DATASHEET - FAZ-B16/1-NA

No.

Miniature circuit breaker (MCB), 16 A, 1p, characteristic: B



FAZ-B16/1-NA Part no. Catalog No. 132686 Alternate Catalog FAZ-B16/1-NA **EL-Nummer** 1691521 (Norway)



Delivery program

Basic function			Miniature circuit-breakers
Number of poles			1 pole
Tripping characteristic			В
Application			Switchgear for export to North America (UL-listed)
Rated current	In	А	16
Rated switching capacity acc. to IEC/EN 60947-2	l _{cu}	kA	15
Product range			FAZ-NA

Technical data Electrical

Mechanical	Electrical			
And ParticipationVac ParticipationYakab ParticipationRede voltage according to LEC/EN 60947-2UVacZ4Red voltage according to ULUVacZRed switching capacity acc. to EC/EN 60947-2LuKacIUL489Bracking capacity according to ULLuKacS.C.D.C.S.C.S.C.S.C.S.C.S.C.S.C.S.C.S.C.	Standards			
Image: Provide the second ing to LEC/EN 60947-2 Vn VAC 64 Reted voltage according to LEC/EN 60947-2 Vn VAC 77 Reted voltage according to UL Vn VAC 70 Selectivity Class Vn VAC 70 Ifespan Operations 70 70 Notarise Vn 70 70 Retedration dimonding supply Vn 70 70 Notarise height No 70 70 Recederation Mn 70 70 Segree of Protection Mn 70 70 Terminal protection Fore and back-of-hand proof to BGV A2 70 Terminal protection Fore and back-of-hand proof to BGV A2 70 Terminal protection Fore and b	Rated operational voltage	Ue	V	
Red voltage according to LEC/EN 60947-2Va AVAC VACSelectionRet d voltage according to ULLeuAABreaking capacity acc. to EC/EN 60947-2LeuA4 (U489)Breaking capacity acc. to EC/EN 60947-2KA (U489)CharacteristicB, C, DB, C, DSelectivity ClassB, C, DB, C, DIdespanOperationsB, C, DInfestionPeratonsB, C, DDirection of incoming supplyPeratonsSelectivity ClassSelectivity ClassPeratonsSelectivity ClassInfestionPeratonsSelectivity ClassDirection of incoming supplyPeratonsSelectivity ClassSelectivity ClassPeratonsSelectivity ClassInfestion of incoming supplyPeratonsSelectivity ClassSelectivity ClassPeratonsSelectivity ClassSelectivity ClassPeratonsSelectivity ClassInfestion of incoming supplyPeratonsPeratonsSelectivity ClassPeratonsSelectivity ClassSelectivity ClassPeratonsPeratonsSelectivity ClassPeratonsSelectivity ClassSelectivity ClassPeratonsPeratonsSelectivity ClassPeratonsPeratonsSelectivity ClassPeratonsPeratonsSelectivity ClassPeratonsPeratonsSelectivity ClassPeratonsPeratonsSelectivity ClassPeratonsPeratonsSelectivity ClassPeratons<		U _e	V AC	277/480 Y
Red voltage according to ULVnVAC77Red switching capacity acc. to EC/EN 60947-2FauKau14(U489)Braking capacity according to ULKau14(U489)CharacteristicFau63Solectivity ClassFau33IfespanOperators2000resultIncentor of incoming supplyFausequericalsequericalMacharderisticFau55Solectivity ClassFau55Incentor of incoming supplyFausequericalsequericalMacharderisticFau555Solectivity ClassFau555Incentor of incoming supplyFauS55MacharderisticFauFau555Solectivity ClassFauS555Solectivity ClassFauFau5555Solectivity ClassFauFau555			V DC	60
Area of a construction of	Rated voltage according to IEC/EN 60947-2	Un	V AC	254
Breaking capacity according to UL Ka Ka I (UL489) Characteristic B, C, D B, C, D Selectivity Class B, C, D B, C, D Lifespan Operation Selectivity Class Selectivity Class Lifespan Operation Selectivity Class Selectivity Class Breaking Capacity According supply Operation Selectivity Class Selectivity Class Mechanical Selectivity Class Selectivity Class Selectivity Class Enclosure height Mm Selectivity Class Selectivity Class Mounting width per pole Mm Selectivity Class Selectivity Class Degree of Protection Ferry Figure Selectivity Class Ferry Figure Selectivity Class Selectivity Class Tightening torque of fixing screws Selectivity Class Selectivity Class Selectivity Class Tightening torque of fixing screws Selectivity Class Selectivity Figure Selectiv	Rated voltage according to UL	Un	V AC	277
Characteristic B, C, D Selectivity Class B, C, D Lifespan Poreations 3 Lifespan Operations > 20000 Direction of incoming supply Poreations se required Mechanical Main S Standard front dimension mm S Routing width per pole mm S Mounting Mm S Direction of incoming supply Mm S Mounting width per pole mm S Mounting Mm S Direction Mm S Terminal stop and bottom Mm S Terminal protection Mm S Tightening torque of fixing screws Mm S Tightening torque of fixing screws Mm S Standard screws Mm S S Standard screws Mm S S Standard from timesion S S S Standard from timesion S S S Standard from timesion S S <	Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	15
Selectivity Class Image: Selectivity Class 3 Lifespan Operations > 2000 Direction of incoming supply	Breaking capacity according to UL		kA	14 (UL489)
Integran Operations Image: Image	Characteristic			B, C, D
Liespan Operations >0000 Direction of incoming supply Image of Protection are quired Mechanical mm 4 Standard front dimension Image of Protection mm 105 Mounting width per pole mm 17.7 17.0 Mounting Image of Protection Image of Protection Image of Protection Image of Protection Terminal protection Image of Protection Image of Protection Image of Protection Image of Protection Tightening torque of fixing screws Image of Protection Image of Protection <t< td=""><td>Selectivity Class</td><td></td><td></td><td>3</td></t<>	Selectivity Class			3
Direction of incoming supply is required Mechanical Standard front dimension m Enclosure height mm Mounting width per pole mm Mounting mm Digree of Protection mm Terminals top and bottom Mm Terminal protection Mm Tightening screws Mm Tightening screws Mm N/m N/m Standard from dimension Total Mounting Mm Difference Finger and back-of-hand proof to BGV A2 Terminal protection N/m Tightening screws N/m Subscrews N/m Subscrews Subscrews	lifespan			
Mechanical Standard front dimension mm 45 Enclosure height mm 105 Mounting width per pole mm 17.7 Mounting Feed Portection Feed Portection Terminals top and bottom Feed Portection Feed Portection Terminal protection Feed Portection File Portection Terminal protection File Portection File Portection File Portection File Portection File Portection File Portection File Portection File Portection <t< td=""><td>Lifespan</td><td>Operations</td><td></td><td>> 20000</td></t<>	Lifespan	Operations		> 20000
Standard front dimensionmm45Enclosure heightmm105Mounting width per polemm17.7MountingICP (N 60715 top-hat railDegree of ProtectionICM (N men fitted)Terminals top and bottomICM (N men fitted)Terminal protectionICM (N men fitted)Tightening torque of fixing screwsICM (N men fitted)Tightening torque of fixing screwsICM (N men fitted)Ital Manage and Mana	Direction of incoming supply			as required
Enclosure height mm 15 Mounting width per pole mm 1.7 Mounting IC/EN 60715 top-hat rail IC/EN 60715 top-hat rail Degree of Protection ICI ICI ICI Terminals top and bottom ICI ICI ICI ICI Terminal protection ICI	Mechanical			
Mounting width per polemm1.7.7MountingIC/EN 60715 top-hat railDegree of ProtectionIC/EN 60715 top-hat railTerminals top and bottomIC/EN 60715 top-hat railTerminal protectionIC/EN 60715 top-hat railTightening torque of fixing screwsIC/EN 60715 top-hat rail </td <td>Standard front dimension</td> <td></td> <td>mm</td> <td>45</td>	Standard front dimension		mm	45
MountingIC/EN 60715 top-hat railDegree of ProtectionIP20, IP40 (when fitted)Terminals top and bottomImage: Amplitude of the second se	Enclosure height		mm	105
Degree of ProtectionIP20, IP40 (when fitted)Terminals top and bottomTwin-purpose terminalsTerminal protectionTwin-purpose terminalsTightening torque of fixing screwsN/mMulti #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) #6 AWG: 4 Nm (36 lb-in)	Mounting width per pole		mm	17.7
Terminals top and bottom Twin-purpose terminals Terminal protection Finger and back-of-hand proof to BGV A2 Tightening torque of fixing screws N/m VL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) #6 AWG: 4 Nm (36 lb-in)	Mounting			IEC/EN 60715 top-hat rail
Terminal protection Finger and back-of-hand proof to BGV A2 Tightening torque of fixing screws N/m max. 2.4 UL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) #6 AWG: 4 Nm (36 lb-in)	Degree of Protection			IP20, IP40 (when fitted)
Tightening torque of fixing screws N/m max. 2.4 UL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) #6 AWG: 4 Nm (36 lb-in)	Terminals top and bottom			Twin-purpose terminals
UL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) #6 AWG: 4 Nm (36 lb-in)	Terminal protection			Finger and back-of-hand proof to BGV A2
Mounting position As required	Tightening torque of fixing screws		N/m	UL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in)
	Mounting position			As required

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	А	16
Heat dissipation per pole, current-dependent	P _{vid}	W	0

Equipment heat dissipation, current-dependent	P _{vid}	W	2.1
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
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@ss10.0.1-27-14-19-01 [AAB905014])		
Release characteristic		В
Number of poles (total)		1
Number of protected poles		1
Rated current	A	16
Rated voltage	۷	240
Rated insulation voltage Ui	۷	440
Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	0
Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	0
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	r	mm	70.5
Degree of protection (IP)			IP20
Ambient temperature during operating	c	°C	-25 - 75
Connectable conductor cross section multi-wired	r	mm²	1 - 25
Connectable conductor cross section solid-core	r	mm²	1 - 25

Approvals

Product Standards	IEC/EN 60947-2; EN 45545-2; IEC 61373; UL 489; CSA-C22.2 No. 5-09; CE marking
UL File No.	E235139
UL Category Control No.	DIVQ
CSA File No.	204453
CSA Class No.	1432-01
North America Certification	UL listed, CSA certified
Specially designed for North America	Yes, suitable as BCPD
Suitable for	Feeder circuits, branch circuits
Current Limiting Circuit-Breaker	Yes
Max. Voltage Rating	≤ 32 A
Degree of Protection	IEC: IP20, UL/CSA Type: -

Additional product information (links)

Temperature dependency, derating

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