DATASHEET - FAZ-C20/2-NA



Similar to illustration

Miniature circuit breaker (MCB), 20 A, 2p, characteristic: C

Part no.	**FAZ-C20/2-NA**
Catalog No.	**102171**
Alternate Catalog No.	**FAZ-C20/2-NA**

Delivery program

Basic function			Miniature circuit-breakers
Number of poles			2 pole
Tripping characteristic			C
Application			Switchgear for export to North America (UL-listed)
Rated current	I_n	A	20
Rated switching capacity acc. to IEC/EN 60947-2	I_{cu}	kA	15
Product range			FAZ-NA

Technical data

Electrical

Standards			UL 489, CSA C22.2 No. 5 IEC 60947-2
Rated operational voltage	U_e	V	
	U_e	V AC	277 Y
		V DC	60
Rated voltage according to IEC/EN 60947-2	U_n	V AC	440
Rated voltage according to UL	U_n	V AC	480Y/277
Rated switching capacity acc. to IEC/EN 60947-2	I_{cu}	kA	15
Breaking capacity according to UL		kA	14 (UL489)
Characteristic			B, C, D
Selectivity Class			3
lifespan			
Lifespan	Operations		> 20000
Direction of incoming supply			as required

Mechanical

Standard front dimension		mm	45
Enclosure height		mm	105
Mounting width per pole		mm	17.7
Mounting			IEC/EN 60715 top-hat rail
Degree of Protection			IP20, IP40 (when fitted)
Terminals top and bottom			Twin-purpose terminals
Terminal protection			Finger and back-of-hand proof to BGV A2
Tightening torque of fixing screws		N/m	max. 2.4 UL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) #6 AWG: 4 Nm (36 lb-in)
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	5.8

Static heat dissipation, non-current-dependent	P_{vs}	W	0
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
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 8.0

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@ss10.0.1-27-14-19-01 [AAB905014])

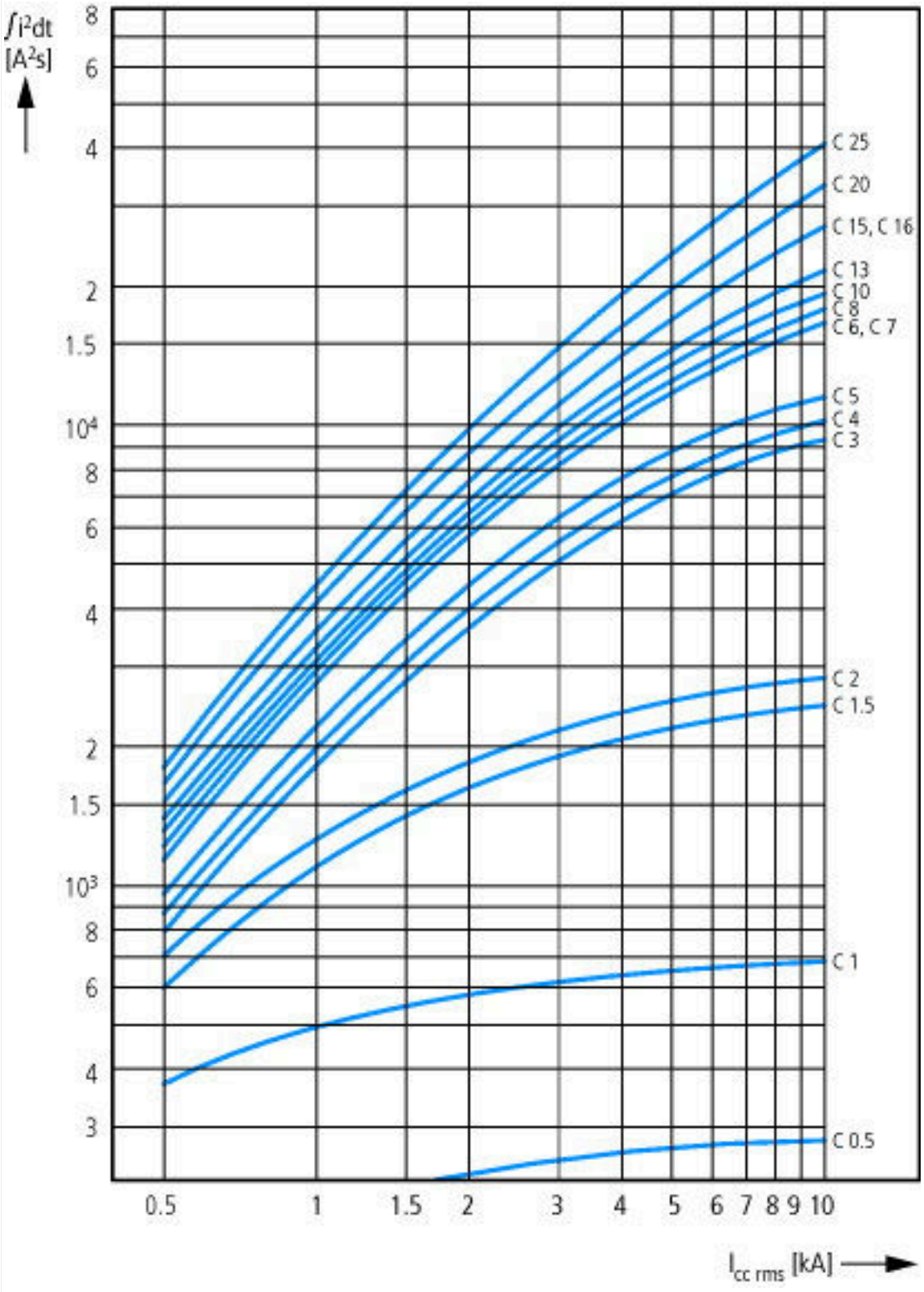
Built-in depth	mm	70.5
Release characteristic		C
Number of poles (total)		2
Number of protected poles		2
Rated current	A	20
Rated voltage	V	415
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V	kA	0
Voltage type		AC
Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V	kA	0
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	kA	15
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V	kA	15
Frequency	Hz	50 - 60
Current limiting class		3
Flush-mounted installation		No
Concurrently switching neutral conductor		No
Over voltage category		3

Pollution degree		2
Additional equipment possible		Yes
Width in number of modular spacings		2
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	-25 - 75
Connectable conductor cross section multi-wired	mm^2	1 - 25
Connectable conductor cross section solid-core	mm^2	1 - 25
Explosion-proof		No

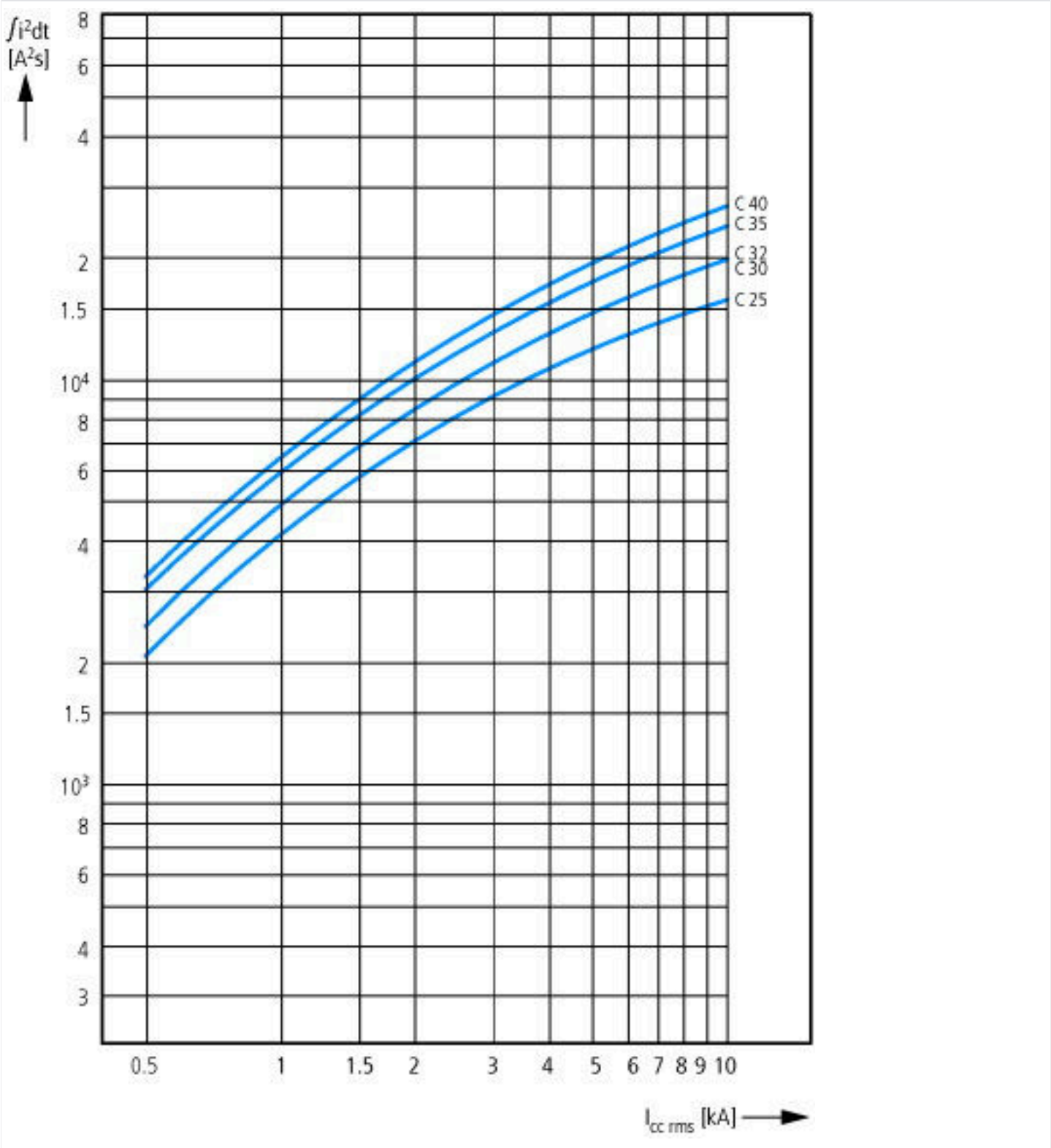
Approvals

Product Standards		IEC/EN 60947-2; EN 45545-2; IEC 61373; UL 489; CSA-C22.2 No. 5-09; CE marking
UL File No.		E235139
UL Category Control No.		DIVQ
CSA File No.		204453
CSA Class No.		1432-01
North America Certification		UL listed, CSA certified
Specially designed for North America		Yes, suitable as BCPD
Suitable for		Feeder circuits, branch circuits
Current Limiting Circuit-Breaker		Yes
Max. Voltage Rating		≤ 32 A
Degree of Protection		IEC: IP20, UL/CSA Type: -

Characteristics



Let-through energy I^2t
Characteristic C (0.5 - 20 A), 277 V



Characteristic C (25 - 40 A), 240 V

Additional product information (links)

Temperature dependency, derating	https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ-NA-RT.pdf

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