



## Miniature circuit breaker (MCB), 20A, 1Np, D-Char, AC

**Part no.** FAZT-D20/1N  
**Catalog No.** 142513  
**Eaton Catalog No.** FAZT-D20/1N  
**EL-Nummer** 0001666069  
**(Norway)**

Similar to illustration

## Technical data

### Electrical

Standards			IEC/EN 60947-2
Rated voltage according to IEC/EN 60947-2	$U_n$	V AC	240/415
Rated switching capacity acc. to IEC/EN 60947-2	$I_{cu}$	kA	20
Rated insulation voltage	$U_i$	V	440
Rated frequency	f	Hz	50/60
Characteristic			B, C, D
Direction of incoming supply			as required
lifespan			
Electrical	Operations		$\geq 4000$
Mechanical	Operations		$\geq 10000$

### Mechanical

Standard front dimension		mm	45
Enclosure height		mm	80
Mounting width per pole		mm	17.5
Mounting			Quick attachment with 3 latch positions for top-hat rail IEC/EN 60715
Degree of Protection			IP20
Terminals top and bottom			Twin-purpose terminals
Terminal protection			Finger- and back-of-hand proof according to BGV A3 and ÖVE-EN 6
Terminal capacities		mm <sup>2</sup>	1 - 25
Tightening torque of fixing screws		N/m	max. 2.4
Thickness of busbar material		mm	0.8 (except N 0.5 SU)
Mounting position			As required

## Design verification as per IEC/EN 61439

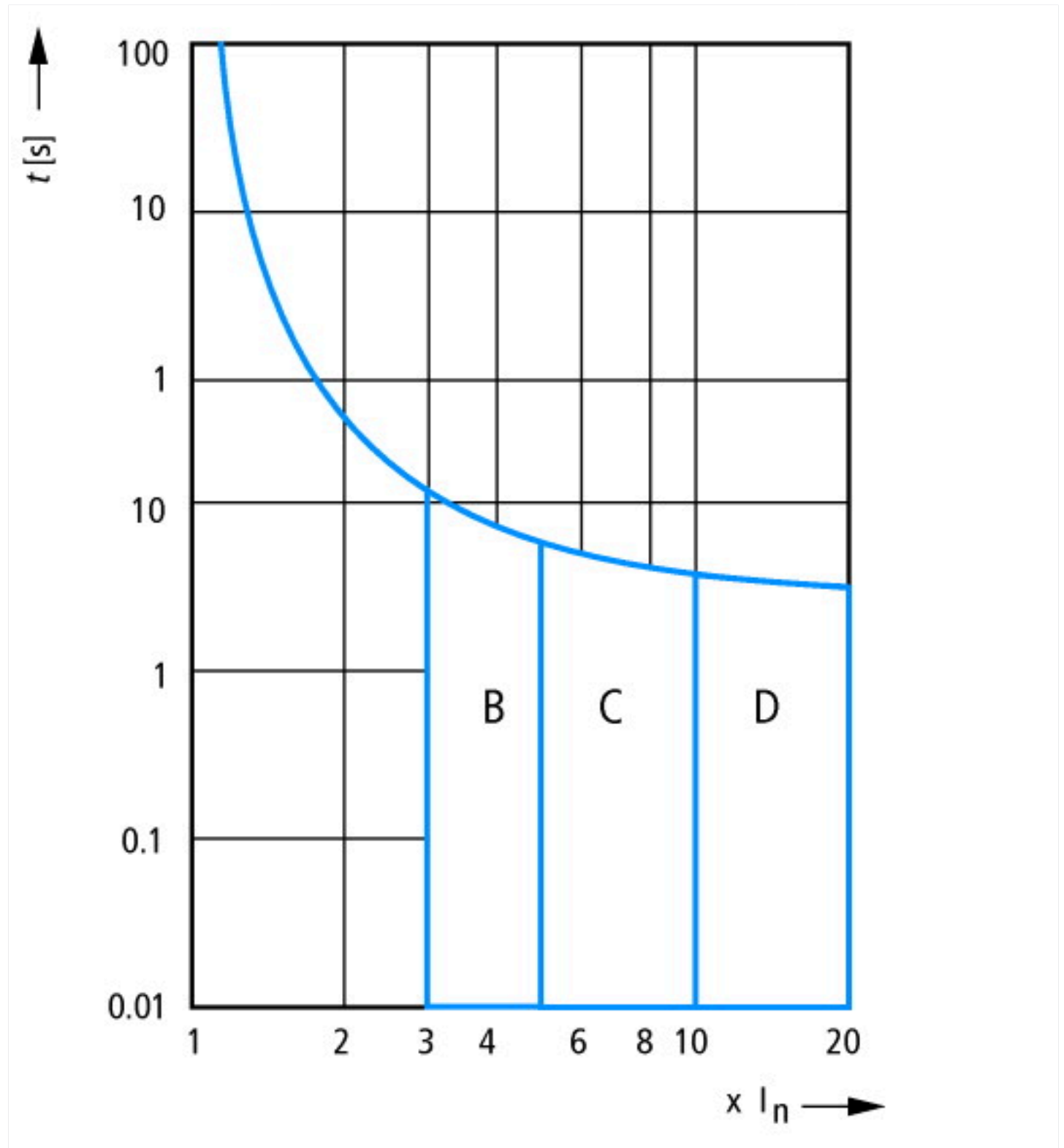
Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	20
Heat dissipation per pole, current-dependent	$P_{vid}$	W	0
Equipment heat dissipation, current-dependent	$P_{vid}$	W	2.2
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	$P_{diss}$	W	0
Operating ambient temperature min.		°C	-40
Operating ambient temperature max.		°C	75
			linear, per +1 °C, results in a 0.5% reduction of current carrying capacity
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) / Miniature circuit breaker (MCB) (EC000042)			
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecI@ss10.0.1-27-14-19-01 [AAB905014])			
Release characteristic			D
Number of poles (total)			2
Number of protected poles			1
Rated current		A	20
Rated voltage		V	230
Rated insulation voltage Ui		V	440
Rated impulse withstand voltage Uimp		kV	4
Rated short-circuit breaking capacity Icn EN 60898 at 230 V		kA	15
Rated short-circuit breaking capacity Icn EN 60898 at 400 V		kA	15
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V		kA	20
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V		kA	20
Voltage type			AC
Frequency		Hz	50 - 60
Current limiting class			3
Suitable for flush-mounted installation			No
Concurrently switching N-neutral			Yes
Over voltage category			3
Pollution degree			2
Additional equipment possible			Yes
Width in number of modular spacings			1.5
Built-in depth		mm	70.5
Degree of protection (IP)			IP20
Ambient temperature during operating		°C	-25 - 75
Connectable conductor cross section multi-wired		mm <sup>2</sup>	1 - 25
Connectable conductor cross section solid-core		mm <sup>2</sup>	1 - 25

## Characteristics



## Dimensions

