

Contactor - Type 3TS AC-1

3TS48.....1-8K to 3TS57.....1-8K

IS/IEC : 60947-4-1

Operating Instructions

! WARNING:

HAZARDOUS VOLTAGE CAN CAUSE ELECTRIC SHOCK AND BURNS.

DISCONNECT POWER BEFORE PROCEEDING WITH ANY WORK ON THIS EQUIPMENT

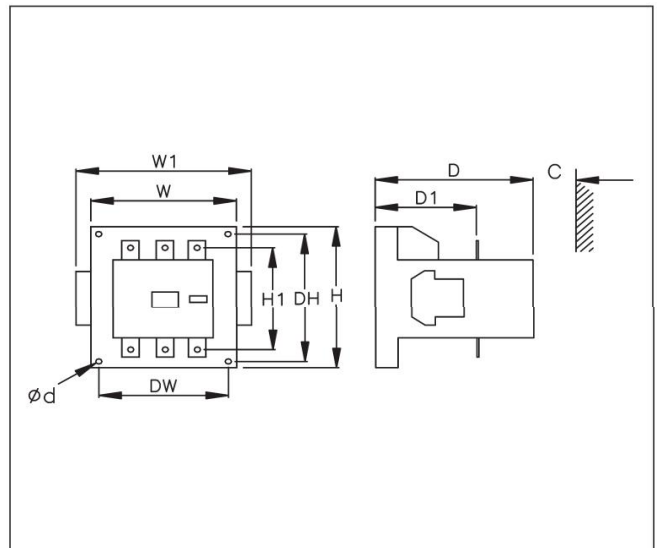
Technical Data

Insulation Voltage : 1000V ac (Main Circuit)

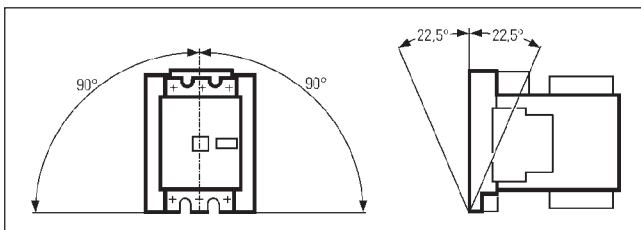
Coil operating Range : 0.8 Uc - 1.1 Uc

Contactor Type	AC-1 Rating (Amp) 415V at 50Hz
3TS48.....1-8K	100
3TS50.....1-8K	145
3TS51.....1-8K	200
3TS52.....1-8K	225
3TS53.....1-8K	275
3TS54.....1-8K	325
3TS55.....1-8K	400
3TS56.....1-8K	525
3TS57.....1-8K	630

Mounting Details

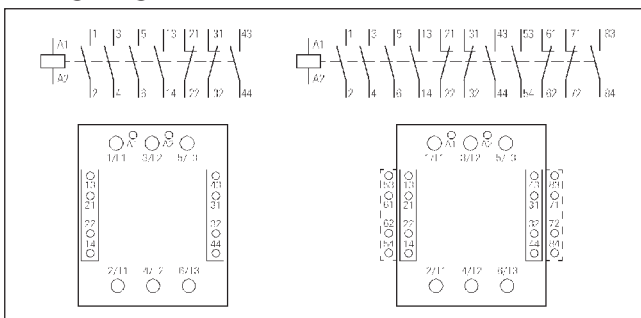


Permissible Mounting



Note: Coil Terminals at the Top

Wiring Diagram



Type	Contactor Dimensions						Drilling Plan		
	W	W1	H	H1	D	D1	DW	DH	Ød
3TS48.....1-8K	90	113	117	94	123	80	70	100	4.8
3TS50.....1-8K	100	123	133	123	140	89	80	110	5.5
3TS51.....1-8K	120	143	150	139	154	93	100	130	6.3
3TS52.....1-8K	120	143	150	139	154	93	100	130	6.3
3TS53.....1-8K	135	158	180	159	188	115	110	160	7
3TS54.....1-8K	135	158	180	159	188	115	110	160	7
3TS55.....1-8K	150	168	205	168	201	132	120	180	9
3TS56.....1-8K	160	183	200	182	222	150	130	180	9
3TS57.....1-8K	160	183	210.5	182	222	150	130	180	9

Note : Minimum clearance from insulated components, C = 3mm
Minimum clearance from earthed components, C = 10mm

Coil ordering data (Supply frequency : 50Hz; Cold coil 1.0 x Us; U-Upper volt, L-Lower Volt)

Contactor Type (3TS AC1)	AC COIL		
	Ordering Code	VA	
		Closing	Closed
3TS48	3TY7 463-0A**	155	18
3TS50	3TY7 483-0A**	296	28.5
3TS51/52	3TY7 503-0A**	443	39.8
3TS53/54	3TY7 523-0A**	765	61.8
3TS55	3TY7 543-0A**	1440	93.6
3TS56	3TY7 563-0A**	2200	108
3TS57	3TY7 573-0A**	850	30.7

Coil voltage Codes

3TS48-56

AC 50Hz	Coil Voltage (V)	110	230
	Code	F0	P0

For 3TS57

AC 50/60Hz	Coil Voltage (V)	110-132	220-240
	Code	F7	M7

Connection

Main Connection (Contactor without Overload Relay)

Type	Finely Stranded cable [mm ²] with cable lug	Stranded [mm ²] with cable lug	Connecting Bars [mm]	Terminal Screws	Tightening torque	Tightening torque fixed contact replacement
3TS48.....1-8K	10 - 35	10 - 50	12 x 3	M6	4 - 6 Nm	150 - 210 Ncm
3TS50.....1-8K	35 - 95	50 - 120	15 x 3	M8	10 - 14 Nm	150 - 220 Ncm
3TS51.....1-8K	35 - 95	50 - 120	20 x 3	M8	10 - 14 Nm	150 - 220 Ncm
3TS52.....1-8K	35 - 95	50 - 120	20 x 3	M8	10 - 14 Nm	150 - 220 Ncm
3TS53.....1-8K	50 - 240	70 - 240	25 x 5	M10	14 - 24 Nm	240 - 340 Ncm
3TS54.....1-8K	50 - 240	70 - 240	25 x 5	M10	14 - 24 Nm	240 - 340 Ncm
3TS55.....1-8K	50 - 240	70 - 240	25 x 5	M10	14 - 24 Nm	350 - 470 Ncm
3TS56.....1-8K	50 - 240	70 - 240	25 x 5	M10	14 - 24 Nm	350 - 470 Ncm
3TS57.....1-8K	50 - 240	70 - 240	30 x 5	M10	14 - 24 Nm	350 - 470 Ncm

1 or 2 conductor connections possible.

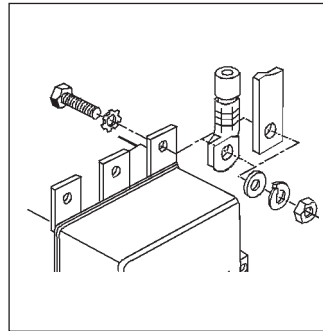
Aux Conductors

Type (3TS AC1)	Solid Conductor [mm ²]	Stranded with end sleeves [mm ²]	Terminal Screws	Tightening torque Nm	AWG wires, solid or stranded
3TS48 - 57	2x(1 - 2.5)	2x(0.75 - 1.5)	M3.5	0.8-1.4 Nm	2x(18-12)

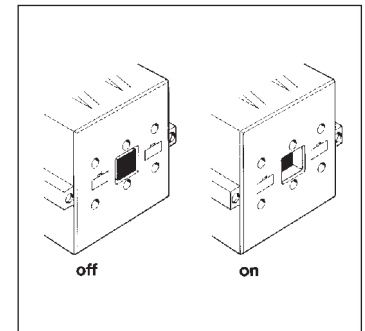
Installation

Type (3TS AC1)	Fixing Screw	No of screws	Tightening torque
3TS48	M4	2	3.1 Nm
3TS50	M5	2	6.2Nm
3TS51/52	M6	2	10.5Nm
3TS53/54	M6	4	10.5Nm
3TS55/56/57	M8	4	25Nm

Hardware Kit connection



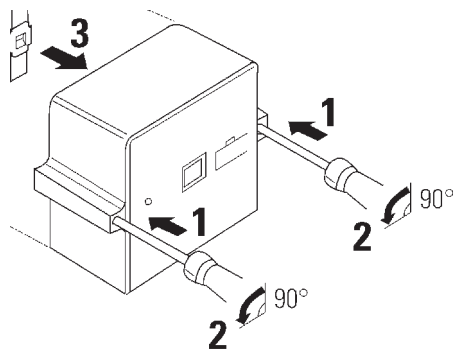
ON - OFF Indication



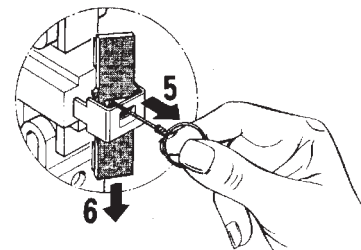
Maintenance

1) Arc Chamber Replacement

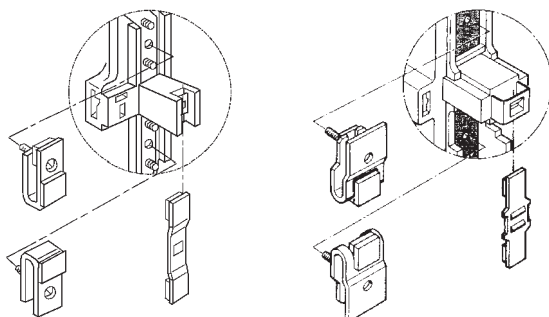
When arc chamber is removed the contactor is mechanically locked. Coil energization is not permitted under this condition.



3) Moving contact replacement



2) Fixed contact replacement

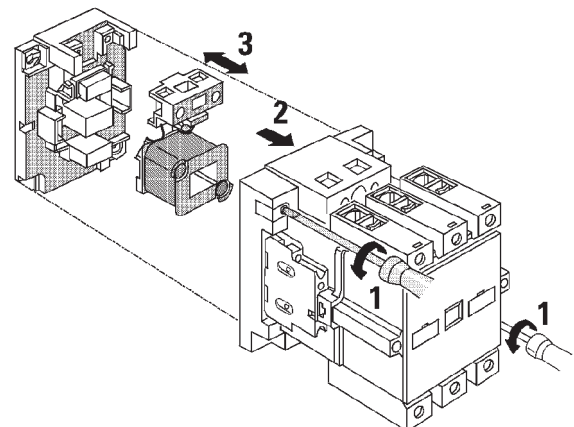


For 3TS48

For 3TS50....3TS57

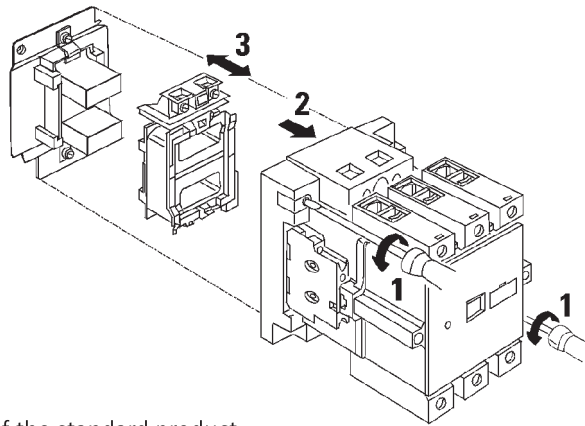
4) Coil replacement

a) For 3TS48 / 50



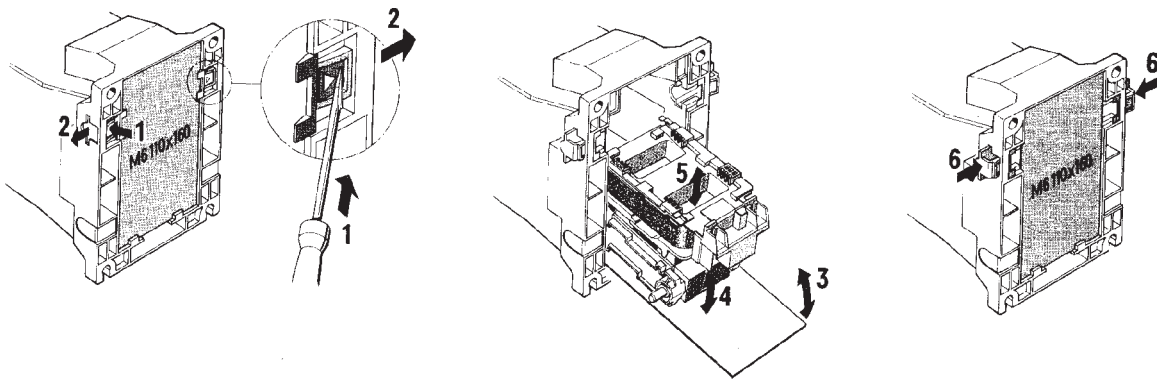
Box type terminals are not part of the standard product

4b) For 3TS51 / 52

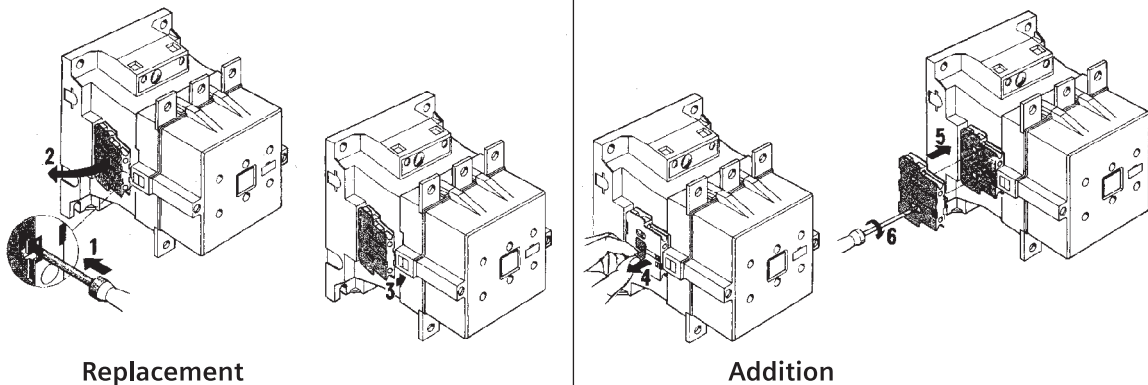


Box type terminals are not part of the standard product

4c) For 3TS53 / 54 / 55 / 56 / 57



5) Add-on block replacement for 3TS48 - 3TS57



Replacement

Addition

Note: The contactor should be operated with minimum one block of auxilliary contact on either side

Important maintenance Notes:-

- * Remove dust by suction
- * Discoloured & Rough contacts are still service worthy & should not be dressed or greased
- * Replace contacts whose pieces have eroded so much that their supports can be seen
- * Check main contacts after a short circuit has occurred & separate slightly welded contacts as necessary.

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 209 0987
Email: ics.india@siemens.com

Order No.4I-0198-3124961 000

Siemens Ltd.

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