DATASHEET - FAZ-Z50/1



Miniature circuit breaker (MCB), 50A, 1p, Z-Char, AC

Part no. FAZ-Z50/1
Catalog No. 278631
Eaton Catalog No. FAZ-Z50/1
EL-Nummer 0001695259
(Norway)



Similar to illustration

Technical data Electrical

Legal system Ue V AC 240415 Rated switching capacity acc. to IEC/EN 60947-2 Icu KA 10 Operational switching capacity KA 2.5 Expectations BC, D, K, S, Z Max. back-up fuse Belectivity Class L25 L25 L25 L36	Liberiou			
Legal system Ue V AC 240415 Rated switching capacity acc. to IEC/EN 60947-2 Icu KA 10 Operational switching capacity KA 2.5 Expectations BC, D, K, S, Z Max. back-up fuse Belectivity Class L25 L25 L25 L36	Standards			IEC/EN 60947-2 IEC/EN 60898
Rated switching capacity acc. to IEC/EN 60947-2 Rated switching capacity acc. to IEC/EN 60947-2 Deperational switching capacity Characteristic Max. back-up fuse Selectivity Class Ilfespan Direction of incoming supply Mechanical Enclosure height Rounding width per pole Mounting Degrace of Protection Terminals top and bottom Terminals top and bottom Terminal capacities Terminal capacities Timichness of busbar material Thickness of busbar material	Rated operational voltage	U _e	V	
Rated switching capacity acc. to IEC/EN 60947-2 Icu KA 7.5 Characteristic Local Selectivity Class Local Select		U _e	V AC	240/415
Operational switching capacity kA 7.5 Characteristic B, C, D, K, S, Z Max. back-up fuse A gU/g6 125 Selectivity Class B 10000 Lifespan Operations 10000 Direction of incoming supply se required Mechanical mm 45 Enclosure height mm 45 Mounting width per pole mm 17.5 Mounting width per pole mm 17.5 Mounting EIC/EN 60715 top-hat rail Degree of Protection protection protection protection Terminal top and bottom mm protection protection Terminal capacities mm² protection protection Terminal capacities mm² protection protection protection protection Terminal capacities mm² protection protecti			V DC	60 (per pole)
Characteristic B, C, D, K, S, Z Max. back-up fuse Belectivity Class Itifespan Operations Itifespan Operation Operatio	Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	10
Max. back-up fuse Selectivity Class Selectivity Class Itifespan Lifespan Direction of incoming supply Mechanical Standard front dimension Enclosure height Mounting width per pole Mounting Mounting Degree of Protection Terminals top and bottom Terminal protection Terminal capacities Thickness of busbar material A g L/g6	Operational switching capacity		kA	7.5
Selectivity Class Ifrespan Lifespan Operations Prection of incoming supply Mechanical Standard front dimension Enclosure height Mounting width per pole Mounting Mounting Degree of Protection Terminals top and bottom Terminal protection Terminal capacities Thickness of busbar material Thickness of busbar material Applications Jopen and Degree of Protection Torminal capacities Thickness of busbar material Applications Jopen and Degree of Protection Torminal capacities Jopen and Degree of Protection Terminal capacities Jopen and Degree of Protection Torminal capacities Jopen and Degree of Protection Torminal capacities Jopen and Degree of Protection Thickness of busbar material Jopen and Degree of Protection Joren and Degree of Protection Torminal capacities Joren and Degree of Protection Joren and Degree of Protectio	Characteristic			B, C, D, K, S, Z
Lifespan Operations Lifespan Operations Direction of incoming supply something supply something of incoming supply something supply something of incoming supply su	Max. back-up fuse		A gL/gG	125
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 mm² 1xv125 Terminal capacities mm² 2xx10 Thickness of busbar material mm 0.8 2	Selectivity Class			3
Direction of incoming supply Mechanical Standard front dimension Enclosure height Mounting width per pole Mounting Degree of Protection Terminal stop and bottom Terminal protection Terminal capacities Terminal capacities Thickness of busbar material as a required mm 45 Mom 80 RD 17.5 IEC/EN 60715 top-hat rail IP20, IP40 (when fitted) Twin-purpose terminals Tivin-purpose terminals Finger and back-of-hand proof to BGV A2 mm² 1 x 25 mm² 2 x 10 Thickness of busbar material mm 0.8 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 mm² Finger and back-of-hand proof to BGV A2 Terminal capacities mm² 1 x 25 mm² 2 x 10 Thickness of busbar material mm 08 2	Lifespan	Operations		> 10000
Standard front dimension mm 45 Enclosure height mm 80 Mounting width per pole mm 17.5 Mounting Degree of Protection Icriminals top and bottom Terminal protection Icriminal capacities mm² Icrimina				as required
Enclosure height Mounting width per pole Mounting Motion Motion Monting Mo	Mechanical			
Mounting width per pole Mounting Mounting Degree of Protection Terminals top and bottom Terminal protection Terminal capacities mm² inw²	Standard front dimension		mm	45
Mounting Degree of Protection Ierminals top and bottom Terminal protection Terminal capacities Imm² In x 25 Thickness of busbar material IEC/EN 60715 top-hat rail IP20, IP40 (when fitted) Twin-purpose terminals Finger and back-of-hand proof to BGV A2 Twin-purpose terminals Twin-purpose terminals 1 x 25 Imm² I x	Enclosure height		mm	80
Degree of Protection Terminals top and bottom Terminal protection Terminal capacities Terminal capacities Thickness of busbar material Terminal condition Terminal capacities Thickness of busbar material Terminal capacities Terminal capacities Thickness of busbar material Thickness of busbar material Terminal capacities Tivin-purpose terminals Twin-purpose terminals Tivin-purpose terminals Tivin-purpos	Mounting width per pole		mm	17.5
Terminals top and bottom Terminal protection Terminal capacities mm² 1 x 25 mm² 2 x 10 Thickness of busbar material Twin-purpose terminals Twin-purpose terminals Twin-purpose terminals Twin-purpose terminals Trivin-purpose terminals Thickness of busbar material Twin-purpose terminals Towin-purpose terminals Twin-purpose	Mounting			IEC/EN 60715 top-hat rail
Terminal protection mm² Inger and back-of-hand proof to BGV A2 Terminal capacities mm² 1 x 25 Thickness of busbar material mm 0.8 2	Degree of Protection			IP20, IP40 (when fitted)
Terminal capacities mm^2 1×25 1	Terminals top and bottom			Twin-purpose terminals
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Terminal protection			Finger and back-of-hand proof to BGV A2
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^2	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 _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	4.8
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

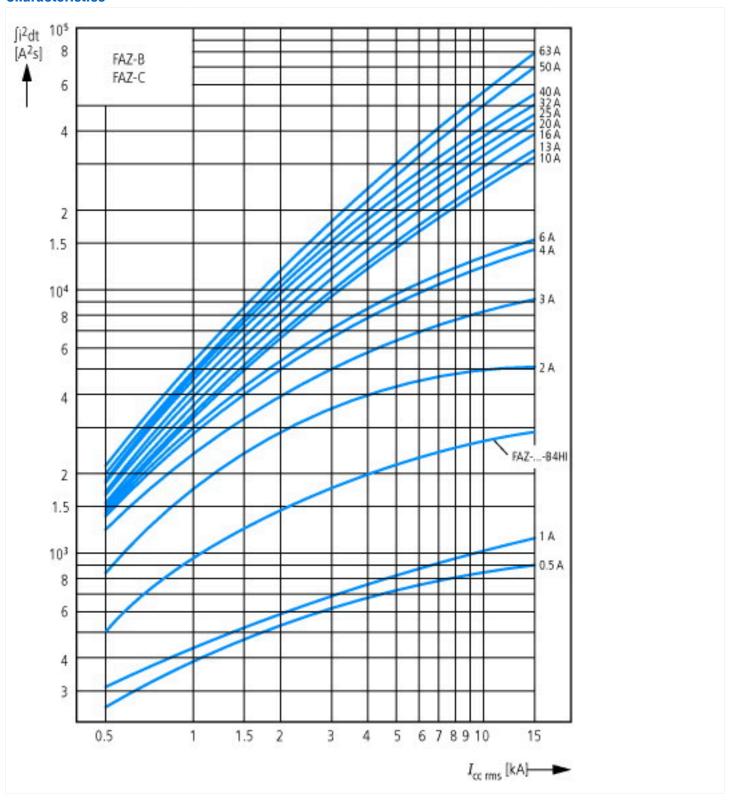
Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

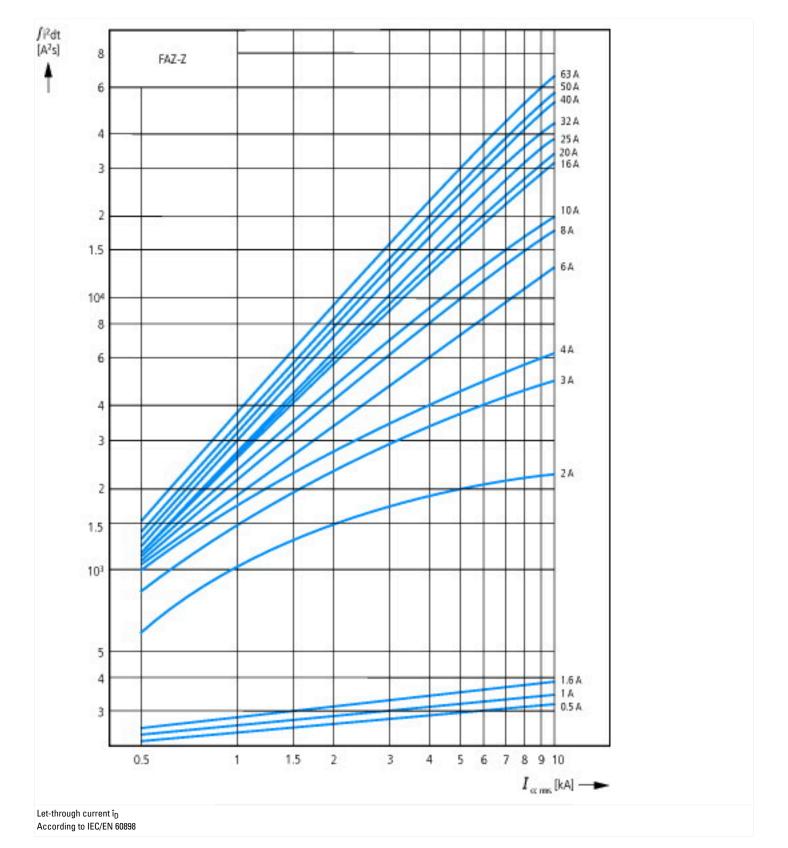
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

(ecl@ss10.0.1-27-14-19-01 [AAB905014])		
Release characteristic		Z
Number of poles (total)		1
Number of protected poles		1
Rated current	Α	50
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	0
Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	0
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V $$	kA	10
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V $$	kA	10
Voltage type		AC
Frequency	Hz	50 - 60
Current limiting class		3
Suitable for flush-mounted installation		No
Concurrently switching N-neutral		No
Over voltage category		3
Pollution degree		2
Additional equipment possible		Yes
Width in number of modular spacings		1
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

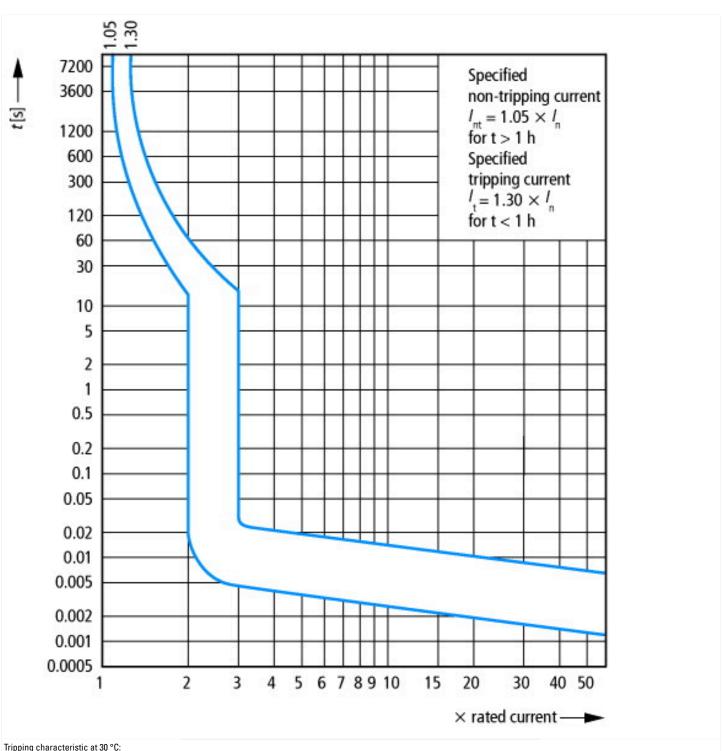
Approvals	
Product Standards	IEC/EN 60947-2; IEC/EN 60898; UL 1077; CSA-C22.2 No. 235; CE marking
UL File No.	E177451
UL Category Control No.	QVNU2, QVNU8
CSA File No.	204453
CSA Class No.	3215-30
North America Certification	UL recognized, CSA certified
Conditions of Acceptability	Supplementary Protector only
Suitable for	Branch Circuits; not as BCPD
Current Limiting Circuit-Breaker	No
Max. Voltage Rating	277 VAC; 48 VDC
Degree of Protection	IEC: IP20; UL/CSA Type: -

Characteristics









Dimensions 8 17.5 5.5 44 60