Miniature circuit breaker (MCB), 3 A, 2p, characteristic: D



Part no. FAZ-D3/2 278773 EL Number 1691177

(Norway)

(INUI Way)	
General specifications	
Product name	Eaton Moeller series xEffect - FAZ MCB
Part no.	FAZ-D3/2
EAN	4015082787738
Product Length/Depth	80 millimetre
Product height	75.5 millimetre
Product width	36 millimetre
Product weight	0.225 kilogram
Compliances	UL CSA09 (with supplementary protector only) RoHS conform
Certifications	CSA (File No. 204453) UL (File No. E177451) CSA-C22.2 No. 235 IEC/EN 60947-2 UL 1077 CE marking North America (UL recognized, CSA certified) CSA (Class No. 3215-30) UL (Category Control Number QVNU2, QVNU8) IEC/EN 60898 IEC 61373 EN45545-2
Product Tradename	xEffect - FAZ
Product Type	MCB
Product Sub Type	None
Delivery program	
Application	Branch circuits, not as BCPD Switchgear for industrial and advanced commercial applications xEffect - Switchgear for industrial and advanced commercial applications
Number of poles	Two-pole
Number of poles (total)	2
Number of poles (protected)	2
Tripping characteristic	D
Release characteristic	D
Amperage Rating	3 A
Туре	FAZ Miniature circuit breaker
Technical Data - Electrical	
Voltage type	AC
Voltage rating	240 V AC / 415 V AC
Voltage rating (UL CSA 13)	480 Y/277 V AC; 96 V DC
Rated operational voltage (Ue) - max	400 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating - min	50 Hz
Frequency rating - max	60 Hz
Rated switching capacity (IEC/EN 60947-2)	15 kA
Rated short-circuit breaking capacity (EN 60898) at 230 V	10 kA
Rated short-circuit breaking capacity (EN 60898) at 400 V	10 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 230 V	15 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	15 kA
Overvoltage category	III
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Pollution degree	2

Width in number of modular spacings	2
Built-in depth	70.5 mm
Degree of protection	IP20
Degree of protection	UL/CSA Type: - IP20 (IEC)
Connectable conductor cross section (solid-core) - min	1 mm²
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
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	3 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	2.4 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 Additional information	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
Current limiting class	3
Features	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 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])

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Built-in depth	mm	70.5
Release characteristic		D
Number of poles (total)		2

Rated current Rated voltage Rated insulation voltage Ui Rated insulation voltage Uinp Rated insulation voltage Uinp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking			
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Name	Rated current	Α	3
Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 200 V Rated short-circuit breaki	Rated voltage	V	400
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Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 15 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 15 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 15 Frequency Hz 50 - 60 Prower loss W 2.4 Current limiting class Current limiting class Currently switching neutral conductor No Concurrently switching neutral conductor Over voltage category Pollution degree 2 Additional equipment possible Width in number of modular spacings Width in number of modular spacings Connectable conductor cross section multi-wired P mm² 1 - 25 Connectable conductor cross section solid-core P mm² 1 - 25 Connectable conductor cross section solid-core W A 15 15 15 16 17 17 18 18 18 18 18 18 18 18	Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V $$	kA	10
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 15 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 15 Frequency Hz 50 - 60 Power loss W 2.4 Current limiting class Flush-mounted installation No Concurrently switching neutral conductor No Over voltage category 3 Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 2 Degree of protection (IP) IP20 Ambient temperature during operating Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Voltage type		AC
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V RATE SO - 60 Prower loss W 2.4 Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core RA SO - 60 V 2.4 No No No SO - 25 - 75 Connectable conductor cross section solid-core Material Source (MP) Mate	Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V $$	kA	10
Frequency Power loss W 2.4 Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Hz 50 - 60 W 2.4 Ambient temperature during operating No No S 2 Yes Pollution Pollu	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V $$	kA	15
Power loss Current limiting class Substituting neutral conductor Concurrently switching neutral conductor Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Width in mm² 1 - 25 Connectable conductor cross section solid-core Width in mm² 1 - 25	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V $$	kA	15
Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Over voltage category 3 Pollution degree Additional equipment possible Width in number of modular spacings Ouegree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core 3 Pollution degree Pes Pes Pes Pes 1 P20 Ambient temperature during operating Connectable conductor cross section solid-core mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Frequency	Hz	50 - 60
Flush-mounted installation Concurrently switching neutral conductor Over voltage category 3 Pollution degree Pollution lequipment possible Width in number of modular spacings Vegree of protection (IP) Pogree of protection (IP) Pogree of protection (IP) Pogree of protection conductor cross section multi-wired Pogree of mm² 1 - 25 Pognee conductor cross section solid-core Pogree of mm² 1 - 25	Power loss	W	2.4
Concurrently switching neutral conductor Over voltage category 3 Pollution degree 2 Additional equipment possible Width in number of modular spacings 2 Degree of protection (IP) Ambient temperature during operating °C -25 - 75 Connectable conductor cross section solid-core mm² 1 - 25 Connectable conductor cross section solid-core No No No No 1 2 2 4 Connectable conductor cross section solid-core nm² 1 - 25	Current limiting class		3
Over voltage category Solver voltage category Addition degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core 3 Yes Yes P2 P2 P2 P2 P2 P2 P2 P2 P2 P	Flush-mounted installation		No
Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 2 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	Concurrently switching neutral conductor		No
Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Temperature during operating Temperature duri	Over voltage category		3
Width in number of modular spacings Degree of protection (IP) 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	Pollution degree		2
Degree of protection (IP) 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	Additional equipment possible		Yes
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	Width in number of modular spacings		2
Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Degree of protection (IP)		IP20
Connectable conductor cross section solid-core mm ² 1 - 25	Ambient temperature during operating	°C	-25 - 75
	Connectable conductor cross section multi-wired	mm²	1 - 25
Explosion-proof No	Connectable conductor cross section solid-core	mm²	1 - 25
	Explosion-proof		No