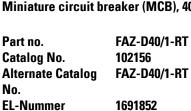
DATASHEET - FAZ-D40/1-RT

Part no.

(Norway)

No.

Miniature circuit breaker (MCB), 40 A, 1p, characteristic: D





Similar to illustration

Delivery program

Benvery program			
Basic function			Miniature circuit-breakers
Number of poles			1 pole
Tripping characteristic			D
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	А	40
Rated switching capacity acc. to IEC/EN 60947-2	l _{cu}	kA	15
Product range			FAZ-RT

Technical data Flectrical

Electrical			
Standards			UL 489, CSA C22.2 No. 5 IEC 60947-2
Rated operational voltage	U _e	V	
	Ue	V AC	240
		V DC	60
Rated voltage according to IEC/EN 60947-2	Un	V AC	240/415
Rated voltage according to UL	Un	V AC	240
Rated switching capacity acc. to IEC/EN 60947-2	l _{cu}	kA	15
Characteristic			B, C, D
Selectivity Class			3
lifespan			
Lifespan	Operations		> 20000
Direction of incoming supply			as required
Mechanical			
Standard front dimension		mm	45
Enclosure height		mm	105
Mounting width per pole		mm	17.7
Mounting			IEC/EN 60715 top-hat rail
Degree of Protection			IP20, 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) #6 AWG: 4 Nm (36 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	In	А	40
Heat dissipation per pole, current-dependent	P _{vid}	W	0

Equipment heat dissipation, current-dependent	P _{vid}	W	3.9
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 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)

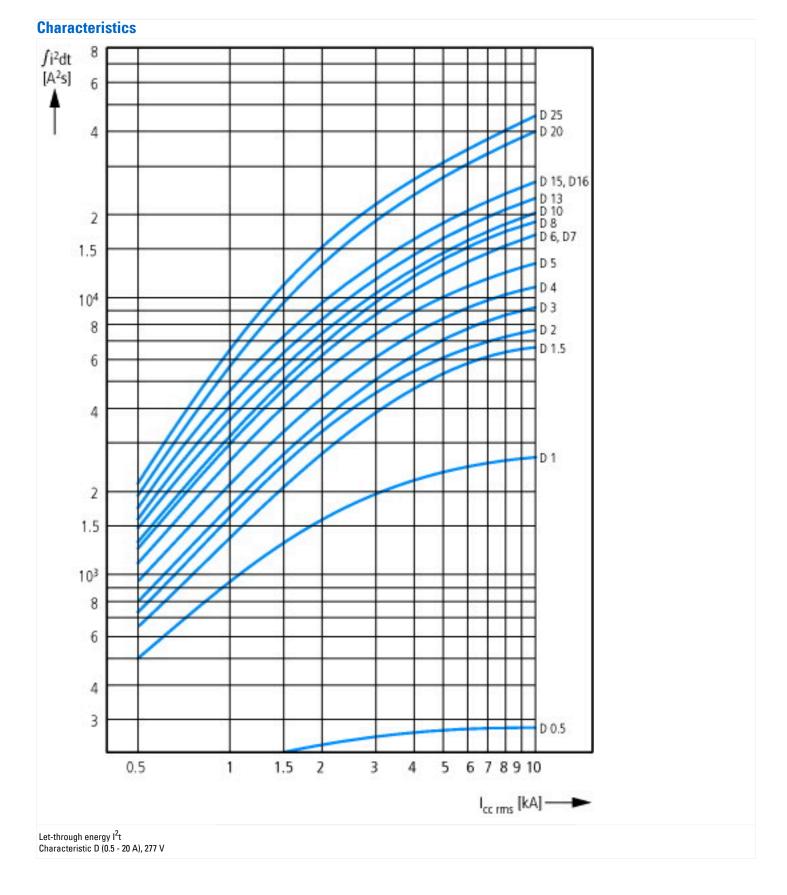
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

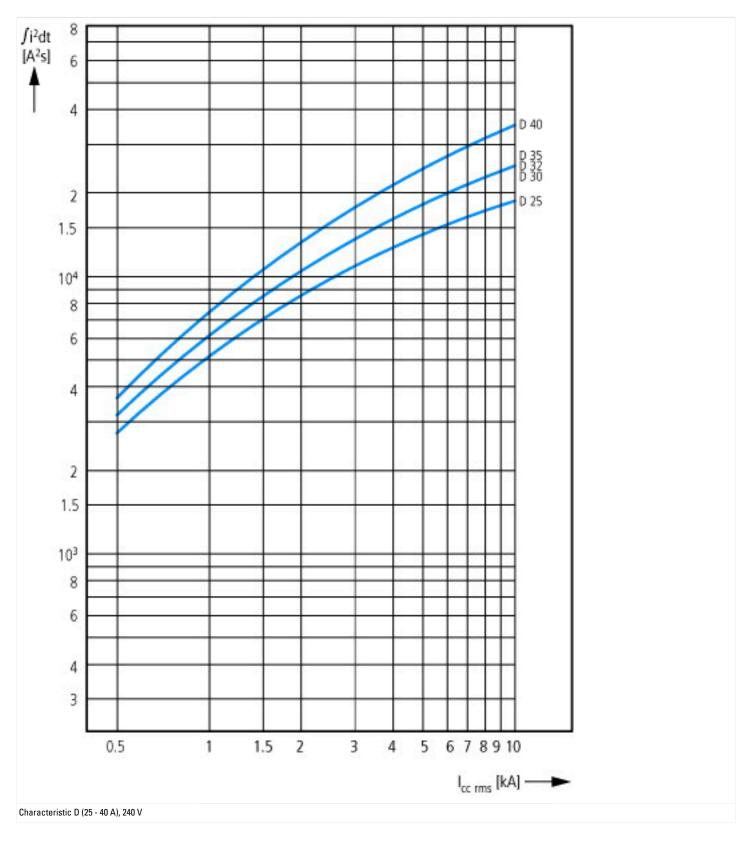
Number of protected poles Image: Protected poles Number of protected poles Image: Protected poles Rated current A Rated current Image: Protected poles Rated voltage V Rated voltage Uin V Rated insulation voltage Uinp V Rated short-circuit breaking capacity Icn EN 60898 at 230 V KA Rated short-circuit breaking capacity Icn EN 60898 at 230 V KA Rated short-circuit breaking capacity Icn EN 60898 at 230 V KA Rated short-circuit breaking capacity Icn EN 60898 at 230 V KA Rated short-circuit breaking capacity Icn EN 60898 at 230 V KA Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V KA Yoltage type KA Yoltage type KA Yoltage type KA Frequercy KA Kurrent limiting class So 60 Yoltage for flush-mounted installation Monocol	(eci@ss10.0.1-27-14-19-01 [AAB905014])		
Number of protected poles Image:	Release characteristic		D
Rated current A A Rated current A A Rated voltage V 240 Rated insulation voltage Ui V 40 Rated insulation voltage Uimp V 40 Rated short-circuit breaking capacity Icn EN 60988 at 200 V V 40 Rated short-circuit breaking capacity Icn EN 60988 at 400 V V 0 Rated short-circuit breaking capacity Icn EN 60987 at 230 V KA 0 Rated short-circuit breaking capacity Icn EN 60987 at 230 V KA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V KA 15 Voltage type KA 50 60 Frequency KA 30 60 Current liniting class So 60 50 60 Suitable for flush-mounted installation K Montection Montection Kortent flush-mounted installation K Montection Montection	Number of poles (total)		1
Rated voltage V 240 Rated insulation voltage Ui V 440 Rated insulation voltage Uimp KV 400 Rated short-circuit breaking capacity Icn EN 60898 at 200 V KA 0 Rated short-circuit breaking capacity Icn EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60894 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60894 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60894 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60894 at 400 V KA 0 Notage type KA 0 0 Voltage type KA 0 0 Voltage type KA 0 0 Frequency KA 10 0 Current limiting class KA 0 0 Suitable for flush-mounted installation K 0 0 Korter type K 0 0 0 Korter type K 0 0 0 Korter type K K 0 0	Number of protected poles		1
Rated insulation voltage Ui 40 Rated insulation voltage Uinp KV 40 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 Icn EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icn EN 60897-2 at 400 V KA 0 Voltage type Frequency C C Frequency E A 0 Current limiting class S 0 0 Sutable for flush-mounted installation E Ma Ma No Ma Ma Ma Ma	Rated current	А	40
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 Icn EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V KA 5 Voltage type KA 5 Frequency KA 5 Current limiting class Frequency So Suitable for flush-mounted installation E 6 Suitable for flush-mounted installation E Mo Suitable for flush-mounted installation E Mo	Rated voltage	V	240
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 KA A A Frequency KA 50-60 60 Current limiting class So 60 60 Suitable for flush-mounted installation MA Ma Ma	Rated insulation voltage Ui	V	440
Rated short-circuit breaking capacity Icn EN 60998 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 KA AC Frequency KA 5-60 Current limiting class So So Suitable for flush-mounted installation Manage for flush-mounted installation No	Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V KA 5 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 5 Voltage type KA 5 Frequency T 50-60 Suitable for flush-mounted installation E 6 Suitable for flush-mounted installation E 6 Concurrently switching N-neutral E No	Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	0
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 5 Voltage type AC Frequency Hz 50-60 Current limiting class Solitable for flush-mounted installation Main and the second seco	Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	0
Voltage type AC Frequency Hz 50-60 Current limiting class Solon 3 Suitable for flush-mounted installation Image: Solon No Concurrently switching N-neutral Image: Solon No	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	15
Frequency Hz 50-60 Current limiting class Suitable for flush-mounted installation Main Concurrently switching N-neutral Main No	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	15
Current limiting class Market Biological Concurrently switching N-neutral Market Biological Concurrently switching N-neutral Market Biological Concurrently switching N-neutral	Voltage type		AC
Suitable for flush-mounted installation Mo Concurrently switching N-neutral Mo	Frequency	Hz	50 - 60
Concurrently switching N-neutral No	Current limiting class		3
	Suitable for flush-mounted installation		No
Over voltage category 3	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	mm 70.5
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	°C -25 - 75
Connectable conductor cross section multi-wired	mm	mm ² 1 - 25
Connectable conductor cross section solid-core	mm	mm ² 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