DATASHEET - FAZ-B13/3



Miniature circuit breaker (MCB), 13A, 3p, B-Char, AC

Powering Business Worldwide*

Part no. FAZ-B13/3
Catalog No. 278845
Eaton Catalog No. FAZ-B13/3
EL-Nummer 0001695122
(Norway)

Similar to illustration

Technical data Electrical

Electrical			
Standards			IEC/EN 60947-2 IEC/EN 60898
Rated operational voltage	U _e	V	
	U _e	V AC	240/415
		V DC	60 (per pole)
Rated voltage according to UL	Un	V AC	480Y/277
Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	15
Breaking capacity according to UL		kA	10 (UL1077)
Max operational voltage according to IEC/EN 60947-2		V AC	440
Rated switching capacity according to IEC/EN 60947-2 (max operational voltage)	I _{cu}	kA	10
Rated service short-circuit breaking capacity according to IEC/EN 60947-2 (max operational voltage)	I _{cs}		7,5 kA
Rated voltage according to IEC/EN 60898-1	U_n	V AC	415
Rated switching capacity according to IEC/EN 60898-1	I _{cn}	kA	10
Rated service short-circuit breaking capacity according to IEC/EN 60898-1	I _{cs}		7,5 kA
Operational switching capacity		kA	7.5
Characteristic			B, C, D, K, S, Z
Max. back-up fuse		A gL/gG	125
Selectivity Class			3
lifespan			
Lifespan	Operations		> 10000
Direction of incoming supply			as required
Mechanical Standard front dimension		mm	45
Enclosure height		mm	80
Mounting width per pole		mm	17.5
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
Terminal capacities		mm ²	
		mm ²	1 x 25
		mm ²	2 x 10
Thickness of busbar material		mm	0.8 2
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	Α	13
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	7.8
Static heat dissipation, non-current-dependent	P_{vs}	W	0

Operating ambient temperature min. Operating ambient temperature max. EC/EN 61439 design verification		°C	-40 75
		°C	75
EC/EN 61439 design verification			
C/EN 61439 design verification			linear, per +1 °C, results in a 0.5% reduction of current carrying capacity
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.
${\bf 10.2.3.2\ Verification\ of\ resistance\ of\ insulating\ materials\ to\ normal\ heat}$			Meets the product standard's requirements.
$10.2.3.3\mbox{Verification}$ of resistance of insulating materials to abnormal heat and fire due to internal electric effects	t		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

Pollution degree

Additional equipment possible

Width in number of modular spacings

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])

Release characteristic

Number of poles (total)

Number of protected poles

Rated current

A 13

Rated voltage 400 Rated insulation voltage Ui 440 Rated impulse withstand voltage Uimp kV 4 kA Rated short-circuit breaking capacity Icn EN 60898 at 230 $\rm V$ 10 Rated short-circuit breaking capacity Icn EN 60898 at 400 $\rm V$ kA 10 Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 $\rm V$ kΑ 15 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kΑ 15 Voltage type AC Frequency Hz 50 - 60 **Current limiting class** 3 Suitable for flush-mounted installation No No Concurrently switching N-neutral Over voltage category 3

2

Yes

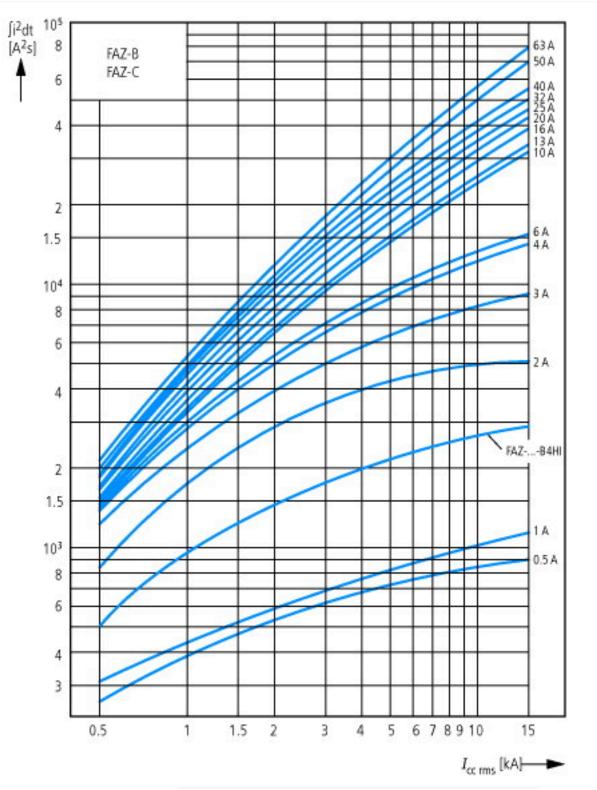
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Built-in depth	mm	70.5
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	-25 - 75
Connectable conductor cross section multi-wired	mm²	1 - 25
Connectable conductor cross section solid-core	mm²	1 - 25

Approvals

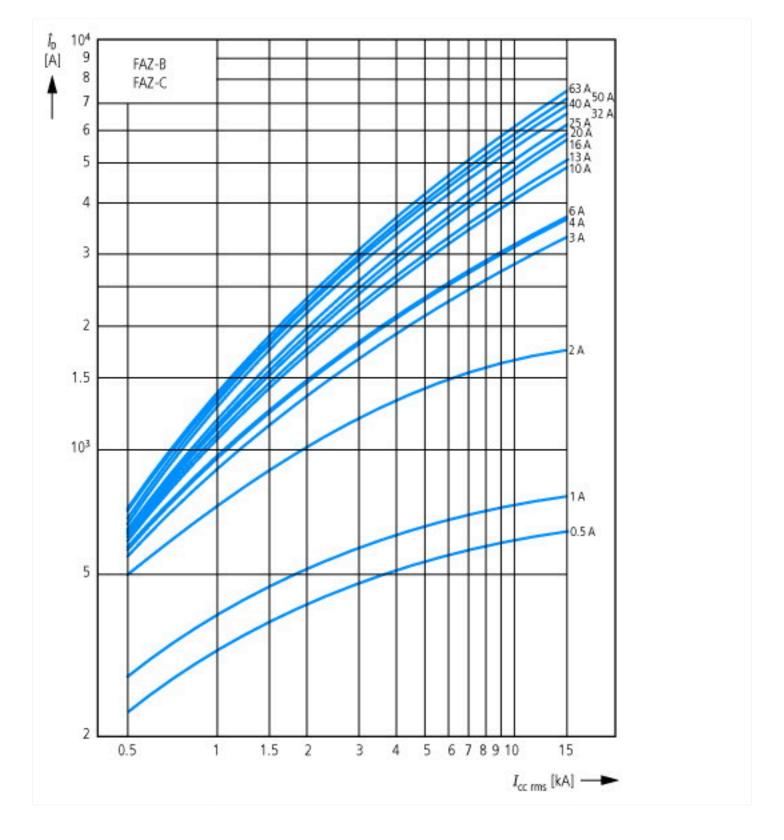
Product Standards	IEC/EN 60947-2; IEC/EN 60898; UL 1077; CSA-C22.2 No. 235; CE marking
UL File No.	E177451
UL Category Control No.	QVNU2, QVNU8
CSA File No.	204453
CSA Class No.	3215-30
North America Certification	UL recognized, CSA certified
Conditions of Acceptability	Supplementary Protector only
Suitable for	Branch Circuits; not as BCPD
Current Limiting Circuit-Breaker	No
Max. Voltage Rating	480Y/277 VAC
Degree of Protection	IEC: IP20; UL/CSA Type: -

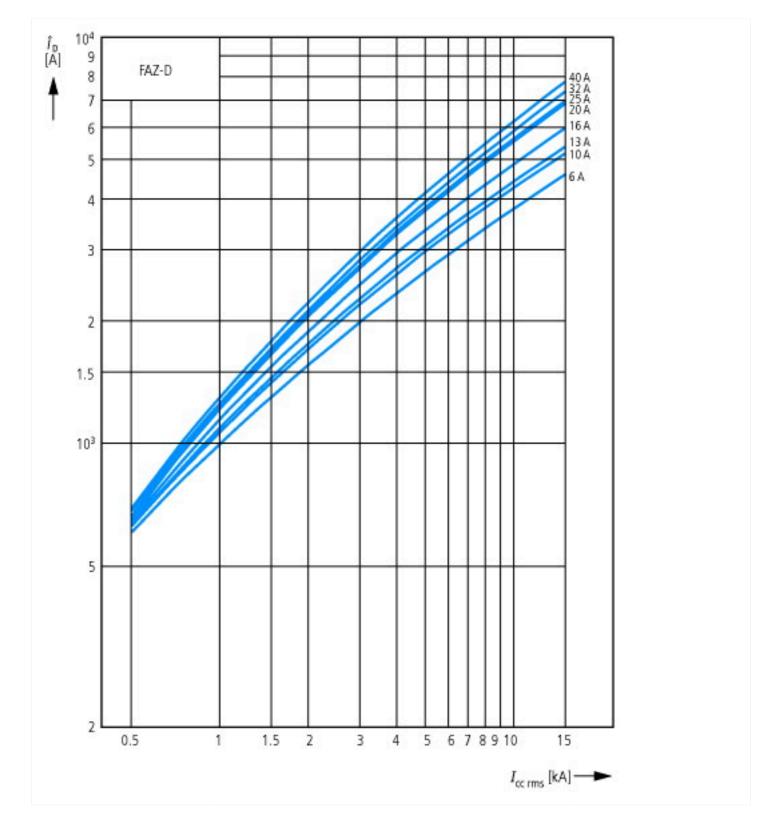
Characteristics

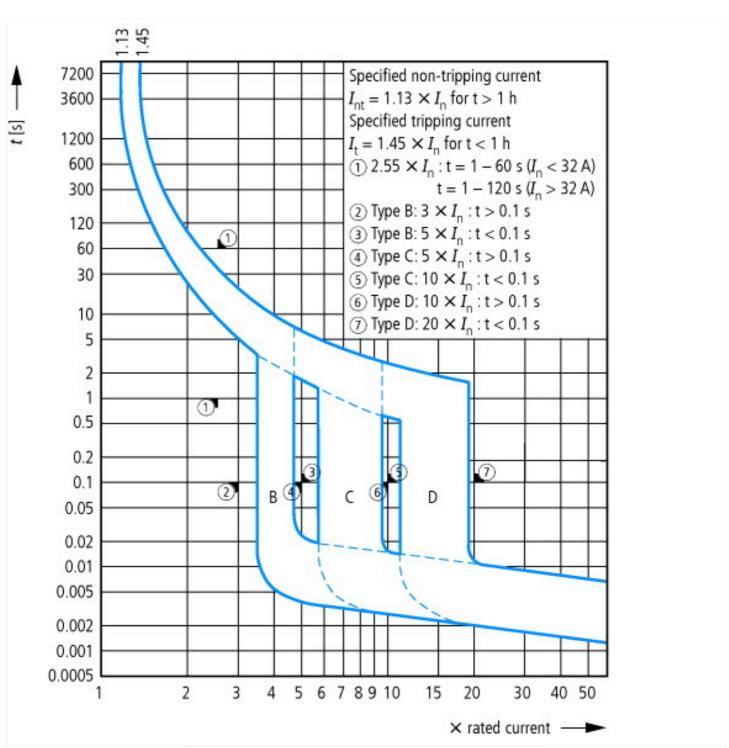


Let-through energy I²t According to IEC/EN 60898









Tripping characteristic at 30 °C: B, C, D to IEC/EN 60898

Dimensions

