



# Smart, Easy, Reliable

For more than 110 years, Siemens has been developing and manufacturing industrial control products. We offer a wide product range which fulfills the demands of our customers regarding performance and reliability. Our aim is to make industrial operation easier ensuring flexible mounting, modular construction and high functionality. With 3TS contactors and 3US overload relays Siemens offers a smart, reliable and economical solution to switch and protect your motors up to 55 kW.

## 3TS Contactors

### Range:

- 9A to 105A AC3 (415V)
- Coil voltages: 110V, 230V, 415V AC, 50Hz

### Features:

- SIGUT termination technique
- Finger touch proof terminals<sup>§</sup>
- Arc chamber interlock\*
- DIN / Screw mounting
- Compact dimensions
- Double break parallel bridge auxiliary contacts

### Benefits:

- Ease of wiring (can obviate use of lugs)
- Operator Safety (contactor cannot be switched-on if arc chamber is not fitted properly)

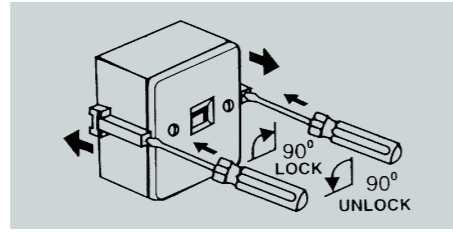
- Flexible mounting
- Space saving
- Unmatched contact reliability (ensures reliable contact at low voltage & low currents)

### Standards:

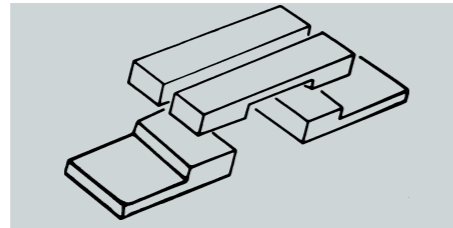
3TS contactors conform to IS 13947 and IEC 60947. They also carry CE mark.

### Applications:

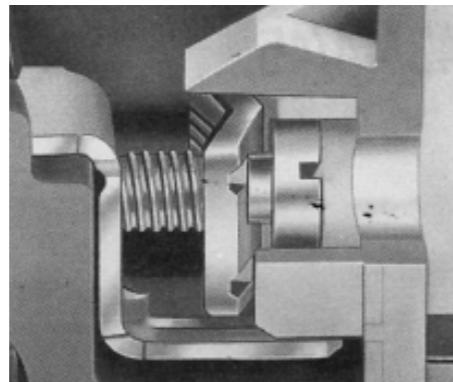
3TS power contactors are suitable for switching motors in pump, fan, compressor, HVAC, machine tool & elevator applications. Also they are suitable for switching resistive loads such as heaters, resistive furnaces & lighting loads & etc.



Arc chamber interlock



Double Break Parallel Bridge Auxiliary Contacts



SIGUT termination



Accessory for DIN / Screw mounting

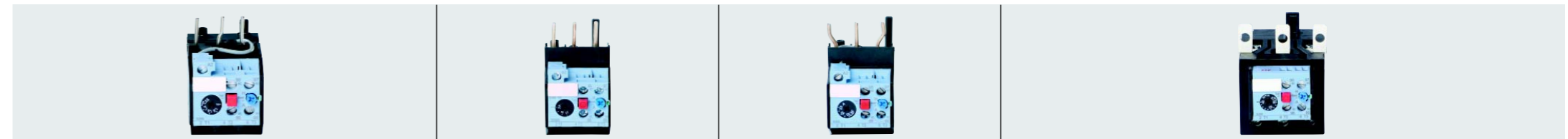
§ 9A to 50A  
\* 65A and above

# 3TS Contactor – Technical data



Contactor Type		3TS 30	3TS 31	3TS 32	3TS 33	3TS 34	3TS 35	3TS 36	3TS 37	3TS 38	3TS 39	3TS 50	
Conformance to		IS 13947 / IEC 60 947											
No. of power contacts		3	3	3	3	3	3	3	3	3	3	3	
No. of built-in aux contacts		1NO / 1NC	1NO / 1NC	1NO / 1NC	–	–	–	–	2NO+2NC	2NO+2NC	2NO+2NC	2NO+2NC	
<b>Voltages &amp; tempratures</b>													
Rated impulse voltage	$U_{imp}$	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	
Rated insulation voltage	$U_i$	690 V	690 V	690 V	690 V	690 V	690 V	690 V	690 V	1000 V	1000 V	1000 V	
Rated operational voltage	$U_e$	690 V	690 V	690 V	690 V	690 V	690 V	690 V	690 V	1000 V	1000 V	1000 V	
Service temprature	°C	- 25 to + 55											
<b>Rated operational current</b>													
I <sub>e</sub> at 415 V, 50 hz	AC-1	25 A	25 A	25 A	42 A	42 A	65 A	65 A	100 A	100 A	120 A	120 A	
	AC-2	9 A	12 A	18 A	25 A	32	40 A	50 A	65 A	75 A	85 A	105 A	
	AC-3	9 A	12 A	18 A	25 A	32	40 A	50 A	65 A	75 A	85 A	105 A	
	AC-4*	3.3	3.3	4.3	7.7 A	8.5 A	15.6 A	18.5 A	24 A	28 A	34 A	42 A	
Switching frequency	AC-1	nos.	2000	2000	2000	1500	1500	1500	1200	1000	1000	900	
	AC-2	nos.	1000	1000	1000	750	750	750	600	600	400	350	
	AC-3	nos.	1000	1000	1000	750	750	750	600	1200	1000	1000	
	AC-4	nos.	250	250	250	250	250	250	200	400	300	300	
<b>Mechanical Endurance</b>													
<b>Coil parameters</b>													
Voltages available		U <sub>c</sub>	110 V, 50 hz; 230 V, 50 hz; 415 V, 50 hz										
Consumption	pick-up	VA	68	68	68	68	68	101	101	183	183	330	
	p.f.		0.79	0.79	0.79	0.82	0.82	0.83	0.83	0.6	0.6	0.5	
	hold-on	VA	10	10	10	10	10	12.1	12.1	17	17	32	
Operating time	p.f.		0.29	0.29	0.29	0.29	0.29	0.28	0.28	0.29	0.29	0.23	
	closing	milli sec	10-25	10-25	10-25	10-25	10-25	13-32	13-32	17-30	17-30	22-35	
Limits of operation	opening	milli sec	4-18	4-18	4-18	5-20	5-20	5-10	5-10	5-25	5-25	5-30	
	pick-up	%ge of U <sub>c</sub>	80 to 110										
drop-off	%ge of U <sub>c</sub>	35 to 65											
<b>Conductor cross-sections</b>													
<b>Main conductor</b>													
	Solid	mm <sup>2</sup>	2 x (0.5 to 1, 1 to 2.5), 1 x 4			2 x (2.5 to 6)		1 to 16		2 x (6 to 16)		2 x (6 to 16)	
	Finely stranded with end sleeve	mm <sup>2</sup>	2 x (0.75 to 2.5)			2 x (1.5 to 4)		1 x (2.5 to 16, 2.5 to 10)		1 x (10 to 35), 2x (10 to 25)		1 x (10 to 35), 2x (10 to 25)	
	Pin end connector	mm <sup>2</sup>	1 x (1 to 2.5)			1 x (1 to 6)		2 x (1 to 6)		–		–	
	Solid or stranded	AWG	2 x (18 to 12)			2 x (14 to 10)		2 x (14 to 6)		2 x (10 to 1/10)		2 x (10 to 1/10)	
	Tightening torque	Nm	0.8 to 1.4			1 to 1.5		2.5 to 3.0		4 to 6		4 to 6	
	Finely stranded with cable lug	mm <sup>2</sup>											
	Terminal bar (max. width)	mm											
	Solid or stranded	AWG											
	Tightening torque	Nm											
<b>Auxiliary Conductor</b>													
	Solid	mm <sup>2</sup>	2 x (0.5 to 1, 1 to 2.5), 1 x 4			2 x (0.5 to 1, 1 to 2.5), 1 x 4		2 x (0.5 to 1, 1 to 2.5), 1 x 4		2 x (0.5 to 1, 1 to 2.5), 1 x 4		2 x (0.5 to 1, 1 to 2.5), 1 x 4	
	Finely stranded with end sleeve	mm <sup>2</sup>	2 x (0.75 to 2.5)			2 x (0.75 to 2.5)		2 x (0.75 to 2.5)		2 x (0.75 to 2.5)		2 x (0.75 to 2.5)	
	Pin end connector	mm <sup>2</sup>	1 x (1 to 2.5)			1 x (1 to 2.5)		1 x (1 to 2.5)		1 x (1 to 2.5)		1 x (1 to 2.5)	
	Solid or Stranded	AWG	2 x (18 to 12)			2 x (18 to 12)		2 x (18 to 12)		2 x (18 to 12)		2 x (18 to 12)	
	Tightening torque	Nm	0.8 to 1.4			0.8 to 1.4		0.8 to 1.4		0.8 to 1.4		0.8 to 1.4	

\* AC-4 rating for endu. of 0.2 mil



Relay		3US50 00	3US52 00	3US52 00 / 3US55 00	3US56 00	3US58 00
Rated impulse voltage	$U_{imp}$	6 kV	6 kV	6 kV	6 kV	6 kV
Rated insulation voltage	$U_i$	690 V	690 V	690 V	690 V	690 V
Rated operational voltage	$U_e$	690 V	690 V	690 V	690 V	690 V
Permissible Service Temperature	°C	- 25 to + 55				
Trip Class		10A	10A	10A	10A	10A
Number of Aux Contacts		1NO+1NC	1NO+1NC	1NO+1NC	1NO+1NC	1NO+1NC
Rated Thermal Current I <sub>th</sub>	A	6	6	6	6	6