

**Circuit-breaker, 3p, 350A, motor protection, 1000 V**

Part no. **NZMH3-ME350-S1**
119365
EL Number **4363148**
(Norway)

General specifications		
Product name		Eaton Moeller series NZM molded case circuit breaker electronic
Part no.		NZMH3-ME350-S1
EAN		4015081175017
Product Length/Depth		166 millimetre
Product height		275 millimetre
Product width		140 millimetre
Product weight		6.34 kilogram
Compliances		RoHS conform
Certifications		IEC
Product Tradename		NZM
Product Type		Molded case circuit breaker
Product Sub Type		Electronic
Delivery program		
Type		Circuit breaker
Circuit breaker frame type		NZM3
Number of poles		Three-pole
Amperage Rating		350 A
Release system		Electronic release
Special features		<p>Lifespan, mechanical: of which max. 50% trip by shunt/undervoltage release</p> <p>Phase-failure sensitivity</p> <p>IEC/EN 60947-4-1, IEC/EN 60947-2</p> <p>R.m.s. value measurement and "thermal memory"</p> <p>adjustable time delay setting to overcome current peaks t_r: 2 – 20 s at 6 x I_r also infinity (without overload releases)</p> <p>NZM...S1 terminal type: NZM...XKSA cover required</p> <p>NZM4...S1 terminal type: Insulated busbar connection (NZM4-XKS screw connection)</p> <p>Rated current = rated uninterrupted current: 350 A</p> <p>Terminal capacity hint: Up to 240 mm² can be connected depending on the cable manufacturer.</p>
Fitted with:		Thermal protection
Technical Data - Electrical		
Voltage rating		1000 V - 1000 V
Rated insulation voltage (U_i)		1000 V
Rated impulse withstand voltage (U_{imp}) at auxiliary contacts		6000 V
Rated impulse withstand voltage (U_{imp}) at main contacts		8000 V
Rated short-time withstand current ($t = 0.3$ s)		3.3 kA
Rated short-time withstand current ($t = 1$ s)		3.3 kA
Instantaneous current setting (I_i) - min		350 A
Instantaneous current setting (I_i) - max		4900 A
Overload current setting (I_r) - min		175 A
Overload current setting (I_r) - max		350 A
Short-circuit release non-delayed setting - min		350 A
Short-circuit release non-delayed setting - max		4900 A
Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 230 V, 50/60 Hz		150 kA
Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 400/415 V, 50/60 Hz		130 kA
Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 440 V, 50/60 Hz		130 kA
Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 525 V, 50/60 Hz		33 kA
Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 690 V, 50/60 Hz		9 kA
Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 1000 V, 50/60 Hz		10 kA
Rated short-circuit making capacity I_{cm} at 240 V, 50/60 Hz		330 kA

Rated short-circuit making capacity I _{cm} at 400/415 V, 50/60 Hz		330 kA
Rated short-circuit making capacity I _{cm} at 440 V, 50/60 Hz		286 kA
Rated short-circuit making capacity I _{cm} at 525 V, 50/60 Hz		143 kA
Rated short-circuit making capacity I _{cm} at 690 V, 50/60 Hz		74 kA
Rated short-circuit making capacity I _{cm} at 1000 V, 50/60 Hz		17 kA
Rated operating power at AC-3, 230 V		110 kW
Rated operating power at AC-3, 400 V		200 kW
Electrical connection type of main circuit		Screw connection
Number of operations per hour - max		60
Handle type		Rocker lever
Utilization category		A
Overvoltage category		III
Pollution degree		3
Lifespan, electrical		1000 operations at 1000 V AC-1
Direction of incoming supply		As required
Technical Data - Mechanical		
Mounting Method		Fixed Built-in device fixed built-in technique
Degree of protection		IP20
Switch off technique		Electronic
Special features		Lifespan, mechanical: of which max. 50% trip by shunt/undervoltage release Phase-failure sensitivity IEC/EN 60947-4-1, IEC/EN 60947-2 R.m.s. value measurement and “thermal memory” adjustable time delay setting to overcome current peaks tr: 2 – 20 s at 6 x I _r also infinity (without overload releases) NZM...S1 terminal type: NZM...XKSA cover required NZM4...S1 terminal type: Insulated busbar connection (NZM4-XKS screw connection) Rated current = rated uninterrupted current: 350 A Terminal capacity hint: Up to 240 mm ² can be connected depending on the cable manufacturer.
Lifespan, mechanical		15000 operations
Technical Data - Mechanical - Terminals		
Standard terminals		Screw terminal
Terminal capacity (control cable)		0.75 mm ² - 2.5 mm ² (1x) 0.75 mm ² - 1.5 mm ² (2x)
Terminal capacity (aluminum solid conductor/cable)		16 mm ² (1x) at tunnel terminal
Terminal capacity (aluminum stranded conductor/cable)		50 mm ² - 240 mm ² (2x) at 2-hole tunnel terminal 25 mm ² - 185 mm ² (1x) at tunnel terminal 50 mm ² - 240 mm ² (1x) at 2-hole tunnel terminal
Terminal capacity (copper busbar)		Max. 10 mm x 50 mm (2x) at rear-side width extension Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection Min. 20 mm x 5 mm direct at switch rear-side connection M10 at rear-side screw connection
Terminal capacity (copper solid conductor/cable)		16 mm ² (1x) direct at switch rear-side connection 10 mm ² - 16 mm ² (2x) direct at switch rear-side connection 16 mm ² (2x) at box terminal
Terminal capacity (copper stranded conductor/cable)		25 mm ² - 120 mm ² (1x) direct at switch rear-side connection 25 mm ² - 185 mm ² (1x) at tunnel terminal 35 mm ² - 240 mm ² (1x) at box terminal 25 mm ² - 120 mm ² (2x) at box terminal 25 mm ² - 120 mm ² (2x) direct at switch rear-side connection
Terminal capacity (copper strip)		Max. 8 segments of 24 mm x 1 mm (2x) at box terminal Max. 10 segments of 32 mm x 1 mm + 5 segments of 32 mm x 1 mm at rear-side connection (punched) 10 segments of 50 mm x 1 mm (2x) at rear-side width extension Min. 6 segments of 16 mm x 0.8 mm at box terminal Min. 6 segments of 16 mm x 0.8 mm at rear-side connection (punched) Max. 10 segments of 24 mm x 1 mm + 5 segments of 24 mm x 1 mm at box terminal
Design verification as per IEC/EN 61439 - technical data		
Rated operational current for specified heat dissipation (I _n)		350 A
Equipment heat dissipation, current-dependent		36.75 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.
Additional information		
Functions		Phase failure sensitive Motor protection

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	175 - 350
Adjustment range undelayed short-circuit release	A	350 - 4900
With thermal overload protection		Yes
Phase failure sensitive		Yes
Switch off technique		Electronic
Rated operating voltage	V	1000 - 1000
Rated permanent current I _u	A	350
Rated operation power at AC-3, 230 V	kW	110
Rated operation power at AC-3, 400 V	kW	200
Power loss	W	
Type of electrical connection of main circuit		Screw connection
Type of control element		Rocker lever
Device construction		Built-in device fixed built-in technique
With integrated auxiliary switch		No
With integrated under voltage release		No
Number of poles		3
Rated short-circuit breaking capacity I _{cu} at 400 V, AC	kA	130
Degree of protection (IP)		IP20
Height	mm	275
Width	mm	140
Depth	mm	166