

## Over current switch, 4A, 1p, D-Char, AC

Part no. FAZ-D4/1 Article no. 278576 Catalog No. FAZ-D4/1



Similar to illustration

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zemer, 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	Α	4
Rated switching capacity acc. to IEC/EN 60947-2		kA	15
Product range			FAZ

## **Technical data**

#### **Electrical**

Rated switching capacity acc. to IEC/EN 60947-2	kA	15
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## Design verification as per IEC/EN 61439

resign verification as per 120/211 01733			
echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	4
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	1.4
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
C/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 6.0**

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@ss8.1-27-14-19-01 [AAB905011])

Number of poles (total)  Number of protected poles  Number of protected pol				
Number of protected poles         I         1           Nominal rated current         A         4           Nominal rated voltage         V         230           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 230 V         kA         15           Voltage type         C         AC           Current limiting class         B         Y         50-60           Concurrently switching N-neutral         No         No           Suitable for flush-mounted installation         No         No           Over voltage category         Y         3           Pollutin in degree         2         2           Width in number of modular spacings         1         1           Built-in depth         No         70.5           Additional equipment possible         Mm         70.5	Release characteristic			D
Nominal rated current Nominal rated voltage 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 EN 60898 at 400 V 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 Current limiting class Frequency Current limiting class Frequency Concurrently switching N-neutral Suitable for flush-mounted installation Over voltage category Pollution degree Width in number of modular spacings Built-in depth Additional equipment possible  AC	Number of poles (total)			1
Nominal rated voltage 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 Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type  Current limiting class Frequency Concurrently switching N-neutral Suitable for flush-mounted installation Over voltage category Pollution degree  Width in number of modular spacings Built-in depth Additional equipment possible	Number of protected poles			1
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 Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Current limiting class Frequency Currently switching N-neutral Suitable for flush-mounted installation Over voltage category Pollution degree Width in number of modular spacings Built-in depth Additional equipment possible  Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V RA 10 10 10 10 10 10 10 10 10 10 10 10 10	Nominal rated current		Α	4
Rated short-circuit breaking capacity Icn EN 60898 at 400 V 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  Current limiting class Frequency Concurrently switching N-neutral Concurrently switching N-neutral Suitable for flush-mounted installation Over voltage category Pollution degree  Width in number of modular spacings  Built-in depth Additional equipment possible	Nominal rated voltage	,	V	230
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	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  Voltage type  Current limiting class  Frequency  Concurrently switching N-neutral  Suitable for flush-mounted installation  Over voltage category  Pollution degree  Width in number of modular spacings  Built-in depth  Additional equipment possible	Rated short-circuit breaking capacity Icn EN 60898 at 400 V		kA	10
Voltage typeACCurrent limiting class3FrequencyHz50 - 60Concurrently switching N-neutralNoSuitable for flush-mounted installationNoOver voltage category3Pollution degree2Width in number of modular spacings1Built-in depthmm70.5Additional equipment possibleYes	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V		kA	15
Current limiting class Frequency Concurrently switching N-neutral Suitable for flush-mounted installation Over voltage category Pollution degree Width in number of modular spacings Midthin number of sosible Midthin possible  Additional equipment possible  Additional equipment possible  So - 60  No  No  2  ADDITIONAL SUITABLE	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V $$	ı	kA	15
Frequency Concurrently switching N-neutral Suitable for flush-mounted installation Over voltage category Pollution degree Width in number of modular spacings Built-in depth Additional equipment possible  Hz 50-60 No No Over voltage category Pollution degree 1 2 2 2 3 4 4 5 5 5 6 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	Voltage type			AC
Concurrently switching N-neutral  Suitable for flush-mounted installation  Over voltage category  Pollution degree  Width in number of modular spacings  Built-in depth  Additional equipment possible  No  3  2  2  1  1  1  1  1  1  1  1  1  1  1	Current limiting class			3
Suitable for flush-mounted installation Over voltage category Pollution degree Width in number of modular spacings Built-in depth Additional equipment possible  No 3 2 2 2 7 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Frequency	1	Hz	50 - 60
Over voltage category  Pollution degree  Width in number of modular spacings  Built-in depth  Additional equipment possible  3  2  2  1  1  2  Additional equipment possible  Possible  Additional equipment possible  Possible  Additional equipment possible	Concurrently switching N-neutral			No
Pollution degree 2 2 Width in number of modular spacings 1 2 Built-in depth mm 70.5 Additional equipment possible 2 yes	Suitable for flush-mounted installation			No
Width in number of modular spacings  Built-in depth  Additional equipment possible  1  2  3  4  5  7  7  7  7  7  7  7  7  7  7  7  7	Over voltage category			3
Built-in depth mm 70.5 Additional equipment possible mm yes 70.5	Pollution degree			2
Additional equipment possible Yes	Width in number of modular spacings			1
	Built-in depth	1	mm	70.5
Domina of protection (ID)	Additional equipment possible			Yes
Degree of protection (IP)	Degree of protection (IP)			IP20

# **Approvals**

PP 5 5 5	
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: -