

# SWITCHES

## STANDARD FAMILY CODE LTHS03202\*A01

Family Type	LTHS 320
Number / Type of Poles	2 / NO
Connection between Poles	Single - Series - Parallel <sup>1</sup>
Mounting Position	Vertical
Control Voltage Rating U <sub>c</sub> (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	S6
Electric Diagram	-
Layout Drawing	D45592

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



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## Description

Contactor with single interruption in air, electromagnetic control by full power 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]	13.5		
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]	350	350	700
Conventional Free Air Thermal Current at 75 °C <sup>3</sup>	[A]	320	320	640
DC - Rated Operational Current (τ = 15 ms)				
1800 V	[A]	150	290	150
900 V	[A]	300	625	300
DC - Maximum Breaking Capacity (τ = 5 ms)				
1800 V	[A]	275	525	275
900 V	[A]	750	1100	750
AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz)				
1800 V	[A]	275	660	275
900 V	[A]	750	1500	750
Component Category / Operational Frequency Class		A2 / C3	A2 / C3	A2 / C3
Rated Short Time Withstand Current for 100 ms	[kA]	5	5	8
Critical Current Range	[A]	< 5A at 1800 Vdc	None	< 5A at 1800 Vdc
Fault Making Capacity	[kA]	5	5	6
Blow Out Circuit Type		Indirect Coil with Arcing Contact	Indirect Coil with Arcing Contact	Indirect Coil with Arcing Contact

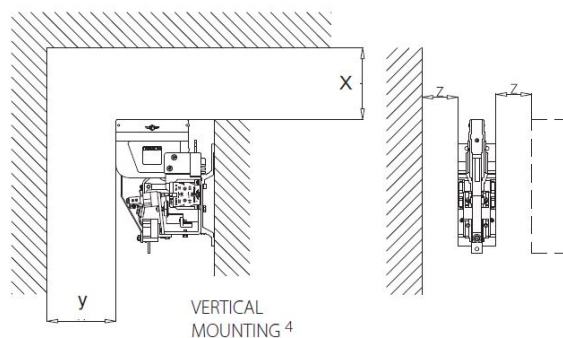
<sup>2</sup> Series or parallel bar connections are available under request

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

<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
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]	8.5
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]	32 - 32
Mechanical Operation Time (U <sub>c</sub> and T = 20 °C) when Closing - Opening	[ms]	110 - 32
Time Constant (L/R) at Pick Up - when Holding	[ms]	75 - 90
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>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

