/003-A Catalog No. 194684



**Delivery program** 

7 1 3 3			
Basic function			Residual current circuit-breakers
Number of poles			2 pole
Application			Residual current circuit-breaker for residential and commercial applications
Rated current	In	Α	25
Rated short-circuit strength	I <sub>cn</sub>	kA	6
Rated fault current	$I_{\Delta N}$	Α	0.03
Туре			Type A
Tripping		s	non-delayed
Product range			HNC
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A

## **Technical data**

#### **Electrical**

Types conform to			IEC/EN 61008
Rated operational voltage	U <sub>e</sub>	V	
	U <sub>e</sub>	V AC	
Rated operating voltage	U <sub>e</sub>	V AC	230
Rated frequency	f	Hz	50
Sensitivity			Pulse-current sensitive
Rated short-circuit strength	I <sub>cn</sub>	kA	6
Max. admissible back-up fuse			
Short-circuit	gG/gL	Α	63
Overload	gG/gL	Α	25
Max. back-up fuse		A gL/gG	25
Maximum max. as short-circuit protective device		A gL	
Back-up fuse		A gL	63
Mechanical			
Device height		mm	80
Built-in width		mm	35 (2TE)
Thickness of busbar material		mm	0.8 - 2
Admissible ambient temperature range		°C	-25 - +55

# Design verification as per IEC/EN 61439

Technical data for design verification  Rated operational current for specified heat dissipation  Heat dissipation per pole, current-dependent  Pvid  V  2  Equipment heat dissipation, current-dependent  Operating ambient temperature min.  Operating ambient temperature max.  C  S  Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C  Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C  Neets the product standard's requirements.  Meets the product standard's requirements.  Meets the product standard's requirements.	·			
Heat dissipation per pole, current-dependent  Pvid  W  2  Operating ambient temperature min.  Operating ambient temperature max.  C  Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C  IEC/EN 61439 design verification  10.2 Strength of materials and parts  Meets the product standard's requirements.	Technical data for design verification			
Equipment heat dissipation, current-dependent  Pvid  V  2  Operating ambient temperature min.  Operating ambient temperature max.  °C  55  Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C  IEC/EN 61439 design verification  10.2 Strength of materials and parts  10.2.2 Corrosion resistance  Meets the product standard's requirements.	Rated operational current for specified heat dissipation	In	Α	25
Operating ambient temperature min.  Operating ambient temperature max.  OC -25  Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C  IEC/EN 61439 design verification  10.2 Strength of materials and parts  10.2.2 Corrosion resistance  Meets the product standard's requirements.	Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Operating ambient temperature max.  °C 55  Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C  IEC/EN 61439 design verification  10.2 Strength of materials and parts  10.2.2 Corrosion resistance  Meets the product standard's requirements.	Equipment heat dissipation, current-dependent	$P_{vid}$	W	2
Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C  IEC/EN 61439 design verification  10.2 Strength of materials and parts  10.2.2 Corrosion resistance  Meets the product standard's requirements.	Operating ambient temperature min.		°C	-25
every 1 °C  IEC/EN 61439 design verification  10.2 Strength of materials and parts  10.2.2 Corrosion resistance  Meets the product standard's requirements.	Operating ambient temperature max.		°C	55
10.2 Strength of materials and parts  10.2.2 Corrosion resistance  Meets the product standard's requirements.				
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	10.2 Strength of materials and parts			
10.2.3.1 Verification of thermal stability of enclosures  Meets the product standard's requirements.	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 b observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must b 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) / Residual current circuit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

Number of poles		2
Rated voltage	V	230
Rated current	А	25
Rated fault current	mA	30
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Mounting method		DIN rail
Leakage current type		A
Selective protection		No
Short-time delayed tripping		No
Short-circuit breaking capacity (Icw)	kA	6
Surge current capacity	kA	0.25
Frequency		50 Hz
Additional equipment possible		Yes
With interlocking device		Yes
Degree of protection (IP)		IP20
Width in number of modular spacings		2
Built-in depth	mm	45
Ambient temperature during operating	°C	-25 - 55
Pollution degree		2
Connectable conductor cross section multi-wired	mm²	1.5 - 16
Connectable conductor cross section solid-core	mm²	1.5 - 35