#### DATASHEET - FAZ-D32/1

Miniature circuit breaker (MCB), 32A, 1p, D-Char, AC





Part no.FAZ-D32/1Catalog No.278587Alternate CatalogFAZ-D32/1No.EL-Nummer(Norway)0001695219

Similar to illustration

#### **Delivery program**

		Miniature circuit-breakers
		1 pole
		D
		Switchgear for industrial and advanced commercial applications
In	А	32
l <sub>cu</sub>	kA	15
		FAZ

# Technical data

Ander operational worksigeKey and Key	Electrical			
Image: state s	Standards			
Number of the sector of the	Rated operational voltage	U <sub>e</sub>	V	
Rated switching capacity act. to EC/EN 6094-2   ku   ka   ka     Operational switching capacity   ka   5.0 K.S.S.Z     Max. back-up fuse   A gU   3.0 K.S.S.Z     Selectivity Class   A gU   3.0 K.S.Z     Ifespan   Voor   3.0 K.S.Z     Direction of incoming supply   Voor   3.0 K.S.Z     Standard funct dimension   Voor   3.0 K.S.Z     Standard funct dimension   Non   3.0 K.S.Z     Nutting width per pole   Non   3.0 K.S.Z     Mutting width per pole   Non   3.0 K.S.Z     Terminal protection   Non   3.0 K.S.Z     Terminal protection   Non   3.0 K.S.Z     Terminal protection   Non   3.0 K.S.Z     Terminal capacitities   Non   3.0 K.S.Z     Terminal capacities		U <sub>e</sub>	V AC	240/415
Operational switching capacity   KA   KA   S     Characteristic   KA			V DC	60 (per pole)
Characteristic   B   B   B   C   C   S     Characteristic   A   S   S   S     Max. back-up fuse   S   S   S     Selectivity Class   S   S   S     Lifespan   Operation   S   sequired     Direction of incoming supply   Operation   sequired   S     Machard ford timension   Image   S   S     Beclosure height   mage   S   S     Mounting width per pole   Image   S   S     Degree of Protection   Image   S   S     Terminal protection   Image   S   S     Terminal capacities   Image   Image   S     If inflamment   Image   S   S     Terminal capacities   Image   S   S     If inflamment   Image   S   S <td>Rated switching capacity acc. to IEC/EN 60947-2</td> <td>I<sub>cu</sub></td> <td>kA</td> <td>15</td>	Rated switching capacity acc. to IEC/EN 60947-2	I <sub>cu</sub>	kA	15
Max. back-up fuse     A gl/g6     25       Selectivity Class     Pagl/g6     25       Lifespan     Operations     1000       Lifespan     Selectivity Class     as required       Mochanical     se required     se required       Mechanical     mm     6       Mouting supply     mm     9000       Mouting width per pole     mm     9000       Mouting width per pole     mm     9000       Digree of Protection     mm     9000       Terminal stop and bottom     mm     9000       Terminal capacities     mm     9000 <td>Operational switching capacity</td> <td></td> <td>kA</td> <td>7.5</td>	Operational switching capacity		kA	7.5
Selectivity Class       Perations       Parameter	Characteristic			B, C, D, K, S, Z
Ifespan   Perations   Image: Perations   Image	Max. back-up fuse		A gL/gG	125
Lifespan   Operations   > 10000     Diraction of incoming supply   as required     Mechanical	Selectivity Class			3
Direction of incoming supply     is required       Mechanical       Standard front dimension     imm     45       Enclosure height     imm     80       Mounting width per pole     imm     1.5       Mounting     imm     1EC/EN 60715 top-hat rail       Degree of Protection     imm     1EC/EN 60715 top-hat rail       Terminals top and bottom     imm     imm       Terminal capacities     imm     imm       Immain capacities     imm     immain       Immain capacities     immain     immain	lifespan			
Mechanical     mm     45       Standard front dimension     mm     45       Enclosure height     mm     0       Mounting width per pole     mm     1.5       Mounting     Mm     16C/EN 60715 top-hat rail       Degree of Protection     Mm     120, 1240 (when fitted)       Terminals top and bottom     Mm     120, 1240 (when fitted)       Terminal protection     Mm     120, 1240 (when fitted)       Terminal capacities     mm     120, 1240 (when fitted)       Terminal capacities     mm     120, 1240 (when fitted)       Iterminal capacities     mm     125       Iterminal capacities     mm     210       Iterminal capacities     mm     120, 1240 (when fitted)       Iterminal capacities     mm     12, 1240 (when fitted)       Iterminal capacities     mm     12, 1240 (when fitted)       Iterminal capacities	Lifespan	Operations		> 10000
Standard front dimension     mm     45       Enclosure height     mm     80       Mounting width per pole     mm     17.5       Mounting     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Degree of Protection     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminals top and bottom     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal protection     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60715 top-hat rail     Finger and back-of-hand proof to BGV A2       Terminal capacities     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Terminal capacities     EC/EN 60716 top-hat rail     EC/EN 60716 top-hat rail	Direction of incoming supply			as required
Enclosure height     mm     80       Mounting width per pole     mm     1.5       Mounting     EC/EN 60715 top-hat rail     EC/EN 60715 top-hat rail       Degree of Protection     FOR     POR     POR       Terminals top and bottom     FOR     FOR     For protection       Terminal capacities     Mm     For protection     For protection       Terminal capacities     Mm     For protection     For protection       Terminal capacities     Mm     1 × 25     For protection       mm <sup>2</sup> X × 10     X × 10     For protection       mm <sup>2</sup> X × 10     For protection     X × 10       Terminal capacities     For protection     For protection     For protection       mm <sup>2</sup> X × 10     For protection     For protection       Terminal capacities     For protection     For protection     For protection       mm <sup>2</sup> X × 10     For protection     For protection       max     For protection     For protection     For protection       mm <sup>2</sup> X × 10     For protection     For protection       For protection     For protection     For protectio				
Mounting width per pole     mm     1.5       Mounting     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminals top and bottom     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal protection     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal protection     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     Ferder of Protection     Ferder of Protection       Terminal capacities     Ferder of Protection     Ferder of Protection     F			mm	45
Mounting     IC/EN 60715 top-hat rail       Degree of Protection     ICO     IPO, IPA0 (when fitted)       Terminals top and bottom     ICO     Vin - purpose terminals       Terminal protection     ICO     Image: Amage: Ama	Enclosure height		mm	80
Degree of Protection     Image: Base	Mounting width per pole		mm	17.5
Terminals top and bottom     Image: Sector S	Mounting			IEC/EN 60715 top-hat rail
Terminal protection     Image: Sector of the	Degree of Protection			IP20, IP40 (when fitted)
Terminal capacities   nm <sup>2</sup> Imm <sup>2</sup>	Terminals top and bottom			Twin-purpose terminals
Image:	Terminal protection			Finger and back-of-hand proof to BGV A2
Image:	Terminal capacities		mm <sup>2</sup>	
Thickness of busbar material mm 0.8 2			mm <sup>2</sup>	1 x 25
			mm <sup>2</sup>	2 x 10
Mounting position As required	Thickness of busbar material		mm	0.8 2
	Mounting position			As required

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

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	32
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0

Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	3.4
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
	' diss	°C	-40
Operating ambient temperature min.		°C	75
Operating ambient temperature max.		°С	
			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])

(eci@ss10.0.1-27-14-19-01 [AAB905014])		
Release characteristic		D
Number of poles (total)		1
Number of protected poles		1
Rated current	А	32
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

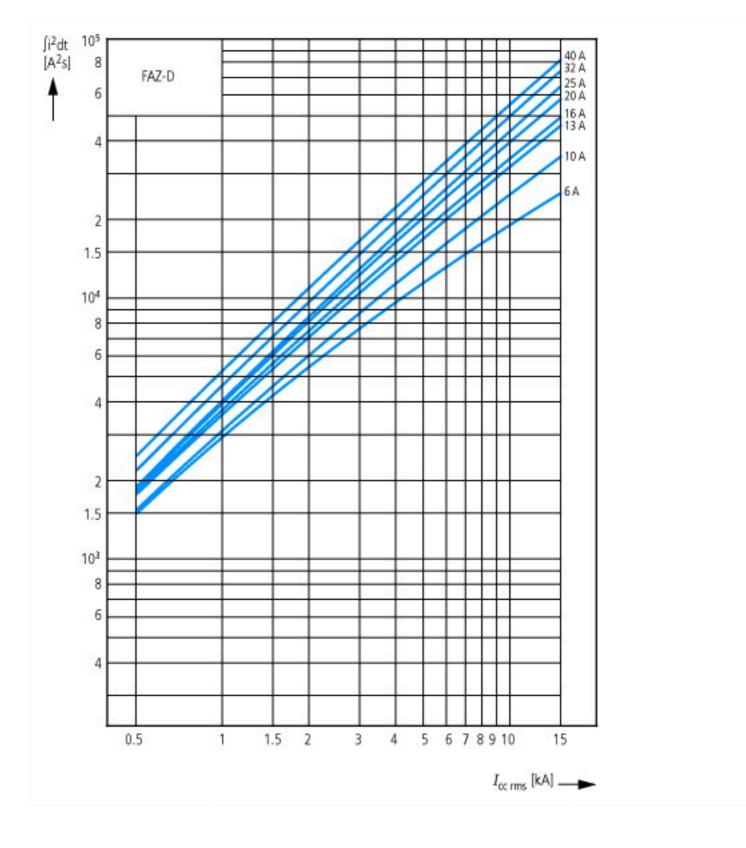
Pollution degree		2
Additional equipment possible		Yes
Width in number of modular spacings		1
Built-in depth	mm	70.5
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	-25 - 75
Connectable conductor cross section multi-wired	mm²	1 - 25
Connectable conductor cross section solid-core	mm²	1 - 25

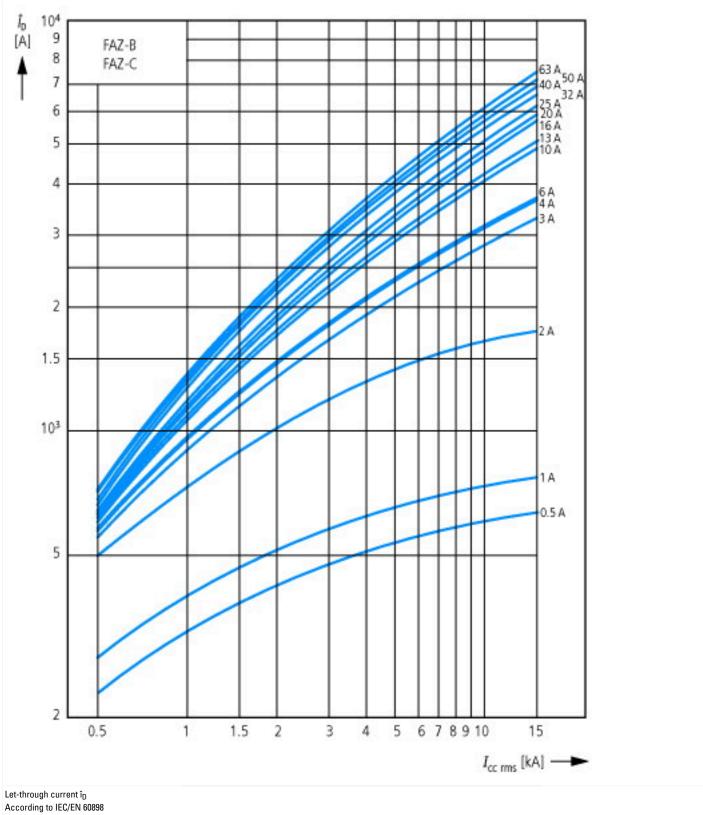
#### **Approvals**

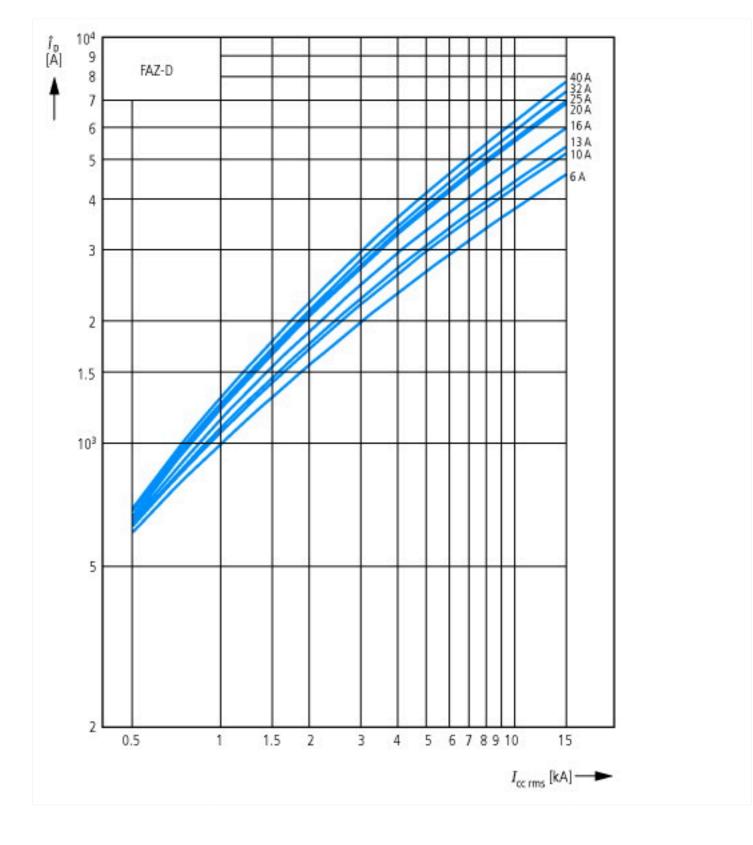
Product Standards	IEC/EN 60947-2; IEC/EN 60898; UL 1077; CSA-C22.2 No. 235; CE marking
UL File No.	E177451
UL Category Control No.	QVNU2, QVNU8
CSA File No.	204453
CSA Class No.	3215-30
North America Certification	UL recognized, CSA certified
Conditions of Acceptability	Supplementary Protector only
Suitable 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: -

#### **Characteristics**



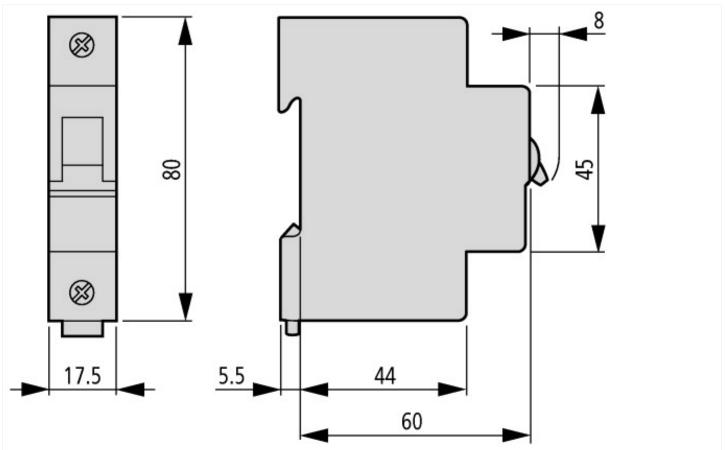








### Dimensions



## Additional product information (links)

#### AWA1220-1755 Circiut-breaker

AWA1220-1755 Circiut-breaker

ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/17550701.pdf