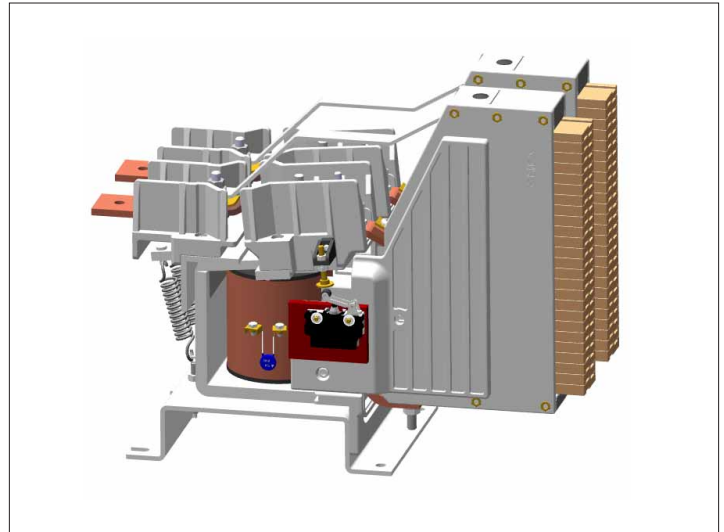


## Standard Family Code LTHS04012DAA0

|   |                                      |
|---|--------------------------------------|
| Mounting Position                         | Horizontal - Vertical <sup>1</sup>   |
| Connection between poles                  | Single, series or parallel           |
| Control Voltage Rating [V <sup>ac</sup> ] | 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                          | -                                    |
| Layout Drawing                            | D54033                               |



### Description

Contactors with single interruption in air, electromagnetic control by full power coil. Single state functioning.  
Reference Standard IEC 60077, IEC 61992 and IEC 60947.

### Insulation Characteristics

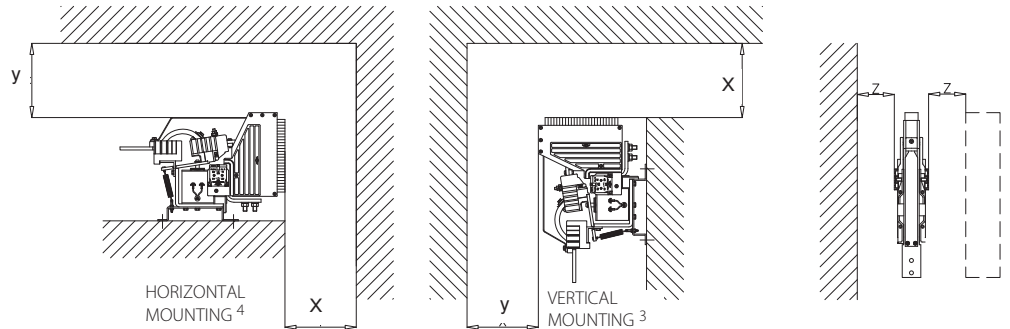
|  |                         |
|--|-------------------------|
| Rated Operational Voltage [V <sub>ac</sub> / V <sub>dc</sub> ] | 900 / 1800 <sup>1</sup> |
| Max Operational Voltage [V <sub>ac</sub> / V <sub>dc</sub> ]   | 2000                    |
| Rated Insulation Voltage [V]                                   | 2000                    |
| Rated impulse voltage [kV]                                     | 30                      |
| Rated Power Frequency Withstand Voltage (50Hz; 60")            |                         |
| 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 to Earth [V]                                | 1500                    |
| Minimum clearance distance Between open contacts [mm]          | 16                      |
| Minimum clearance distance between power circuit to earth [mm] | 30                      |
| Minimum creepage distance                                      | 80                      |
| Comparative Tracking Index (CTI) (IEC 60112) [V]               | 600                     |

### Electrical Characteristics

| Connection   | Single Pole        | Series Connected <sup>3</sup> | Parallel Connected <sup>3</sup> |
|--|--------------------|-------------------------------|---------------------------------|
| Arc chute Type   |                    | Ceramic                       |                                 |
| Conventional Free Air Thermal Current [A] at 40°C <sup>2</sup> | 500                | 500                           | 1000                            |
| Conventional Free Air Thermal Current [A] at 75°C <sup>2</sup> | 400                | 400                           | 800                             |
| DC-Rated Operational Current (τ=15ms) [A]                      |                    |                               |                                 |
| 1800V  | 225                | 500                           | 225                             |
| 900V   | 665                | 1400                          | 665                             |
| DC-Maximum Breaking Capacity (τ=5ms) [A]                       |                    |                               |                                 |
| 1800V  | 415                | 915                           | 415                             |
| 900V   | 1160               | 2500                          | 1160                            |
| AC-Maximum Breaking Capacity (cosφ=0,8; 50Hz) [A]              |                    |                               |                                 |
| 1800V  | 800                | 1800                          | 800                             |
| 900V   | 2000               | 4500                          | 2200                            |
| Short Circuit Withstand Capacity for 5ms [kA]                  | 10                 | 10                            | 18                              |
| Critical Current Range [A]                                     | < 50 (U > 1500Vdc) | < 25 (U > 1500Vdc)            | < 50 (U > 1500Vdc)              |
| Fault Making Capacity [kA]                                     | 6                  | 6                             | 10                              |
| Component Category / Operational Frequency Class               | A2 / C3            |                               |                                 |
| Blow Out Circuit Type  | Indirect coil      |                               |                                 |

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

| Minimum clearances [mm] from: |               |     |    |    |
|-------------------------------|---------------|-----|----|----|
| Rated Operational Voltage     | X             | Y   | Z  |    |
| 1800V                         | Metal Parts   | 120 | 50 | 40 |
|                               | Plastic Parts | 50  | 30 | 20 |



**Mechanical Characteristics**

|                                 |                   |
|---------------------------------|-------------------|
| Mechanical Endurance (cycles)   | 2x10 <sup>6</sup> |
| Shock and Vibrations (IEC61373) | Cat. 1 - Class B  |
| Weight [kg]                     | 23                |

**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]       | 60 - 60                                |
| Mechanical Operation Time (U <sub>c</sub> and T = 20°C) when Closing - Opening [ms] | 230 - 45                               |
| Time Constant (L/R) at Pick Up - when Holding [ms]                                  | 190 - 215                              |
| Electrical Connections  | Fast-On 6.35x0.8mm                     |

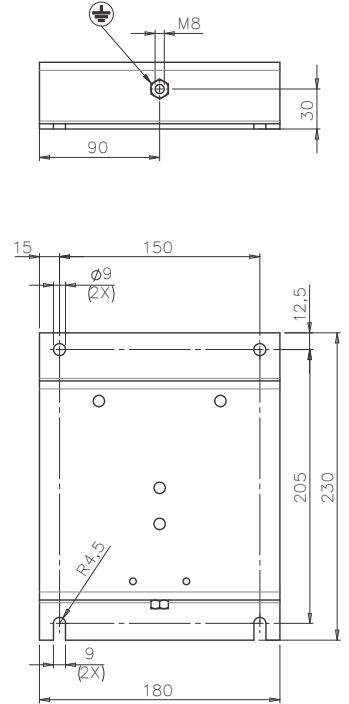
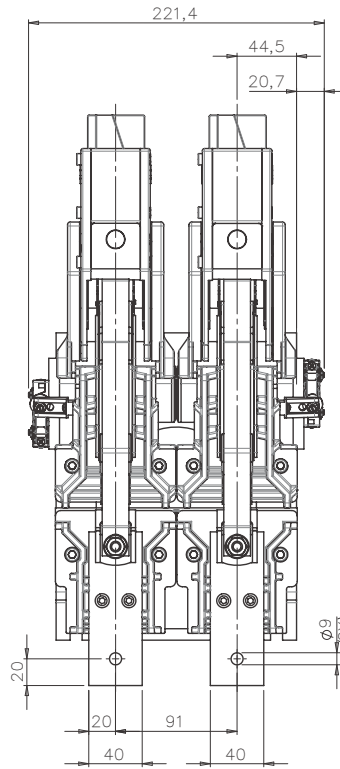
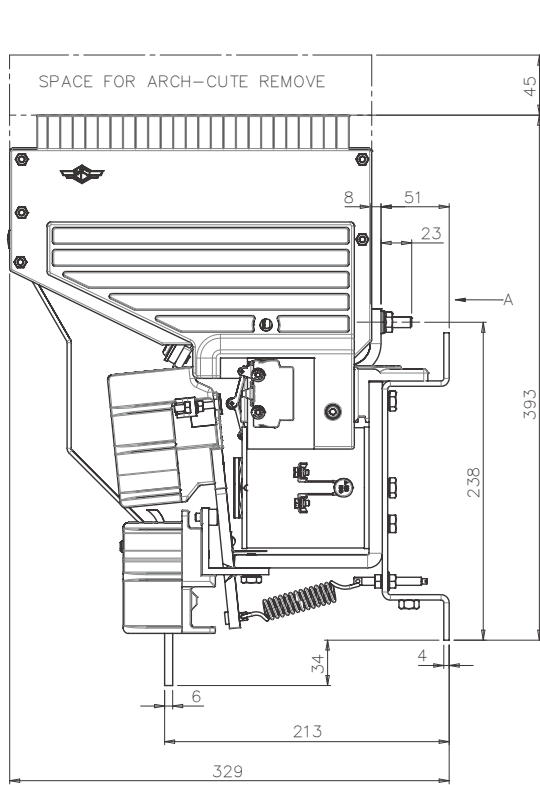
**Auxiliary Contacts**

|   |  |
|---|--|
| Rated Operational Voltage [V <sub>ac</sub> / V <sub>dc</sub> ]            | 250                                    |
| Conventional Free Air Thermal Current [A] at 40° C                        | 10                                     |
| Tips material   | 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  | Fast-On 6.35x0.8mm                     |

**Environmental Conditions**

|  |                                 |
|--|---------------------------------|
| Stock Temperature Range                              | -50°C ÷ +85°C                   |
| Operational Temperature Range                        | Tx (-40°C ÷ +75°C) <sup>6</sup> |
| Pollution Degree - Overvoltage Category (EN 50124-1) | PD3 - OV3                       |
| Max Altitude without Performance Derating [m]        | 2000                            |

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



**Notes:**

1. To be specified in order phase
2. Device cabled according IEC 60947
- 3 Series or parallel bar connections are available under request

4. Other mounting positions not allowed, reduced distances should be approved by MS.

5. Reference standard IEC 60947-5-4. Tested in a DRY and CLEAN condition with an LR load. For different working conditions, please contact MS.

6. According to IEC50125-1



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