DATASHEET - FAZ-Z4/1

Miniature circuit breaker (MCB), 4 A, 1p, characteristic: Z



Part no.	FAZ-Z4/1 278622
EL Number	1695250
(Norway)	

(Norway)	
General specifications	
Product name	Eaton Moeller series xEffect - FAZ MCB
Part no.	FAZ-Z4/1
EAN	4015082786229
Product Length/Depth	80 millimetre
Product height	75.5 millimetre
Product width	17.7 millimetre
Product weight	0.112 kilogram
Compliances	UL CSA09 (with supplementary protector only) RoHS conform
Certifications	CSA (File No. 204453) UL (Category Control Number QVNU2, QVNU8) CSA-C22.2 No. 235 CE marking IEC/EN 60947-2 UL (File No. E177451) North America (UL recognized, CSA certified) CSA (Class No. 3215-30) UL 1077 IEC/EN 60898 EN45545-2 IEC 61373
Product Tradename	xEffect - FAZ
Product Type	МСВ
Product Sub Type	None
Delivery program	
Application Vumber of poles	Branch circuits, not as BCPD Switchgear for industrial and advanced commercial applications xEffect - Switchgear for industrial and advanced commercial applications Single-pole
Number of poles (total)	1
Number of poles (protected)	1
Tripping characteristic	Z
Release characteristic	Z
Amperage Rating	4 A
Туре	FAZ Miniature circuit breaker
Technical Data - Electrical	
Voltage type	AC
Voltage rating	240 V AC / 415 V AC
Voltage rating at DC	60 V DC (per pole)
Voltage rating (UL CSA 13)	277 V AC; 48 V DC
Rated operational voltage (Ue) - max	230 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)	10 kA
Operational switching capacity	7.5 kA
Rated short-circuit breaking capacity (EN 60898) at 230 V	0 kA
Rated short-circuit breaking capacity (EN 60898) at 400 V	0 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 230 V	10 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	10 kA
Admissible back-up fuse - max	125 A gL/gG

Selectivity class	3
Lifespan, electrical	10000 operations
Overvoltage category	
Pollution degree	2
Direction of incoming supply	As required
Technical Data - Mechanical	
Frame	AF mm
Frame Enclosure width	45 mm
	80 mm
Width in number of modular spacings	1 70.5 mm
Built-in depth	
Mounting width per pole	17.5 mm
Mounting width	17.5 mm
Mounting Method	Top-hat rail IEC/EN 60715
Mounting position	As required
Degree of protection	IP40 (when fitted) UL/CSA Type: - IP20 (IEC) IP20
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 capacity of screw terminals for main cable	10 mm² (2x)
Terminal capacity (control cable)	25 mm² (1x)
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Busbar material thickness	0.8 mm - 2 mm
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	4 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	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	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
Additional information	
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

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])

Release daracteristic Image: Constraint of the second of the				
Number of poles (total) Image: state of the	Built-in depth	m	nm	70.5
Number of protected poles Image: state of the state of t	Release characteristic			Z
Rated current A A Rated voltage V 30 Rated insulation voltage Uin V 40 Rated insulation voltage Uinp V 40 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V KA 0 Voltage type C AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V KA 0 Prequency KA 0 0 Power loss C KA 0 Concurrent limiting class S So- 60 So- 60 Concurrent ly witching neutral conductor V No No Notition degree	Number of poles (total)			1
Rated visuage 2 Rated visuage 2 Rated visuage Ling 40 Rated insulation voltage Ling 4 Rated insulation voltage Ling 4 Rated insulation voltage Ling 4 Rated insulation voltage Ling 6 Rated insulation voltage Ling 6 Rated short-circuit breaking capacity Len according to EN 60898 at 400 V KA Rated short-circuit breaking capacity Len according to EN 60897 2 at 230 V KA Rated short-circuit breaking capacity Len according to EN 60947 2 at 230 V KA Rated short-circuit breaking capacity Len according to EN 60947 2 at 230 V KA Frequency KA 10 Power loss KA 0 Current liniting class KA 3 Fush-mounted installation KA No Over voltage category KA S Pollution degree KA S Additional equipment possible KA S With in number of modular spacings KA S Degree of protection (IP) For S Athient temperature during operating KA S	Number of protected poles			1
Rated insulation voltage Ui 4 Rated insulation voltage Uinp KV 4 Voltage type K 0 Rated short-circuit breaking capacity lon according to EN 60998 at 400 V KA 0 Rated short-circuit breaking capacity lon according to EC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity lon according to EC 60947-2 at 230 V KA 0 Prequency KA 0 0 Prequency KA 0 0 Power loss KA 0 0 Current limiting class K K 0 Full-mounted installation K K 0 Over voltage category K K No Pollution degree K K S Additional equipment possible K K K With in number of modular spacings K K K </td <td>Rated current</td> <td>A</td> <td>4</td> <td>4</td>	Rated current	A	4	4
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Voltage type AC Rated short-circuit breaking capacity Icn according to EK 609947- 2d 230 V KA 0 Rated short-circuit breaking capacity Icu according to IEC 60947- 2d 230 V KA 0 Rated short-circuit breaking capacity Icu according to IEC 60947- 2d 400 V Foreguency 0 0 Prequency CM 0 <td>Rated impulse withstand voltage Uimp</td> <td>k)</td> <td>:V</td> <td>4</td>	Rated impulse withstand voltage Uimp	k)	:V	4
Rade dshort-circuit breaking capacity lon according to EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity lon according to IEC 60947-2 at 230 V KA 10 Rated short-circuit breaking capacity lon according to IEC 60947-2 at 400 V KA 10 Frequency GA 50-60 Power loss VW 4 Current limiting class VW 4 Flush-mounted installation VW 50-60 Concurrently switching neutral conductor VW 4 Over voltage category SO 50 Pollution degree SO SO SO Width in number of modular spacings SO SO SO Degree of protection (IP) Core FO SO SO Anbient temperature during operating Core SO SO SO SO SO	Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V $$	k	A	0
Rated short-circuit breaking capacity lcu according to IEC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity lcu according to IEC 60947-2 at 400 V KA 10 Frequency L 50-60 Power loss V 4 Current limiting class V 3 Flush-mounted installation V No Over voltage category Image: Solution of the stallation of modular spacings Solution of the stallation of modular spacings Vidth in number of modular spacings Image: Solution of the stallation of protection (IP) Image: Solution of the stallation of the stallation of the stallation of protection (IP) Image: Solution of the stallation of the stallation of the stallation of protection (IP) Image: Solution of the stallation	Voltage type			AC
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Frequency Hz 50-60 Power loss W 4 Current limiting class W 50-60 Flush-mounted installation No 100 Concurrently switching neutral conductor M No Over voltage category No 100 Pollution degree So So Additional equipment possible M Yes With in number of modular spacings M 100 Degree of protection (IP) M Pollution Ambient temperature during operating °C 25-75 Concurted be conductor cross section multi-wired mm ² 125	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	k/	A	10
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Fush-mounted installation Mo Concurrently switching neutral conductor Mo Over voltage category Mo Pollution degree J Additional equipment possible Verson Width in number of modular spacings Mo Degree of protection (IP) Imm ² Anbient temperature during operating °C Soncetable conductor cross section multi-wired mm ²	Power loss	N	V	4
Concurrently switching neutral conductor Poile Mo Over voltage category 3 3 Pollution degree 6 5 5 Additional equipment possible 6 5 5 Width in number of modular spacings 6 5 1 Degree of protection (IP) 6 7 92 Ambient temperature during operating 6 6 25 Mo mm ² 125	Current limiting class			3
Over voltage categorySSPollution degreeSSAdditional equipment possibleSFWidth in number of modular spacingsSFDegree of protection (IP)IIP20Ambient temperature during operating°CSConnectable conductor cross section multi-wiredImm²125	Flush-mounted installation			No
Pollution degree2Additional equipment possibleYesWidth in number of modular spacingsIDegree of protection (IP)YesAmbient temperature during operatingCSonnectable conductor cross section multi-wiredImm²1 25	Concurrently switching neutral conductor			No
Additional equipment possible Yes Width in number of modular spacings 1 Degree of protection (IP) C Ambient temperature during operating C Connectable conductor cross section multi-wired mm²	Over voltage category			3
Width in number of modular spacings I Degree of protection (IP) I Ambient temperature during operating °C Connectable conductor cross section multi-wired Imm²	Pollution degree			2
Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25	Additional equipment possible			Yes
Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm ² 1 - 25	Width in number of modular spacings			1
Connectable conductor cross section multi-wired mm ² 1 - 25	Degree of protection (IP)			IP20
	Ambient temperature during operating	°(С	-25 - 75
Connectable conductor cross section solid-core mm ² 1 - 25	Connectable conductor cross section multi-wired	m	nm²	1 - 25
	Connectable conductor cross section solid-core	m	nm²	1 - 25
Explosion-proof No	Explosion-proof			No