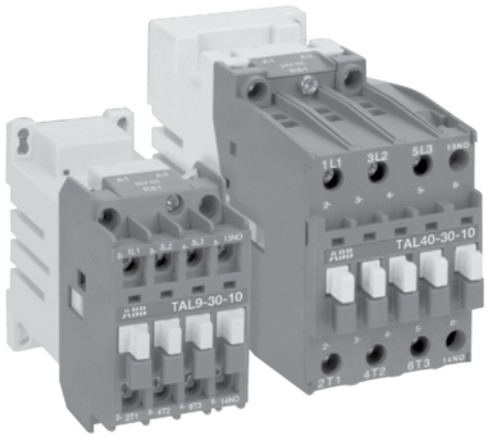
AC Circuit switching contactors
Type TAL & TAE

AC Circuit switching
Contactors



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

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

4 Pole

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

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

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

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

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

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

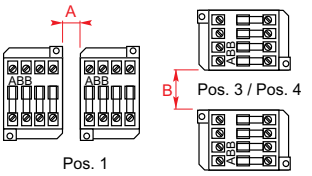
Type	Control circuit	Opening time growth factor	Residual overvoltage or clipping voltage	Remarks
RT5 /...transil diode			Advantages	• Good energy absorption
32	DC	2.5 to 3	50V	• Unpolarized system
65	DC	2.5 to 3	100V	• Simple, reliable system
90	DC	2.5 to 3	150V	Disadvantages • A certain delay on drop out which
150	DC	2.5 to 3	210V	does not reduce contactor
264	DC	2.5 to 3	390V	breaking capacity

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

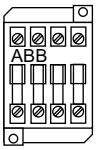


Add-on accessories

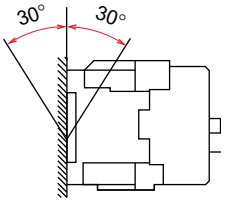
Contactors	Max. number of auxiliary contact blocks CA5-10	CA5-01	CA5-40	CA5-31	CA5-22	CA5-04	Timer TP - A	Interlock unit	Label marker
pos. 1, 3 or 4 TAL - –30 - 00 TAL - –30 - 10 TAL - –40 - 00	4	2	1	1	1	–	–	VE5-1	BA5-50
pos. 1, 3 or 4 TAL - –30 - 01	4	1	1	1	–	–	–	VE5-1	BA5-50
pos. 1, 3 or 4 TAL - –22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

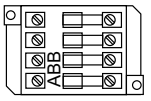
Mounting positions:



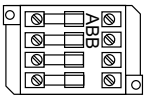
Pos. 1



Pos. 1 ± 30°



Pos. 3



Pos. 4

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