


Miniature circuit breaker (MCB), 50A, 3p, D-Char
**Part no. AZ-3-D50
211816**

General specifications		
Product name		Eaton Moeller series xEffect - AZ MCB
Part no.		AZ-3-D50
EAN		4015082118167
Product Length/Depth		90 millimetre
Product height		75 millimetre
Product width		81 millimetre
Product weight		0.678 kilogram
Compliances		RoHS conform
Certifications		IEC/EN 60947-2 IEC 61373 EN45545-2
Product Tradename		xEffect - AZ MCB
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		Three-pole
Number of poles (total)		3
Number of poles (protected)		3
Tripping characteristic		D
Release characteristic		D
Amperage Rating		50 A
Type		AZ Miniature circuit breaker
Technical Data - Electrical		
Voltage type		AC
Voltage rating		230 V AC / 400 V AC
Voltage rating at DC		60 V DC (per pole)
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)		25 kA
Operational switching capacity		20 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		25 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V		25 kA
Admissible back-up fuse - max		200 A gL/gG
Selectivity class		3
Lifespan, electrical		10000 operations
Overvoltage category		III
Pollution degree		2
Direction of incoming supply		As required
Technical Data - Mechanical		
Frame		45 mm
Enclosure width		90 mm

Width in number of modular spacings			4.5
Built-in depth			75 mm
Mounting width per pole			27 mm
Mounting width			27 mm
Mounting Method			Top-hat rail IEC/EN 60715
Degree of protection			IP20 IP40 (when fitted)
Terminals (top and bottom)			Lift terminals
Connectable conductor cross section (solid-core) - min			2.5 mm ²
Connectable conductor cross section (solid-core) - max			50 mm ²
Connectable conductor cross section (multi-wired) - min			2.5 mm ²
Connectable conductor cross section (multi-wired) - max			50 mm ²
Terminal capacity (control cable)			2.5 mm ² - 50 mm ²
Terminal protection			Finger and hand touch safe, DGUV VS3, EN 50274
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
Equipment heat dissipation, current-dependent			5.1 W
Static heat dissipation, non-current-dependent			0 W
Heat dissipation capacity			0 W
Ambient operating temperature - min			-25 °C
Ambient operating temperature - max			55 °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
Used with			AZ Miniature circuit breaker

Technical data ETIM 9.0

Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

Built-in depth	mm	75
Release characteristic		D
Number of poles (total)		3
Number of protected poles		3
Rated current	A	50
Rated voltage	V	400
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	0
Voltage type		AC
Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V	kA	0
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	kA	25
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V	kA	25
Frequency	Hz	50 - 60
Power loss	W	
Current limiting class		3
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		4.5
Degree of protection (IP)		IP20
Ambient temperature during operating	°C	-25 - 55
Connectable conductor cross section multi-wired	mm ²	2.5 - 50
Connectable conductor cross section solid-core	mm ²	2.5 - 50
Explosion-proof		No