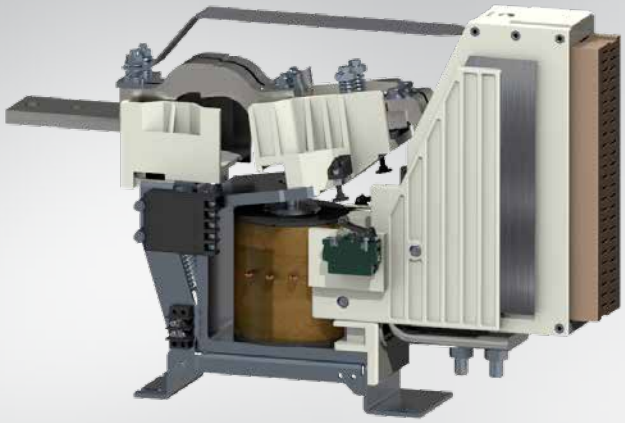


SWITCHES

STANDARD FAMILY CODE
LTHS15001*A01

Family Type	LTHS 1500
Number / Type of Poles	1 / NO
Mounting Position	Horizontal - Vertical[1]
Control Voltage Rating Uc (DC) [V]	24 - 36 - 48 - 72 - 110[1]
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	-
Layout Drawing	D48232

[1] To be specified in order phase.

MICROELETTRICA

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.

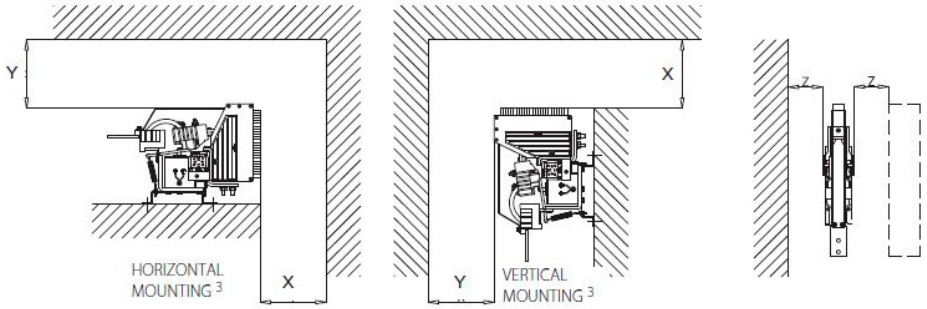
Insulation Characteristics		
Rated Operational Voltage (AC / DC)	[V]	1800 / 900
Max Operational Voltage (AC / DC)	[V]	2000
Rated Insulation Voltage	[V]	2000
Rated Impulse Voltage	[kV]	12
Rated Power Frequency Withstand Voltage (50 Hz for 60 s)		
Between HV to LV Circuit + Earth	[V]	6000
Between Open Contacts	[V]	4700
Between Each Pole (if more than 1)	[V]	-
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		
Conventional Free Air Thermal Current at 40 °C[2]	[A]	1350
Conventional Free Air Thermal Current at 75 °C[2]	[A]	1250
DC - Rated Operational Current (τ = 15 ms)		
1800 V	[A]	915
900 V	[A]	1830
DC - Maximum Breaking Capacity (τ = 5 ms)		
1800 V	[A]	1350
900 V	[A]	2500
AC - Maximum Breaking Capacity ($\cos\varphi$ = 0,8; 50 Hz)		
1800 V	[A]	1800
900 V	[A]	3750
Component Category / Operational Frequency Class		A2 / C3
Rated Short Time Withstand Current	[kA]	16 (for 5 ms)
Critical Current Range	[A]	< 50 (U > 1500 VDC)
Fault Making Capacity	[kA]	9.6
Blow Out Circuit Type		Indirect Coil

[2] Device cabled according IEC 60947

[3] 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

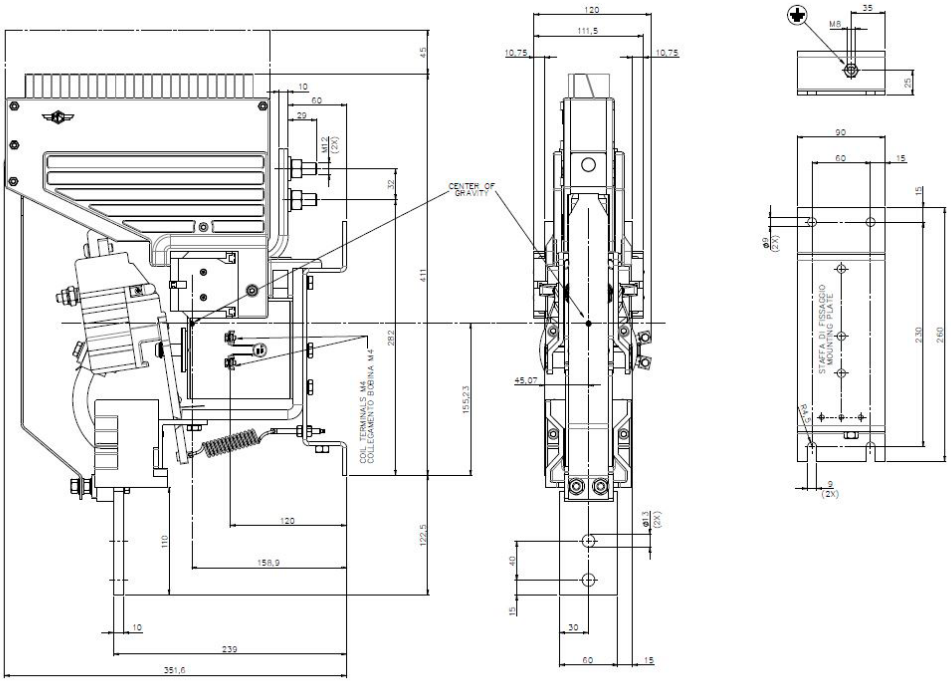
Minimum clearances [mm] from:				
Rated Operational Voltage		X	Y	Z
900 V	Metal Parts	100	50	30
	Plastic Parts	50	30	20



Mechanical Characteristics		
Mechanical Endurance	[cycles]	2 x 10^6
Shock and Vibrations (IEC 61373)		Cat.1 - Class B
Weight	[kg]	20
Control Circuit		
Control Voltage Range	[V]	0.7Uc ÷ 1.25Uc
Power Consumption (Uc and T = 20 °C) at Pick Up - when Holding	[W]	55 - 55
Mechanical Operation Time (Uc and T = 20 °C) when Closing - Opening	[ms]	280 - 60
Time Constant (L/R) at Pick Up - when Holding	[ms]	210 - 210
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[4]	[mA]	20(10) - 15(7.5) - 10(5)[4]
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)[5]
Pollution Degree - Overvoltage Category (EN 50124-1)		PD3 - OV3
Max Altitude without Performance Derating	[m]	2000

[4] 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

[5] 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

Microelettrica Scientifica S.p.A.

20090 Buccinasco (MI) , Via Lucania 2, Italy
Tel.: +39 02 575731
E-mail: info@microelettrica.com
www.microelettrica.com

KNORR-BREMSE
NEW YORK AIR BRAKE
IFE
MERAK
MICROELETTRICA
SELECTRON
EVAC
ZELISKO
RAILSERVICES

This publication may be subject to alteration without prior notice. Therefore, a printed copy of this document may not be the latest revision. Please contact your local representative for the latest update. The trademarks K Microelettrica, Knorr and Knorr-Bremse as well as the figurative mark "K" are registered. Copyright © Knorr-Bremse AG and Microelettrica Scientifica S.p.A. - all rights reserved, including industrial property rights application. Knorr-Bremse AG and Microelettrica Scientifica S.p.A. retain any power of disposal, such as for copying and transferring

LTHS15001_A01_Rev13_05/2024_DP