

## SWITCHES

## STANDARD FAMILY CODE LTHS03203SA91

Family Type	LTHS 320
Number / Type of Poles	3 / NO
Mounting Position	Vertical
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	S6
Electric Diagram	-
Layout Drawing	D45827

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



## Description

Contactor with single interruption in air, electromagnetic control by full power coils. Single state functioning. Reference Standards IEC 60077, IEC 61992 and IEC 60947.

ated Operational Voltage (AC / DC)		[V]		1800 / 900 / 440	
Max Operational Voltage (AC / DC)	[V]			2000	
ted Insulation Voltage		[V]		2000	
lated 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	5	[mm]		13.5	
Minimum Clearance Distance between Power Circuit t				14	
Minimum Creepage Distance between Power Circuit t	to Earth [mm]			25	
Comparative Tracking Index (CTI) (IEC 60112)	[V]			600	
Electrical Characteristics					
Conventional Free Air Thermal Current at 40 $^\circ$ C <sup>2</sup>	[A] 3		350	350	
Conventional Free Air Thermal Current at 75 °C²	[A]		300		
DC - Rated Operational Current ( $\tau = 15 \text{ ms}$ )					
1800 V	[A]		-		
900 V	[A]		-		
440 V	[A]			-	
DC - Maximum Breaking Capacity ( $\tau = 5 \text{ ms}$ )					
1800 V	[A]	[A]		-	
2221/	[A]		-		
900 V	[A]				
900 V 440 V	[A]		-		
			-		
440 V			- 600		
440 V AC - Maximum Breaking Capacity ( $\cos \varphi = 0.8$ ; 50 Hz)	[A]				
440 V AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz) 1800 V 900 V 440 V	[A] [A]		600 1200 1800		
440 V AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz) 1800 V 900 V 440 V Component Category / Operational Frequency Class	[A] [A] [A] [A]		600 1200 1800 A2/C		
440 V AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz) 1800 V 900 V 440 V Component Category / Operational Frequency Class Rated Short Time Withstand Current	[A] [A] [A] [A] [A] [A] [kA]		600 1200 1800 A2 / C 8 (for 1		
440 V AC - Maximum Breaking Capacity (cosφ = 0,8; 50 Hz) 1800 V 900 V 440 V Component Category / Operational Frequency Class	[A] [A] [A] [A]		600 1200 1800 A2/C		

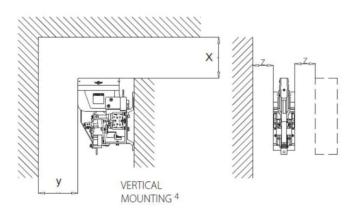
<sup>2</sup> Device cabled according IEC 60947

<sup>3</sup> Other mounting positions not allowed, reduced distances should be approved by Microelettrica

Minimum clearances [mm] from:				
Rated Op Voltage	perational	х	Y	z
1800 V	Metal Parts	120	50	50
	Plastic Parts	50	30	20

Minimum clearances [mm] from:				
Rated Op Voltage	perational	х	Y	Z
440 V	Metal Parts	100	50	30
	Plastic Parts	50	30	20

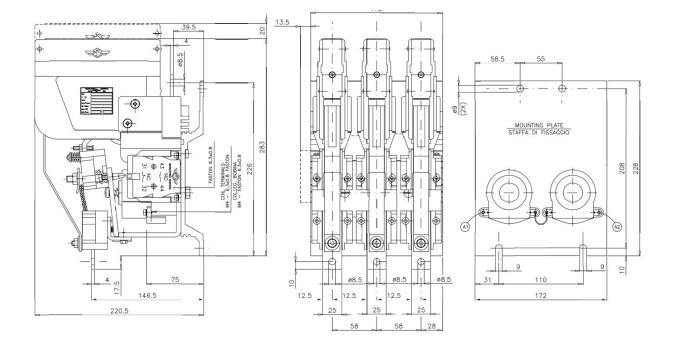
Minimum clearances [mm] from:				
Rated Operational Voltage		х	Y	Z
900 V	Metal Parts	100	50	30
	Plastic Parts	50	30	20



Mechanical Characteristics		
Mechanical Endurance	[cycles]	2 x 10 <sup>6</sup>
Shock and Vibrations (IEC 61373)		Cat.1 - Class B
Weight	[kg]	11.2
Control Circuit		
Control Voltage Range	[V]	0.7Uc ÷ 1.25Uc
Power Consumption (Uc and T = 20 °C) at Pick Up - when Holding	[W]	50 - 50
Mechanical Operation Time (Uc and T = 20 °C) when Closing - Opening	[ms]	110 - 30
Time Constant (L/R) at Pick Up - when Holding	[ms]	60 - 80
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>4</sup>	[mA]	20(10) - 15(7.5) - 10(5) <sup>4</sup>
Electrical Connections		Fast-on 6.35 x 0.8 mm
Environmental Conditions		
Stock Temperature Range	[°C]	-50 ÷ +85
Operational Temperature Range	[°C]	$Tx (-40 \div +75)^5$
Pollution Degree - Overvoltage Category (EN 50124-1)		PD3 - OV3
Max Altitude without Performance Derating	[m]	2000

<sup>4</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>5</sup> According to IEC 50125-1



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

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