

# SWITCHES

## STANDARD FAMILY CODE LTHS17002XA00

Family Type	LTHS 1700
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	PBX
Arc-chute Material	Ceramic
Main Contacts Tips Material	S6
Arcing Contacts Tips Material	-
Electric Diagram	SC27617
Layout Drawing	D54154

<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 system and double winding coil. Single state functioning. Reference Standards IEC 60077, IEC 61992 and IEC 60947.

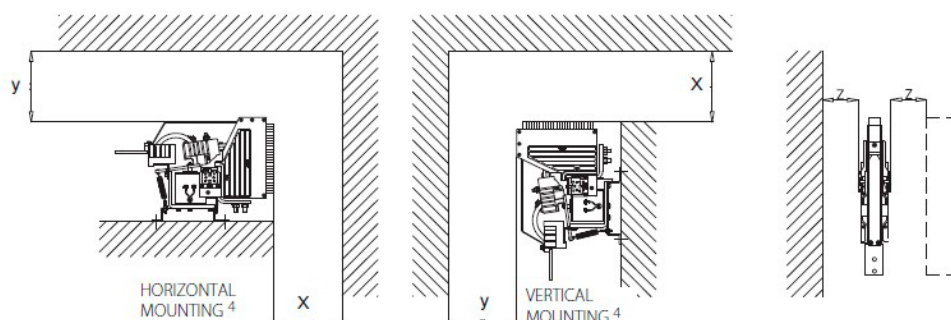
Insulation Characteristics				
Rated Operational Voltage (AC / DC)	[V]	1800 / 900		
Max Operational Voltage (AC / DC)	[V]	2000		
Rated Insulation Voltage	[V]	2000		
Rated Impulse Voltage	[kV]	12		
Rated Power Frequency Withstand Voltage (50 Hz for 60 s)				
Between HV to LV Circuit + Earth	[V]	6000		
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]	1700	1700	3400
Conventional Free Air Thermal Current at 75 °C <sup>3</sup>	[A]	1600	1600	3200
DC - Rated Operational Current (τ = 15 ms)				
1800 V	[A]	600	1200	600
900 V	[A]	1000	2000	1000
DC - Maximum Breaking Capacity (τ = 5 ms)				
1800 V	[A]	850	1700	850
900 V	[A]	1700	3400	1700
AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz)				
1800 V	[A]	1650	2900	1650
900 V	[A]	3300	5800	3300
Component Category / Operational Frequency Class		A2 / C3	A2 / C3	A2 / C3
Rated Short Time Withstand Current	[kA]	16 (for 100 ms)	16 (for 100 ms)	24 (for 100 ms)
Critical Current Range	[A]	<50 at 1500 VDC	<30 at 1500 VDC	<50 at 1500 VDC
Fault Making Capacity	[kA]	6	6	9
Blow Out Circuit Type		Indirect Coil	Indirect Coil	Indirect Coil

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

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

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

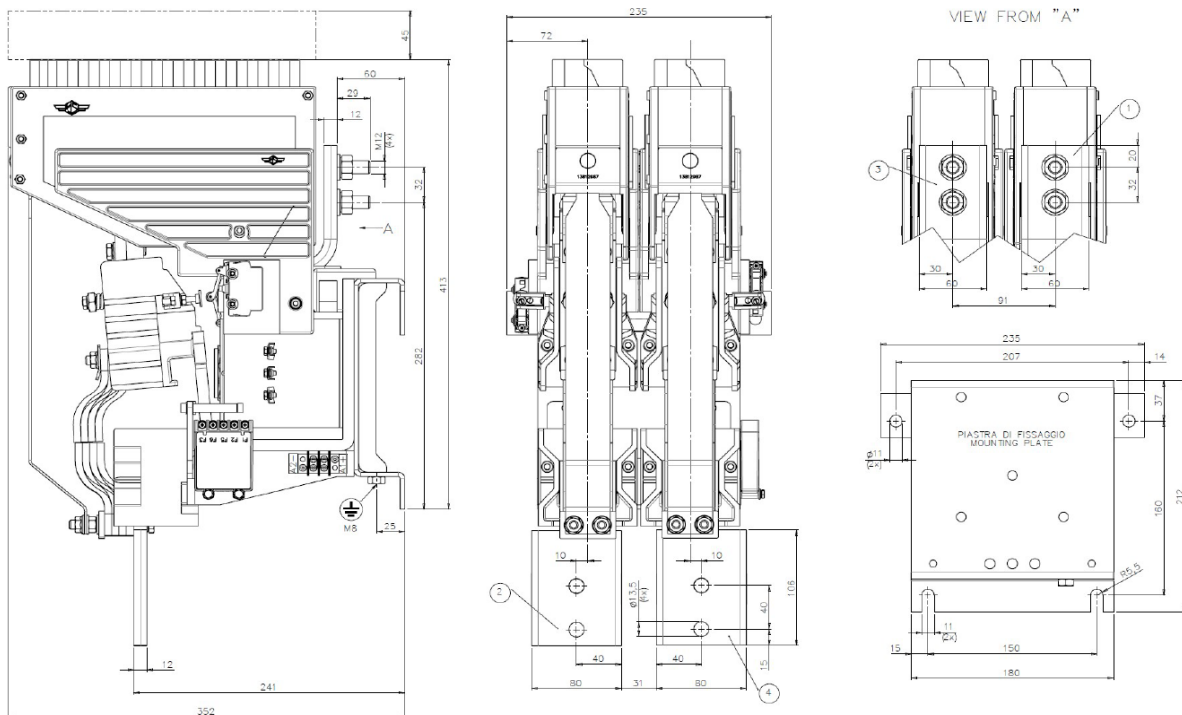


Mechanical Characteristics		
Mechanical Endurance	[cycles]	2 x 10 <sup>6</sup>
Shock and Vibrations (IEC 61373)		Cat.1 - Class B
Weight	[kg]	40
Control Circuit		
Control Voltage Range	[V]	0.7U <sub>c</sub> ÷ 1.25U <sub>c</sub>
Power Consumption (U <sub>c</sub> and T = 20 °C) at Pick Up - when Holding	[W]	160 - 25
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



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

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