## DATASHEET - PL7-B10/1

## Miniature circuit breaker (MCB), 10 A, 1p, characteristic: B



Part no. Catalog No.

PL7-B10/1 262674



Similar to illustration

Delivery program			
Basic function			Miniature circuit-breakers
Number of poles			1 pole
Tripping characteristic			В
Application			Switchgear for residential and commercial applications
Rated current	In	А	10
Rated switching capacity according to IEC/EN 60898-1	I <sub>cn</sub>	kA	10
Product range			PL7
Technical data			
Electrical			
Rated switching capacity according to IEC/EN 60898-1	I <sub>cn</sub>	kA	10
Design verification as par IEC/EN 61/20			
Design verification as per IEC/EN 61439			
Technical data for design verification		٨	10
Rated operational current for specified heat dissipation	l <sub>n</sub>	A	10
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	1.9
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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 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 7.0**

Bit explore any negression of any negression of a second	Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)					
Numer of poles (total)     Image: second se						
Number of protected polesImage: state during in the state dur	Release characteristic		В			
Rate durint     A     I       Rate during     V     30       Rate disulation voltage Uin     V     40       Rate disulation voltage Uin     V     40       Rate disulation voltage Uin     V     40       Rated short-circuit breaking capacity Icn EK 06988 at 200 V     KA     0       Rated short-circuit breaking capacity Icn EK 06987-2 at 200 V     KA     0       Rated short-circuit breaking capacity Icn EK 06987-2 at 200 V     KA     0       Voltage type     KA     0     0       Young type     KA     0     0       Frequency     KA     0     0       Courcently witching N-neutral     KA     0     0       Outard earge of protection (P)     KA     0     0       Notard earge of protection (P)     KA     0     0       Ret du divinement end uning operating     KA     0     0       Ret du divinement end uning operating     KA     0     0       Ret du divinement end uning operating     KA     0     0       Ret du divinement end uning operating	Number of poles (total)		1			
Rade vorting in     V     30       Rade disulation voltage Ui     V     40       Rated insulation voltage Uinp     V     40       Rated short-circuit breaking capacity Icn EN 60988 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60989 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60987 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60987 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60987 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60987 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60987 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60947 at 200 V     K     N       Votage type     K     0     0       Frequency     K     0     0       Current limiting class     No     N     N       Subtle for flush-mounted installation     N     N     N       Our ontigue gate     N     N     N       Additional quipinent posobible     N     N	Number of protected poles		1			
Ated insultion voltage Uin     V     40       Rated insultion voltage Uinp     K     4       Rated insultion voltage Uinp     K     4       Rated short-circuit breaking capacity Icn EN 60989 at 200 V     K     10       Rated short-circuit breaking capacity Icn EN 60989 at 400 V     K     0       Rated short-circuit breaking capacity Icn EC 60947-2 at 200 V     K     0       Voltage type     K     0       Voltage type     K     0       Current limiting class     So 60     K       Sutable for flush-mounted installation     K     No       Over voltage category     No     No       Pollution degree     So 50     Sold       Vidt in number of modular spacings     K     F       Built-in depth     F     Sold       Degree of protection (IP)     K     F       Abient temperature during operating     K     F       Moint temperature during operating     K     K       Connectable conductor cross section multi-wired     K     K	Rated current	А	10			
Rated impulse withstand voltage Uimp     KV     4       Rated short-circuit breaking capacity Ice EC 60989 at 20 V     KA     10       Rated short-circuit breaking capacity Ice EC 60947-2 at 20 V     KA     0       Rated short-circuit breaking capacity Ice EC 60947-2 at 20 V     KA     0       Notage type     KA     0     0       Voltage type     KA     0     0       Frequency     KA     0     0       Suitable for flush-mounted installation     KA     0     0       Courrent lysinking Aneutral     KA     0     0       Outage category     KA     0     0     0       Pollution degree     KA     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0	Rated voltage	V	230			
Rated short-circuit breaking capacity lon EN 60898 at 200 V   KA   10     Rated short-circuit breaking capacity lon EC 60947-2 at 230 V   KA   0     Rated short-circuit breaking capacity lou IEC 60947-2 at 230 V   KA   0     Notage type   A   0     Frequency   KA   0     Current limiting class   0   0     Suitabe for flush-mounted installation   KA   0     Over voltage category   KA   0     Pollution degree   KA   0     Additional equipment possible   KA   0     Volt in number of modular spacings   KA   0     Built-in depth   Man   0     Additional equipment possible   Man   0     Suit-in depth   Man   0     Built-in depth   Man   0     Additional equipment possible   Man   0     Suit-in depth   Man   0     Built-in depth   Man   0     Additional equipment possible   Man   0     Suit-in depth   Man   0     Additional equipment poserviting   Man   0	Rated insulation voltage Ui	V	440			
Rated short-circuit breaking capacity Icn EN 60898 at 400 V   KA   0     Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V   KA   0     Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V   KA   0     Voltage type   KA   0     Frequency   KA   0     Current limiting class   50-60     Suitable for flush-mounted installation   No     Concurrently switching N-neutral   No     Over voltage category   Sa   3     Pollution degree   Sa   3     Additional equipment possible   Yes   1     Built-in depth   mm   70.5     Degree of protection (IP)   Concectable conductor cross section multi-wired   Sa     Connectable conductor cross section multi-wired   To   Sa	Rated impulse withstand voltage Uimp	kV	4			
Rated short-circuit breaking capacity leu IEC 60947-2 at 230 V   KA   0     Rated short-circuit breaking capacity leu IEC 60947-2 at 400 V   KA   0     Volage type   KA   0     Volage type   KA   0     Frequency   KA   0     Current limiting class   So   60     Suitable for flush-mounted installation   Mo   No     Concurrently switching N-neutral   Mo   No     Over voltage category   Mo   3     Pollution degree   Mo   So     Additional equipment possible   Mo   So     Width in number of modular spacings   Mo   So     Built-in depth   Mo   So     Degree of protection (IP)   Mo   So     Ambient temperature during operating   Co   So     Connectable conductor cross section multi-wired   To   So	Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	10			
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V   KA   C     Voltage type   C   C     Frequency   Frequency   S0-60     Current limiting class   S   S0     Suitable for flush-mounted installation   Mo   Mo     Concurrently switching N-neutral   Mo   Mo     Over voltage category   S   S     Pollution degree   S   S   S     Additional equipment possible   Mo   S   S     With in number of modular spacings   Mo   S   S     Built-in depth   Mo   S   S   S     Abeint temperature during operating   Mo   S   S   S     Connectable conductor cross section multi-wired   Mo   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S   S	Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	10			
Voltage type     AC       Frequercy     50 - 60       Current limiting class     50 - 60       Suitable for flush-mounted installation     3       Concurrently switching N-neutral     No       Over voltage category     6       Pollution degree     3       Additional equipment possible     Yes       Witht in number of modular spacings     mmm       Built-in depth     70.5       Ambient temperature during operating     °C       Ambient temperature during operating     °C       Connectable conductor cross section multi-wired     mm²	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	0			
Frequency 50 - 60   Current limiting class 50 - 60   Suitable for flush-mounted installation 50 - 60   Concurrently switching N-neutral No   Over voltage category No   Pollution degree 2   Additional equipment possible Yes   Witth in number of modular spacings Mon   Built-in depth To   Degree of protection (IP) Mon   Ambient temperature during operating Cor   Source conductor cross section multi-wired mm²	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	0			
Current limiting class 3   Suitable for flush-mounted installation Mo   Concurrently switching N-neutral No   Over voltage category S   Pollution degree S   Additional equipment possible Yes   Width in number of modular spacings Mn   Buit-in depth Mo   Degree of protection (IP) Mo   Ambient temperature during operating Co   Solute of protection multi-wired Co   Suite of protection multi-wired Co	Voltage type		AC			
Suitable for flush-mounted installation   No     Suitable for flush-mounted installation   No     Concurrently switching N-neutral   No     Over voltage category   Si     Pollution degree   3     Additional equipment possible   Yes     Width in number of modular spacings   mm     Built-in depth   70.5     Degree of protection (IP)   Pol     Ambient temperature during operating   mm²     Suite temperature during operating   mm²	Frequency	Hz	50 - 60			
Concurrently switching N-neutral   No     Over voltage category   S     Pollution degree   S     Additional equipment possible   Yes     Width in number of modular spacings   mm     Built-in depth   Pol     Degree of protection (IP)   Yes     Ambient temperature during operating   C     Soncetable conductor cross section multi-wired   S	Current limiting class		3			
Over voltage category 3   Pollution degree 2   Additional equipment possible Yes   Width in number of modular spacings 1   Built-in depth mm   Degree of protection (IP) Mm   Ambient temperature during operating °C   Soncetable conductor cross section multi-wired mm <sup>2</sup>	Suitable for flush-mounted installation		No			
Pollution degree2Additional equipment possibleYesWidth in number of modular spacingsmmBuilt-in depthmmDegree of protection (IP)°CAmbient temperature during operating°CConnectable conductor cross section multi-wiredmm²1 25	Concurrently switching N-neutral		No			
Additional equipment possibleYesWidth in number of modular spacings1Built-in depthmmDegree of protection (IP)mmAmbient temperature during operating°CConnectable conductor cross section multi-wiredmm²	Over voltage category		3			
Width in number of modular spacings mm 1   Built-in depth mm 70.5   Degree of protection (IP) IP0   Ambient temperature during operating °C 25 - 75   Connectable conductor cross section multi-wired mm² 1 - 25	Pollution degree		2			
Built-in depth mm 70.5   Degree of protection (IP) P20   Ambient temperature during operating °C -25 - 75   Connectable conductor cross section multi-wired mm² 1 - 25	Additional equipment possible		Yes			
Degree of protection (IP) IP20   Ambient temperature during operating °C -25 - 75   Connectable conductor cross section multi-wired mm² 1 - 25	Width in number of modular spacings		1			
Ambient temperature during operating °C -25 - 75   Connectable conductor cross section multi-wired mm <sup>2</sup> 1 - 25	Built-in depth	mm	70.5			
Connectable conductor cross section multi-wired mm <sup>2</sup> 1 - 25	Degree of protection (IP)		IP20			
	Ambient temperature during operating	°C	-25 - 75			
Connectable conductor cross section solid-core mm <sup>2</sup> 1 - 25	Connectable conductor cross section multi-wired	mm²	1 - 25			
	Connectable conductor cross section solid-core	mm²	1 - 25			