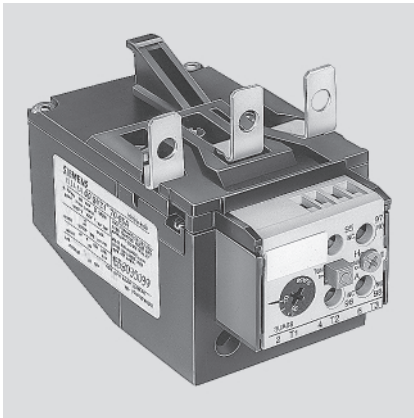


SICOP

Bimetal Relay with Single Phasing Protection Type 3UA58



Product Type	Setting Range Amp	Maximum backup fuse rating (Type 3NA1) "Amp"
3UA5800	16 - 25	50
	20 - 32	63
	25 - 40	80
	32 - 50	100
	40 - 57	100
	50 - 63	125
	57 - 70	125
	63 - 80	160
	70 - 95	160

Table 1

Short circuit Protection

The Siemens 3UA58 Bi-relays provide accurate overload and accelerated single phasing protection for three phase motors having rated currents up to 95 A. It incorporates dual slider principle for accelerated tripping under single phasing.

The Bi-relays have to be protected from short circuits. It is mandatory to use backup 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 1.

Installation

The Bi-relay type 3UA58 available in 2 different executions namely 3UA5800 -.. Z1, and 3UA5800 -.. Z2 are suitable for mounting directly on Siemens contactors type 3TF46/47, ZA01, 3TF48/49 and 3TF47 7 respectively. For individual mounting an adaptor type 3UX1421 is available which should be ordered out separately. See fig. 1 & 2 for permitted mounting position. Care should be taken to avoid shocks and prolonged vibrations. For dimensional details refer Figs. 3a, 3b, 3c and 4.

Technical Data

Rated insulation : 1000V AC
Voltage for main circuit

Maximum backup fuse rating Type 3NA1 for auxiliary circuit : 6 Amps

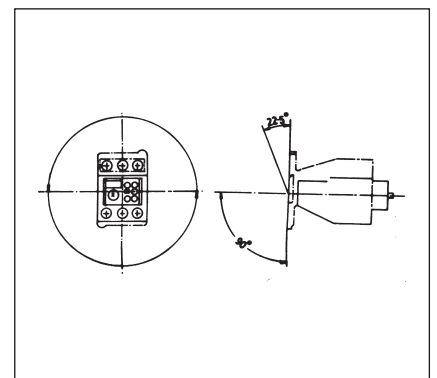
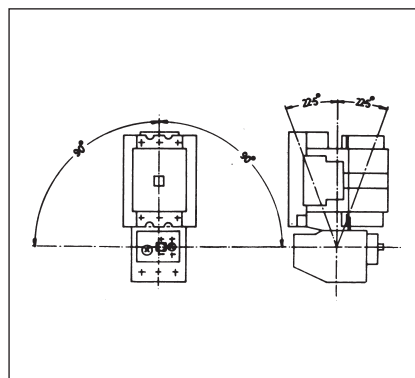
Ambient temperature compensation : -25°C to + 55°C.

Rated operating current : Ranges upto 95 A

Frequency of operation : 15 operations per hour.

Selection (Setting ranges)

The Bi-relays are available in 9 different ranges. The ranges are listed in Table 1.



Connection diagram

Refer Fig. 5

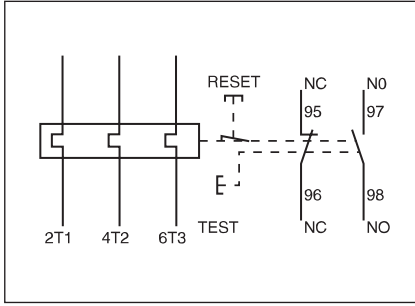


Fig. 5

In case of single phase loads, the three main poles should be connected in series. Refer Fig. 6.

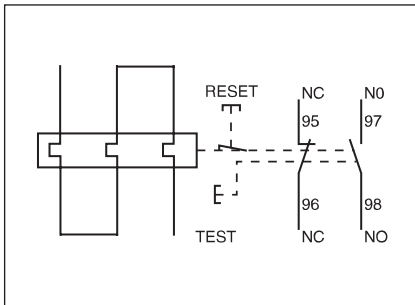


Fig. 6

Auxiliary contacts

See Fig. 5 Contact configuration is 1NO + 1NC.

For switching capacities refer Table below:

AC15		DC13	
Ue V	Ie A	Ue V	Ie A
24	2	24	2
60	1.5	60	0.5
125	1.25	110	0.3
230	1.15	220	0.2
415	1		
500	1		
690	0.8		

Allowable Conductor cross sections

Main Circuits

Solid/Stranded : 2.5mm² to 35mm² conductor

Stranded with end sleeves : 1.5mm² to 25mm²

Terminal Screws : M 5

Tightening torque : 2.5 - 3 Nm

Auxiliary Contact

Solid/stranded Conductor	2x(1 to 2.5 mm ²)
Flexible with end sleeve	2x (0.75 to 1.5 mm ²)
Terminal screw	M 3.5
Tightening torque	0.8 - 1.2 Nm

Operational details

Refer Fig. 7.

Dial Setting (P1)

Set the scale (P1) to the actual current of the load. For details refer "Siemens Handy Guide for Electricians."

Reset Button (P2) (blue)

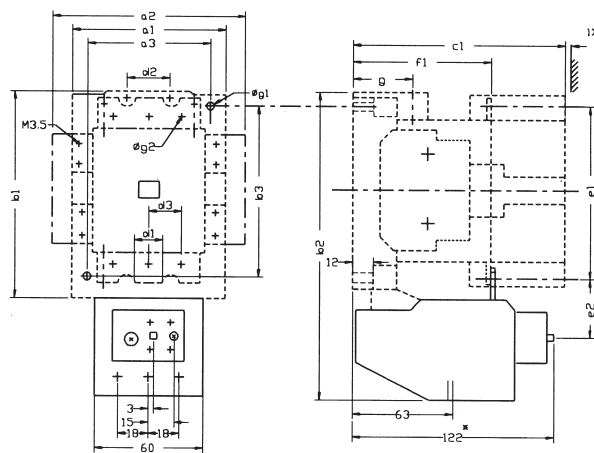
Before putting the relay into operation, press the blue coloured reset button (P2). The auxiliary contacts are preset in the factory for 'Manual Resetting'. This can be converted to 'Automatic Resetting' by pressing the reset button (P2) with screw driver and turning it anti-clockwise from H (Manual)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

Test button (P3) (red)

When this button is actuated, the NC contact opens and the NO contact closes i.e. a test function for NC and NO contacts (Simulation of overload tripping)

Dimension (mm)

3UA5800 mounted on 3TF46 / 47
3UA5800...Z1 mounted on 3TF48 / 49



* Dimension - For Square OFF button (Stroke = 3 mm)
- For round RESET button (stroke = 2.5 mm) less 2.5 mm

1) Minimum clearance from insulated components : 3 mm
Minimum clearance from earthed components : 10 mm

	a1	a2	a3	b1	b2	b3	c1	d1	d2	d3	e1	e2	f1	f2	f3	g	g1	g2
3UA58+																		
3TF46/47	90	113	70	117	175	100	123	8	25	25	94	34	80	63	122	28	4.8	6.1
3TF48/49	100	123	80	133	194	110	140	10.5	25	26.5	116	31.5	89	71	132	39	5.5	6.1

Fig. 3a

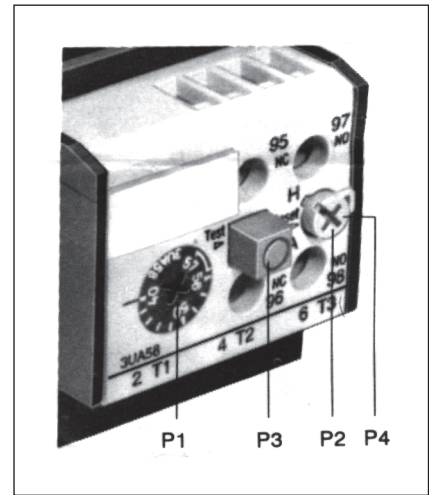


Fig. 7

Trip Indicator (P4) (green)

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

Tripping Characteristics

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

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

Dimension (mm)

3TF 46/47 .. ZA01 with relay type 3UA5800 - .. Z1

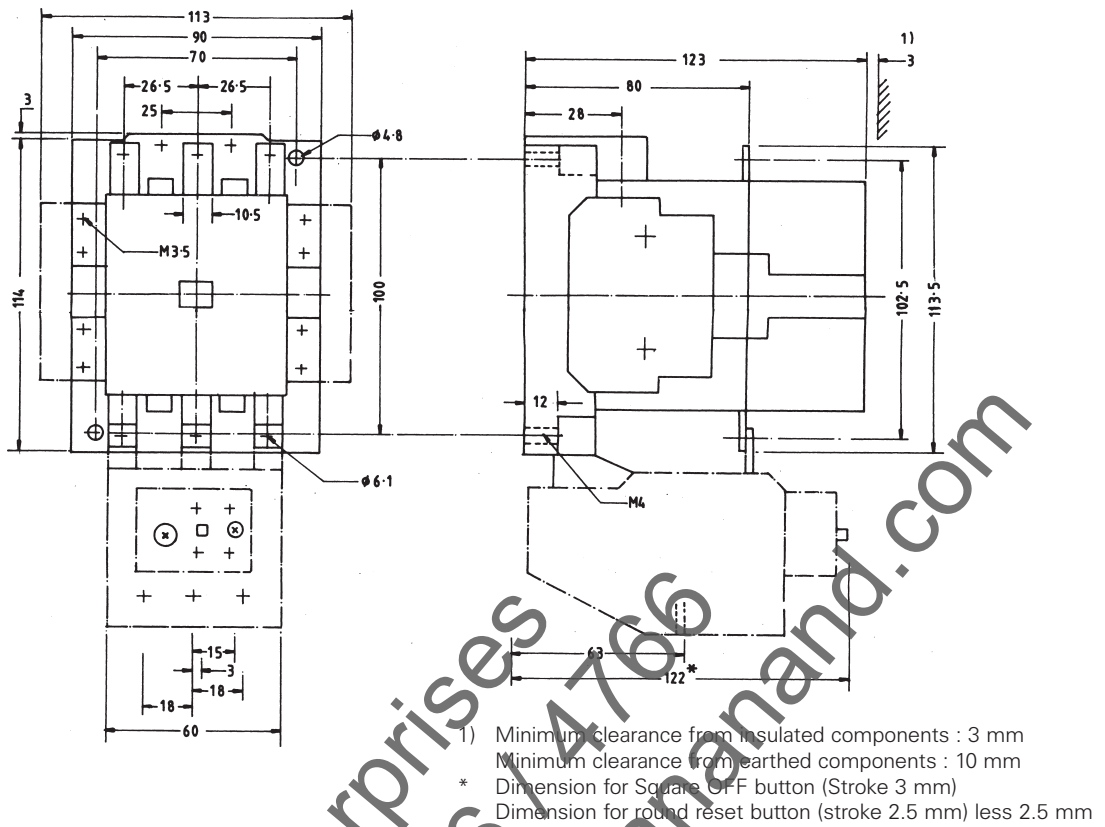


Fig. 3b

Contactor 3TF47 7 with relay type 3UA 5800 - .. Z2

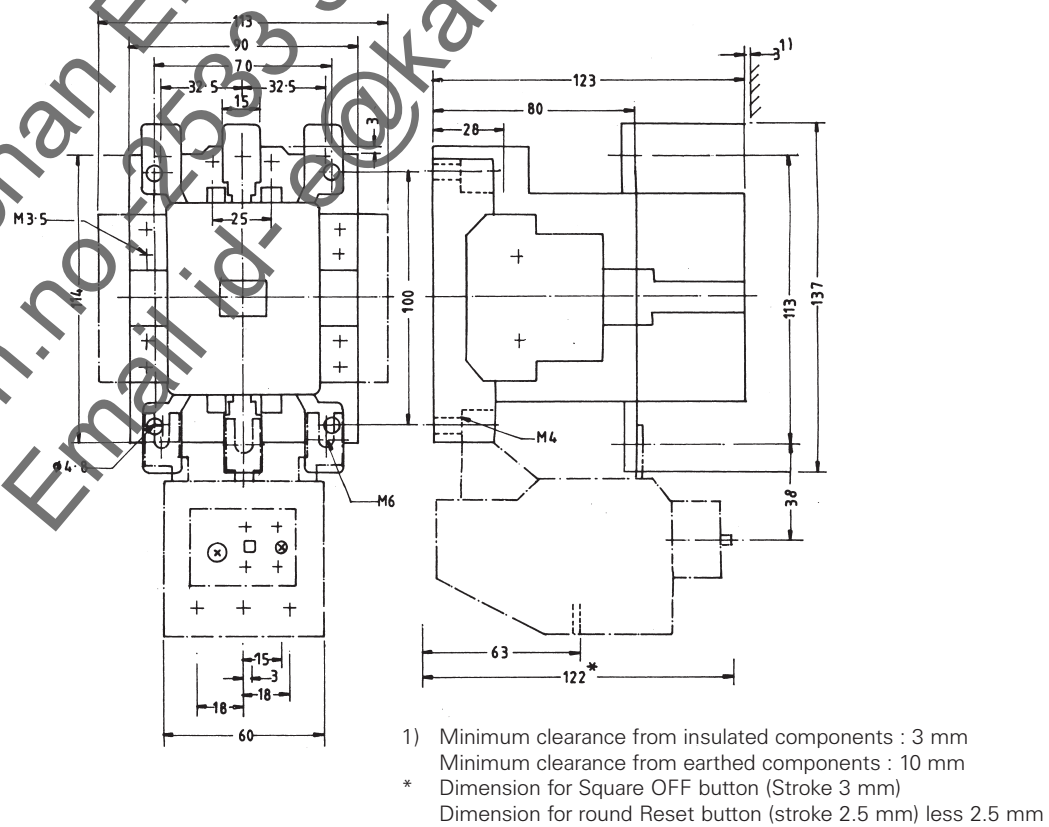


Fig. 3c

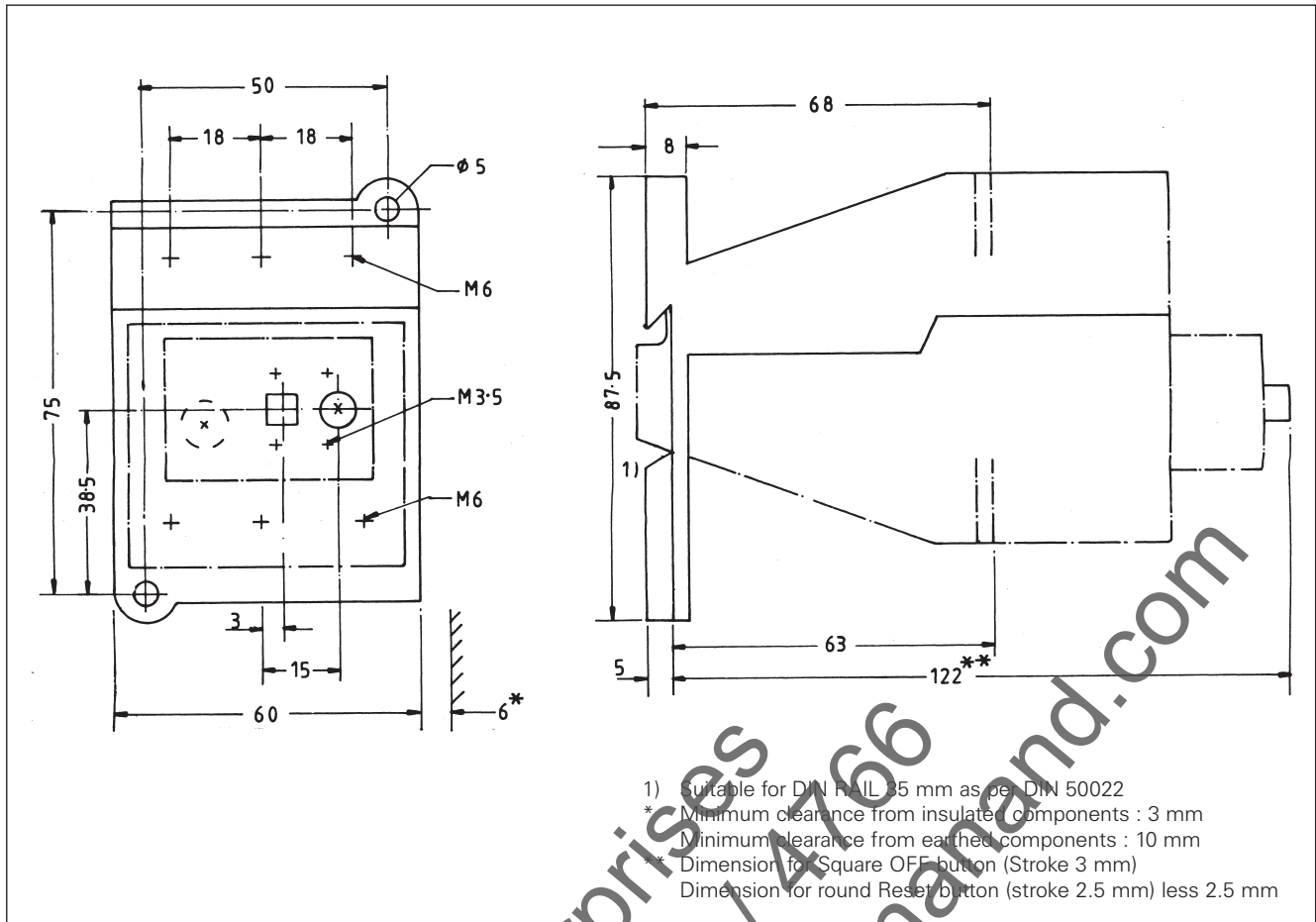


Fig. 4

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