DATASHEET - HL-C6/1

Miniature circuit breaker (MCB), 6 A, 1p, characteristic: C



Part no.	HL-C6/1
Catalog No.	194728

Delivery program			
Basic function			Miniature circuit-breakers
Number of poles			1 pole
Tripping characteristic			C
Application			Switchgear for residential and commercial applications
Rated current	l _n	A	6
Rated switching capacity according to IEC/EN 60898-1	I _{cn}	kA	4.5
Product range			HL
Technical data Electrical			
Rated switching capacity according to IEC/EN 60898-1	I _{cn}	kA	4.5
Design verification as per IEC/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	6
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	1.5
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.	· uiss	°C	-25
Operating ambient temperature max.		°C	75
		0	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.

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

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)

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Release characteristic Release characteristic characteristicharacteristic characteristic characteristic charact					
Number of poles (total) Image: space of total (total) Image: space of total) Number of poles (total) Image: space of total) Image: space of total) Rated ourset Image: space of total) Image: space of total) Rated insulation voltage Uim Image: space of total) Image: space of total) Rated insulation voltage Uim Image: space of total) Image: space of total) Rated insulation voltage Uim Image: space of total) Image: space of total) Notage type Image: space of total) Image: space of total) Rated short-circuit breaking capacity Lon according to EC 60947-24 2300 Image: space of total) Image: space of total) Rated short-circuit breaking capacity Lon according to EC 60947-24 2300 Image: space of total) Image: space of total) Rated short-circuit breaking capacity Lon according to EC 60947-24 2300 Image: space of total) Image: space of total) Rated short-circuit breaking capacity Lon according to EC 60947-24 2300 Image: space of total) Image: space of total) Rated short-circuit breaking capacity Lon according to EC 60947-24 2300 Image: space of total) Image: space of total) Rated short-circuit breaking capacity Lon according to EC 60947-24 2300 Image: space of	Built-in depth	n	nm	44	
Number of protected polesImage: second s	Release characteristic			C	
Rate durinetImage: display state	Number of poles (total)			1	
Rade values N 9 Rade insulation voltage Uin V 40 Rade insulation voltage Uinp KV 40 Rade short-circuit breaking capacity Lon according to EN 60098 at 230 V KA 50 Voltage type KA 50 Rade short-circuit breaking capacity Lon according to EN 60098 at 230 V KA 50 Nate short-circuit breaking capacity Lon according to EN 60098 at 230 V KA 50 Rade short-circuit breaking capacity Lon according to EN 60098 at 230 V KA 50 Rade short-circuit breaking capacity Lon according to EN 60097 - 24 CM 70 KA 50 Rade short-circuit breaking capacity Lon according to EN 60097 - 24 CM 70 KA 50 Rade short-circuit breaking capacity Lon according to EN 60097 - 24 CM 70 KA 50 Foreurey KA 50 50 Rade short-circuit breaking capacity Lon according to EN 60097 - 24 CM 70 S0 50 Routenet according to EN 60097 - 24 CM 70 S0 50 Routenet according to EN 60097 - 26 CM 70 S0 50 Routenet according to EN 60097 - 26 CM 70 S0 50	Number of protected poles			1	
Rated insulation voltage Uinp V 4 Rated short-circuit breaking capacity lon according to EN 60898 at 230 V K 4 Rated short-circuit breaking capacity lon according to EN 60898 at 230 V K 4 Voltage type K 4 Rated short-circuit breaking capacity lon according to EN 60989 at 200 V K 4 Rated short-circuit breaking capacity lon according to EN 60989 at 200 V K 4 Rated short-circuit breaking capacity lon according to EC 60947-2 at 200 V K 4 Rated short-circuit breaking capacity lon according to EC 60947-2 at 200 V K 9 Frequency K N 0 Current limiting class K 8 1 Fuency K N N Our or thy switching neutral conductor K N N Out or the aduit spacings K N N Out or the aduit sp	Rated current	Д	4	6	
Rated inpulse withs and voltage Uimp kV i Rated short-circuit breaking capacity Icn according to EN 60988 at 200 V KA 5. Rated short-circuit breaking capacity Icn according to EN 60988 at 400 V KA 5. Rated short-circuit breaking capacity Icn according to EN 60989 at 400 V KA 5. Rated short-circuit breaking capacity Icu according to EC 60947-2 at 200 V KA 5. Frequency KA 5. 6. Frequency KA 5. 6. Coursently switching neutral conductor KA 5. 6. Pollution degree S 6. 7. 6. Additional equipment possible S S. 5. Additional equipment possible S S. S. Additional equipment possible S S. <t< td=""><td>Rated voltage</td><td>V</td><td>/</td><td>230</td></t<>	Rated voltage	V	/	230	
Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V KA 5. Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V KA 5. Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V KA 5. Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V KA 5. Frequency KA 5. Current limiting class 5. 5. Fush-mounted installation KA 5. Over voltage category KA 5. Pollution degree KA 5. Additional equipment possible KA 5. Voltage of protection (IP) KA 5. Anisent temperature during operating Core 7. Anisent temperature during operating Core 7.5 Concetable conductor cross section solid-core man ^a 1.5	Rated insulation voltage Ui	V	/	440	
Voltage type AC Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V KA 4.5 Rated short-circuit breaking capacity Icu according to EC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V KA 0 Frequency KA 0 0 Frequency KA 0 0 Current limiting class Frequency KA 0 Concurrently switching neutral conductor Frequency V No Pollution degree Frequency No No Additional equipment possible Frequency Second Second Mith in number of modular spacings Frequency Second Second Additional equipment possible Frequency Second Second Mith in number of modular spacings Frequency Second Second Additional equipment possible Frequency Second Second Additional equipment possible Frequency Second Second Anbient temperature during operating <	Rated impulse withstand voltage Uimp	k	٨V	4	
Rated short-circuit breaking capacity lou according to EN 60898 at 400 V KA 4.5 Rated short-circuit breaking capacity lou according to IEC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity lou according to IEC 60947-2 at 400 V KA 0 Frequency KA 0 Current limiting class Fequency 50-60 Current limiting neutral conductor Fequency 8 Over voltage category Fequency 8 Pollution degree S 3 Additional equipment possible Fequency Second With in number of modular spacings Fequency Second Aminent temperature during operating C 20-75 Connectable conductor cross section solid-core Fequency 1-25	Rated short-circuit breaking capacity Icn according to EN 60898 at 230 ${\rm V}$	k	κA	4.5	
Rated short-circuit breaking capacity lcu according to IEC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity lcu according to IEC 60947-2 at 400 V KA 0 Frequency Hz 50-60 Current limiting class S 3 Flush-mounted installation M V Concurrently switching neutral conductor M V Pollution degree S S Additional equipment possible M Yes Width in number of modular spacings M Yes Degree of protection (IP) Yes S Ambient temperature during operating C Yes Connectable conductor cross section solid-core M Yes Connectable conductor cross section solid-core M Yes Solid Marce S S Mational equipment possible M Yes S Motion temperature during operating C S S Motion temperature during operating M M S S Gonnectable conductor cross section solid-core M m ⁿ² S <td>Voltage type</td> <td></td> <td></td> <td>AC</td>	Voltage type			AC	
Rated short-circuit breaking capacity lou according to IEC 60947-2 at 400 V KA O Frequency Hz 50-60 Current limiting class S S Fush-mounted installation S S Concurrently switching neutral conductor S S Over voltage category S S Pollution degree S S Additional equipment possible S S Vidth in number of modular spacings S S Degree of protection (IP) S S Anbient temperature during operating S S Connectable conductor cross section solid-core Ma 125	Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V	k	κA	4.5	
Frequency Hz 50 - 60 Current limiting class 3 3 Fush-mounted installation Yes No Concurrently switching neutral conductor 3 3 Over voltage category Yes 3 Pollution degree So - 60 So - 60 Additional equipment possible Yes 3 Victh in number of modular spacings Yes So - 60 Degree of protection (IP) Yes 1 Ambient temperature during operating Yes Yes Connectable conductor cross section multi-wired Yes Yes Connectable conductor cross section solid-core Yes Yes	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	k	κA	0	
Lurent limiting classImage: state of the stat	Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V $$	k	κA	0	
Fush-mounted installation Yes Fush-mounted installation No Concurrently switching neutral conductor 3 Over voltage category 3 Pollution degree S Additional equipment possible Yes Width in number of modular spacings Yes Admient temperature during operating Yes Anbient temperature during operating Yes Connectable conductor cross section solid-core mm ² Yes 125	Frequency	H	Ηz	50 - 60	
Concurrently switching neutral conductorNoOver voltage category3Pollution degree3Additional equipment possibleYesWidth in number of modular spacings1Degree of protection (IP)P00Ambient temperature during operatingCConnectable conductor cross section multi-wiredmar ² Iconnectable conductor cross section solid-coremar ² Iconnectable conductor cross section solid-coremar ²	Current limiting class			3	
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Additional equipment possibleYesWidth in number of modular spacings1Degree of protection (IP)CAmbient temperature during operatingCConnectable conductor cross section multi-wiredmm²I connectable conductor cross section solid-coremm²	Over voltage category			3	
Width in number of modular spacings 1 Degree of protection (IP) P0 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	Pollution degree			3	
Degree of protection (IP) P0 Ambient temperature during operating C 25 - 75 Connectable conductor cross section solid-core mm ² 1 - 25	Additional equipment possible			Yes	
Ambient temperature during operating°C°25 - 75Connectable conductor cross section multi-wiredmm²1 - 25Connectable conductor cross section solid-coremm²1 - 25	Width in number of modular spacings			1	
Connectable conductor cross section solid-core mm ² 1 - 25 Connectable conductor cross section solid-core mm ² 1 - 25	Degree of protection (IP)			IP20	
Connectable conductor cross section solid-core mm ² 1 - 25	Ambient temperature during operating	٥	°C	-25 - 75	
	Connectable conductor cross section multi-wired	n	nm²	1 - 25	
Explosion-proof No	Connectable conductor cross section solid-core	n	nm²	1 - 25	
	Explosion-proof			No	