DATASHEET - NZMH3-S500-SVE

Circuit-breaker, 3p, 500A, withdrawable unit

Part no. **NZMH3-S500-SVE**
168919

General specifications	
Product name	Eaton Moeller series NZM molded case circuit breaker magnetic
Part no.	NZMH3-S500-SVE
EAN	4015081654123
Product Length/Depth	335 millimetre
Product height	215.2 millimetre
Product width	140 millimetre
Product weight	6.38 kilogram
Compliances	RoHS conform
Product Tradename	NZM
Product Type	Molded case circuit breaker
Product Sub Type	Magnetic
Delivery program	
Type	Circuit breaker
Number of poles	Three-pole
Amperage Rating	500 A
Special features	Rated current = rated uninterrupted current: 500 A The circuit-breaker fulfills all requirements for AC-3 switching category. IEC/EN 60947-4-1, IEC/EN 60947-2 Without overload release Ir With short-circuit release Motor protection in conjunction with overload relay
Technical Data - Electrical	
Voltage rating	690 V - 690 V
Rated operational current	437 A (400 V AC-3)
Instantaneous current setting (Ii) - min	6 A
Instantaneous current setting (Ii) - max	10 A
Overload current setting (Ir) - min	0 A
Overload current setting (Ir) - max	0 A
Short-circuit release non-delayed setting - min	3000 A
Short-circuit release non-delayed setting - max	5000 A
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz	150 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz	150 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 500 V DC	70 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 750 V DC	70 kA
Rated operating power at AC-3, 230 V	160 kW
Rated operating power at AC-3, 400 V	250 kW
Electrical connection type of main circuit	Other
Handle type	Rocker lever
Direction of incoming supply	As required
Technical Data - Mechanical	
Mounting Method	Built-in device plug-in technique
Degree of protection	IP20
Switch off technique	Magnetic
Special features	Rated current = rated uninterrupted current: 500 A The circuit-breaker fulfills all requirements for AC-3 switching category. IEC/EN 60947-4-1, IEC/EN 60947-2 Without overload release Ir With short-circuit release Motor protection in conjunction with overload relay
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	500 A

Equipment heat dissipation, current-dependent			93 W
Ambient operating temperature - min			-25 °C
Ambient operating temperature - max			70 °C
Ambient storage temperature - min			40 °C
Ambient storage temperature - max			70 °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.

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss13-27-37-04-01 [AGZ529021])			
Overload release current setting		A	0 - 0
Adjustment range undelayed short-circuit release		A	6 - 10
With thermal overload protection			No
Phase failure sensitive			No
Switch off technique			Magnetic
Rated operating voltage		V	690 - 690
Rated permanent current Iu		A	500
Rated operation power at AC-3, 230 V		kW	160
Rated operation power at AC-3, 400 V		kW	250
Power loss		W	
Type of electrical connection of main circuit			Other
Type of control element			Rocker lever
Device construction			Built-in device plug-in technique
With integrated auxiliary switch			No
With integrated under voltage release			No
Number of poles			3
Rated short-circuit breaking capacity Icu at 400 V, AC		kA	150
Degree of protection (IP)			IP20
Height		mm	215.2
Width		mm	140
Depth		mm	335

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