#### **DATASHEET - FAZ-B50/3N**



Miniature circuit breaker (MCB), 50A, 3Np, B-Char, AC



Part no. FAZ-B50/3N Catalog No. 278954 Eaton Catalog No. FAZ-B50/3N EL-Nummer 0001691060 (Norway)

Similar to illustration

# Technical data

Lifespan Operations > 10000   Direction of incoming supply as required   Mechanical mm 45   Enclosure height mm 80   Mounting width per pole mm 17.5	Electrical			
	Standards			
No content   No	Rated operational voltage	U <sub>e</sub>	V	
Rated voltage according to UL         Un         V AC         4807/277           Rated switching capacity according to UL         Icu         KA         15           Operational switching capacity         KA         5 (UL1077)           Characteristic         KA         5, C, D, K, S, Z           Max. back-up fuse         B, C, D, K, S, Z           Selectivity Class         B, C, D, K, S, Z           Lifespan         V         V           Lifespan         V         V           Direction of incoming supply         V         V           Mechanical         V         V           Standard front dimension         M         45           Enclosure height         M         M         45           Mounting width per pole         M         M         17.5           Mounting width per pole         M         M         17.5           Mounting width per pole         M         M         17.5           Degree of Protection         F         P         P         P           Terminals top and bottom         F         P         P         P         P           Terminal capacities         M         M         X         2         P		U <sub>e</sub>	V AC	240/415
Reted switching capacity acc to IEC/EN 60947-2  Breaking capacity according to UL  Operational switching capacity Characteristic  Max. back-up fuse Selectivity Class  Iffespan  Lifespan  Operations  Operations  Operations  Operations  Frection of incoming supply  Mechanical  Enclosure height  Mounting width per pole  Mounting  Operations  Operations  Operations  Frection of Protection  Terminals top and bottom  Terminals cop and bottom  Terminal capacities  Timichness of busbar material  Thickness of busbar material			V DC	60 (per pole)
Breaking capacity according to UL  Operational switching capacity Characteristic  Max. back-up fuse Selectivity Class  Iffespan  Operations  Operation	Rated voltage according to UL	Un	V AC	480Y/277
Operational switching capacity       kA       7.5         Characteristic       B.C.D.K.S.Z         Max. back-up fuse       A gL/g6       125         Selectivity Class       Idespan       10000         Lifespan       Operations       > 10000         Direction of incoming supply       s required         Mechanical         Mechanical         Standard front dimension       mm       45         Enclosure height       mm       80         Mounting width per pole       mm       17.5         Mounting       EC/EN 60715 top-hat rail         Degree of Protection       P20, IP40 (when fitted)         Terminals top and bottom       Finger and back-of-hand proof to BGV A2         Terminal capacities       mm²       1 x 25         mm²       1 x 25         mm²       2 x 10         Thickness of busbar material       mm       0 8 2	Rated switching capacity acc. to IEC/EN 60947-2	I <sub>cu</sub>	kA	15
Characteristic  Max. back-up fuse  Selectivity Class  lifespan  Lifespan  Operations  Operations  Direction of incoming supply  Mechanical  Standard front dimension  Enclosure height  Mounting width per pole  Mounting  Degree of Protection  Terminal protection  Terminal protection  Terminal capacities  Terminal capacities  Thickness of busbar material  Direction of incomina supply  Max. back-up fuse  B, D, D, K, S, Z  B, D, D, K, S, D, B, D, L, B, D,	Breaking capacity according to UL		kA	5 (UL1077)
Max. back-up fuse Selectivity Class  Selectivity Class  Lifespan  Lifespan  Operations  Tiection of incoming supply  Mechanical  Standard front dimension  Enclosure height  Mounting width per pole  Mounting  Mounting  Degree of Protection  Terminals top and bottom  Terminal capacities  Terminal capacities  Thickness of busbar material	Operational switching capacity		kA	7.5
Selectivity Class  Iffespan  Lifespan  Direction of incoming supply  Mechanical  Standard front dimension  Enclosure height  Mounting width per pole  Mounting  Degree of Protection  Terminals top and bottom  Terminal capacities  Terminal capacities  Thickness of busbar material  Sale  Operations  Operations  Operations  Operations  Operations  Approach	Characteristic			B, C, D, K, S, Z
Lifespan Operations > 10000 Lifespan Operations > 100000 Direction of incoming supply as required  Mechanical  Standard front dimension	Max. back-up fuse		A gL/gG	125
Lifespan Operations > 10000  Direction of incoming supply as required  Mechanical  Standard front dimension	Selectivity Class			3
Direction of incoming supply  Mechanical  Standard front dimension  Standard front dimension  Mounting width per pole  Mounting  Mounting  Degree of Protection  Terminals top and bottom  Terminal protection  Terminal capacities  mm²  Inickness of busbar material  mm²  Standard front dimension  mm 45  mm 80  mm 17.5  IEC/EN 60715 top-hat rail  IP20, IP40 (when fitted)  Tiwin-purpose terminals  Finger and back-of-hand proof to BGV A2  mm²  I x 25  mm²  I x 2	lifespan			
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     mm²       mm²     1 x 25       mm²     2 x 10       Thickness of busbar material     mm     0.8 2	Lifespan	Operations		> 10000
Standard front dimension mm 85 Enclosure height mm 80 Mounting width per pole mm 17.5 Mounting Degree of Protection International	Direction of incoming supply			as required
Enclosure height  Mounting width per pole  Mounting  Mounting  Degree of Protection  Terminals top and bottom  Terminal protection  Terminal capacities  mm²  Inickness of busbar material  mm 80  mm 17.5  IEC/EN 60715 top-hat rail  IEC/EN	Mechanical			
Mounting width per pole mm 17.5  Mounting lEC/EN 60715 top-hat rail lEC/EN 60715 top-hat rail lP20, IP40 (when fitted)  Terminals top and bottom Twin-purpose terminals  Terminal protection Finger and back-of-hand proof to BGV A2  Terminal capacities mm² 1x 25  mm² 1x 25  mm² 2x 10  Thickness of busbar material mm 0.8 2	Standard front dimension		mm	45
Mounting Degree of Protection Iteminals top and bottom Terminal protection Terminal capacities Imm² Inickness of busbar material IEC/EN 60715 top-hat rail IP20, IP40 (when fitted) IP40	Enclosure height		mm	80
Degree of Protection  Terminals top and bottom  Terminal protection  Terminal capacities  mm²  Tix 25  Thickness of busbar material  Terminal condition  Thickness of busbar material  Terminal condition  Terminal capacities  Tivin-purpose terminals  Finger and back-of-hand proof to BGV A2  Tivin-purpose terminals  Tivin-	Mounting width per pole		mm	17.5
Terminals top and bottom Terminal protection Terminal capacities Terminal capacities Terminal capacities Terminal capacities Thickness of busbar material Terminal capacities Towin-purpose terminals Finger and back-of-hand proof to BGV A2 Terminal capacities Thickness of busbar material Twin-purpose terminals Thickness of busbar material Twin-purpose terminals Towin-purpose terminals Towi	Mounting			IEC/EN 60715 top-hat rail
Terminal protection Terminal capacities Terminal capacities Terminal capacities Terminal capacities Terminal capacities Terminal capacities Thickness of busbar material	Degree of Protection			IP20, IP40 (when fitted)
Terminal capacities mm <sup>2</sup> 1 x 25 mm <sup>2</sup> 2 x 10 Thickness of busbar material mm 0.8 2	Terminals top and bottom			Twin-purpose terminals
mm²       1 x 25         mm²       2 x 10         Thickness of busbar material       mm       0.8 2	Terminal protection			Finger and back-of-hand proof to BGV A2
mm <sup>2</sup> 2 x 10  Thickness of busbar material mm 0.8 2	Terminal capacities		$mm^2$	
Thickness of busbar material mm 0.8 2			$mm^2$	1 x 25
			mm <sup>2</sup>	2 x 10
Mounting position As required	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	In	Α	50
Heat dissipation per pole, current-dependent	$P_{\text{vid}}$	W	0
Equipment heat dissipation, current-dependent	$P_{\text{vid}}$	W	15.3
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	P <sub>diss</sub>	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.

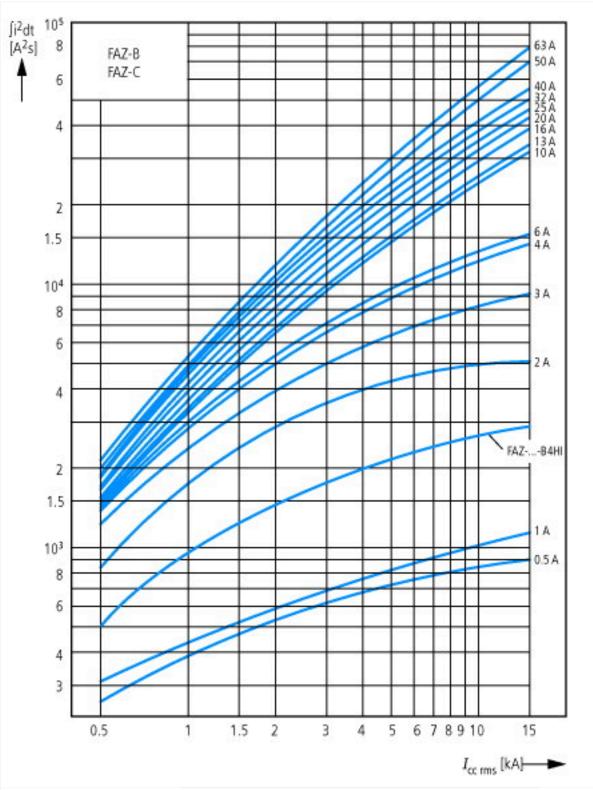
#### **Technical data ETIM 7.0**

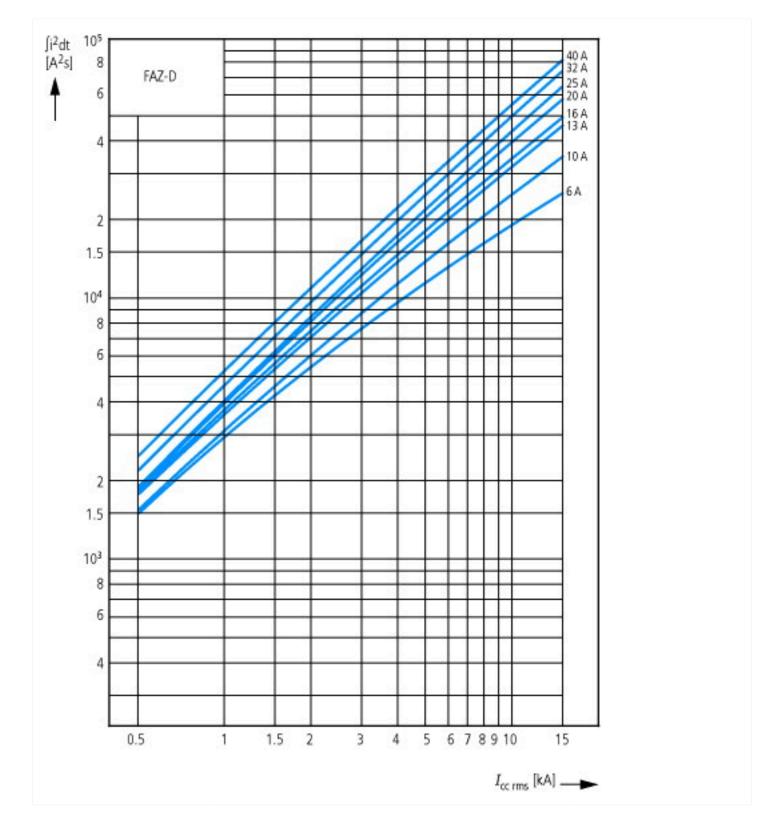
Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

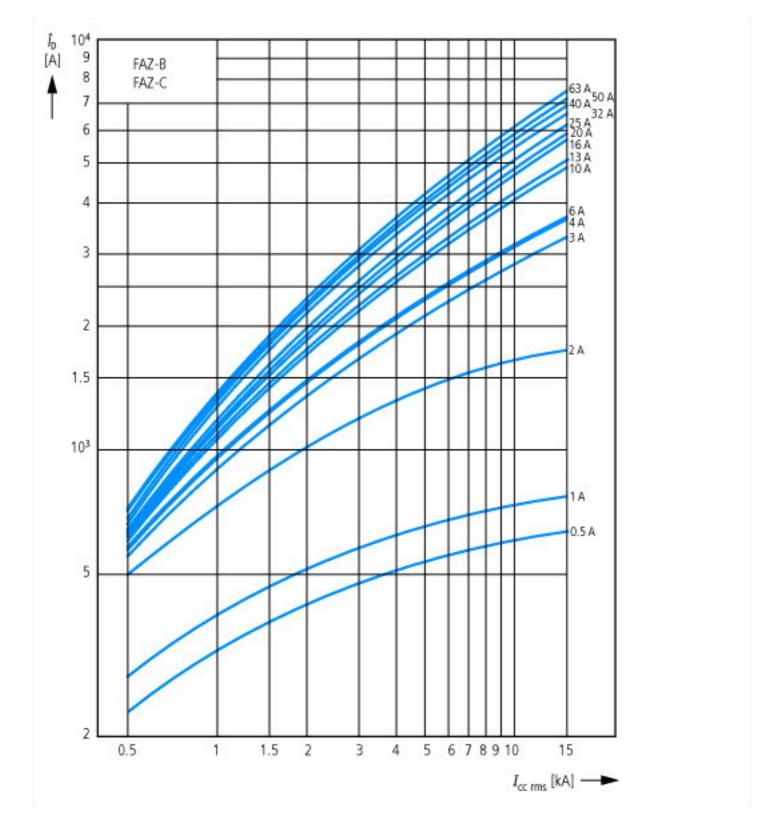
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

(ecl@ss10.0.1-27-14-19-01 [AAB905014])		
Release characteristic		В
Number of poles (total)		4
Number of protected poles		3
Rated current	Α	50
Rated voltage	V	400
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	10
Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	10
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	15
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	15
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		4
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

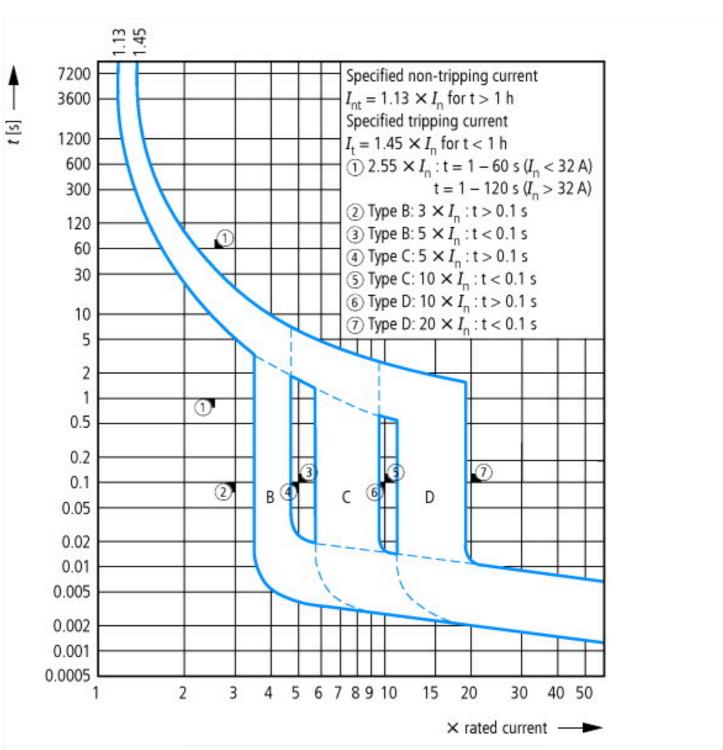
### **Characteristics**











# **Dimensions**

