DATASHEET - FAZ-D10/2-NA

Miniature circuit breaker (MCB), 10 A, 2p, characteristic: D



Alternate Catalog No. EL-Nummer (Norway)

Part no. Catalog No. FAZ-D10/2-NA 102187 og FAZ-D10/2-NA 1691652

Similar to illustration

Delivery program

Basic function			Miniature circuit-breakers
Number of poles			2 pole
Tripping characteristic			D
Application			Switchgear for export to North America (UL-listed)
Rated current	I _n	А	10
Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	15
Product range			FAZ-NA

Technical data

Standard front dimensionmm45Enclosure heightmm105Mounting width per polemm17.7	Electrical			
And one Vac VAC VARAP Vac 7/480 Y 6 Vac 6 6 Red voltage according to IE/E/E 60947-2 Un VAC 40/277 Red voltage according to IE/E/E 60947-2 Lu VAC 90/277 Red voltage according to IE/E/E 60947-2 Lu VAC 90/277 Red voltage according to IE/E/E 60947-2 Lu VAC 90/277 Characteristic Lu VAC 90/277 Selectivity Class Lu VAC 90/270 Ifespan Operations VAC 90/270 Direction fincoming supply VAC 9000 90/270 Nadard fort dimension Image 90/270 90/270 Reclosure height Mac 90/270 90/270 Mounting Image Image 90/270 Reclosure height Image 90/270 90/270 Nonting Image Image 90/270 90/270 Reclosure height Image Image <t< td=""><td>Standards</td><td></td><td></td><td></td></t<>	Standards			
Image: space of the space of	Rated operational voltage	Ue	V	
Rade voltage according to IE/CFN 60947-2 Nn YAC Advance Rade voltage according to UL Lon VAC 8/0/277 Rade voltage according to UL Lon KAC 5/0 Characteristic Lon KAC 8/0 Selectivity Class So So So Ifespan Ma YAC 8/0 Direction clinoming supply Ma YAC So Madd for third mension Ma YAC So Routing width per pole Ma So So Montring Ma YAC So So Solar		Ue	V AC	277/480 Y
Rade voltage according to UL Un VAC 800//27 Rade voltage acciving co. to IEC/EN 60947-2 Icu KA 5 Characteristic No 8, C, D 0 Selectivity Class 8, C, D 0 0 Iffespan Operations 8 9 Direction of incoming supply 0 as required Mechanical No 5 Standard front dimension No 5 Rounding width per pole No 105 Mounting 120 120 120 Degree of Protection No 120 120 Terminals top and bottom No 120 120 Terminal protection No 120 120 Tigney and bottom			V DC	60
Rated switching capacity acc. to IEC/EN 60947-2 Icu	Rated voltage according to IEC/EN 60947-2	Un	V AC	415
Characteristic B, C, D Selectivity Class B, C, D Selectivity Class B, C, D Iffespan Meeta Lifespan Operations Direction of incoming supply Poperations Meethanical ser equired Rechanical mm Forlow Height Monting width per pole Mounting mm Direction of Incoming Supply IC/EN 60715 top-hat rail Degrate of Protection mm Terminals top and bottom mm Terminal protection min-purpose terminals Tagtening torque of fixing screws Min Standard fixing screws Min	Rated voltage according to UL	Un	V AC	480Y/277
Selectivity Class And Content of the second se	Rated switching capacity acc. to IEC/EN 60947-2	l _{cu}	kA	15
Inspan Inspan<	Characteristic			B, C, D
Lifespan Operations >2000 Direction of incoming supply as required Mechanical se quired Standard front dimension Image: Second Sec	Selectivity Class			3
Direction of incoming supply Image: Provide state of the	lifespan			
Mechanical mm 45 Standard front dimension mm 105 Enclosure height mm 17.7 Mounting width per pole mm 17.7 Degree of Protection Mounting 120.11 Terminals top and bottom Mounting 120.11 Terminal protection Mm 120.11 Terminal protection Mm 120.11 Tightening screws Mm mm Mounting bottom Mm 120.11 Tightening screws Mm Mm	Lifespan	Operations		> 20000
Standard front dimensionmm45Enclosure heightmm105Mounting width per polemm17.7MountingICE/EN 60715 top-hat railDegree of ProtectionICEPool (Volumen fitted)Terminals top and bottomICEFrom ProtectionTerminal protectionICEImage and back-of-hand proof to BGV A2Tightening torque of fixing screwsImage and schemen Schem				as required
Enclosure heightmm15Mounting width per polemm17.7MountingEC/EN 60715 top-hat railDegree of ProtectionECP20, IP40 (when fitted)Terminals top and bottomECForminalsTerminal protectionECForminal protectionTightening torque of fixing screwsServersN/mNumeri of fixing screwsServersN/mServers <td>Mechanical</td> <td></td> <td></td> <td></td>	Mechanical			
Mounting width per polemm1.7MountingEC/EN 60715 top-hat railDegree of ProtectionFOPTerminals top and bottomFOPTerminal protectionFOPTightening torque of fixing screwsSill and schoft and proof to BGV A2Tightening torque of fixing screwsSill and schoft and proof to BGV A2	Standard front dimension		mm	45
Mounting IC/EN 60715 top-hat rail Degree of Protection IP20, IP40 (when fitted) Terminals top and bottom IP20, IP40 (when fitted) Terminal protection IP20, IP40 (when fitted) Tightening torque of fixing screws IP20, IP40 (when fitted) Tightening torque of fixing screws IP20, IP40 (when fitted)	Enclosure height		mm	105
Degree of Protection P20, IP40 (when fitted) 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 max. 2.4 UL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 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 max. 2.4 UL: #18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.4 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	10
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	3
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
C/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 observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must 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)

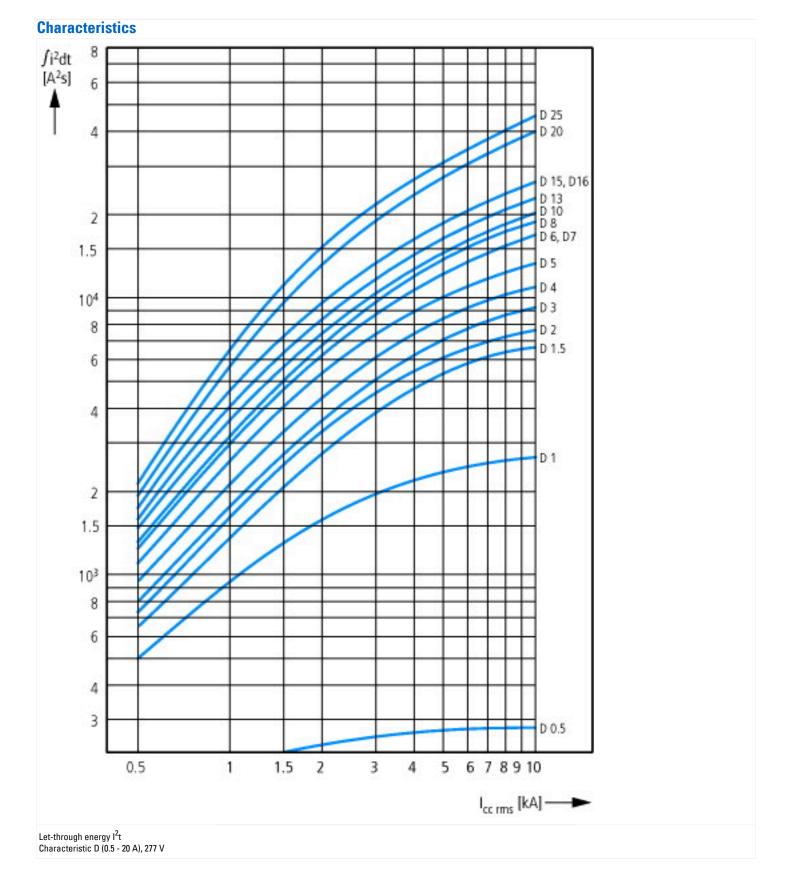
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

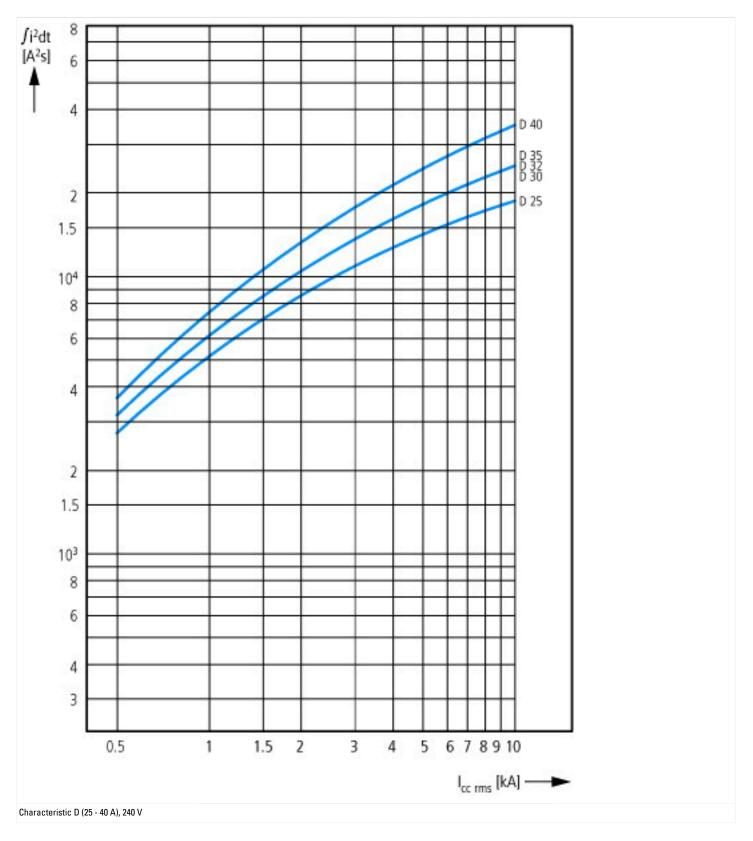
Release characteristic		D
Number of poles (total)		2
Number of protected poles		2
Rated current	А	10
Rated voltage	V	415
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	0
Rated short-circuit breaking capacity Icn 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		2

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; 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