



**Miniature circuit breaker (MCB), 12A, 3pole+N, type C characteristic**



**Part no.** FAZ-C12/3N  
**Catalog No.** 278972  
**Alternate Catalog No.** FAZ-C12/3N  
**EL-Nummer (Norway)** 0001691131

Similar to illustration

**Delivery program**

Basic function			Miniature circuit-breakers
Number of poles			3 pole+N
Tripping characteristic			C
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**

Rated switching capacity acc. to IEC/EN 60947-2	$I_{cu}$	kA	15
Breaking capacity according to UL		kA	10 (UL1077)
Max operational voltage according to IEC/EN 60947-2		V AC	440
Rated switching capacity according to IEC/EN 60947-2 (max operational voltage)	$I_{cu}$	kA	10
Rated service short-circuit breaking capacity according to IEC/EN 60947-2 (max operational voltage)	$I_{cs}$		7,5 kA
Rated voltage according to IEC/EN 60898-1	$U_n$	V AC	415
Rated switching capacity according to IEC/EN 60898-1	$I_{cn}$	kA	10
Rated service short-circuit breaking capacity according to IEC/EN 60898-1	$I_{cs}$		7,5 kA

**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	6.8
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])			
Release characteristic			C
Number of poles (total)			4
Number of protected poles			3
Rated current	A		12
Rated voltage	V		400
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			Yes
Over voltage category			3
Pollution degree			2
Additional equipment possible			Yes
Width in number of modular spacings			4
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

## Additional product information (links)

Temperature dependency, derating	<a href="https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ.pdf">https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ.pdf</a>
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