



**Miniature circuit breaker (MCB), 12 A, 1p, characteristic: D**

**Part no.** FAZ-D12/1  
**Catalog No.** 278581  
**Alternate Catalog No.** FAZ-D12/1  
**EL-Nummer (Norway)** 0001691167

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	$I_n$	A	12
Rated switching capacity acc. to IEC/EN 60947-2	$I_{cu}$	kA	15
Product range			FAZ

### Technical data

#### Electrical

Standards			IEC/EN 60947-2 IEC/EN 60898
Rated operational voltage	$U_e$	V	
	$U_e$	V AC	240/415
Rated switching capacity acc. to IEC/EN 60947-2	$I_{cu}$	kA	15

### Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	12
Heat dissipation per pole, current-dependent	$P_{vid}$	W	0
Equipment heat dissipation, current-dependent	$P_{vid}$	W	1.7
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			
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) (ec@ss10.0.1-27-14-19-01 [AAB905014])

Release characteristic			D
Number of poles (total)			1
Number of protected poles			1
Rated current	A		12
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		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			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	mm <sup>2</sup>		1 - 25
Connectable conductor cross section solid-core	mm <sup>2</sup>		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: -

## Additional product information (links)

Temperature dependency, derating

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