SIEMENS

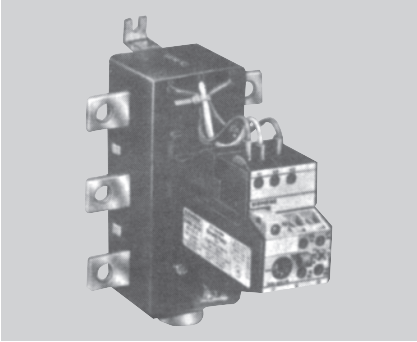
Operating Instructions

C.T. Operated Bimetal Relay with single phasing protection feature

Type 3UA62 30

Warning:

Hazardous Voltage can cause Electric Shock and burns.
Disconnect Power before proceeding with any work on this equipment



The Siemens 3UA62 30 current transformer operated bi-relays provide accurate overload and accelerated single phasing protection for three phase motors having rated currents upto 400A.

3UA62 30 comprise of current transformer and a bimetallic tripping unit. The tripping unit makes use ofdual slider principal for faster tripping under single phasing.

Technical Data

Rated insulation voltage	:	1000V AC for main circuit
Ambient temperature compensation	:	-25°C to + 55°C
Rated operating current	:	Ranges upto 400A.
Frequency of operation	:	15 operations per hour.

Selection (Setting Ranges)

Bi-relay are available in 5 different ranges. The minimum and maximum setting of each range is listed in table 1.

Short Circuit Protection

The bi-relay have to be protected from short circuits. It is mandatory to use back up HRC fuses. The maximum permissible ratings of Siemens fuses as per IS: 13947 pt-4 (Type 3NA1) corresponding to type 2 co-ordination for each relay range are listed in table

Table 1

Type	Min Setting "AMP"	Max. Setting "AMP"	Fuse rating type 3NA1 "AMP"	Load current corresponding to marking 0.625/0.63	0.7	0.8 "AMP"	0.9	1.0
3UA62 30	85	135	224	85	94.5	108	121.5	135
	115	180	250	115	126	144	162	180
	160	250	355	160	175	200	225	250
	200	320	400	200	224	256	288	320
	250	400	500	250	280	320	360	400

1. Maximum back-up fuse rating for auxiliary circuit : 6 Amps.

Operating Instructions/Setting

Set scale so that ratio corresponds to the rated load current.

Example :

Relay range selected : 115-180A
Load current : 162A
Maximum setting : 180A

$$Ratio : \frac{Load\ Current}{Max.\ Setting}$$

$$: \frac{162}{180} = 0.9$$

i.e. scale on tripping unit should be set at 0.9 marking. Refer table 1 for further details.

Installation

Bi-relays are independent mounting

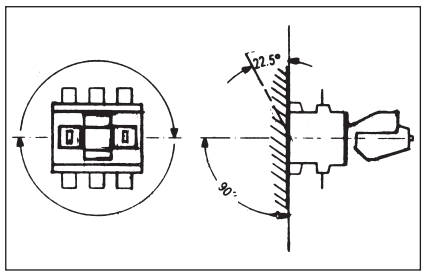
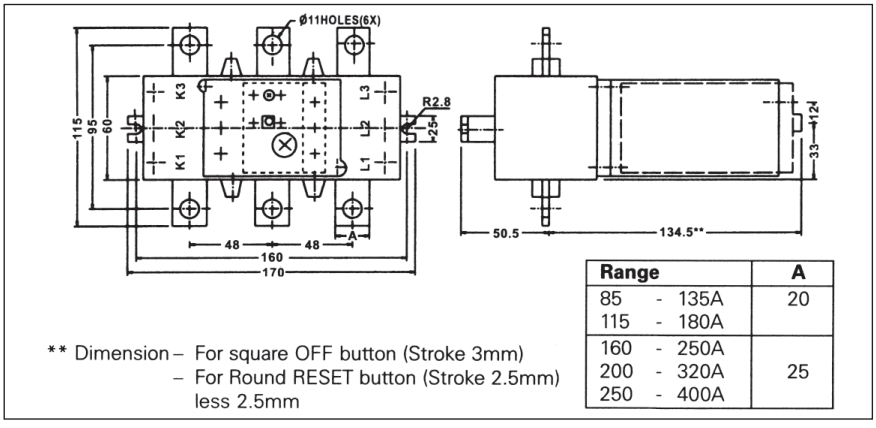


Fig. 1

type. Permitted mounting position is as shown in fig. 1. Care should be taken to avoid shocks and prolonged vibrations.

Bi-relays are suitable for screw mounting on flat vertical surface. Use 2 nos M5 screw with plain and spring washers.

Maximum tightening torque = 6.2 Nm. Refer fig. 2 for dimensions.



Range	A
85 - 135A 115 - 180A	20
160 - 250A 200 - 320A 250 - 400A	25

Fig. 2

Connection diagram

Refer fig. 3.

In case of single phase loads the three main ples should be connected in series. Refer Fig. 4.

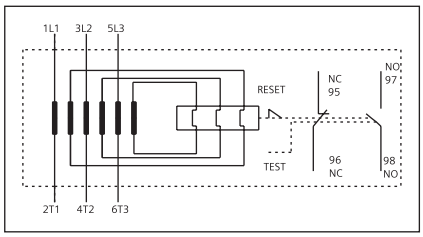


Fig. 3

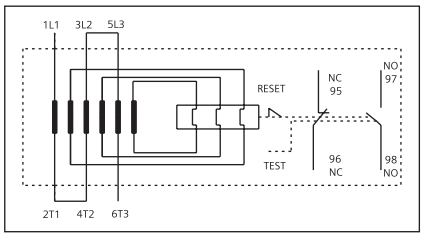


Fig. 4

Auxiliary contacts

Refer fig. 3.

Contact configuration is 1NO+1NC:

1NC is trip contact. For switching capacities refer table 2.

Table 2

AC 15		DC13	
Ue.	Ie	Ue	Ie
V	A	V	A
24	2	24	2
60	1.5	60	0.5
125	1.25	110	0.3
220	1.15	220	0.2
380	1.1		
415	1		
500	1		
690	0.8		

Allowable Conductor cross sections

Main Circuits

Ranges	85-135A & 115-180A	160-250A	200-320A & 250-400A
Round Conductor with Cable lug	: 120sqmm	185sqmm	240sqmm
Terminal screw	: M-10	M-10	M-10
Tightening torque	: 14-24 Nm	14-24 Nm	14-24 Nm

Auxiliary Circuit

Solid/Stranded	: 2 X (1 to 2.5 sqmm)
Flexible with end sealing ferrule	: 2 X (0.75 to 1.5 sqmm)
Terminal screw	: M 3.5
Toghtening Torque	: 0.8 - 1.2 Nm

Connection of Main conductors

Refer Fig. 5

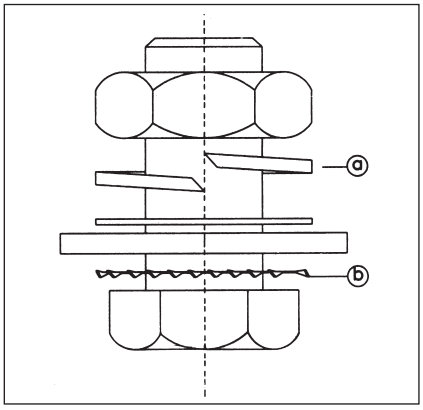


Fig. 5

The spring washer (a) is required to lock the screw. The serrated washer (b) facilitates fitting and prevents screw from turning. There is thus no need to hold the screw head. The serrated washer does not reduce the locking effect of the spring washer (Refer Fig. 5) (These are supplied loose in a plastic bag.)

For Operational details (Refer fig. 6)

Dial Setting (PI)

Set the Scale (P1) on tripping relay at marking corresponding to the load current as indicated in table 1.

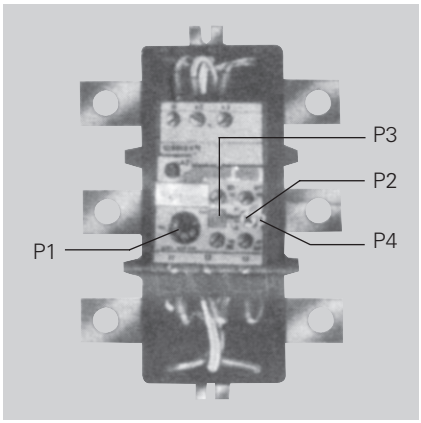


Fig. 6

Reset Button (P2)

Before putting the relay into operation, press the blue coloured reset button (P2). The auxiliary contacts are present in the factory for 'Manual resetting'. This can be converted to 'Automatic Resetting' by pressing the reset button (P2) with screwdriver and turning it anti-clockwise from H (Manual) to A (Automatic) upto limit.

Test (Off) button (P3)

When this button is actuated, the NC contact opens and the NO contact coloses

Trip Indicator (P4)

Tripping of 'Manual-resetting' relay is indicated by popping-up of the green coloured pin (P4) from the front plate. Press the reset button to reset the relay. There is no indication in case of automatic resetting.

Tripping Characterisrics

The average tripping characteristics for 3 phase overload and single phasing i.e. 2 phase overloads is given in data sheet.

Individual characteristics for each range are available on request. Please get in touch with the nearest Siemens office.

Disposal

Siemens Products are environment friendly, which predominantly consist of recyclable materials.

For disposal we recommend disassembling and separation into following materials:

METALS : Segregate into Ferrous & Non Ferrous types for recycling through authorised dealer.

PLASTICS : Segregate as per material type for recycling through authorised dealer.

Because of the long lifetime of Siemens products the disposal guidelines may be replaced by other national regulations when taking the product out of service.

The local customer care service is available at any time to answer disposal-related questions

Customer care Toll free no. 1800 220 987. Email: adscs.india@siemens.com

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