## DATASHEET - FAZ-B50/3-RT

Miniature circuit breaker (MCB), 50 A, 3p, characteristic: B, ring tongue



FAZ-B50/3-RT 190803

General specifications	
Product name	Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB
Part no.	FAZ-B50/3-RT
EAN	4015081904501
Product Length/Depth	105 millimetre
Product height	75.5 millimetre
Product width	53.1 millimetre
Product weight	0.388 kilogram
Compliances	RoHS conform
Certifications	CSA (Class No. 1432-01) UL (File No. E235139) CSA-C22.2 No. 5-09 IEC/EN 60947-2 UL (Category Control Number DIVQ) Specially designed for North America, suitable as BCPD CE marking IEC 60947-2 North America (UL listed, CSA certified) UL 489 CSA (File No. 204453) UL 489, CSA C22.2 No. 5 IEC 61373 EN45545-2
Product Tradename	xEffect - FAZ-NA, FAZ-RT
Product Type	МСВ
Product Sub Type	None
Delivery program	
Application Number of poles	Feeder circuits, branch circuits Switchgear for export to North America (UL-listed) xEffect - Switchgear for industrial and advanced commercial applications Three-pole
Number of poles (total)	3
Number of poles (protected)	3
Tripping characteristic	B
Release characteristic	B
Amperage Rating	50 A
Туре	FAZ-RT
	Miniature circuit breaker
Technical Data - Electrical	
Voltage type	AC
Voltage rating	277 V AC / 480 V AC
Voltage rating at DC	60 V DC
Voltage rating (IEC/EN 60947-2)	240 V AC / 415 V AC
Voltage rating (UL)	240 V
Rated operational voltage (Ue) - max	240 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating - min	50 Hz
Frequency rating - max	50 Hz
Rated switching capacity (IEC/EN 60947-2)	15 kA
Operational switching capacity	7.5 kA
Breaking capacity	10 kA (UL489)
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	10 kA

Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	14 kA
Admissible back-up fuse - max	125 A gL/gG
Selectivity class	3
Lifespan, electrical	min. 1500 operations min. 6000 operations (UL)
Overvoltage category	III III
Pollution degree	2
Direction of incoming supply	As required
Technical Data - Mechanical	
Frame	45 mm
Enclosure width	105 mm
Width in number of modular spacings	3
Built-in depth	60 mm
Mounting width	17.7 mm
Mounting width per pole	17.7 mm
Mounting Method	Top-hat rail IEC/EN 60715
Mounting position	As required
Degree of protection	IP20 (IEC) IP40 (when fitted) UL/CSA Type: - IP20
Terminals (top and bottom)	Lift terminal / ring-tongue
Connectable conductor cross section (solid-core) - min	1 mm <sup>2</sup>
Connectable conductor cross section (solid-core) - max	25 mm <sup>2</sup>
Connectable conductor cross section (multi-wired) - min	1 mm <sup>2</sup>
Connectable conductor cross section (multi-wired) - max	25 mm <sup>2</sup>
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
Contact position indicator color	Red / green
Tightening torque	UL: 4 Nm (36 lb-in) for AWG 6 Max. 2.4 Nm UL: 2.4 Nm (21 lb-in) for AWG 18 - AWG 12 UL: 2.8 Nm (25 lb-in) for AWG 10 - AWG 8
Lifespan, mechanical	10000 operations
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	50 A
Heat dissipation per pole, current-dependent	0 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
Ambient operating temperature (UL) - min	-5 °C
Ambient operating temperature (UL) - max	40 °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.
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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.
10.11 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	
Accessories required	Z-IHK-NA 113895
Current limiting class	3
Features	Additional equipment possible
Fitted with:	Z-IS/SPE-1TE 274418
Functions	Current limiting circuit breaker
Internal resistance at room temperature (single-pole, 50 Hz)	1.6 mΩ
Special features	Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity Tripping signal contact for subsequent installation Z-NHK 248434
Suitable for	Flush-mounted installation
Used with	FAZ-XAA-NA110-415V AC 102036 (Shunt trip release) FAZ-XAA-NA12-110V AC 102037 (Shunt trip release) FAZ-RT Miniature circuit breaker FAZ-XAA-NA110-415V AC 102036 (Shunt trip release) FAZ-XAA-NA12-110V AC 102037 (Shunt trip release)

## **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])

[AAD300013])		
Built-in depth	mm	60
Release characteristic		В
Number of poles (total)		3
Number of protected poles		3
Rated current	А	50
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	10
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V	kA	14
Frequency	Hz	50 - 50
Power loss	W	13.2
Current limiting class		3
Flush-mounted installation		Yes
Concurrently switching neutral conductor		No
Over voltage category		3
Pollution degree		2
Additional equipment possible		Yes
Width in number of modular spacings		3
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
Explosion-proof		No