

## Specifications



## Thermal Overload Relay, UER1-90, Class 10A

### Main

Product Series	UER1	
Product or Component Type	Thermal overload relay	
Device Short Name	UER1-90	
Relay Application	Motor protection	
Product Compatibility	UEC1-40 ~ 95	
Thermal Protection Adjustment Range	Code	Current setting range A
	25	17 ~ 25
	36	24.5 ~ 36
	47	35 ~ 47
	60	45 ~ 60
	75	58 ~ 75
	90	72 ~ 90
	97	77 ~ 97

### Complementary

Control Type	Red push-button stop (make the NC contact move without affecting the NO contact )
	Blue push-button reset
Auxiliary Contact Composition	1NO+1NC
Permissible Current	6A 120V AC-15 signalling circuit
	3A 240V AC-15 signalling circuit
	1.9A 380V AC-15 signalling circuit

	1.5A 480V AC-15 signalling circuit
	1.4A 500V AC-15 signalling circuit
	1.2A 600V AC-15 signalling circuit
	0.55A 120V DC-13 signalling circuit
	0.27A 240V DC-13 signalling circuit
Trip Class	Class 10A IEC 60947-4-1
Tripping Threshold	1.16 ± 0.08 In IEC 60947-4-1
Phase Failure Sensitivity	Tripping current 130 % of Ir on two phase, the last one at 0 IEC 60947-4-1
[Uimp] Rated Impulse Withstand Voltage	6 kV
[Ith] Conventional Free Air Thermal Current	10 A signalling circuit
Mounting Support	Combined mounting: Plug connect with AC contactor Independent mounting: Screw or 35mm DIN rail
Connections-Terminals	Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> (AWG 18...14) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> (AWG 18...14) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> (AWG 18...14) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> (AWG 18...14) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> (AWG 18...14) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> (AWG 18...14) - cable stiffness: solid without cable end Control circuit: screw M3.5, terminal width ≤ 8.1 mm

	<p>Code &lt; 60:</p> <p>Power circuit: screw clamp terminals 1 2.5...16 mm<sup>2</sup> (AWG 14...6) - cable stiffness: flexible without cable end</p> <p>Power circuit: screw clamp terminals 2 2.5...16 mm<sup>2</sup> (AWG 14...6) - cable stiffness: flexible without cable end</p> <p>Power circuit: screw clamp terminals 1 2.5...16 mm<sup>2</sup> (AWG 14...6) - cable stiffness: flexible with cable end</p> <p>Power circuit: screw clamp terminals 2 2.5...16 mm<sup>2</sup> (AWG 14...6) - cable stiffness: flexible with cable end</p> <p>Power circuit: screw clamp terminals 1 2.5...16 mm<sup>2</sup> (AWG 14...6) - cable stiffness: solid without cable end</p> <p>Power circuit: screw clamp terminals 2 2.5...16 mm<sup>2</sup> (AWG 14...6) - cable stiffness: solid without cable end</p>
	<p>Code ≥ 60:</p> <p>Power circuit: screw clamp terminals 1 10...35 mm<sup>2</sup> (AWG 8...2) - cable stiffness: flexible with cable end</p> <p>Power circuit: screw clamp terminals 2 6...16 mm<sup>2</sup> (AWG 10...6) - cable stiffness: flexible with cable end</p>
Tightening Torque	<p>Control circuit: 7...11 lb.in (0.8...1.2 N·m) - on screw clamp terminals</p> <p>Power circuit:</p> <p>Code &lt; 60: 40...44 lb.in (4.5...5 N·m) - on screw clamp terminals</p> <p>Code ≥ 60: 71...80 lb.in (8...9 N·m) - on screw clamp terminals</p>
Height	<p>Combined mounting: 83.5 mm (code &lt; 60) ; 111 mm (code ≥ 60)</p> <p>Independent mounting: 78.5 mm (code &lt; 60) ; 135.5 mm (code ≥ 60)</p>
Width	<p>Combined mounting: 56 mm</p> <p>Independent mounting: 56 mm</p>
Depth	<p>Combined mounting: 97.5 mm</p> <p>Independent mounting: 104 mm</p>
Net Weight	<p>Combined mounting: 0.323 kg (code &lt; 60) ; 0.396 kg (code ≥ 60)</p> <p>Independent mounting: 0.376 kg (code &lt; 60) ; 0.525 kg (code ≥ 60)</p>

## Environment

Standards	<p>GB/T 14048.4, GB/T 14048.5, IEC/EN 60947-4-1, IEC/EN 60947-5-1,</p> <p>BS EN 60947-4-1, BS EN 60947-5-1</p>
-----------	--

Product Certifications	CCC, CE, UKCA
IP Degree Of Protection	IP20 (suitable for front) (except for external terminals)
Ambient Air Temperature For Operation	-5...+60 °C
Ambient Air Temperature For Storage	-40...+70 °C
Operating altitude	0... 2000 m without derating

<b>Packing Units</b>	Combined	Combined	Independent	Independent
	mounting (code < 60)	mounting (code ≥ 60)	mounting (code < 60)	mounting (code ≥ 60)
Unit Type Of Package 1	1 box	1 box	1 box	1 box
Number Of Units In Package 1	1 pcs	1 pcs	1 pcs	1 pcs
Package 1 Height	8.7 cm	11.8 cm	8.7 cm	10.8 cm
Package 1 Width	5.9 cm	6.1 cm	5.9 cm	6.1 cm
Package 1 Length	10.8 cm	10.3 cm	10.8 cm	14.0 cm
Package 1 Weight	0.37 kg	0.45 kg	0.43 kg	0.58 kg
Unit Type Of Package 2	1 carton	1 carton	1 carton	1 carton
Number Of Units In Package 2	24 pcs	24 pcs	24 pcs	16 pcs
Package 2 Height	25.8 cm	24.8 cm	25.8 cm	25.8 cm
Package 2 Width	27.6 cm	28.4 cm	27.6 cm	28.4 cm
Package 2 Length	30.1 cm	39.4 cm	30.1 cm	32.0 cm
Package 2 Weight	9.60 kg	11.40 kg	10.90 kg	10.20 kg

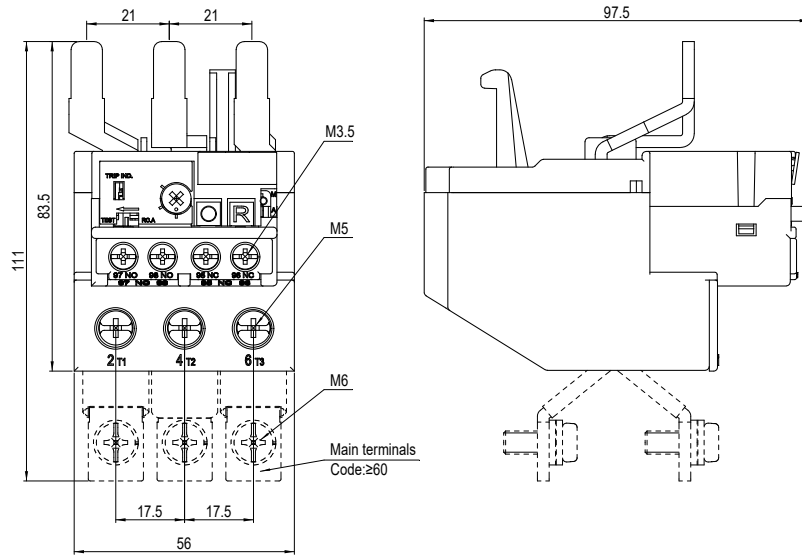
## Offer Sustainability

EU RoHS Directive	Conforming
Mercury Free	Yes
China RoHS Regulation	Conforming
Products Outside China RoHS Control	Yes
RoHS Exemption Information	Yes

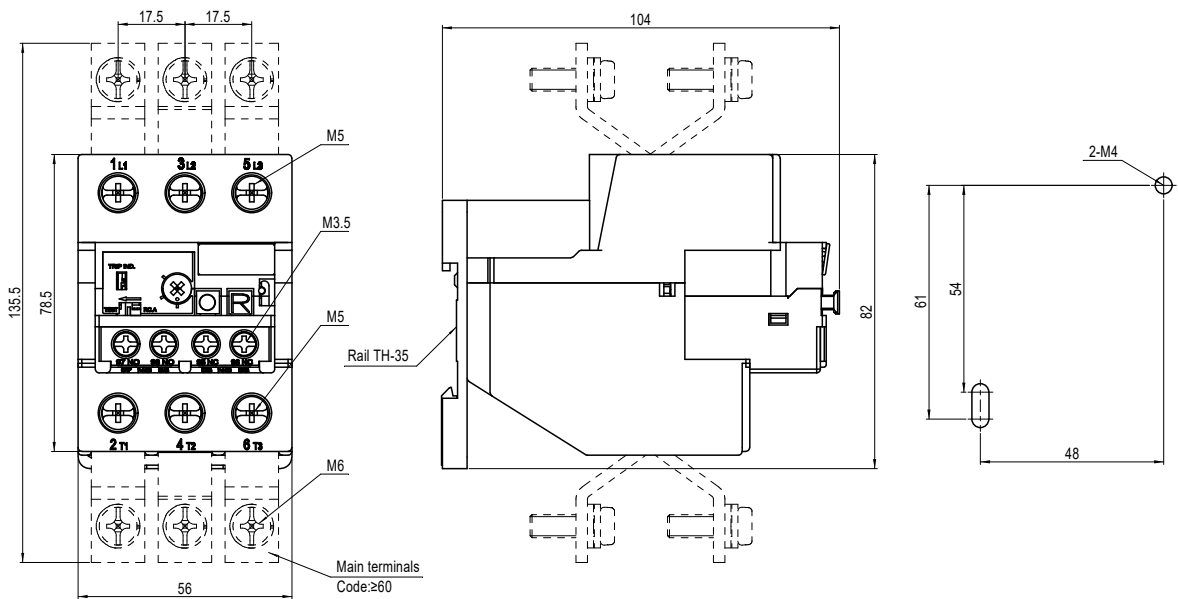
## Contractual warranty

Warranty	18 months
----------	-----------

## Dimensions



UER1-90/□□Z combined mounting



UER1-90/□□D independent mounting

Note: The unit is mm. The tolerance for mounting holes:  $\pm 0.5$ ; for other external dimensions:  $\pm 2$ , unless otherwise specified.

### Circuit Diagram

