

# Over current switch, 16A, 1pole+N, type D characteristic

Powering Business Worldwide\*

Part no. FAZ-D16/1N Article no. 278697 Catalog No. FAZ-D16/1N

Similar to illustration

	gram

Basic function			Miniature circuit breakers
Number of poles			1 pole+N
Tripping characteristic			D
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	16
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	LΛ	15	
mateu switching capacity acc. to iEo/EN 00347-2	NA.	1J	

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

Design verincation as per illo/liv 01433			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	16
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	2.6
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
EC/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		

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

Release characteristic	[AAB905011])		
Number of protected poles 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 230 V Rated short-circuit breaking capacity Icu EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking c	Release characteristic		D
Nominal rated current Nominal rated voltage 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 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Current limiting class Frequency Loncurrently 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  A I B I B I B I B I B I B I B I B I B I B	Number of poles (total)		2
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		2
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 200 V Rated short-circuit breaking capacit	Nominal rated current	Α	16
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 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Rated short-circuit breaking capa	Nominal rated voltage	V	230
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  Current limiting class 3  Frequency Buitshing N-neutral Suitable for flush-mounted installation No  Over voltage category 3  Pollution degree 2  Width in number of modular spacings 2  Built-in depth Additional equipment possible AA  Additional equipment possible AC  kA 15  AC  AC  AC  AC  Ves  So - 60  Yes  Ves  AC  Yes  AC  AC  AC  AC  AC  AC  AC  AC  AC  A	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  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  AC  AC  AC  Solator  AC  Solator  AC  Ves  No  No  Over  Ves  2  Ves  Additional equipment possible  KA  15  AC  AC  AC  AC  AC  AC  AC  AC  AC  A	Rated short-circuit breaking capacity Icn EN 60898 at 400 V $$	kA	10
Voltage type       AC         Current limiting class       3         Frequency       Hz       50 - 60         Concurrently switching N-neutral       Yes         Suitable for flush-mounted installation       No         Over voltage category       3         Pollution degree       2         Width in number of modular spacings       2         Built-in depth       mm       70.5         Additional equipment possible       Yes	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V $$	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 Built-in depth Additional equipment possible  3  70-60 Yes No No 2  2  Work No 3  70-5  Yes No	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	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 Yes  No  2  No  No  70.5  Hz 50 - 60  Yes	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  Mmm  70.5  Additional equipment possible  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  Ves	Frequency	Hz	50 - 60
Over voltage category  Pollution degree  2 Width in number of modular spacings  Built-in depth  mm  70.5  Additional equipment possible  3  Where the spacing of the spacin	Concurrently switching N-neutral		Yes
Pollution degree 2 Width in number of modular spacings 2 Built-in depth mm 70.5 Additional equipment possible Yes	Suitable for flush-mounted installation		No
Width in number of modular spacings 2 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		2
	Built-in depth	mm	70.5
Degree of protection (IP)	Additional equipment possible		Yes
	Degree of protection (IP)		IP20