

Circuit-breaker, 3 p, 250A



Part no. LZMC2-A250-I
111940

Product name	Eaton Moeller series Power Defense molded case circuit-breaker
Part no.	LZMC2-A250-I
EAN	4015081114887
Product Length/Depth	142 millimetre
Product height	185 millimetre
Product width	105 millimetre
Product weight	2.345 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 60947 VDE 0660 IEC
Product Tradename	Power Defense
Product Type	Molded case circuit breaker
Product Sub Type	None
Application	Use in unearthed supply systems at 690 V
Type	Circuit breaker
Circuit breaker frame type	LZM2
Number of poles	Three-pole
Amperage Rating	250 A
Release system	Thermomagnetic release
Features	Motor drive optional Protection unit
Special features	Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity I _{cn}) Rated current = rated uninterrupted current: 250 A
Voltage rating	690 V - 690 V
Rated insulation voltage (U _i)	690 V AC
Rated impulse withstand voltage (U _{imp}) at auxiliary contacts	6000 V
Rated impulse withstand voltage (U _{imp}) at main contacts	8000 V
Rated operational current	250 A (415 V AC-3, making and breaking capacity) 250 A (660-690 V AC-3, making and breaking capacity) 300 A (380/400 V AC-1, making and breaking capacity) 300 A (415 V AC-1, making and breaking capacity) 300 A (690 V AC-1, making and breaking capacity)
Instantaneous current setting (I _i) - min	1500 A
Instantaneous current setting (I _i) - max	2500 A
Overload current setting (I _r) - min	200 A
Overload current setting (I _r) - max	250 A
Short delay current setting (I _{sd}) - min	0 A
Short delay current setting (I _{sd}) - max	0 A
Short-circuit release non-delayed setting - min	1500 A
Short-circuit release non-delayed setting - max	2500 A
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 230 V, 50/60 Hz	55 kA
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 400/415 V, 50/60 Hz	36 kA
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 440 V, 50/60 Hz	22.5 kA
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 525 V, 50/60 Hz	6 kA
Rated short-circuit making capacity I _{cm} at 240 V, 50/60 Hz	121 kA
Rated short-circuit making capacity I _{cm} at 400/415 V, 50/60 Hz	76 kA
Rated short-circuit making capacity I _{cm} at 440 V, 50/60 Hz	63 kA
Rated short-circuit making capacity I _{cm} at 525 V, 50/60 Hz	24 kA

Rated short-circuit making capacity Icm at 690 V, 50/60 Hz		14 kA
Short-circuit total breaktime		< 10 ms
Electrical connection type of main circuit		Screw connection
Isolation		300 V AC (between the auxiliary contacts) 500 V AC (between auxiliary contacts and main contacts)
Number of operations per hour - max		120
Handle type		Rocker lever
Utilization category		A (IEC/EN 60947-2)
Overvoltage category		III
Pollution degree		3
Lifespan, electrical		7500 operations at 690 V AC-1 10000 operations at 400 V AC-1 7500 operations at 415 V AC-1 5000 operations at 690 V AC-3 6500 operations at 415 V AC-3
Direction of incoming supply		As required
Mounting Method		Built-in device fixed built-in technique Fixed DIN rail (top hat rail) mounting optional
Degree of protection		In the area of the HMI devices: IP20 (basic protection type) IP20
Degree of protection (IP), front side		IP40 (with insulating surround) IP66 (with door coupling rotary handle)
Degree of protection (terminations)		IP10 (tunnel terminal) IP00 (terminations, phase isolator and band terminal)
Protection against direct contact		Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110
Shock resistance		20 g (half-sinusoidal shock 20 ms)
Number of auxiliary contacts (change-over contacts)		0
Number of auxiliary contacts (normally closed contacts)		0
Number of auxiliary contacts (normally open contacts)		0
Position of connection for main current circuit		Front side
Climatic proofing		Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
Special features		Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity Icn) Rated current = rated uninterrupted current: 250 A
Lifespan, mechanical		20000 operations
Standard terminals		Screw terminal
Terminal capacity (copper busbar)		M8 at rear-side screw connection
Terminal capacity (copper solid conductor/cable)		16 mm ² (1x) at tunnel terminal
Rated operational current for specified heat dissipation (In)		250 A
Equipment heat dissipation, current-dependent		58.13 W
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.
Functions			System and cable protection