DATASHEET - FAZ-D40/3-NA



Miniature circuit breaker (MCB), 40 A, 3p, characteristic: D

Part no. FAZ-D40/3-NA Catalog No. 102276 Alternate Catalog FAZ-D40/3-NA No. EL-Nummer 1691681 (Norway)



Similar to illustration

Delivery program

Basic function			Miniature circuit-breakers
Number of poles			3 pole
Tripping characteristic			D
Application			Switchgear for export to North America (UL-listed)
Rated current	I _n	А	40
Rated switching capacity acc. to IEC/EN 60947-2	l _{cu}	kA	15
Product range			FAZ-NA

Technical data

Lifespan Operations > 20000 Direction of incoming supply as required	Electrical			
No. Vac Vac Parametric Science Vac Vac Parametric Science Vac Parametric Science Rated voltage according to EC/EN 60947-2 Un Vac Parametric Science	Standards			UL 489, CSA C22.2 No. 5 IEC 60947-2
Index of the second of the s	Rated operational voltage	U _e	V	
Rete voltage according to IEC/EN 60947-2NaVACAddRate doutage according to ULVACVACAddRate doutage according to ULVACVACAddRate doutage according to ULVACSolSolCharacteristicVACAddSolSelectivity ClassVACAddSolIfespanOperatorsVACAddInctant of incoming supplyOperatorsVACSolAddref forth dimensionAnotherSolSolInctant of incoming width per poleAnotherSolSolMoutingAnotherNaSolSolAddref forth dimensionAnotherSolSolInctant of incoming width per poleAnotherSolSolMoutingAnotherAnotherSolSolInctant of incoming supplyAnotherSolSolSolAddref forting width per poleAnotherSolSolSolMoutingAnotherAnotherSolSolSolInternational ControlAnotherSolSolSolSolInternational ControlAnotherSolSolSolSolSolInternational ControlAnotherSolSolSolSolSolSolInternational ControlAnotherAnotherSolSolSolSolSolSolSolSolSolSolSolSolSolSolSolSolSol <td< td=""><td></td><td>Ue</td><td>V AC</td><td>240</td></td<>		Ue	V AC	240
Rete votage according to UL VA VAC Parameter Sector Se			V DC	60
Rated switching capacity acc. to IEC/EN 60947-2 Characteristic Characteristic Characteristic Selectivity Class Characteristic Selectivity Class Characteristic Selectivity Class Characteristic Selectivity Class Characteristic Characteristic Selectivity Class	Rated voltage according to IEC/EN 60947-2	Un	V AC	415
Characteristic B, C, D Selectivity Class B, C, D Lifespan B, C, D Lifespan Operations B Direction of incoming supply Perations > 20000 Mechanical Image: Selectivity Class Selectivity Class Standard front dimension Image: Selectivity Class Selectivity Class Rounding width per pole Image: Selectivity Class Selectivity Class Mounting Image: Selectivity Class Image: Selectivity Class Selectivity Class Terminals top and bottom Image: Selectivity Class Image: Selectivity Class Selectivity Class Tightening torque of fixing screws Image: Selectivity Class Selectivity Class Selectivity Class	Rated voltage according to UL	Un	V AC	240
Selectivity Class Selectity Class Selectity Class <	Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	15
Initiation of incoming supply Operations Image: Registration of incoming supply Direction of incoming supply Image: Registration of incoming supply Image: Registration of incoming supply Mechanical Image: Registration of incoming supply Image: Registration of incoming supply Standard front dimension Image: Registration of incoming supply Image: Registration of incoming supply Standard front dimension Image: Registration of incoming supply Image: Registration of incoming supply Mounting width per pole Image: Registration of incoming supply Image: Registration of incoming supply Mounting Image: Registration of incoming supply Image: Registration of incoming supply Degree of Protection Image: Registration of incoming supply Image: Registration of incoming supply Terminal sup and bottom Image: Registration of incoming supply Image: Registration of incoming supply Tightening torque of fixing screws Image: Registration of incoming supply Image: Registration of incoming supply	Characteristic			B, C, D
Lifespan Operations >2000 Direction of incoming supply is required is required Mechanical Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Standard front dimension Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Rotousing width per pole Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Mounting width per pole Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Mounting Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Notified Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Notified Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Terminal protection Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Tightening torque of fixing screws Image: Standard front dimension Image: Standard front dimension Image: Standard front dimension Tightening torque of fixing screws Image: Standard	Selectivity Class			3
Direction of incoming supply as required Birection of incoming supply as required Mechanical mm 45 Standard front dimension mm 105 Enclosure height mm 17.7 Mounting width per pole mm 16C/EN 60715 top-hat rail Degree of Protection Feedow Feedow Terminals top and bottom Feedow Finger and back-of-hand proof to BGV A2 Tightening torque of fixing screws N/m Riger and back-of-ham (25 b-in) streams (25 b-in)	lifespan			
Mechanical Standard front dimension mm 45 Enclosure height mm 105 Mounting width per pole mm 17.7 Mounting FC/EN 60715 top-hat rail FC/EN 60715 top-hat rail Degree of Protection FC/EN 60715 top-hat rail FC/EN 60715 top-hat rail Terminals top and bottom FC/EN 60715 top-hat rail FC/EN 60715 top-hat rail Terminal protection FC/EN 60715 top-hat rail FC/EN 60715 top-hat rail Tightening torque of fixing screws Mm Mm. purpose terminals Tightening torque of fixing screws Mm Mm. purpose terminals N/m max 2.4 #18-12 AWG: 2.4 Nm (25 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) FC/EN 60715 top-in)	Lifespan	Operations		> 20000
Standard front dimensionmm45Enclosure heightmm105Mounting width per polemm17.7MountingIEC/EN 60715 top-hat railDegree of ProtectionIECIEC/EN 60715 top-hat railTerminals top and bottomIECIEC/EN 60715 top-hat railTerminal protectionIECImplementTightening torque of fixing screwsImplementImplementTightening torque of fixing screwsImplement<				as required
Enclosure heightmm15Mounting width per polemm1.7MountingIC/EN 60715 top-hat railDegree of ProtectionICOP20, IP40 (when fitted)Terminals top and bottomICOICOTerminal protectionICOICOTightening torque of fixing screwsICOICONumeric ScrewsICOICOInternet ScrewsICO<	Mechanical			
Mounting width per polemm F1.7MountingEC/EN 60715 top-hat railDegree of ProtectionFOOTerminals top and bottomFOOTerminal protectionFOOTightening torque of fixing screwsFOON/MMax. 2.4 VL: *18-12 AWG: 2.4 Nm (25 lb-in) *6 AWG: 4 Nm (36 lb-in)	Standard front dimension		mm	45
MountingImage: Book of the second	Enclosure height		mm	105
Degree of ProtectionImage: Second	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)	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	40
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	11.6
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
EC/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)

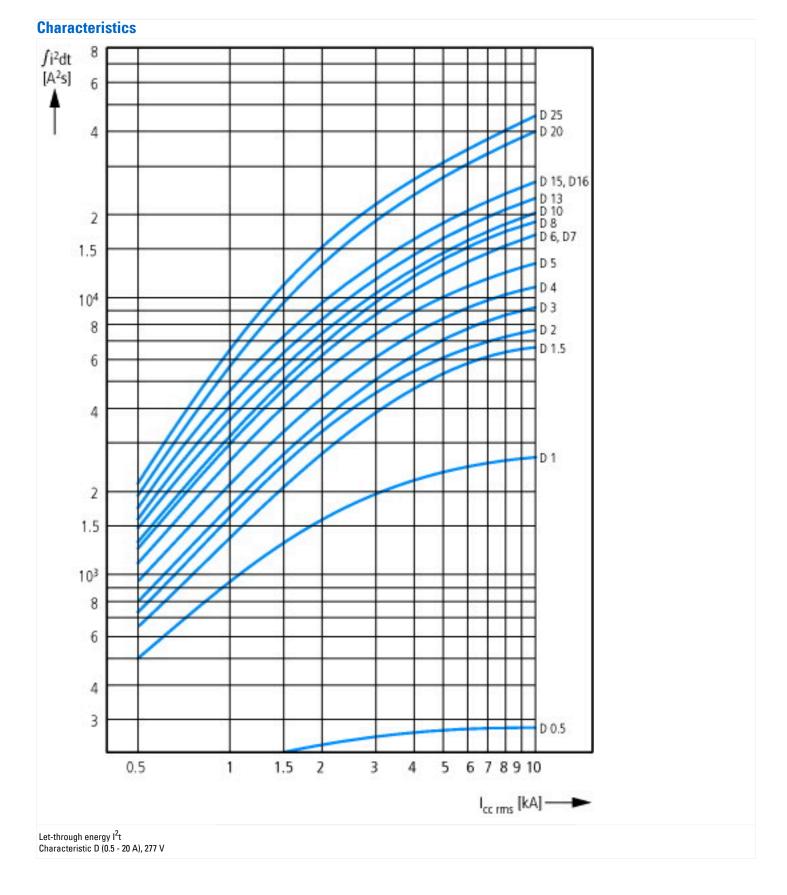
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

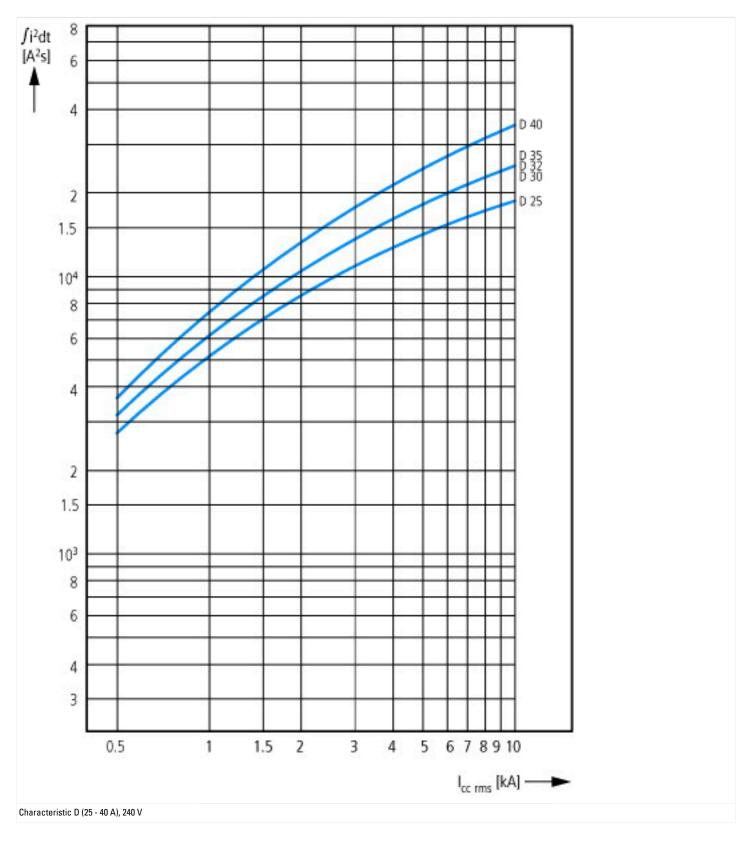
Release characteristic		D
Number of poles (total)		3
Number of protected poles		3
Rated current	А	40
Rated voltage	V	415
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	0
Rated short-circuit breaking capacity Icn 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		3
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

- pp: or and	
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