

Over current switch, 13A, 3Np, D-Char, AC

Powering Business Worldwide

Part no. FAZT-D13/3N Article no. 241187 Catalog No. FAZT-D13/3N

Similar to illustration

	gram

Basic function			Miniature circuit breakers
Number of poles			3 pole+N
Tripping characteristic			D
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	13
Rated switching capacity acc. to IEC/EN 60947-2		kA	25
Product range			FAZ-T

# **Technical data**

#### **Electrical**

Standards			IEC/EN 60947-2
Rated voltage		٧	240/415
Rated frequency	f	Hz	50/60
Rated switching capacity		kA	25
Characteristic			B, C, D
Lifespan	Operations		20000
Direction of incoming supply			as required
Mechanical			

Weendinear		
Standard front dimension	mm	45
Enclosure height	mm	80
Mounting width per pole	mm	17.5
Mounting		Quick attachment with 3 latch positions for top-hat rail IEC/EN 60715
Degree of Protection		IP20
Terminals top and bottom		Twin-purpose terminals
Terminal protection		Finger- and back-of-hand proof according to BGV A3 and ÖVE-EN 6
Terminal capacities	mm <sup>2</sup>	1 - 25
Tightening torque	Nm	2 - 2.4
Thickness of busbar material	mm	0.8 (exept N 0.5 SU)
Mounting position		As required

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

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	13
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	6.1
Static heat dissipation, non-current-dependent	$P_{VS}$	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.
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.

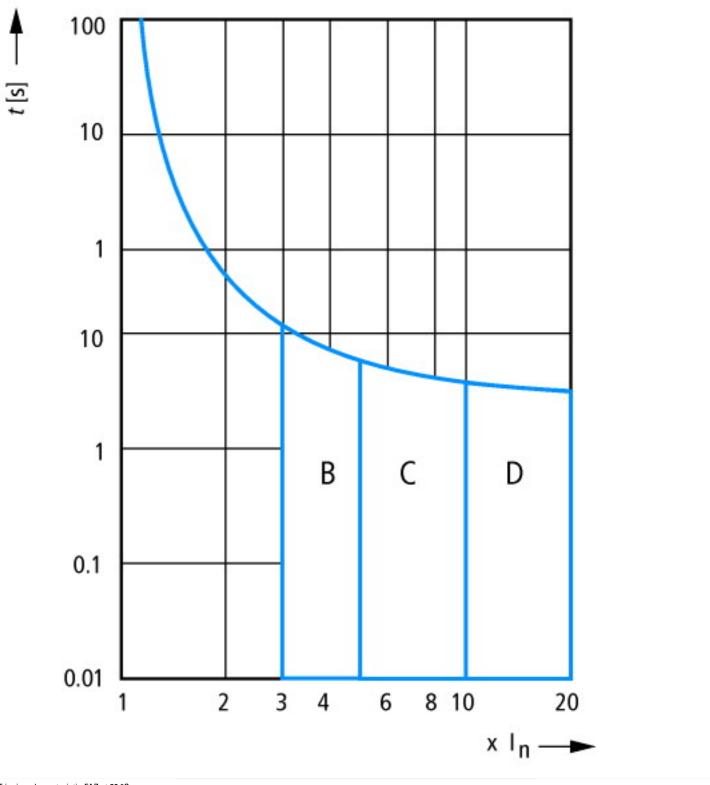
### **Technical data ETIM 6.0**

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])

Release characteristic Number of poles (total) Number of protected poles Number of protected poles Number of protected poles Numinal rated current Numinal rated current Numinal rated voltage Read short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 240 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 EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 400 V Rated short-circuit breaking capacity Icn EC 60947-2 at 400 V Rated short-circuit breaking capacity Icn EC 60947-2 at 400 V Rated short-circuit breaking capacity Icn EC 60947-2 at 400 V Rated short-circuit breaking capacity Icn EC 60947-2 at 400 V Rated short-circuit breaking capacity Icn EC 60947-2 at 400 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-circuit breaking capacity Icn EC 60948-2 at 2004 Rated short-ci			
Number of protected poles         4           Nominal rated current         A         13           Nominal rated voltage         V         20           Rated short-circuit breaking capacity Icn EN 60898 at 230 V         kA         15           Rated short-circuit breaking capacity Icu EN 60898 at 400 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         25           Voltage type         AC         AC           Current limiting class         3         3           Crequency         Yes         Yes           Concurrently switching N-neutral         Yes         Yes           Suitable for flush-mounted installation         Yes         3           Over voltage category         Yes         3           Pollution degree         Yes         3           Width in number of modular spacings         Yes         3           Built-in depth         Yes         4           Action         4         4           Action         4         4           Action         4         4           Action         4         4	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 60947-2 at 230 V Rated short-circuit breaking capacity Icn EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type 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 poles (total)		4
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 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		4
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 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 23 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity	Nominal rated current	Α	13
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 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  KA  15  25  AC  AC  AC  Voltage type S0 - 60  No  No  Over Voltage Category 3  2  4  Built-in depth Additional equipment possible  KA  15  15  16  17  18  18  18  18  18  18  18  18  18	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	15
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	15
Voltage typeACCurrent limiting class3FrequencyHz50 - 60Concurrently switching N-neutralYesSuitable for flush-mounted installationNoOver voltage category3Pollution degree2Width in number of modular spacings4Built-in depthmm70.5Additional equipment possibleYes	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	25
Current limiting class Frequency Concurrently switching N-neutral	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	25
Frequency Concurrently switching N-neutral Suitable for flush-mounted installation Over voltage category Pollution degree Width in number of modular spacings Additional equipment possible  Hz 50 - 60  Yes  No  No  Over Ves  2  4  4  Fundament possible No  70.5  Yes	Voltage type		AC
Concurrently switching N-neutral  Suitable for flush-mounted installation  Over voltage category  Pollution degree  Width in number of modular spacings  Additional equipment possible  Yes  Yes  Yes  Action  No  2  2  Width in number of modular spacings  mm  70.5  Yes	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  2  4  Formal Pollution degree  mm 70.5  Yes	Frequency	Hz	50 - 60
Over voltage category  Pollution degree  2 Width in number of modular spacings  Built-in depth  Additional equipment possible  3  4  Formal Total Section 1998  Yes	Concurrently switching N-neutral		Yes
Pollution degree 2 Width in number of modular spacings 4 Built-in depth mm 70.5 Additional equipment possible Yes	Suitable for flush-mounted installation		No
Width in number of modular spacings 4 Built-in depth mm 70.5 Additional equipment possible Yes	Over voltage category		3
Built-in depth mm 70.5 Additional equipment possible yes	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	Additional equipment possible		Yes
	Degree of protection (IP)		IP20

## **Characteristics**



Tripping characteristic FAZ at 30 °C: B, C, D to IEC/EN 60898

## **Dimensions**

