DATASHEET - FAZ-C20/2-NA-DC



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

Powering Business Worldwide

FAZ-C20/2-NA-DC Part no. Catalog No. 120645

Alternate Catalog

EL-Nummer (Norway)

FAZ-C20/2-NA-DC

0001691710

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	In	Α	20
Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	10
Product range			FAZ-DC

Technical data

Electrical

Standards			UL 489, CSA C22.2 No. 5 IEC 60947-2
Rated operational voltage	U _e	V	
		V DC	500
Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	10

Design verification as per IFC/FN 61439

Design vernication as per IEG/EN 01439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	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 7.0

Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker (MCB) / Miniature circuit breaker (MCB) / Release characteristic (lechnical data ETIM 7.0				
Cale Mars Lond	Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)				
Number of poles (total) 2 Number of protected poles 2 Rated current A 20 Rated voltage V 250 Rated slaudiation voltage Ui V 440 Rated singuisa withstand voltage guipp kV 4 Rated short-circuit breaking capacity Icn EN 60988 at 230 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 230 V kA 10 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 10 Voltage type DC C Current Ilmiting class 3 3 Suitable for flush-mounted installation No 3 Concurrently switching N-neutral No 3 Over voltage category 2 2 Pollution degree 2 2 Additional equipment possible yes 2 Width in number of modular spacings mm 70.5 Built-in depth mm 70.5 Degre	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])				
Number of protected poles 2 Rated current A 20 Rated voltage V 250 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 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 DC C Frequency B 50 - 60 Current limiting class 3 3 Suitable for flush-mounted installation No No Concurrently switching N-neutral No No Over voltage category S 3 Pollution degree Yes 2 Additional equipment possible Yes Width in number of modular spacings P 70.5 Built-in depth P 70.5 Degree of protection (IP) P 22.75 Ambient temperature during operating	Release characteristic		С		
Rated current A 20 Rated voltage V 250 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 Icu IEC 60947-2 at 230 V kA 10 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 10 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 10 Voltage type DC C Frequency Hz 50 - 60 Current limiting class No No Suitable for flush-mounted installation No No Concurrently switching N-neutral No No Over voltage category 3 3 Pollution degree 4 2 Additional equipment possible Yes Width in number of modular spacings T 70.5 Built-in depth P 70.5 Degree of protection (IP) P 25.75	Number of poles (total)		2		
Rated voltage V 250 Rated insulation voltage Ui V 440 Rated impulse withstand voltage Uimp kV 4 Rated short-circuit breaking capacity Ion EN 60898 at 230 V kA 0 Rated short-circuit breaking capacity Ion EN 60898 at 400 V kA 10 Rated short-circuit breaking capacity Iou IEC 60947-2 at 230 V kA 10 Rated short-circuit breaking capacity Iou IEC 60947-2 at 400 V kA 10 Voltage type DC C Current limiting class 3 3 Suitable for flush-mounted installation No No Concurrently switching N-neutral No No Over voltage category 3 3 Pollution degree 2 2 Additional equipment possible Yes Width in number of modular spacings mm 70.5 Built-in depth mm 70.5 Degree of protection (IP) P20 Ambient temperature during operating "C -25 -75 Connectable conductor cross section multi-wired "C	Number of protected poles		2		
Rated insulation voltage Ui Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn EN 60988 at 230 V Rated short-circuit breaking capacity Icn EN 60988 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Voltage type Requency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Width width in the proof modular operating Connectable conductor cross section multi-wired Width width in mm² 1-25	Rated current	Α	20		
Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Voltage type Frequency Rute of Prequency Rute of R	Rated voltage	V	250		
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	Rated insulation voltage Ui	V	440		
Rated short-circuit breaking capacity Icn EN 60898 at 400 V	Rated impulse withstand voltage Uimp	kV	4		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Received Prequency Received Prequency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Read 10 DC DC DC DC No No Rate 9 4 8 9 8 9 8 9 8 9 9 9 9 9 9	Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	0		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type DC Frequency Hz 50 - 60 Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Ra DC	Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	0		
Voltage type Frequency Augustian Prequency Frequency Frequency	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	10		
Frequency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Over voltage category Over voltage eategory Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Hz 50 - 60 No No No Pollution No To To To To To To To To To	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	10		
Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth mm 70.5 Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired 3 No	Voltage type		DC		
Suitable for flush-mounted installation Concurrently switching N-neutral No Over voltage category Solidation degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired No No Over voltage category 3 2 Yes Yes 70.5 IP20 Ambient temperature during operating CC -25 - 75 Connectable conductor cross section multi-wired No No 1 2 2 4 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7	Frequency	Hz	50 - 60		
Concurrently switching N-neutral Over voltage category 3 Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired No Yes 2 Built-in depth mm 70.5 IP20 Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25	Current limiting class		3		
Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired 3 Yes Yes 1 Pol Pol IP20 The pol Th	Suitable for flush-mounted installation		No		
Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 2 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	Concurrently switching N-neutral		No		
Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Yes 2 Pum 70.5 IP20 The pum 2 1 - 25	Over voltage category		3		
Width in number of modular spacings 2 Built-in depth 70.5 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25	Pollution degree		2		
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	Additional equipment possible		Yes		
Degree of protection (IP) Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25	Width in number of modular spacings		2		
Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25	Built-in depth	mm	70.5		
Connectable conductor cross section multi-wired mm² 1 - 25	Degree of protection (IP)		IP20		
	Ambient temperature during operating	°C	-25 - 75		
Connectable conductor cross section solid-core mm ² 1 - 25	Connectable conductor cross section multi-wired	mm²	1 - 25		
	Connectable conductor cross section solid-core	mm²	1 - 25		