DATASHEET - AZ-3N-D100

Miniature circuit breaker (MCB), 100A, 3p+N, D-Char

Part no. **AZ-3N-D100**
211829

Powering Business Worldwide™

Product name	Eaton Moeller series xEffect - AZ MCB
Part no.	AZ-3N-D100
EAN	4015082118297
Product Length/Depth	90 millimetre
Product height	75 millimetre
Product width	108 millimetre
Product weight	0.862 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 60947-2 EN45545-2 IEC 61373
Product Tradename	xEffect - AZ MCB
Product Type	MCB
Product Sub Type	None
Application	Switchgear for industrial and advanced commercial applications xEffect - Switchgear for industrial and advanced commercial applications
Number of poles	Three-pole + N
Number of poles (total)	4
Number of poles (protected)	4
Tripping characteristic	D
Release characteristic	D
Amperage Rating	100 A
Type	AZ Miniature circuit breaker
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)	15 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
Frame	45 mm
Enclosure width	90 mm
Width in number of modular spacings	6

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
Rated operational current for specified heat dissipation (In)	100 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	28.29 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
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.
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	Miniature circuit breaker AZ

Technical data ETIM 8.0

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@ss10.0.1-27-14-19-01 [AAB905014])			
Built-in depth		mm	75
Release characteristic			D
Number of poles (total)			4
Number of protected poles			4
Rated current		A	100
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
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			6
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

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