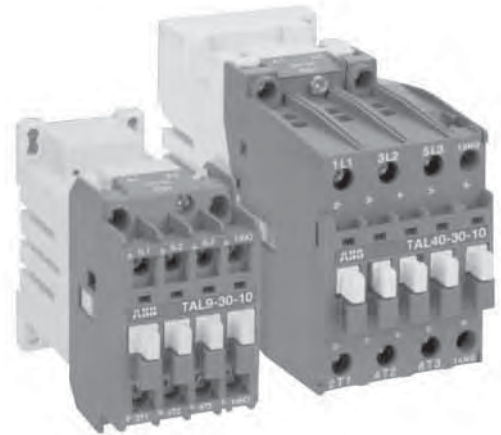


AC Circuit switching Contactors



AC Circuit switching contactors
Type TAL & TAE

1



Description

TAL and TAE contactors with a wide coil voltage range are designed to operate in control circuits with large voltage variations. Example: battery supply.

TAL9 - TAE110 D.C. Operated 3 & 4 pole



TAL9-30-01

3 Pole

General purpose current		Maximum motor horsepower ratings $\frac{1}{2}$ HP				Standard auxiliary contacts		Catalog number	List price
AC1	AC3	208V	240V	480V	575/600V	N.O.	N.C.		
22	9	2	2	5	7.5	1 0	0 1	TAL9-30-10-★ TAL9-30-01-★	\$ 141
25	11	3	3	7.5	10	1 0	0 1	TAL12-30-10-★ TAL12-30-01-★	173
28	16	5	5	10	15	1 0	0 1	TAL16-30-10-★ TAL16-30-01-★	218
45	25	7.5	10	20	25	1 0	0 1	TAL26-30-10-★ TAL26-30-01-★	263
55	30	10	10	25	30	1 0	0 1	TAL30-30-10-★ TAL30-30-01-★	338
60	42	10	15	30	40	1 0	0 1	TAL40-30-10-★ TAL40-30-01-★	354
100	50	15	20	40	50	0 1	0 1	TAE50-30-00-★ TAE50-30-11-★	388 428
125	75	25	30	60	75	0 1	0 1	TAE75-30-00-★ TAE75-30-11-★	560 600
146	96	30	30	60	75	0 1	0 1	TAE95-30-00-★ TAE95-30-11-★	600 640
160	110	30	40	75	100	0 1	0 1	TAE110-30-00-★ TAE110-30-11-★	755 795

★ To select a coil voltage, substitute the code from the Coil Voltage Selection Chart for the ★

4 Pole

Rated operational current		Maximum motor horsepower ratings $\frac{1}{2}$ HP				Standard auxiliary contacts		Catalog number	List price
AC1 0≤40°C	AC1 0≤55°C	208V	240V	480V	575/600V	N.O.	N.C.		
22	20	2	2	5	7.5	0	0	TAL9-40-00-★	\$ 190
28	25	5	5	10	15	0	0	TAL16-40-00-★	268
45	40	7.5	10	20	25	0	0	TAL26-40-00-★	303
70	60	10	10	25	30	0	0	TAE45-40-00-★	405
100	85	15	20	40	50	0	0	TAE50-40-00-★	505
125	105	25	30	60	75	0	0	TAE75-40-00-★	615

★ To select a coil voltage, substitute the code from the Coil Voltage Selection Chart for the ★

4 Pole mounted with 2 N.O. & 2 N.C. main poles

Rated operational current		Maximum motor horsepower ratings $\frac{1}{2}$ HP				Standard auxiliary contacts		Catalog number	List price
AC1 0≤40°C	AC1 0≤55°C	208V	240V	480V	575/600V	N.O.	N.C.		
22	20	2	2	5	7.5	0	0	TAL9-22-00-★	\$ 190
28	25	5	5	10	15	0	0	TAL16-22-00-★	268
45	40	7.5	10	20	25	0	0	TAL26-22-00-★	303

★ To select a coil voltage, substitute the code from the Coil Voltage Selection Chart for the ★

These contactors can be used for controlling either 2 separate circuits, i.e. 2 loads with 2 separate supplies, or 1 circuit comprising 2 separate loads with 1 single supply. When the contactor operates, there is no mechanical overlapping between the N.O. main poles and N.C. main poles: BREAK before MAKE.

NOTE: These contactors are not suitable for a reversing starter or a star-delta starter or for controlling a single load from 2 separate supplies.

Coil characteristics

No extra voltages applicable on the U_c min. - max. values of the Coil Voltage selection table.

Coil consumption at U_c max. and $q = 20$ °C:

- 9 W pull-in/holding for TBC type
- 450 W pull-in/ 7 W holding for TAE 50 and TAE 75 types
- 950 W pull-in/ 7 W holding for TAE 95 and TAE 110 types

Coil voltage selection

Min. U_c	Max	Voltage
17	32	51
24	45	52
36	65	54
42	78	58
50	90	55
77	143	62
90	150	66
152	264	68

Surge suppressors for contactor coils

For mounting on contactor type	Control voltage	Packing	Weight	Catalog number	List price
TAE/AE45 – TAE/AE75 TAL9 – TAL30	12 to 32 VDC	2	0.015	RT5/32	\$ 30
	25 to 65 VDC	2	0.015	RT5/65	
	50 to 90 VDC	2	0.015	RT5/90	
	77 to 150	2	0.015	RT5/150	
	150 to 264	2	0.015	RT5/264	

Technical data

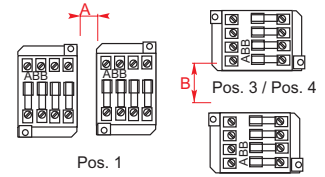
Type	Control circuit	Opening time growth factor	Residual overvoltage or clipping voltage	Remarks
RT5 /...transil diode			Advantages	<ul style="list-style-type: none"> • Good energy absorption • Unpolarized system • Simple, reliable system Disadvantages <ul style="list-style-type: none"> • A certain delay on drop out which does not reduce contactor breaking capacity
32	DC	2.5 to 3	50V	
65	DC	2.5 to 3	100V	
90	DC	2.5 to 3	150V	
150	DC	2.5 to 3	210V	
264	DC	2.5 to 3	390V	

NOTE: For all other accessories, see the Accessories section for across the line contactors, pages 1.16 – 1.32.
 TAL contactors use the same accessories as AL contactors.
 TAE contactors use the same accessories as AE contactors.

Technical data

Mounting Distance – for coil operating limits U_c min. - U_c max.

A mm	B mm	Ambient temp. °C	Max. switching frequency Operating cycles/h
2	20	≤ 20	1200
5	20	≤ 55	1200

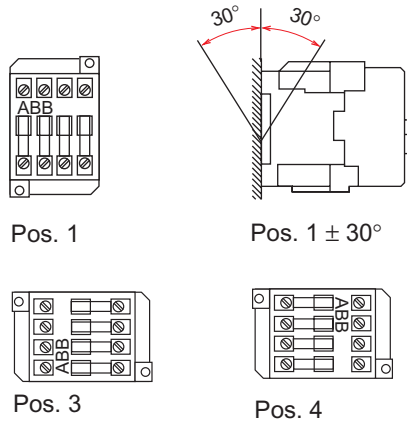


Add-on accessories

Contactors	Max. number of auxiliary contact blocks						Timer TP - A	Interlock unit	Label marker
	CA5-10	CA5-01	CA5-40	CA5-31	CA5-22	CA5-04			
pos. 1, 3 or 4 TAL - -30 - 00 TAL - -30 - 10 TAL - -40 - 00	4	2	1	1	1	-	-	VE5-1	BA5-50
pos. 1, 3 or 4 TAL - -30 - 01	4	1	1	1	-	-	-	VE5-1	BA5-50
pos. 1, 3 or 4 TAL - -22 - 00	4	-	1	-	-	-	-	VE5-1	BA5-50
pos. 1 ± 30° TAL - all types	-	-	-	-	-	-	-	VE5-1	BA5-50
all positions TAE -	6	6	1	1	1	1	1	VE5-2 ①	BA5-50

Note: Railway (traction) projects on request. Type RT surge suppressors are suitable for TAL and TAE contactors.

Mounting positions:



① Only valid for TAE 50-30-00 and TAE 75-30-00.