

# Mini Thermal Overload Relays RTX<sup>3</sup> mini

Cat. N°(s) : 4 170 80..93

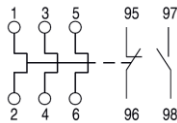


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## 1. DESCRIPTION - USE

They ensure the thermal protection of circuits, against overload, long starting times, and phase failure.

### Symbol:



## 2. RANGE

### Number of Poles:

. Triple pole (3P).

### Setting range:

. 0.1 to 16 [A].

### Rated operational voltage:

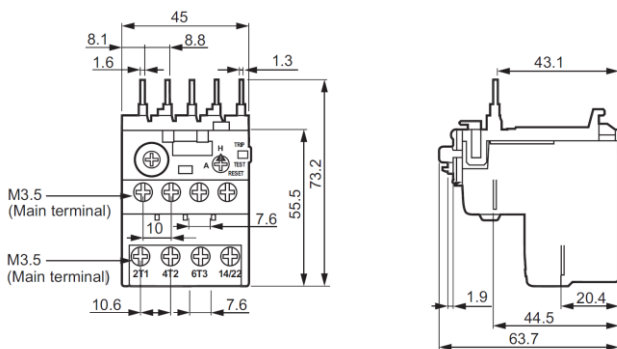
. U<sub>e</sub> = 690 [V].

### Rated frequency:

. 50 / 60 [Hz].

## 3. OVERALL DIMENSIONS

### RTX<sup>3</sup> mini:



## 4. INSTALLATION - CONNECTION

### Mounting position:

- . Vertical plane.
- . Direct connection beneath CTX<sup>3</sup> mini contactors.

### Operating position:

- . ± 30 [°] possible, in relation to normal vertical mounting plane.

### Supply:

- . Either from the top or the bottom.

### Size of wire connecting torque:

Screw	Wire	Torque
M3.5	1.25 to 2 [mm <sup>2</sup> ]	0.8 [Nm]

### Connection:

- . Terminals protected against direct contact (IP20).
- . Terminals with release and captive screws.
- . Screw head : slotted and pozidriv n°2.

### Tools required:

- . Pozidriv N°2 screwdriver recommended.
- . Flat screwdriver Ø5 to Ø6 [mm] Maximum.

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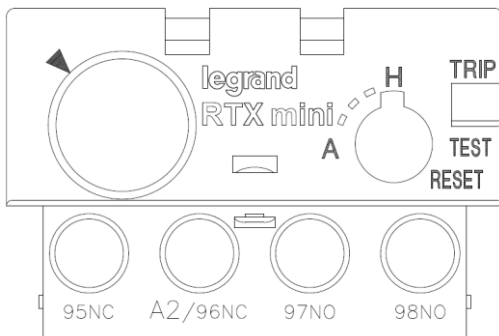
## 5. GENERAL CHARACTERISTICS

### Front side:

. By dark grey laser or pad printing:

- Brand: Legrand
- Range: RTX mini
- Marking power terminals
- Marking auxiliary terminals

RTX<sup>3</sup> mini: (Example of marking)



### Left side:

. By identification label.

Rating		0.16A	0.25A	0.40A	0.63A	1.0A	1.6A	2.5A
CAT n°	4170 80	4170 81	4170 82	4170 83	4170 84	4170 85	4170 86	4170 86
Rating		4.0A	6.0A	8.0A	9.0A	10.0A	13.0A	16.0A
CAT n°	4170 87	4170 88	4170 89	4170 90	4170 91	4170 92	4170 93	4170 93

 IEC60947 VDE0660 BS5424 K60947 U <sub>i</sub> : 690V U <sub>imp</sub> : 6kV TRIP CLASS 10A	 70CK IND.CONT.EQ.	MAX 600V AC								
		CLASS 10								
AWG18-12 60/75 °C CU WIRE ONLY TORQUE: 7lb.in C600										
<table border="1"> <tr> <th>U<sub>e</sub></th> <td>110</td> <td>230</td> <td>550</td> </tr> <tr> <th>AC15</th> <td>2.5</td> <td>2</td> <td>1</td> </tr> </table>	U <sub>e</sub>	110	230	550	AC15	2.5	2	1		
U <sub>e</sub>	110	230	550							
AC15	2.5	2	1							
MADE IN KOREA	79611821045									

### Rated impulse voltage and rated insulation voltage:

Type of products	Rated impulse voltage (U <sub>imp</sub> )	Rated insulation voltage (U <sub>i</sub> )
RTX <sup>3</sup> mini	6 [kV]	690 [V]

## 5. GENERAL CHARACTERISTICS (continued)

### Ambient operating temperature: (standard +20°C)

. Min. = -5°C. Max. = +40°C.

### Ambient storage temperature:

. Min. = -30°C. Max. = +65°C.

### Max. temperature inside a panel:

. +55°C.

### Relative humidity:

. 45 ~ 85% RH.

### Weight:

. RTX<sup>3</sup> mini = 0.1 [kg]

### Degree of protection:

. IP20.

### Flame resistance:

. Conforming to UL = V0.

. Conforming to IEC 695-2-1 = 960 [°C].

### Maximum operating altitude:

. 2000 [m].

### Shock resistance:

. 5 [g].

### Vibration resistance:(10 - 55 [Hz])

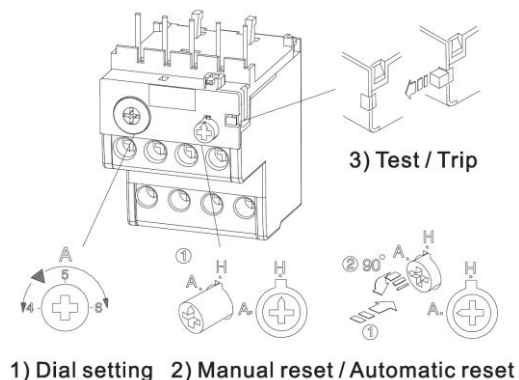
. 2 [g].

### Trip class:

. Class 10A.

### Functions:

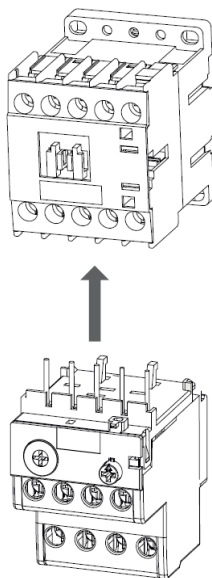
- . Trip indicating.
- . Test.
- . Manual / Automatic reset.



## 5. GENERAL CHARACTERISTICS *(continued)*

### Coordination:

- . Trip class 10A.
- . Direct association to mini contactors with CTX<sup>3</sup> mini.



Setting range - [A]	Thermal Overload Relay - RTX <sup>3</sup>	Contactor - CTX <sup>3</sup>
0.1~0.16	RTX <sup>3</sup> mini	CTX <sup>3</sup> mini 3P 6 [A] 9 [A] 12 [A] 16 [A]
0.16~0.25		
0.25~0.4		
0.4~0.63		
0.63~1		
1~1.6		
1.6~2.5		
2.5~4		
4~6		
5~8		
6~9		
7~10		
9~13		
12~16		

## 6. CONFORMITIES AND APPROVALS

### Compliance to standards:

- . Standards references: IEC/EN 60 947-1, IEC/EN 60 947-4-1.
- . Certifications: CE, UL.

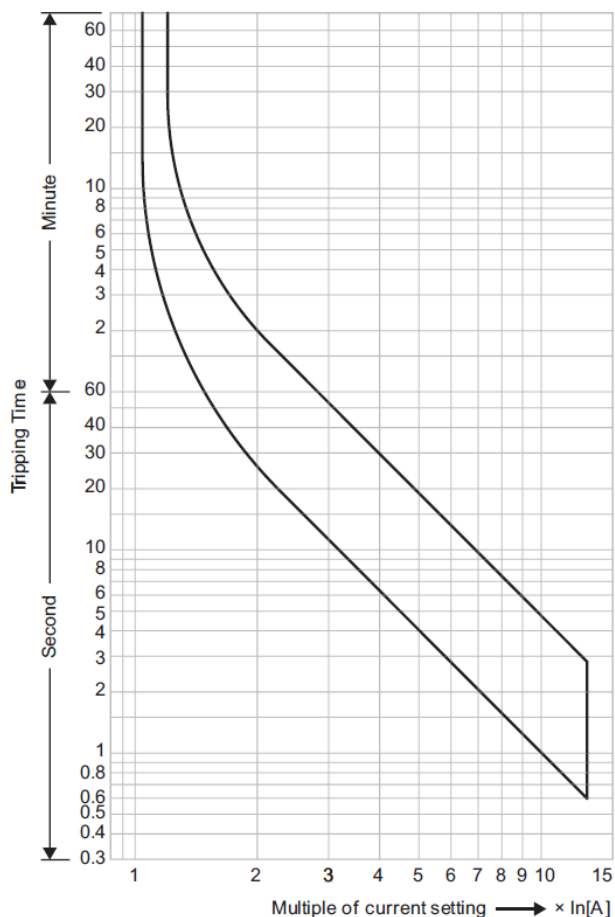
## 7. CURVES

Time / Current tripping curve:

RTX<sup>3</sup> mini:

. Class 10A.

- Cold starting:



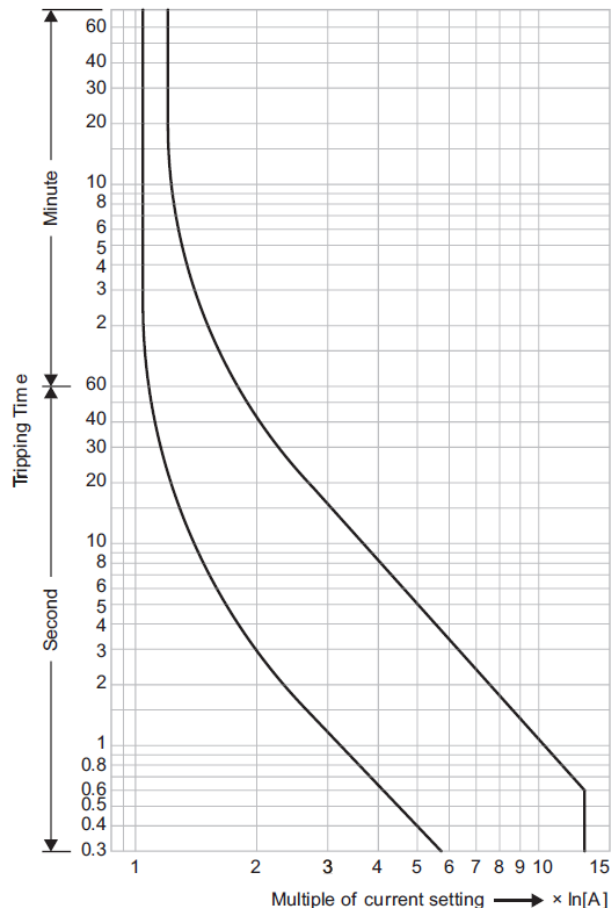
## 7. CURVES (continued)

Time / Current tripping curve:

RTX<sup>3</sup> mini: (continued)

. Class 10A.

- Hot starting:



## 8. AUXILIARIES AND ACCESSORIES

Accessories:

Installation software:

. XL PRO<sup>3</sup>.