

SWITCHES

STANDARD FAMILY CODE LTCH00602*A01

Family Type	LTCH 60
Number / Type of Poles	2 / NO
Connection between Poles	Single - Series - Parallel ¹
Mounting Position	Horizontal - Vertical ¹
Control Voltage Rating U _c (DC) [V]	24 - 36 - 48 - 72 - 110 ¹
Auxiliary Contact Blocks	2 x (1 NO + 1 NC)
Block Type	SL
Arc-chute Material	Ceramic
Main Contacts Tips Material	S6
Arcing Contacts Tips Material	-
Electric Diagram	-
Series Layout Drawing	D54841
Single or Parallel Layout Drawing	D55069

¹ To be specified in order phase.



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Description

Contactor with double interruption in air, electromagnetic control by delayed auxiliary switch plus saving power resistor. Single state functioning.

Reference Standards IEC 60077, IEC 61992 and IEC 60947.

Insulation Characteristics				
Rated Operational Voltage (AC / DC)		[V]	3600 / 1800 / 900	
Max Operational Voltage (AC / DC)		[V]	4000	
Rated Insulation Voltage		[V]	4000	
Rated Impulse Voltage		[kV]	30	
Rated Power Frequency Withstand Voltage (50 Hz for 60 s)				
Between HV to LV Circuit + Earth		[V]	10000	
Between Open Contacts		[V]	7900	
Between Each Pole (if more than 1)		[V]	10000	
Between LV Circuit and Earth		[V]	1500	
Minimum Clearance Distance between Open Contacts		[mm]	30	
Minimum Clearance Distance between Power Circuit to Earth		[mm]	40	
Minimum Creepage Distance between Power Circuit to Earth		[mm]	50	
Comparative Tracking Index (CTI) (IEC 60112)		[V]	600	
Electrical Characteristics				
Connection Type		Single	Series ²	Parallel ²
Conventional Free Air Thermal Current at 40 °C ³	[A]	180	180	360
Conventional Free Air Thermal Current at 75 °C ³	[A]	150	150	300
DC - Rated Operational Current (τ = 15 ms)				
3600 V	[A]	16	30	16
1800 V	[A]	40	55	40
900 V	[A]	80	110	80
DC - Maximum Breaking Capacity (τ = 5 ms)				
3600 V	[A]	30	40	30
1800 V	[A]	60	80	60
900 V	[A]	120	160	120
AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz)				
3600 V	[A]	50	80	50
1800 V	[A]	100	160	100
900 V	[A]	200	320	200
Component Category / Operational Frequency Class		A2 / C3	A2 / C3	A2 / C3
Rated Short Time Withstand Current	[kA]	2 (for 5 ms)	2 (for 5 ms)	4 (for 5 ms)
Critical Current Range	[A]	DC Reverse Current	DC Reverse Current	DC Reverse Current
Fault Making Capacity	[kA]	1.2	1.2	2.4
Blow Out Circuit Type		Permanent Magnet	Permanent Magnet	Permanent Magnet

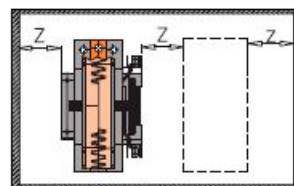
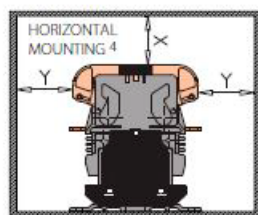
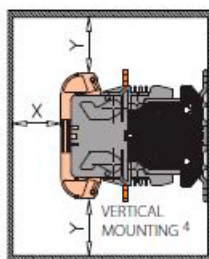
² Series or parallel bar connections are available under request

³ Device cabled according IEC 60947

Minimum clearances [mm] from:				
Rated Operational Voltage		X	Y	Z
3600 V	Metal Parts	200	200	50
	Plastic Parts	100	100	30

Minimum clearances [mm] from:				
Rated Operational Voltage		X	Y	Z
1800 V	Metal Parts	120	120	50
	Plastic Parts	50	50	20

Minimum clearances [mm] from:				
Rated Operational Voltage		X	Y	Z
900 V	Metal Parts	100	100	30
	Plastic Parts	50	50	20



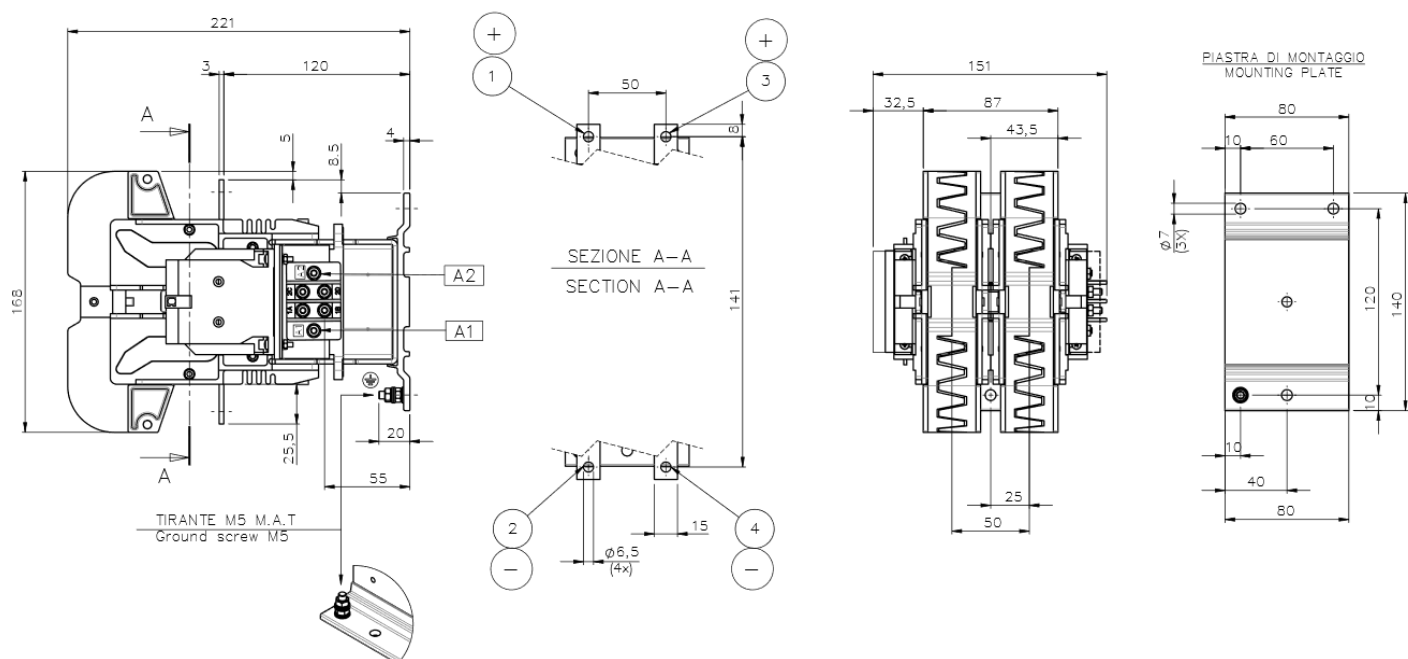
Mechanical Characteristics		
Mechanical Endurance	[cycles]	2 x 10 ⁶
Shock and Vibrations (IEC 61373)		Cat.1 - Class B
Weight	[kg]	4
Control Circuit		
Control Voltage Range	[V]	0.7U _c ÷ 1.25U _c
Power Consumption (U _c and T = 20 °C) at Pick Up - when Holding	[W]	85 - 25
Mechanical Operation Time (U _c and T = 20 °C) when Closing - Opening	[ms]	80 - 40
Time Constant (L/R) at Pick Up - when Holding	[ms]	70 - 125
Electrical Connections		Fast-on 6.35 x 0.8 mm
Auxiliary Contact		
Rated Operational Voltage (AC / DC)	[V]	250
Conventional Free Air Thermal Current at 40 °C	[A]	10
Tips Material		Silver Alloy (Optional: Golden Plated)
Minimum Let-through Current at 24 - 72 - 110 VDC ⁵	[mA]	20(10) - 15(7.5) - 10(5) ⁵
Electrical Connections		Fast-on 6.35 x 0.8 mm
Environmental Conditions		
Stock Temperature Range	[°C]	-50 ÷ +85
Operational Temperature Range	[°C]	Tx (-40 ÷ +75) ⁶
Pollution Degree - Overvoltage Category (EN 50124-1)		PD3 - OV3
Max Altitude without Performance Derating	[m]	2000

⁴ Other mounting positions not allowed, reduced distances should be approved by Microelettrica

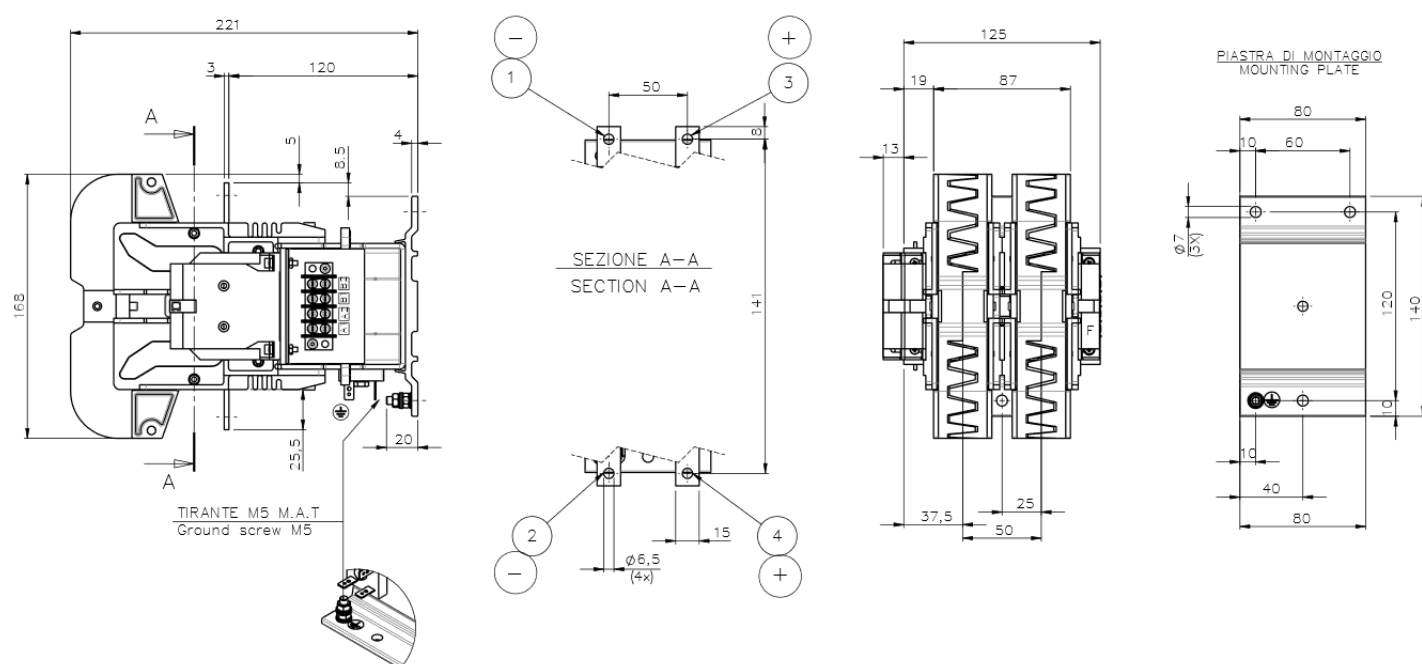
⁵ Reference Standard IEC 60947-5-4. Tested in a DRY and CLEAN condition with an LR load. The values with golden plated tips are indicated between brackets. For different working conditions, please contact Microelettrica

⁶ According to IEC 50125-1

Series Layout Drawing



Single or Parallel Layout Drawing



The technical specifications reported are not binding and they should be agreed in the contract.

For further technical information on our products visit www.microelettrica.com

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