Miniature circuit breaker (MCB), 16 A, 3p, characteristic: B



Part no. Catalog No. PLSM-B16/3-MW

242448

EL-Nummer (Norway)

1609123

Delivery program

Basic function			Miniature circuit-breakers
Number of poles			3 pole
Tripping characteristic			В
Application			Switchgear for residential and commercial applications
Rated current	In	Α	16
Rated switching capacity according to IEC/EN 60898-1	I _{cn}	kA	10
Product range			PLSM

Technical data

Electrical

Rated switching capacity according to IEC/EN 60898-1 kA 10

IEC/EN C4/120

Design verification as per IEC/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	16
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	6.9
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	75
			linear, per +1 °C, results in a 0.5% reduction of current carrying capacity
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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.
$10.2.3.3\ Verification\ of\ resistance\ of\ insulating\ materials\ to\ abnormal\ heat\ and\ fire\ due\ to\ internal\ electric\ effects$			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 Insulation properties			
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 switch gear must be observed. $\label{eq:constraint}$

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 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])

Bull-in depth Release characteristic Release characteristic Number of poles (total) Number of poles (total) Number of poles (total) Rated current Rated current Rated current Rated invitation voltage Uin Rated short-circuit breaking capacity (an according to EN 6898 at 230 y	(eci@ss10.0.1-27-14-19-01 [AAB905014])		
Number of poles (total) Number of protected poles Rated current Rated voltage Rated insulation voltage Uim Rated insulation voltage Uimp Rated short-circuit breaking capacity Ica according to EN 60898 at 230 V Nottage type Rated short-circuit breaking capacity Ica according to EN 60898 at 400 V Rated short-circuit breaking capacity Ica according to EN 60898 at 400 V Rated short-circuit breaking capacity Ica according to EN 60898 at 400 V Rated short-circuit breaking capacity Ica according to EN 60898 at 400 V Rated short-circuit breaking capacity Ica according to EN 60898 at 400 V Rated short-circuit breaking capacity Ica according to EN 60898 at 400 V Rated short-circuit breaking capacity Ica according to EN 60898 at 400 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit breaking capacity Ica according to EN 608947-2 at 230 V Rated short-circuit	Built-in depth	mm	70.5
Number of protected poles Rated current Rated current Rated voltage Rated voltage Rated insulation voltage Ui Rated insulation voltage Ui Rated insulation voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V Ra	Release characteristic		В
Rated current A 16 Rated voltage V 400 Rated insulation voltage Ui V 440 Rated insulation voltage Uimp kV 4 Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V kA 10 Voltage type AC AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V KA 10 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V KA 0 Current limiting class A No 0 Current limiting class No No 0 Concurrently switching neutral conductor No 0 0 Over voltage category 2 2 4 Width in number of modular spacings Yes 2 Width in number of modular spacings	Number of poles (total)		3
Rated voltage Rated insulation voltage Ui Rated insulation voltage Uimp Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icn according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capa	Number of protected poles		3
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 10 Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V kA 10 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V kA 10 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V kA 0 Frequency kA 0 0 Current limiting class kA 0 0 Frequency kA 0 0 Concurrently switching neutral conductor kA 0 0 Concurrently switching neutral conductor kA 0 0 Very voltage category kA 0 0 Pollution degree kA 2 2 Additional equipment possible kB yes Width in number of modular spacings kB yes Degree of protection (IP) kB yes Ambient temperature during operating kB	Rated current	А	16
Rated impulse with sand voltage Uimp Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 240 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaki	Rated voltage	V	400
Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V Voltage type Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Requency Req	Rated insulation voltage Ui	V	440
Voltage type Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC	Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icu according to EN 60898 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200 V Rated Short-circuit breaking capacity Icu according to IEC 60947-2 at 200	Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V	kA	10
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	Voltage type		AC
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V Frequency Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Max	Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V $$	kA	10
Frequency Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Hz 50 - 60 3 Concurrently switching neutral conductor No No 2 4 5 5 6 7 7 8 8	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	kA	0
Current limiting class Flush-mounted installation Concurrently switching neutral conductor Over voltage category Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Solidation	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V	kA	0
Flush-mounted installation Concurrently switching neutral conductor Over voltage category Pollution degree P	Frequency	Hz	50 - 60
Concurrently switching neutral conductor Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core No 2 Ro Pollution Pes Yes 3 1 Pe20 Pe20 -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Current limiting class		3
Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core 3 P2 P2 P2 P2 P2 P2 P2 P2 P2	Flush-mounted installation		No
Pollution degree Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core 2 Pes Pes 3 IP20 Pe20 -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Concurrently switching neutral conductor		No
Additional equipment possible Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Over voltage category		3
Width in number of modular spacings Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Connectable conductor cross section solid-core Minuma 1 - 25 1 - 25	Pollution degree		2
Degree of protection (IP) Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Additional equipment possible		Yes
Ambient temperature during operating °C -25 - 75 Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Width in number of modular spacings		3
Connectable conductor cross section multi-wired mm² 1 - 25 Connectable conductor cross section solid-core mm² 1 - 25	Degree of protection (IP)		IP20
Connectable conductor cross section solid-core mm² 1 - 25	Ambient temperature during operating	°C	-25 - 75
	Connectable conductor cross section multi-wired	mm²	1 - 25
Explosion-proof No	Connectable conductor cross section solid-core	mm²	1 - 25
	Explosion-proof		No