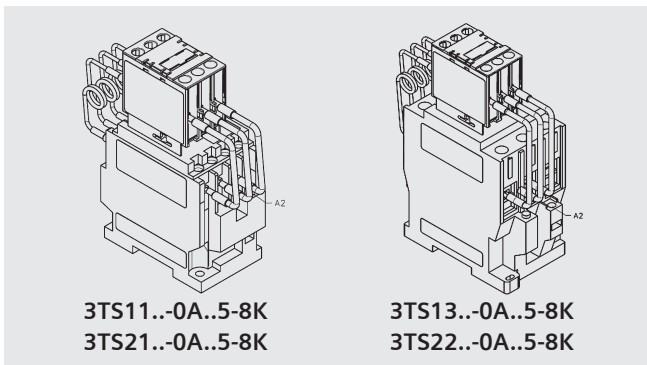


Contactor for capacitor switching: Type: 3TS11.. to 3TS15.. and 3TS21..., 3TS22..., 3TS25..

CE IS/IEC:60947-4-1



A. Technical Data

i) Main circuit:

The capacitors are precharged during pick-up via early-make contacts and integrated pre-charge resistors before the main contacts close.

This combination may be used for switching of Individual capacitor for power factor correction of single loads or for switching capacitor banks in parallel in centralized group power factor correction system.

- Insulation Voltage $U_i = 690$ V AC,
Temperature: Storage -25 to +55°C
Service (without derating) -25 to +40°C

Use the devices with the declared capacitor bank ratings only.

Contactor Type	Load of contactor when switching 3ph-AC capacitor kVAr at 415/440V, 50Hz
3TS21...-0A..5-8K	5
3TS11...-0A..5-8K	7
3TS22...-0A..5-8K	10
3TS12...-0A..5-8K	12.5
3TS13...-0A..5-8K	16
3TS14...-0A..5-8K	20
3TS15...-0A..5-8K	25
3TS25...-0A..5-8K	30

- Switching frequency in Make/Break operations:**
180 Operating cycles / hour for all ratings
- Maximum back-up fuse rating:** For Type-1 Coordination Type-3NA7 as per IEC 60269
— : 1.6...1.8le

ii) Aux Circuit:

Inbuilt: Auxiliary Contacts

1NO+1NC in case of 3TS1211 To 3TS1511 and 3TS2211, 3TS2511

No built-in auxiliary contacts for 3TS1200 To 3TS1500 and 3TS2200, 3TS2500

1NO in case of 3TS11... and 3TS21...

Warning:

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

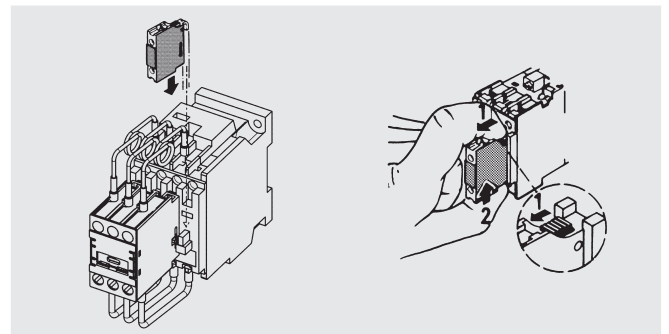
Avoid operation during under voltage conditions. Switch only onto discharged capacitors. Manual operation not permitted for function testing.

Commissioning and maintenance by qualified personnel only. Follow the operating instructions.
Do not remove precharging resistors. If contactor is switched on load without resistor, it may cause damage to the contactor.

Additional Aux:

Facility to add-on 1NO or 1NC auxiliary contact block type 3TX40.. is available for 3TS11..., 3TS1200, 3TS1300, 3TS1400, 3TS1500, 3TS21..., 3TS2200, 3TS2500

3TX 40.. Block fitment (For 3TS11..., 3TS1200, 3TS1300, 3TS1400, 3TS1500, 3TS21..., 3TS2200, 3TS2500)



Aux Contact Rating:

3TX40

le AC-15 = 3.6A at 415V

le DC-13 = 0.48A at 220V

Note: Do not remove precharging resistors. If contactor is switched on load without resistor, it may cause damage to the contactor.

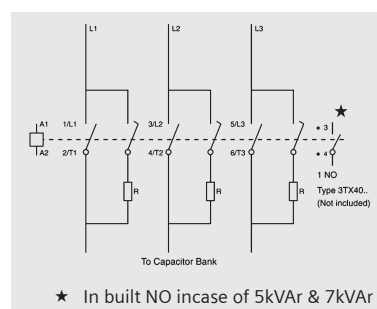
iii) Control circuit:

- Control voltage is marked on the coloured identification tag on the coil.

Note:

- The voltage is to be maintained within allowable limits.
- Operation on under voltage conditions to the coil may cause damage to the coil/contactor.
- Maximum back-up fuse rating for control circuit = 16A = 6A if relay contact is in the control circuit.

iv) Internal connection diagram



Connection Details for 3TS11... to 3TS15... and 3TS21..., 3TS22..., 3TS25... is shown in figure 1

Fig. 1

Permissible Conductor Size: Main Terminals

Termination Data - Contactor	Cable	3TS11...-0A..5-8K	3TS12...-0A..5-8K	3TS13...-0A..5-8K	3TS14...-0A..5-8K	3TS15...-0A..5-8K
		3TS21...-0A..5-8K	3TS22...-0A..5-8K			3TS25...-0A..5-8K
Solid	mm ²	1 x (1 to 2.5)	1 x (2.5 to 6)	1 to 16	1 to 16	1 to 16
Flexible without end sleeve	mm ²	–	–	1.5 to 16	1.5 to 16	1.5 to 16
Flexible with end sleeve	mm ²	1 x (0.75 to 2.5)	1 x (1.5 to 4)	1.5 to 16	1.5 to 16	1.5 to 16
Screw Size		M3.5		M4		
Tightening Torque	N-m	0.8 to 1.4	1.0 to 1.5	2.5 to 3		
Insulation cutting length for wires	mm	10				

B. Installation

- Permitted mounting positions are indicated in Fig.2
- The unit is suitable for screw mounting on flat vertical surface with two M4 screws. Always use plain and spring washers.
- Alternatively snap for 3TS11.. to 3TS15.. and 3TS21..., 3TS22..., 3TS25.. on to a 35 mm Top hat Rail TH 35 as per DIN : EN60715.

Note: Install the unit in housing if it is exposed to dust, dirt, contamination or aggressive atmosphere.

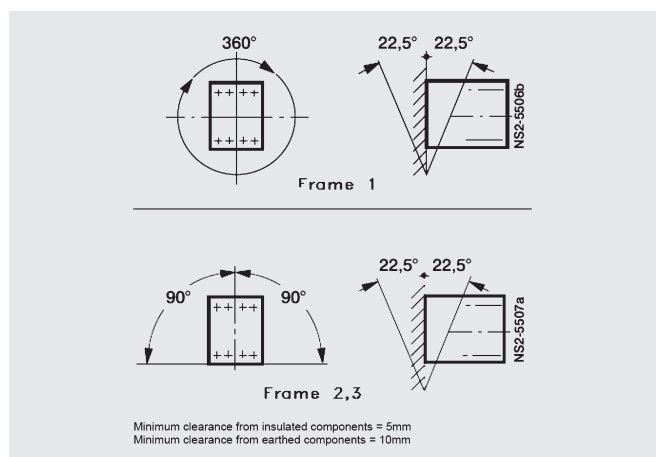


Fig. 2 Mounting Positions for 3TS11... to 3TS15... and 3TS21..., 3TS22..., 3TS25...

E. Overall Dimensions

Dimensional drawing: 7/12.5, 16, 20, 25, 5, 10, 30kVAr (3TS11/12/13/14/15/21/22/25...-0A..5-8K)

Type	A	B	C	D	F	G	H	J	K	L	Ø E	M	Term Screw
3TS11/3TS21	125	74	60	10	115	78	45	60	35	–	4.8	48	M3.5
3TS1200/3TS2200	136	85	70	14.5	115	85	45	75	35	–	4.8	51	M4
3TS1300..1500/3TS2500	148	85	63	18	120	103	55	75	45	–	5	62.5	M4
3TS1211/3TS2211	136	85	70	14.5	115	85	45	75	35	58	4.8	51	M4
3TS1311..1511/3TS2511	148	85	63	18	120	103	55	75	45	68	5	62.5	M4

Disposal

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

For disposals 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.