#### **DATASHEET - FAZ-S4/1**

Miniature circuit breaker (MCB), 4 A, 1p, characteristic: S





Part no.FAZ-S4/1Catalog No.278609Alternate CatalogFAZ-S4/1No.EL-NummerO001695366(Norway)

Similar to illustration

#### **Delivery program**

Dontor, program			
Basic function			Miniature circuit-breakers
Number of poles			1 pole
Tripping characteristic			S
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	А	4
Rated switching capacity acc. to IEC/EN 60947-2	l <sub>cu</sub>	kA	10
Product range			FAZ

# Technical data

Rade operational worksome         Rade operational worksome         Read operational worksome         Re	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 60947-2         Icu         KA         Icu         Icu <td></td> <td>U<sub>e</sub></td> <td>V AC</td> <td>240/415</td>		U <sub>e</sub>	V AC	240/415
Apperational switching capacity         KA         FA			V DC	60 (per pole)
Dranker derivitie         B         B         C	Rated switching capacity acc. to IEC/EN 60947-2	l <sub>cu</sub>	kA	10
Max.back-up fuse Max.back-up fuse Max.back-up fuse Selectivity Class Selectivity Class Generation Ifespan  Itespan  Itespan  Vertion  Itespan  Vertion  Itespan  Vertion  Itespan  Vertion  Vert	Operational switching capacity		kA	7.5
Selectivity Class         Parations	Characteristic			B, C, D, K, S, Z
ifespan       Operations       image: provide sector of incoming supply         Direction of incoming supply       se required         Mechanical       se required         Mechanical       mm       sector of incoming supply         Standard front dimension       mm       sector of incoming supply         Mounting width per pole       mm       sector of incoming supply         Mounting       mm       sector of incoming supply         Degree of Protection       mm       sector of incoming supply         Terminal sop and bottom       mm       incoming supply         Terminal capacities       mm <sup>2</sup> incoming supply         Interminal capacities       mm <sup>2</sup> incoming supply	Max. back-up fuse		A gL/gG	125
Lifespan     Operations     > 10000       Direction of incoming supply     as required       Mechanical     stradard front dimension     Mon       Standard front dimension     mm     \$       Beclosure height     mm     \$       Mounting width per pole     mm     \$       Mounting     15     Enclosure height       Degree of Protection     Mou     F     Enclosure height       Terminals top and bottom     Mon     Enclosure height     F       Terminal capacities     Min     \$     1000       Terminal capacities     Min     \$     \$       Terminal capacities     Min     \$	Selectivity Class			3
Direction of incoming supply       is required         Mechanical       Manual         Standard front dimension       mm       45         Enclosure height       mm       80         Mounting width per pole       mm       15.5         Mounting       IEC/EN 60715 top-hat rail       120,1P40 (when fitted)         Degree of Protection       Mounting       IEC/EN 60715 top-hat rail         Terminals top and bottom       Mounting       IEC/EN 60715 top-hat rail         Terminal protection       Mounting       Imm       IEC/EN 60715 top-hat rail         Terminal protection       Mounting       Imm       IEC/EN 60715 top-hat rail         Terminal protection       Mounting       Imm       Imm       Immeuse         Terminal protection       Mounting       Imm       Immeuse       Immeuse         Terminal capacities       Mounting       Immeuse       Immeuse       Immeuse         Terminal capacities       Mounting       Immeuse       Immeuse       Immeuse         Terminal capacities       Immeuse       Immeuse       Immeuse       Immeuse         Terminal capacities       Immeuse       Immeuse       Immeuse       Immeuse         Terminal capacities       Immeuse       Immeuse	lifespan			
Mechanical       Image: I	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       Formal Society       Formals         Terminals top and bottom       Formal Society       Formals         Terminal capacities       Formal Society       Formal Society         Imm       No       No         Imm       No       Standard from titled         Imm       Standard from titled       Formals         Imm       No       Standard from titled         Imm       No       Standard from titled         Imm       No       Standard from titled         Imm       Standard from titled       Standard from titled         Imm	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       Form purpose terminals       Form purpose terminals         Terminal protection       Form purpose terminals       Finger and back-of-hand proof to BGV A2         Terminal capacities       mm <sup>2</sup> 1×25         mm <sup>2</sup> 2×10       2×10         Terminal for busbar material       80       80				
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 rotection       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         Terminal capacities       Ferder of Protection       Ferder of Protection       Ferder of Protection       Ferder of Protection         Terminal capacities       Ferder of Protecticapaciticapaciticapaciticapaciticapaciticapaciticapaciti	Standard front dimension		mm	45
Mounting       IC/EN 60715 top-hat rail         Degree of Protection       IP20, IP40 (when fitted)         Terminals top and bottom       IPC         Terminal protection       IPC         Terminal capacities       IPC         Immediate       Immediate         Immediat       Im	Enclosure height		mm	80
Degree of Protection       Image: Base	Mounting width per pole		mm	17.5
Terminals top and bottom       Image: Section	Mounting			
Terminal protection       Image: sector of the	Degree of Protection			IP20, IP40 (when fitted)
Terminal capacities     mm <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
Thickness of busbar material Market Market Market Market	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	I <sub>n</sub>	А	4
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0

Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	1.7
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
		w	0
Heat dissipation capacity	P <sub>diss</sub>		
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])

(eci@\$\$10.0.1-27-14-19-01 [AAD900014])		
Release characteristic		Other
Number of poles (total)		1
Number of protected poles		1
Rated current	А	A 4
Rated voltage	V	/ 230
Rated insulation voltage Ui	V	/ 440
Rated impulse withstand voltage Uimp	kV	V 4
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	A 0
Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	A 0
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	A 10
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	A 10
Voltage type		AC
Frequency	Hz	Hz 50 - 60
Current limiting class		3
Suitable for flush-mounted installation		No
Concurrently switching N-neutral		No
Over voltage category		3

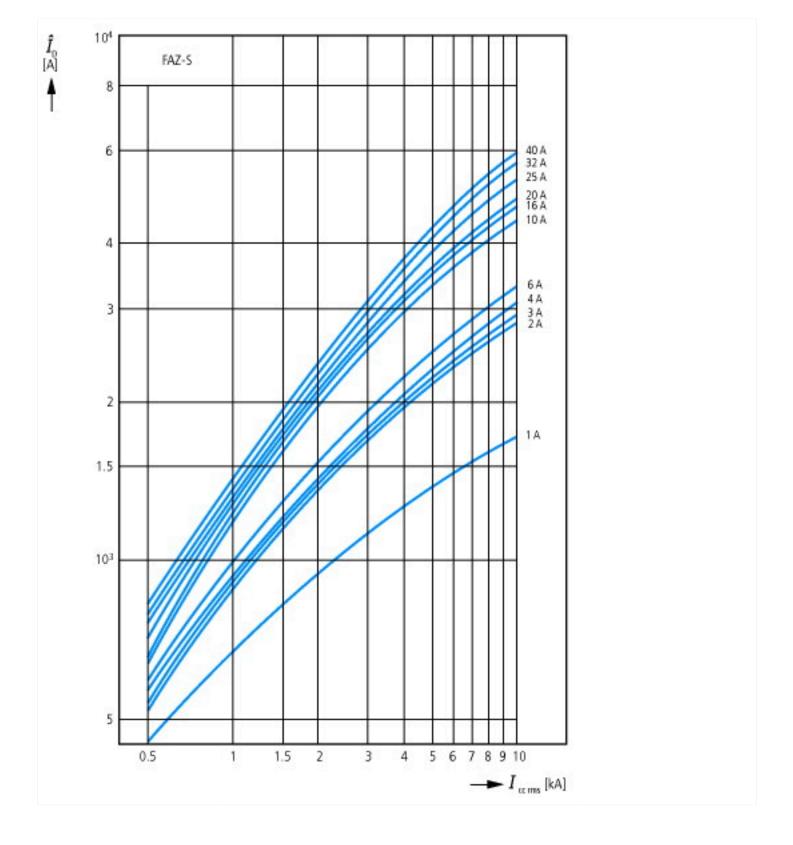
Pollution degree		2
Additional equipment possible		Yes
Width in number of modular spacings		1
Built-in depth	mm	70.5
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	-25 - 75
Connectable conductor cross section multi-wired	mm²	1 - 25
Connectable conductor cross section solid-core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

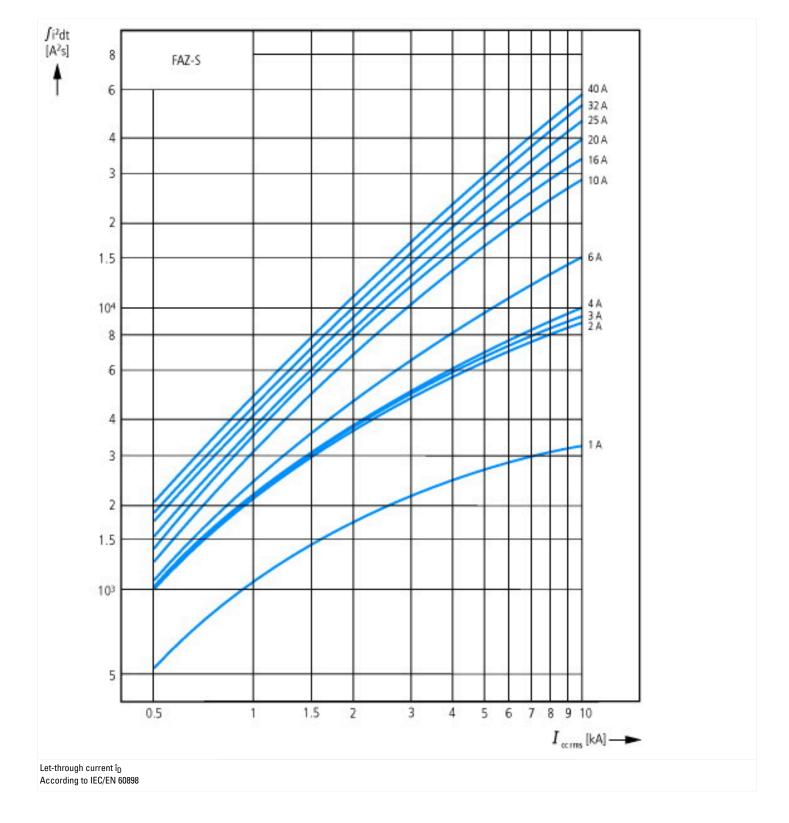
#### **Approvals**

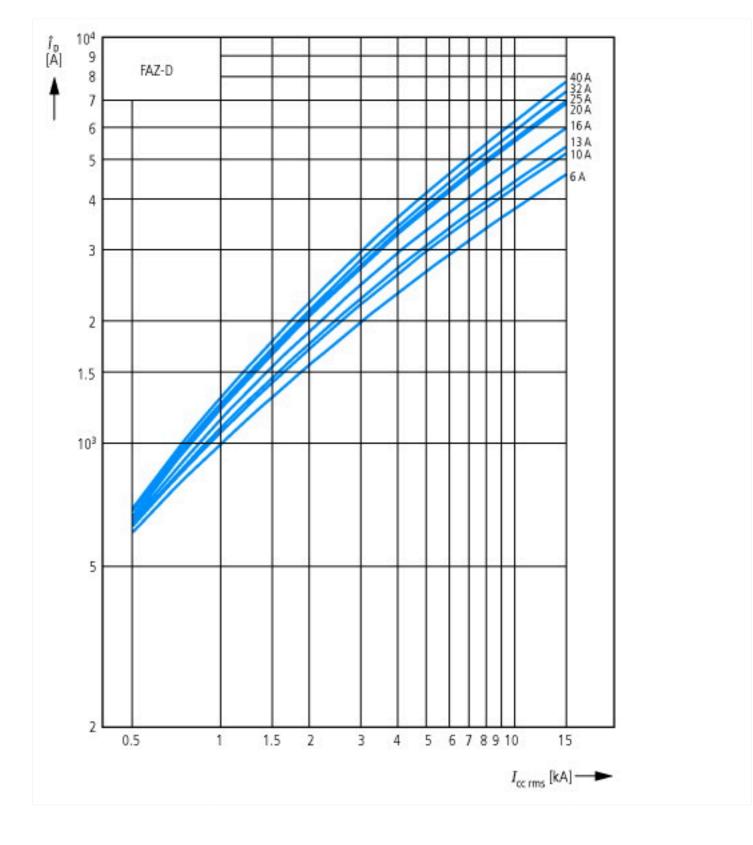
Product Standards	IEC/EN 60947-2; IEC/EN 60898; UL 1077; CSA-C22.2 No. 235; CE marking
UL File No.	E177451
UL Category Control No.	QVNU2, QVNU8
CSA File No.	204453
CSA Class No.	3215-30
North America Certification	UL recognized, CSA certified
Conditions of Acceptability	Supplementary Protector only
Suitable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

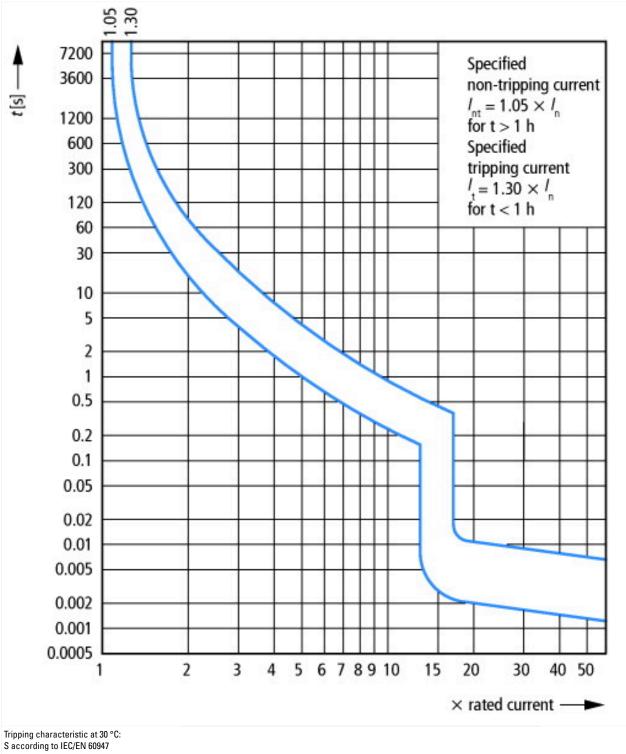
### **Characteristics**



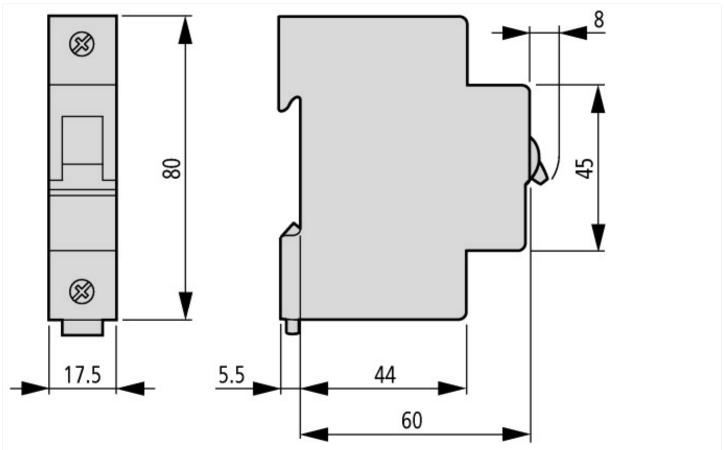








#### **Dimensions**



# Additional product information (links)

### AWA1220-1755 Circiut-breaker

AWA1220-1755 Circiut-breaker ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/17550701.pdf

Temperature dependency, derating

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