DATASHEET - FAZ-D10/2-RT

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



Part no.FAZ-D10/2-RTCatalog No.102227Alternate CatalogFAZ-D10/2-RTNo.EL-Nummer1691863(Norway)



Similar to illustration

Delivery program

Basic function			Miniature circuit-breakers
Number of poles			2 pole
Tripping characteristic			D
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	А	10
Rated switching capacity acc. to IEC/EN 60947-2	l _{cu}	kA	15
Product range			FAZ-RT

Technical data

Rated operational voltage Ue Ue Ve Rated operational voltage Ue Ve Ve Image: Ver Ve Ve Ve Rated operational voltage according to IEC/EN 60047-2 Un VAC Ve Rated voltage according to IEC/EN 60047-2 Un VAC Ve Rated voltage according to IEC/EN 60047-2 Un VAC Ve Rated voltage according to IEC/EN 60047-2 Un Ve Ve Rated voltage according to IEC/EN 60047-2 Ve Ve Ve Rated voltage according to IEC/EN 60047-2 Ve Ve Ve Solectivity Class Ve Ve Ve Solectivity Class Ve	Electrical			
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IndexVDCIndexVDCRede voltage according to LEC/EN 60947-2VACVACVACRede switching capacity acc. to LEC/EN 60947-2IndexVACSolutionCharacteristicIndexKASolutionSelectivity ClassIndexKASolutionLifespanIndexIndexSolutionLifespanIndexIndexSolutionStandard front dimensionIndexIndexSolutionSelectivity ClassIndexIndexSolutionMounting width per poleIndexIndexIndexStandard front dimensionIndexIndexIndexSelectivity ClassIndexIndexIndexSelectivity ClassIndexIndexIndexStandard front dimensionIndexIndexIndexStandard front dimensionIndexIndexIndexSelectivity ClassIndexIndexIndexStandard front dimensionIndexIndexIndexStandard front dimensionIndexIndexIndexStandard front dimensionIndexIndexIndexSelectivity ClassIndexIndexIndexIndexStandard front dimensionIndexIndexIndexIndexStandard front dimensionIndexIndexIndexIndexStandard front dimensionIndexIndexIndexIndexStandard front dimensionIndexIndexIndexIndexStandar	Rated operational voltage	Ue	V	
Rated voltage according to IEC/EN 60947-2 Vn VAC 45 Rated voltage according to UL Vn VAC 809//277 Rated voltage according to UL Vn KAC 809//277 Rated voltage according to UL Vn KAC 809//277 Rated voltage according to UL Vn KAC 809//277 Characteristic No No No Selectivity Class No No No Ifespan Operations 20000 sequired Direction of incoming supply No Selectivity Class sequired Mounting width per pole Nn Selectivity Stop-hat rail Selectivity Stop-hat rail Mounting width per pole Nn Selectivity Stop-hat rail Selectivity Stop-hat rail Terminals top and bottom Nn Selectivity Stop-hat rail Selectivity Stop-hat rail Terminal protection Nn Selectivity Stop-hat rail Selectivity Stop-hat rail Terminal protection Nn Selectivity Stop-hat rail Selectivity Stop-hat rail Terminals protection <td< td=""><td></td><td>Ue</td><td>V AC</td><td>277/480 Y</td></td<>		Ue	V AC	277/480 Y
Rate voltage according to UL Un VAC 480Y/277 Rated voltage according to UL Icu KA 15 Rated switching capacity acc. to IEC/EN 60947-2 B. C. D B. C. D Selectivity Class B. C. D 3 Selectivity Class Selectivity Class Selectivity Class Selectivity Class Lifespan Operations Selectivity Class Selectivity Class Selectivity Class Direction of incoming suply Operations Selectivity Class Selectivity Class Selectivity Class Standard front dimension Manual Selectivity Class Selectivity Class Selectivity Class Selectivity Class Selectivity Class Mounting width per pole Manual Selectivity Class Manual Selectivity Class Sel			V DC	60
Act of which is capacity acc. to IEC/EN 60947-2 Icu KA Selectivity Class Selectivity Selectivity Selectivity Selectivity Class Selectivity Selec	Rated voltage according to IEC/EN 60947-2	Un	V AC	415
Characteristic B B C Selectivity Class B C, D Lifespan Operations S S Direction of incoming supply Operations > 20000 Mechanical sequired sequired Standard front dimension mm 5 Rounding width per pole mm 105 Mounting Mm 17.7 Mounting Mm 17.7 Terminals top and bottom mm 160715 top-hat rail Terminals top and bottom Fore and back-of-hand proof to BGV A2 Tightening torque of fixing screws N/m Rms. 2.4 Lifethening screws N/m Sack 2.4 Nm (21 lb-in)	Rated voltage according to UL	Un	V AC	480Y/277
Selectivity Class Image: Selecti	Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	15
Integran Operations Image: Im	Characteristic			B, C, D
Lifespan Operations Potention Potention Potention Potention Direction of incoming supply Methanical sequired Mechanical mm 4 Enclosure height Mm 10 Mounting width per pole Mm 10 Mounting Mm 10 Degree of Protection Mm 10/to Potential Terminal stop and bottom Methanical 10/to Potential Terminal protection Methanical 10/to Potential Tightening torque of fixing screws Methanical 10/to Potential Nom Methanical 10/to Potential Tightening torque of fixing screws Methanical 10/to Potential	Selectivity Class			3
Direction of incoming supply Direction of incoming supply Direction of incoming supply Direction of incoming supply Bandard front dimension Exclosure height Mounting Mounting width per pole Mounting Degree of Protection Terminals top and bottom Terminal protection Tightening screws Mounting	lifespan			
Mechanical mm 45 Standard front dimension mm 105 Enclosure height mm 17.7 Mounting width per pole mm 17.7 Mounting MM 16C/EN 60715 top-hat rail Degree of Protection MM 120.1440 (when fitted) Terminals top and bottom MM 120.1440 (when fitted) Terminal protection MM Mm.2.2.4 Tightening torque of fixing screws MM Mm.2.2.4 Viscource MM MM.2.2.8 Nm (25 lb-in) #18-12 AWG: 2.4 Nm (36 lb-in) MM (36 lb-in)	Lifespan	Operations		> 20000
Standard front dimensionmm45Enclosure heightmm105Mounting width per polemm1.7MountingIC/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 railTerminal protectionIC/EN 60715 top-hat railTightening torque of fixing screwsIC/EN 60715 top-hat protectionTightening torque of fixing screwsI	Direction of incoming supply			as required
Enclosure height mm 105 Mounting width per pole mm 17.7 Mounting IC/EN 60715 top-hat rail IC/EN 60715 top-hat rail Degree of Protection ICO ICO, IP40 (when fitted) Terminals top and bottom ICO Finger and back-of-hand proof to BGV A2 Terminal protection N/m Sax 2.4 Tightening torque of fixing screws N/m N/m Nome: N/m (25 lb-in)	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 railTerminal protectionIC/EN 60715 top-hat railTightening torque of fixing screwsIC/EN 60715 top-hat protectionTightening torque of fixing screwsIC/EN 60715 top-hat protectio	Standard front dimension		mm	45
Mounting IC/EN 60715 top-hat rail Degree of Protection IP20, IP40 (when fitted) Terminals top and bottom Image: Comparison of the terminals Terminal protection Image: Comparison of the terminals Tightening torque of fixing screws N/m N/m Max 2.4 UL: #18-12 AWG: 2.4 Nm (25 lb-in) #10-8 AWG: 2.4 Nm (25 lb-in)	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 Winner Strews N/m Market Strews N/m Market Strews N/m Market Strews N/m Market Strews N/m (36 Ib-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 #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)	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 l 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)

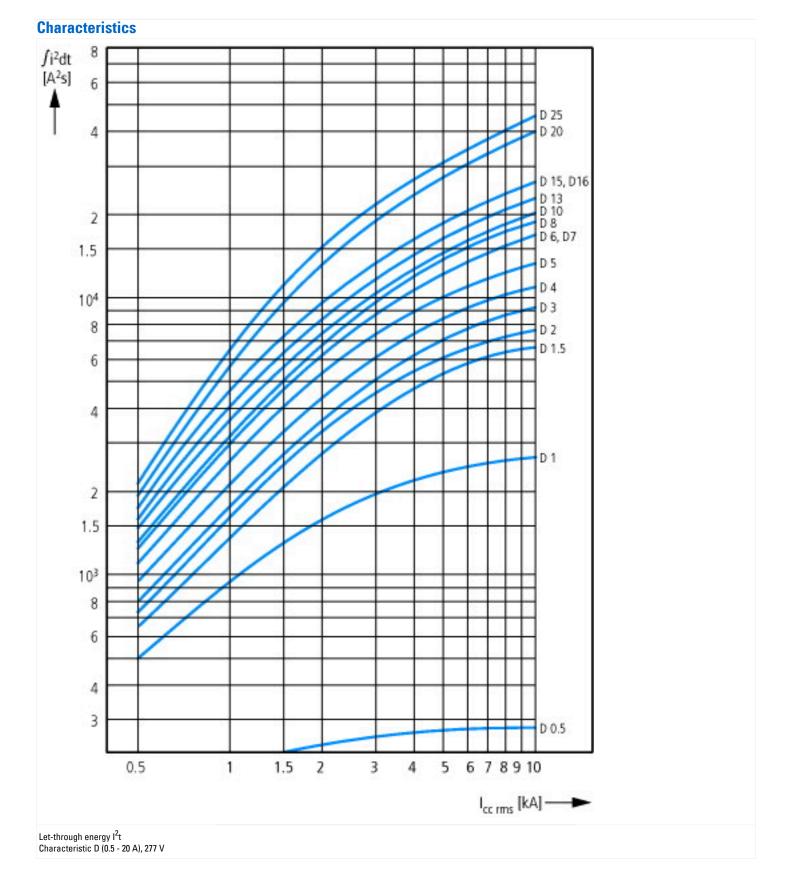
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

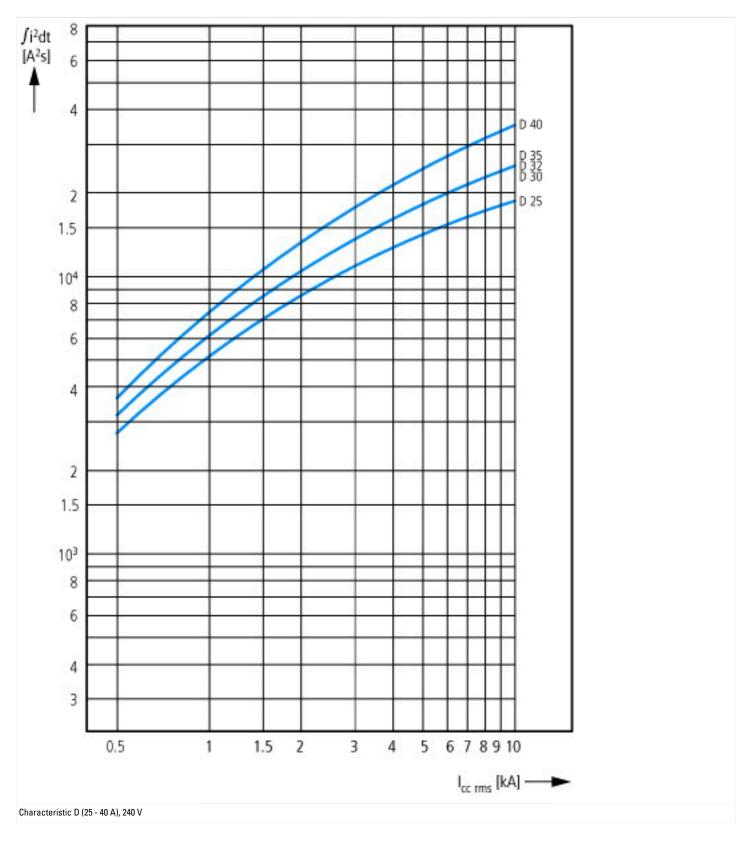
Release characteristic		D
Number of poles (total)		2
Number of protected poles		2
Rated current	А	10
Rated voltage	V	415
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	0
Rated short-circuit breaking capacity Icn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

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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