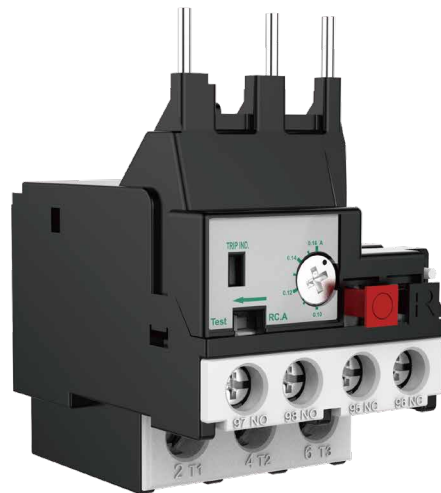


MOTOR CONTROL AND PROTECTION COMPONENTS

UER3-40 Thermal Overload Relays



INTRODUCTION

Hongfa, (Shanghai Stock Exchange: 600885), founded in 1984, has been adhering to the enterprise spirit of “persevere for progress, strive for excellence”, and has built a complete industry system with complete categories and supporting facilities. At present, Hongfa has more than 30 subsidiaries and has established three districts of R & D and production bases. Its products cover various categories, such as medium and low voltage products, relays, high and low voltage switchgear, capacitors, precision parts and automation equipment.

Xiamen Hongfa Electrical Safety & Controls Co., Ltd. is a wholly-owned subsidiary of Hongfa, which specializes in R & D, design and manufacture medium and low voltage products. Its distribution apparatus, terminal apparatus, control apparatus and other products are widely used in real estate, electric power, new energy, industry, HVAC, transportation, information and other fields.

In the United States, Europe, Southeast Asia and other regions, Hongfa has established localized marketing and service networks with global market operation and technical service. Relying on professional and rigorous technical support, fast response and all-round service, safe and reliable product quality and high cost performance, Hongfa has reached business cooperation relationship with many global top 500 enterprises and other well-known enterprises, such as Enel, GE, Honeywell, Carrier, Trane, Johnson Controls, Danfoss, State Grid, China Southern Power Grid, CRRC, China Mobile, China Unicom, etc.



Sunban Industrial Park



Donglin Industrial Park



Haicang Industrial Park



Zhongjiang Industrial Park



Zhangzhou Industrial Park



Zhoushan Industrial Park



Xi'an Factory

In terms of technology R & D and manufacturing, taking the national enterprise technology center as the platform, Hongfa has set up postdoctoral research workstation, academician and expert workstation. Now it has developed into a leading scientific research and production base in the industry. From product development, mold manufacturing, parts manufacturing, automated product assembly and online testing, Hongfa has successfully built an integrated whole industry chain of medium and low voltage products. In terms of product testing, Hongfa testing center has passed the certification of VDE, UL, CNAS and other international organizations, and has complete testing and analysis equipment for low-voltage products, such as 50kA ultimate short circuit test, 8kA electrical life test, 80kA characteristic test, mechanical simulation and testing system, electro-magnetic simulation and testing system.

Hongfa always adheres to the policy of "focused on the market, winning through quality", and has a completed quality assurance system. Its products have passed UL / CUL, VDE, CQC, CCC and other international safety certification. In the process of quality management, Hongfa actively implements the advanced quality concept, constantly improves the quality management system, continuously promotes the product process quality control and testing, strengthens the supply chain management, and is committed to providing each customer with high-quality products and creating greater value.

Advanced technology and strict quality control have created Hongfa's brand strength. Hongfa is willing to work hand in hand with global customers to share the convenience and well-being brought by science and technology.

CONTENT

UER3-40 Thermal Overload Relays

01

Product Overview

05

02

Ordering Information

06

03

Technical Data

07

04

Dimensions

12

05

Circuit Diagram

14

06

Tripping Curve

14

07

Reference Selection Table

15

NOTE:

The contents and data in this catalogue are not binding. We reserve the right to modify the contents of this document on the basis of technical development of the products, without prior notice. The real order requirements and technical agreements shall prevail.

UER3-40

Thermal Overload Relays




Product Overview

The UER3-40 of thermal overload relay ranges up to an insulation voltage of 690V and an operational voltage of 690V, and can be driven by both 50Hz and 60Hz. It can provide current overload protection and phase loss protection, and the setting current is adjustable(0.1...38A). It is also with the function of temperature compensation, action indication, automatic and manual reset and stop, etc.

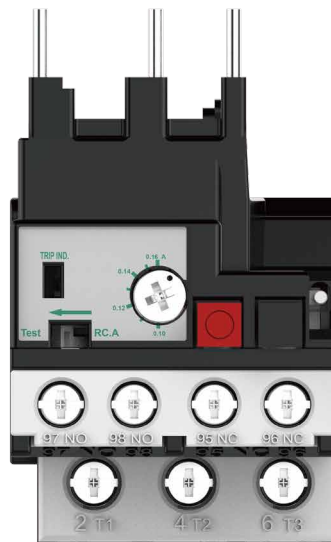
Product Features

- Temperature self-compensation design can adjust the compensation to improve the reliability of products.
- Auxiliary contact design of 1NO + 1NC can be used for the control of two different power sources.
- With manual reset and automatic reset switching button, easy for switching.

Approval Certificate

	CCC	GB/T 14048.4, GB/T 14048.5
	CE	IEC/EN 60947-4-1, IEC/ EN 60947-5-1
	UKCA	BS 60947-4-1, BS 60947-5-1

Product Appearance



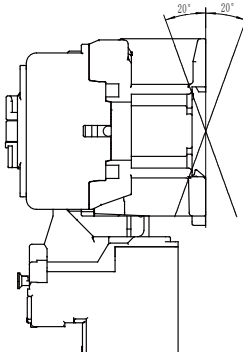
Ordering Information








	UER	3	-	40	/	0.16	A	Z
Thermal overload relays								
Design series number								
Reference code								
40: Setting current 0.1...38A								
Code for the current setting range: See Table 1								
Function								
A: Three phase overload protection and phase loss protection								
B: Three phase overload protection								
Mounting method								
Z: Combined mounting (Direct mounting on contactor)								

Table 1

Type	Code for the current setting range		
	Code	Current setting range (A)	Coordinate with contactors
UER3-40	0.16	0.1...0.16	UEC3-09~38
	0.25	0.16...0.25	
	0.4	0.25...0.4	
	0.5	0.35...0.5	
	0.63	0.45...0.63	
	0.8	0.55...0.8	
	1.0	0.75...1.0	
	1.3	0.9...1.3	
	1.6	1.1...1.6	
	2.0	1.4...2.0	
	2.5	1.8...2.5	
	3.2	2.3...3.2	
	4.0	2.9...4.0	
	4.8	3.5...4.8	
	6.3	4.5...6.3	
	7.5	5.5...7.5	
	10	7.2...10	
	12.5	9...12.5	UEC3-12~38
	16	11.3...16	UEC3-18~38
	20	15...20	
21.5	17.5...21.5	UEC3-25~38	
25	21...25		
30	24.5...30	UEC3-32~38	
36	29...36	UEC3-09~38	
38	33...38		

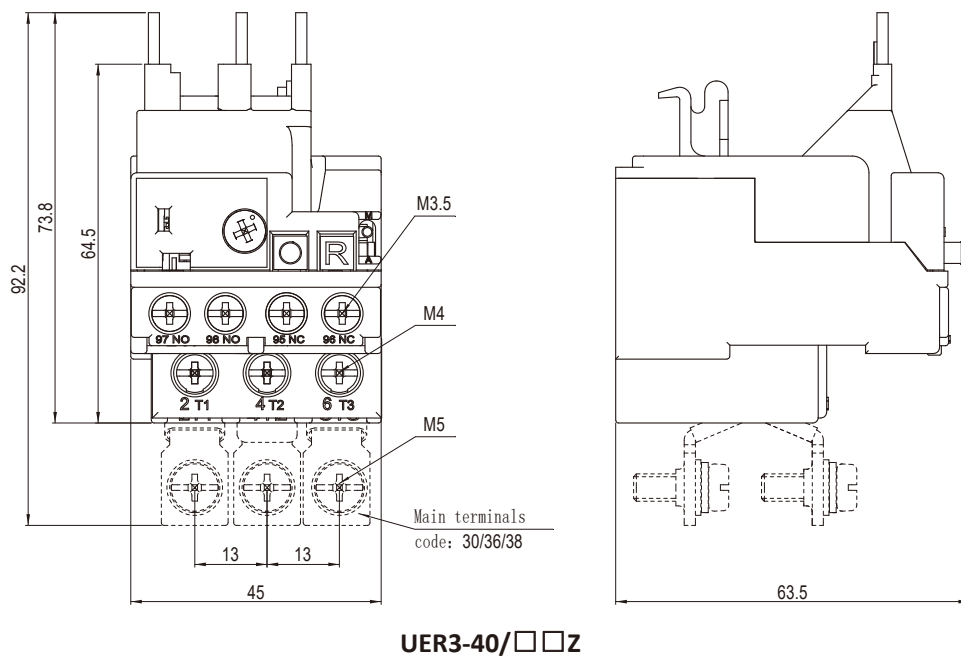
Technical Data

Parameters		Type	UER3-40					
			Code<30			Code≥30		
Operating environment								
Rated insulation voltage U_i		V	690					
Rated impulse withstand voltage U_{imp}		kV	6					
Tripping class			10A					
Degree of protection (front only)			IP20			IP20 (except for external terminals)		
Ambient air temperature	Storage	°C	-40...+70					
	Operation	°C	-5...+60					
Max. operating altitude (No derating)		m	2000					
Pollution degree			3					
Mounting type	Combined mounting		Plug connect with AC contactor					
Flame resistance			Current-carrying part: 850°C					
Operating position			Vertical mounting(±20°)					
								
Built-in auxiliary contacts								
Number of auxiliary contacts			1NO+1NC					
Highest rated operation voltage U_e		V	690					
Rated insulation voltage U_i		V	690					
Min. switching capacity	U_{min}	V	24					
	I_{min}	A	0.1					
A600 AC-15	Conventional enclosed thermal current I_{the}	A	10					
	Rated operational voltage U_e	V	120	240	380	480	500	600
	Rated operational current	A	6	3	1.9	1.5	1.4	1.2
	Make apparent power VA rating	VA	7200					
	Break apparent power VA rating	VA	720					
Q300 DC-13	Conventional enclosed thermal current I_{the}	A	2.5					
	Rated operational voltage U_e	V	125	240	-	-	-	-
	Rated operational current	A	0.55	0.27	-	-	-	-
	Make apparent power VA rating	VA	69					
	Break apparent power VA rating	VA	69					

Parameters			UER3-40	
			Code < 30	Code ≥ 30
Power circuit connections				
Solid cable without cable end 	1 conductor	mm ²	1...6	—
	2 conductors	mm ²		
Flexible cable without cable end 	1 conductor	mm ²	1...6	—
	2 conductors	mm ²		
Flexible cable with cable end 	1 conductor	mm ²	1...6	1...6
	2 conductors	mm ²		
Screwdriver	Philips screwdriver		N° 2	
	Φ Slotted screwdriver		Φ6	
Tightening torque (Nm)			2.2	2.5
Built-in auxiliary circuit connections				
Solid cable without cable end 	1 conductor	mm ²	1...2.5	
	2 conductors	mm ²		
Flexible cable without cable end 	1 conductor	mm ²		
	2 conductors	mm ²		
Flexible cable with cable end 	1 conductor	mm ²		
	2 conductors	mm ²		
Lugs 	L mm ≤		8.1	
	l mm >		3.7	
Screwdriver	Philip screwdriver		N° 2	
	Φ Slotted screwdriver		Φ6	
Tightening torque			N.m	1.2

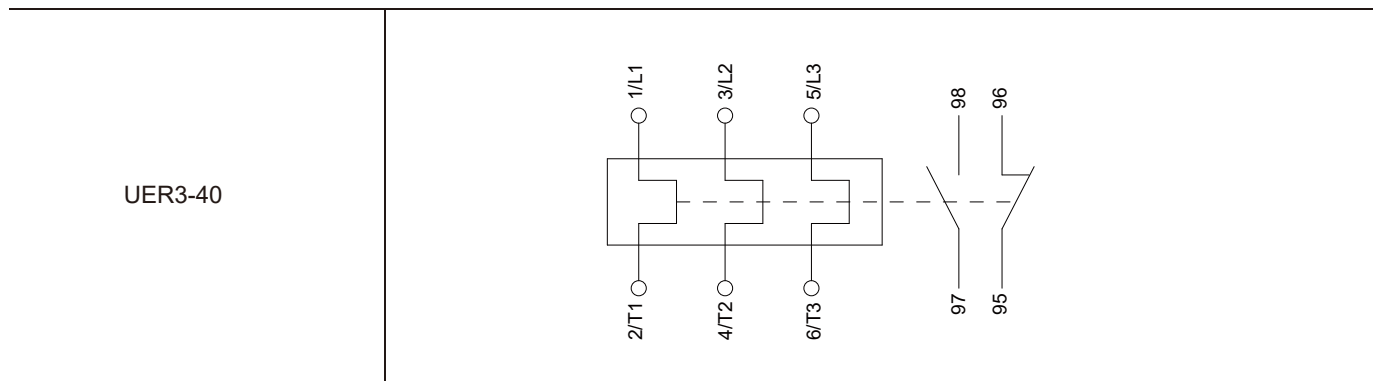
Dimensions

单位: mm

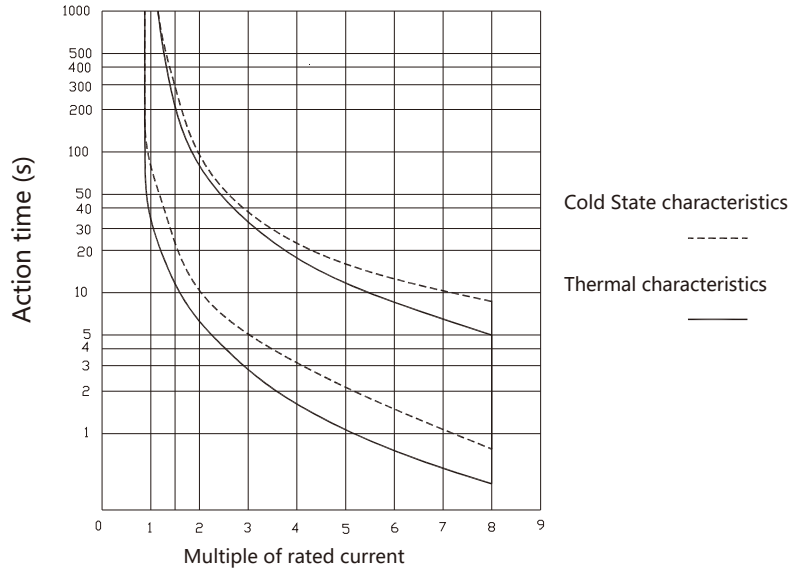


Note: The Unit is mm. The tolerance for dimensions: ± 2 , unless otherwise specified.

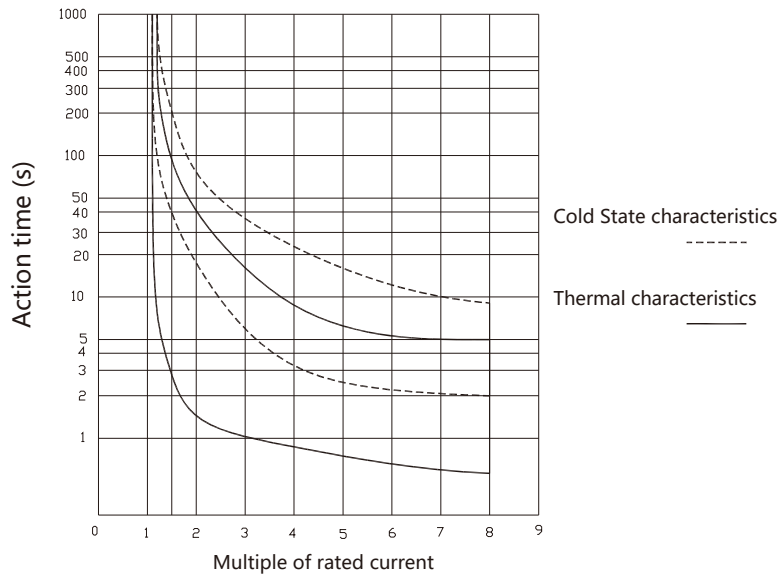
Dimensions



Tripping Curve



Action time characteristics of UER3-40 phase loss



Action time characteristics of UER3-40 three phase overload

Reference Selection Table

UER3-40 thermal overload relay					
Type	Current setting range	Coordinate with fuse		Coordinate with contactors (Combined mounting)	Net weight
Combined mounting	A	aM A	gG A		kg
UER3-40/0.16AZ	0.1~0.16	0.25	2	UEC3-09~38	0.114
UER3-40/0.25AZ	0.16~0.25	0.5	2		0.114
UER3-40/0.4AZ	0.25~0.4	1	2		0.114
UER3-40/0.5AZ	0.35~0.5	1	2		0.114
UER3-40/0.63AZ	0.45~0.63	1	2		0.114
UER3-40/0.8AZ	0.55~0.8	1	2		0.114
UER3-40/1.0AZ	0.75~1.0	2	4		0.114
UER3-40/1.3AZ	0.9~1.3	2	4		0.114
UER3-40/1.6AZ	1.1~1.6	2	4		0.114
UER3-40/2.0AZ	1.4~2.0	4	6		0.114
UER3-40/2.5AZ	1.8~2.5	4	6		0.114
UER3-40/3.2AZ	2.3~3.2	4	6		0.114
UER3-40/4.0AZ	2.9~4.0	6	10		0.114
UER3-40/4.8AZ	3.5~4.8	6	10		0.114
UER3-40/6.3AZ	4.5~6.3	8	16		0.114
UER3-40/7.5AZ	5.5~7.5	12	20	0.114	
UER3-40/10AZ	7.2~10	12	20	0.114	
UER3-40/12.5AZ	9~12.5	16	25	UEC3-12~38	0.114
UER3-40/16AZ	11.3~16	20	35	UEC3-18~38	0.114
UER3-40/20AZ	15~20	25	50		0.114
UER3-40/21.5AZ	17.5~21.5	25	50	UEC3-25~38	0.114
UER3-40/25AZ	21~25	25	50		0.114
UER3-40/30AZ	24.5~30	40	63	UEC3-32~38	0.142
UER3-40/36AZ	29~36	40	63	UEC3-38	0.142
UER3-40/38AZ	33~38	40	100		0.142

Note: (1) "A" (stand for three phase overload protection and phase lost protection) can be changed to "B" (stand for three phase overload protection). For detail information about reference, please refer to chapter 2. .

MEMO



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