

# SWITCHES

## STANDARD FAMILY CODE LTHS15002\*A03

Family Type	LTHS 1500
Number / Type of Poles	2 / NO
Connection between Poles	Single - Series - Parallel <sup>1</sup>
Mounting Position	Horizontal - Vertical <sup>1</sup>
Control Voltage Rating Uc (DC) [V]	24 - 36 - 48 - 72 - 110 <sup>1</sup>
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	SC27498
Layout Drawing	D53242

<sup>1</sup> To be specified in order phase.



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## Description

Contactor with single interruption in air, electromagnetic control by starter power save system for double winding coil. Single state functioning. Reference Standards IEC 60077, IEC 61992 and IEC 60947.

Insulation Characteristics				
Rated Operational Voltage (AC / DC)	[V]	1800 / 900		
Max Operational Voltage (AC / DC)	[V]	2000		
Rated Insulation Voltage	[V]	2000		
Rated Impulse Voltage	[kV]	12		
Rated Power Frequency Withstand Voltage (50 Hz for 60 s)				
Between HV to LV Circuit + Earth	[V]	6000		
Between Open Contacts	[V]	4700		
Between Each Pole (if more than 1)	[V]	6000		
Between LV Circuit and Earth	[V]	1500		
Minimum Clearance Distance between Open Contacts	[mm]	25		
Minimum Clearance Distance between Power Circuit to Earth	[mm]	14		
Minimum Creepage Distance between Power Circuit to Earth	[mm]	25		
Comparative Tracking Index (CTI) (IEC 60112)	[V]	600		
Electrical Characteristics				
Connection Type		Single	Series <sup>2</sup>	Parallel <sup>2</sup>
Conventional Free Air Thermal Current at 40 °C <sup>3</sup>	[A]	1350	1350	2700
Conventional Free Air Thermal Current at 75 °C <sup>3</sup>	[A]	1250	1250	2500
DC - Rated Operational Current (τ = 15 ms)				
1800 V	[A]	915	2000	915
900 V	[A]	1830	4000	1830
DC - Maximum Breaking Capacity (τ = 5 ms)				
1800 V	[A]	1350	2500	1350
900 V	[A]	2500	5000	2500
AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz)				
1800 V	[A]	1800	3300	1800
900 V	[A]	3750	6600	3750
Component Category / Operational Frequency Class		A2 / C3	A2 / C3	A2 / C3
Rated Short Time Withstand Current	[kA]	16 (for 5 ms)	16 (for 5 ms)	24 (for 5 ms)
Critical Current Range	[A]	< 50 at 1500 VDC	< 30 at 1500 VDC	< 50 at 1500 VDC
Fault Making Capacity	[kA]	9.6	9.6	14.4
Blow Out Circuit Type		Indirect Coil with Arcing Contact	Indirect Coil with Arcing Contact	Indirect Coil with Arcing Contact

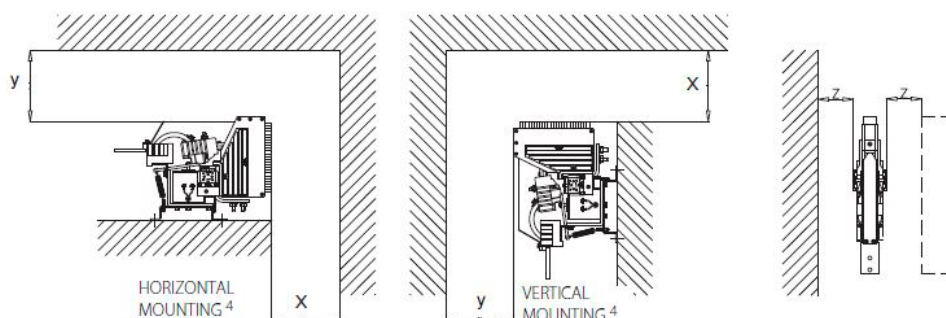
<sup>2</sup> Series or parallel bar connections are available under request

<sup>3</sup> Device cabled according IEC 60947

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

Minimum clearances [mm] from:				
Rated Operational Voltage		X	Y	Z
1800 V	Metal Parts	120	50	50
	Plastic Parts	50	30	20

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

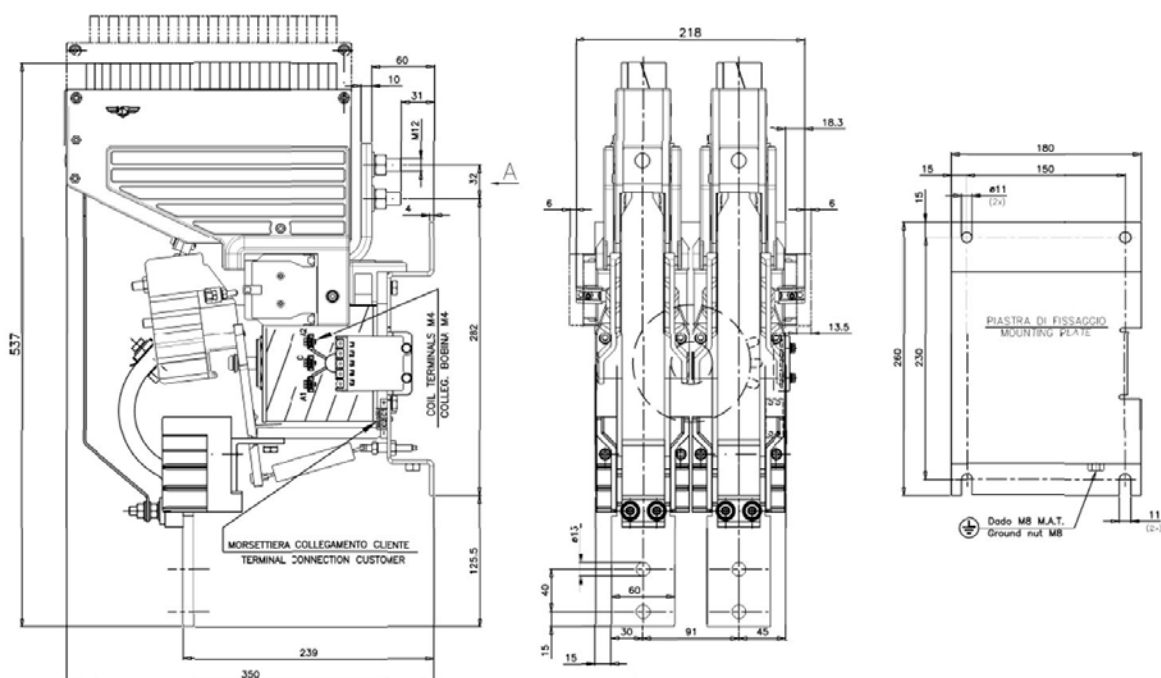


Mechanical Characteristics		
Mechanical Endurance	[cycles]	2 x 10 <sup>6</sup>
Shock and Vibrations (IEC 61373)		Cat.1 - Class B
Weight	[kg]	31
Control Circuit		
Control Voltage Range	[V]	0.7U <sub>c</sub> ÷ 1.25U <sub>c</sub>
Power Consumption (U <sub>c</sub> and T = 20 °C) at Pick Up - when Holding	[W]	60 - 30
Mechanical Operation Time (U <sub>c</sub> and T = 20 °C) when Closing - Opening	[ms]	300 - 60
Time Constant (L/R) at Pick Up - when Holding	[ms]	5 - 5
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 <sup>5</sup>	[mA]	20(10) - 15(7.5) - 10(5) <sup>5</sup>
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) <sup>6</sup>
Pollution Degree - Overvoltage Category (EN 50124-1)		PD3 - OV3
Max Altitude without Performance Derating	[m]	2000

<sup>4</sup> Other mounting positions not allowed, reduced distances should be approved by Microelettrica

<sup>5</sup> 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

<sup>6</sup> According to IEC 50125-1



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**For further technical information on our products visit [www.microelettrica.com](http://www.microelettrica.com)**

**Microelettrica Scientifica S.p.A.**

20090 Buccinasco (MI) , Via Lucania 2, Italy

Tel.: +39 02 575731

E-mail: [info@microelettrica.com](mailto:info@microelettrica.com)

[www.microelettrica.com](http://www.microelettrica.com)



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