# DATASHEET - FAZ-D1,5/1

Miniature circuit breaker (MCB), 1, 5A, 1p, D-Char, AC





Part no.FAZ-D1,5/1Catalog No.278570Alternate CatalogFAZ-D1.5/1No.EL-Nummer(Norway)0001691158

Similar to illustration

#### **Delivery program**

Basic function			Miniature circuit-breakers
Number of poles			1 pole
Tripping characteristic			D
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	А	1.5
Rated switching capacity acc. to IEC/EN 60947-2	l <sub>cu</sub>	kA	15
Product range			FAZ

### **Technical data**

Electrical			
Standards			IEC/EN 60947-2 IEC/EN 60898
Rated operational voltage	Ue	V	
	Ue	V AC	240/415
Rated switching capacity acc. to IEC/EN 60947-2	I <sub>cu</sub>	kA	15

### **Design verification as per IEC/EN 61439**

Design verification as per IEC/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	А	1.5
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	1.2
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	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.

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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])

Number of poles (total)Image: state of protected polesImage: state of protected poles <t< th=""><th></th><th></th><th></th></t<>			
Number of protected polesImage: state of the	Release characteristic		D
Rated current     A     A       Rated voltage     V     30       Rated insulation voltage Uin     V     40       Rated insulation voltage Uin     V     40       Rated insulation voltage Uin     V     40       Rated short-circuit breaking capacity Icn EN 60898 at 200 V     KA     10       Rated short-circuit breaking capacity Icn EN 60898 at 400 V     KA     10       Rated short-circuit breaking capacity Icn EC 60947-2 at 200 V     KA     10       Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V     KA     10       Voltage type     KA     10     10       Voltage type     KA     10     10       Suitable for flush-mounted installation     KA     10     10       Our voltage category     KA     10     10       Pollvoin degree     KA     10     10     10       Out category     KA     10     10     10       Pollvoin degree     KA     10     10     10       Out category     KA     10     10     10     10	Number of poles (total)		1
Rated voltage     V     Solution voltage Lim       Rated insulation voltage Lim     V     40       Rated insulation voltage Lim     V     40       Rated insulation voltage Lim     V     40       Rated short-circuit breaking capacity Lon E060988 at 200 V     KA     10       Rated short-circuit breaking capacity Lon E060947.2 at 200 V     KA     10       Voltage type     KA     10       Voltage type     KA     10       Voltage type     KA     10       Suitable for flush-mounted installation     KA     10       Our voltage category     KA     10       Pollution degree     KA     10       Additional equipment possible     KA     10       With in number of modular spacings     KA     10       Built-in depth     KA     10       Degree of protection (P)     KA     10       Atheit themperature during operating     KA     10       Atheit themperature during operating     KA     10	Number of protected poles		1
Area insulation voltage Ui     V     40       Rated inpulse withstand voltage Uinp     K     4       Rated short-circuit breaking capacity Icn EN 60989 at 230 V     K     10       Rated short-circuit breaking capacity Icn EN 60989 at 400 V     K     10       Rated short-circuit breaking capacity Icn EN 60987-2 at 200 V     K     10       Notage type     K     10       Voltage type     K     10       Voltage type     K     10       Current limiting class     K     10       Suble for flush-mounted installation     K     10       Over voltage category     K     K       Pollution degree     K     K       Additional equipment possible     K     K       With in number of modular spacings     K     K       Built-in depth     K     K     K       Additional equipment quing operating     K     K     K       Anbient temperature during operating     K     K     K       Anbient temperature during operating     K     K     K       K     K	Rated current	А	1.5
Reted impulse withstand voltage Uimp     IV     I       Rated short-circuit breaking capacity Lot EK 60898 at 20 V     KA     I       Rated short-circuit breaking capacity Lot EK 60897 - 2 at 20 V     KA     I       Rated short-circuit breaking capacity Lot EK 60897 - 2 at 20 V     KA     I       Voltage type     KA     I     I       Frequency     K     I     I       Outrage time installation     K     I     I       Concurrently switching N-neutral     K     I     I       Pollution degree     K     I     I     I       Additional equipment possible     K     I     I     I       Buit-tiedpth     K     I <td>Rated voltage</td> <td>V</td> <td>230</td>	Rated voltage	V	230
Rate defort-circuit breaking capacity Icn EN 60898 at 230 V     Ka     0       Rate defort-circuit breaking capacity Icn EN 60898 at 400 V     Ka     0       Rate defort-circuit breaking capacity Icn EN 60898 at 400 V     Ka     0       Rate defort-circuit breaking capacity Icu IEC 60947-2 at 230 V     Ka     0       Voltage type     Ka     0     0       Frequency     Ka     0	Rated insulation voltage Ui	V	440
Rated short-circuit breaking capacity lou EC 60947-2 at 230 V   kA   5     Rated short-circuit breaking capacity lou IEC 60947-2 at 230 V   kA   5     Notage type   KA   6     Voltage type   KA   6     Frequency   KA   5     Current limiting class   5   6     Suitable for flush-mounted installation   KA   5     Concurrently switching N-neutral   KA   6     Pollution degree   KA   6     Additional equipment possible   KA   6     Built-in depth   KA   6     Degree of protection (IP)   KA   6     Anbient emperature during operating   C   7     Anbient emperature during sets settion multi-wired   C   7	Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity lcu IEC 60947-2 at 230 V   kA   5     Rated short-circuit breaking capacity lcu IEC 60947-2 at 400 V   KA   5     Voltage type   KA   6     Frequency   KA   60     Current limiting class   KA   5     Suitable for flush-mounted installation   KA   6     Concurrently switching N-neutral   KA   6     Over voltage category   KA   6     Pollution degree   KA   6     Mith in number of modular spacings   Man   9     Buit-in depth   Man   10     Anbient temperature during operating   Ca   72     Anbient temperature during operating   Ca   72     Romed School Concurrents which mutu-wired   Man   125	Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	10
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V   KA   5     Voltage type   C   C     Frequency   KA   50-60     Current limiting class   So   So     Suitable for flush-mounted installation   Mo   So     Concurrently switching N-neutral   Mo   So     Pollution degree   So   So     Additional equipment possible   So   So     With in number of modular spacings   So   So     Built-in depth   Mo   So     Degree of protection (IP)   So   So     Ambient temperature during operating   C   So     Concurced built-indeptine   So   So     Degree of protection (IP)   So   So     Ambient temperature during operating   C   So     So   So   So   So     So   So   So   So     Ambient temperature during operating   C   So     So   So   So   So     Ambient temperature during operating   So   So   So     So   So	Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	10
Voltage type     C     C       Frequency     Hz     50-60       Current limiting class     S     50-60       Suitable for flush-mounted installation     M     S       Concurrently switching N-neutral     M     No       Concurrently switching N-neutral     M     S       Over voltage category     M     S     S       Pollution degree     M     S     S       Addtional equipment possible     M     S     S       Built-in depth     M     S     S       Degree of protection (IP)     M     M     S       Ablient temperature during operating     C     S     S       Anbient temperature during operating     C     S     S       Concectable conductor cross section multi-wired     m     S     S	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	15
Frequency Hz 50 - 60   Current limiting class 50 - 60   Suitable for flush-mounted installation 50 - 60   Concurrently switching N-neutral 60 70   Concurrently switching N-neutral 60 70   Over voltage category 60 70   Pollution degree 70 70   Additional equipment possible 60 70   Built-in depth 70 70   Degree of protection (IP) 70 70   Anbient emperature during operating 60 70   Pollector corse section multi-wired 71 72	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	15
Current limiting class Image: Solution of the second stallation Image: Solution of the second stallation   Suitable for flush-mounted installation Image: Solution of the second stallation Image: Solution of the second stallation   Concurrently switching N-neutral Image: Solution of the second stallation Image: Solution of the second stallation   Over voltage category Image: Solution of the second stallation Image: Solution of the second stallation   Pollution degree Image: Solution of the second stallation Image: Solution of the second stallation   Additional equipment possible Image: Solution of the second stallation Image: Solution of the second stallation   Width in number of modular spacings Image: Solution of the second stallation Image: Solution of the second stallation   Degree of protection (IP) Image: Solution of the second stallation of the second stallation stallation of the second stallation of the sec	Voltage type		AC
Suitable for flush-mounted installation   No     Suitable for flush-mounted installation   No     Concurrently switching N-neutral   No     Over voltage category   Sold     Pollution degree   Sold     Additional equipment possible   Ver     Width in number of modular spacings   Sold     Built-in depth   To     Degree of protection (IP)   Polon     Ambient temperature during operating   Sold     Sold   Sold     Sold <td>Frequency</td> <td>Hz</td> <td>50 - 60</td>	Frequency	Hz	50 - 60
Concurrently switching N-neutral   Poil   No     Over voltage category   3     Pollution degree   2     Additional equipment possible   Yes     Witch in number of modular spacings   Mmm     Built-in depth   Mmm     Degree of protection (IP)   Mm     Anbient temperature during operating   C     Source able conductor cross section multi-wired   mm²     Intersection conductor cross section multi-wired   mm²	Current limiting class		3
Nor voltage category 3   Pollution degree 2   Additional equipment possible Ves   Witth in number of modular spacings Mem   Built-in depth Mem   Degree of protection (IP) Mem   Ambient temperature during operating C°   Source able conductor cross section multi-wired mm <sup>2</sup>	Suitable for flush-mounted installation		No
Pollution degree2Additional equipment possibleYesWidth in number of modular spacingsYemBuilt-in depthMmmDegree of protection (IP)YemAmbient temperature during operatingCSconectable conductor cross section multi-wiredmm²Interperature during operatingmm²Interperature during operatingmm²In	Concurrently switching N-neutral		No
Additional equipment possible Yes   Width in number of modular spacings I   Built-in depth mm   Degree of protection (IP) IP20   Ambient temperature during operating C°   Sonnectable conductor cross section multi-wired mm²	Over voltage category		3
Width in number of modular spacingsImage: Space of protection (IP)Image: Space of protection (IP)Image: Space of protection (IP)PolAmbient temperature during operatingC-25 - 75Connectable conductor cross section multi-wiredmm²1 - 25	Pollution degree		2
Built-in depth mm 70.5   Degree of protection (IP) P20   Ambient temperature during operating °C -25 - 75   Connectable conductor cross section multi-wired mm² 1 - 25	Additional equipment possible		Yes
Degree of protection (IP) IP20   Ambient temperature during operating °C -25 - 75   Connectable conductor cross section multi-wired mm² 1 - 25	Width in number of modular spacings		1
Ambient temperature during operating °C -25 - 75   Connectable conductor cross section multi-wired mm <sup>2</sup> 1 - 25	Built-in depth	mm	70.5
Connectable conductor cross section multi-wired mm <sup>2</sup> 1 - 25	Degree of protection (IP)		IP20
	Ambient temperature during operating	°C	-25 - 75
Connectable conductor cross section solid-core mm <sup>2</sup> 1 - 25	Connectable conductor cross section multi-wired	mm²	1 - 25
	Connectable conductor cross section solid-core	mm²	1 - 25

## **Approvals**

Mhhinnais	
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: -

## Additional product information (links)

Temperature dependency, derating

https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ.pdf