

# SWITCHES

## STANDARD FAMILY CODE LTHM15013XP00

Type	LTHMD 1500
Number of Poles	3 CO
Mounting Position	Horizontal - Vertical <sup>1</sup>
Control Voltage Rating [V <sup>dc</sup> ]	24 - 36 - 72 - 110 <sup>1</sup>
Customer Auxiliary Blocks	2 (1 NO + 1 NC)
Feedback Signal Scope	AUX C (a1, b1)
	AUX D (a0, b0)
Block Type	PBX
Contact Material	Cu
Electric Diagram	SC27690
Layout Drawing	D55171

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



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## Description

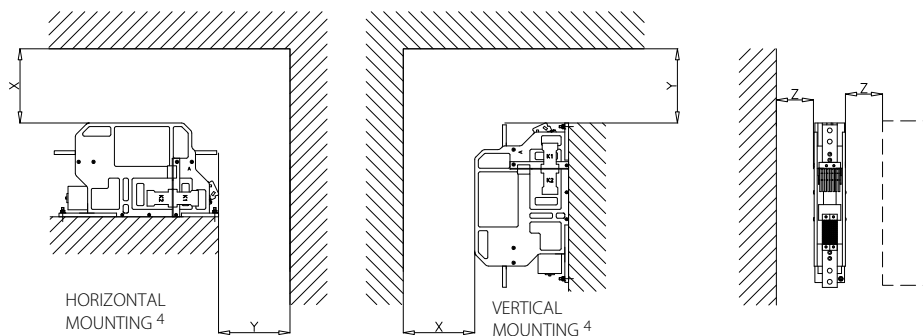
Change-over switch, electric motor control with out auxiliary relay, 2 positions, bi-stable.

Reference standard IEC 60077-2(2017), IEC 61992 and IEC 60947.

Electrical Characteristics	
Rated Operational Voltage [ $V_{ac}$ / $V_{dc}$ ]	3600
Max Operational Voltage [ $V_{ac}$ / $V_{dc}$ ]	4000
Conventional Free Air Thermal Current [A] at 40°C <sup>2</sup>	1500
Conventional Free Air Thermal Current [A] at 75°C <sup>2</sup>	1350
Main circuit resistance [ $\mu\Omega$ ] <sup>3</sup>	60
DC-Rated Operational Current ( $\tau=15ms$ ) [A]	0
DC-Maximum Breaking Capacity ( $\tau=5ms$ ) [A]	0.2
AC-Maximum Breaking Capacity ( $\cos\phi=0,8$ ) [A]	0.5
Short Circuit Withstand Capacity for 5ms [kA]	90
Component Category / Operational Frequency Class	A4 / C3
Insulation Characteristics	
Rated Insulation Voltage [V]	4000
Pollution Degree - Overvoltage Category (EN 50124-1)	PD3/OV3
Rated impulse voltage [kV]	30
Rated Power Frequency Withstand Voltage (50Hz; 60")	
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 to Earth [V]	1500
Minimum clearance distance Between open contacts [mm]	32
Minimum clarence distance between power circuit to earth [mm]	40
Minimum creepage distance	50
Comparative Tracking Index (CTI) (IEC 60112) [V]	600

<sup>2</sup> Device cabled according IEC 60947    <sup>3</sup> In new and clean condition for power loss calculation only

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



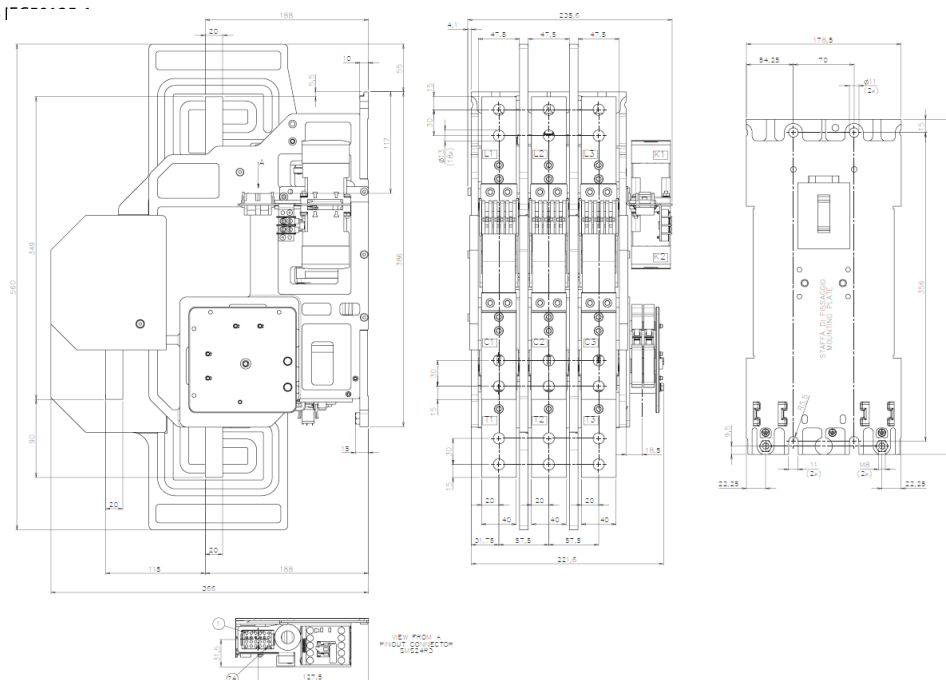
Minimum clearances [mm] from:				
Rated Operational Voltage		X	Y	Z
4000V	Metal Parts	50	50	30
	Plastic Parts	30	30	30

Mechanical Characteristics	
Mechanical Endurance (cycles)	2.5x10 <sup>5</sup>
Shock and Vibrations (IEC61373)	Cat. 1 - Class B
Weight [kg]	21
Control Circuit	
Control Voltage Range	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]	35 - 0
Mechanical Operation Time (U <sub>c</sub> and T = 20°C) when Closing - Opening [ms]	3000 - 3000
Mechanical Operation Time (in the worst condition) [ms]	6000 - 6000
Electrical Connections	Low voltage connector SOURIAU SMS24R3
Auxiliary Contacts	
Rated Operational Voltage [V <sub>ac</sub> / V <sub>dc</sub> ]	250
Conventional Free Air Thermal Current [A] at 40° C	10
Tips material Rated Current [A]	Silver Alloy (Optional: Golden Plated)
Minimum Let-Through Current at 24/72/110V <sub>dc</sub> [mA] <sup>5</sup>	20(10)/15(7.5)/10(5)
Electrical Connections	Low voltage connector SOURIAU SMS24R3
Environmental Conditions	
Stock Temperature Range	-50°C ÷ +85°C
Operational Temperature Range	Tx (-40°C ÷ +75°C) <sup>6</sup>
Max Altitude without Performance Derating [m]	2000

<sup>5</sup> Reference standard IEC 60947-5-4. Tested in a DRY and CLEAN condition with an LR load.

For different working conditioins, please contact Microelettrica.

<sup>6</sup> In according to IEC 60947-5-4.



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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