DATASHEET - FAZT-D20/1N

Miniature circuit breaker (MCB), 20 A, 1p+N, characteristic: D

Part no.	**FAZT-D20/1N**
	142513
EL Number (Norway)	**1666069**

General specifications

Product name	Eaton Moeller series xEffect - FAZ-T MCB
Part no.	FAZT-D20/1N
EAN	4015081392438
Product Length/Depth	80 millimetre
Product height	75.5 millimetre
Product width	36 millimetre
Product weight	0.206 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 60947-2 IEC 61373 EN45545-2
Product Tradename	xEffect - FAZ-T
Product Type	MCB
Product Sub Type	None

Delivery program

Application	Switchgear for industrial and advanced commercial applications xEffect - Switchgear for industrial and advanced commercial applications
Number of poles	Single-pole + N
Number of poles (total)	2
Number of poles (protected)	1
Tripping characteristic	D
Release characteristic	D
Amperage Rating	20 A
Type	FAZ-T Miniature circuit breaker

Technical Data - Electrical

Voltage type	AC
Voltage rating (IEC/EN 60898-1)	230 V AC
Voltage rating (IEC/EN 60947-2)	240 V AC / 415 V AC
Rated operational voltage (Ue) - max	240 V
Operational voltage (IEC/EN 60947-2) - max	240 V AC
Operational voltage at DC (EC/EN 60947-2) - max	60 V DC
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating	50 Hz / 60 Hz
Frequency rating - min	50 Hz
Frequency rating - max	60 Hz
Rated switching capacity (IEC/EN 60947-2)	20 kA
Rated short-circuit breaking capacity (EN 60898) at 230 V	15 kA
Rated short-circuit breaking capacity (EN 60898) at 400 V	15 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 230 V	20 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	20 kA
Lifespan, electrical	4000 operations
Overvoltage category	III
Pollution degree	2
Direction of incoming supply	As required

Technical Data - Mechanical

Frame	45 mm

Enclosure width	80 mm
Width in number of modular spacings	1.5
Built-in depth	70.5 mm
Mounting width	17.5 mm
Mounting width per pole	17.5 mm
Mounting Method	Quick attachment with 3 latch positions for top-hat rail IEC/EN 60715
Mounting position	As required
Degree of protection	IP20
Terminal capacity	1 mm^2 - 25 mm^2
Terminals (top and bottom)	Twin-purpose terminals
Connectable conductor cross section (solid-core) - min	1 mm^2
Connectable conductor cross section (solid-core) - max	25 mm^2
Connectable conductor cross section (multi-wired) - min	1 mm^2
Connectable conductor cross section (multi-wired) - max	25 mm^2
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Tightening torque	Max. 2.4 Nm
Busbar material thickness	0.8 mm (except N 0.5 SU)
Lifespan, mechanical	10000 operations

Design verification as per IEC/EN 61439 - technical data

Rated operational current for specified heat dissipation (In)	20 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	2.2 W
Static heat dissipation, non-current-dependent	0 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	75 °C

Design verification as per IEC/EN 61439

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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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.

Additional information

Current limiting class	3
Features	Concurrently switching N-neutral Additional equipment possible

Special features			Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity
Used with			FAZ-T Miniature circuit breaker

Technical data ETIM 9.0

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@ss13-27-14-19-01 [AAB905019])			
Built-in depth		mm	70.5
Release characteristic			D
Number of poles (total)			2
Number of protected poles			1
Rated current		A	20
Rated voltage		V	240
Rated insulation voltage Ui		V	440
Rated impulse withstand voltage Uimp		kV	4
Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V		kA	15
Voltage type			AC
Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V		kA	15
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V		kA	20
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V		kA	20
Frequency		Hz	50 - 60
Power loss		W	2.2
Current limiting class			3
Flush-mounted installation			No
Concurrently switching neutral conductor			Yes
Over voltage category			3
Pollution degree			2
Additional equipment possible			Yes
Width in number of modular spacings			1.5
Degree of protection (IP)			IP20
Ambient temperature during operating		°C	-25 - 75
Connectable conductor cross section multi-wired		mm^2	1 - 25
Connectable conductor cross section solid-core		mm^2	1 - 25
Explosion-proof			No

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