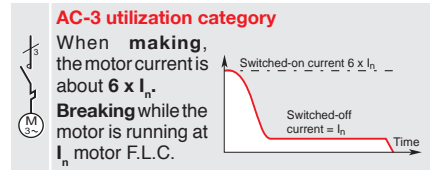


A..., AF..., 3-pole Contactors



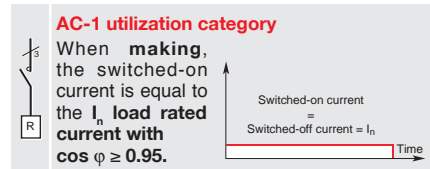
a.c. Circuit Switching

Switching of 3-phase Cage Motors



AC-3 Power rating	$\theta \leq 55^\circ\text{C}$, 400 V	kW	4	5.5	7.5	11	15	18.5
AC-3 Rated operational current	$\theta \leq 55^\circ\text{C}$, 400 V $\theta \leq 55^\circ\text{C}$, 415 V $\theta \leq 55^\circ\text{C}$, 690 V	A	9	12	17	26	32	37
		A	9	12	17	26	32	37
		A	7	9	10	17	21	25

Switching of Resistive Circuits



AC-1 Rated operational current	$\theta \leq 40^\circ\text{C}$ $\theta \leq 55^\circ\text{C}$ $\theta \leq 70^\circ\text{C}$	A	25	27	30	45	55	60
		A	22	25	27	40	55	60
		A	18	20	23	32	39	42
With conductor cross-sectional area		mm²	2.5	4	4	6	10	16
Rated operational voltage		V	690					

3-pole Contactors

Selection & Ordering

- ▶ Select contactor type.
- ▶ Quote contactor coil voltage according to control circuit supply. (Please quote coil voltage in plain text).



a.c. Control circuit supply **Types**

a.c. & d.c. Control circuit supply **Types**
(Electronic coil interface)

A9-30-10	A12-30-10	A16-30-10	A26-30-10	A30-30-10	A40-30-10
-	-	-	-	-	-

Contactor Main Accessories

Selection & Ordering

- ▶ Select accessory type and quote required data in plain text.

Auxiliary contacts		CA5-... , 1-pole, CAL5-... , 2-pole CAL18-... , 2-pole	Types	CA5-10 , 1-pole, front mounting 1 x N.O.	CA5-01 , 1-pole, front mounting 1 x N.C.																																																		
Timers		TP.. , Pneumatic TE.. , Electronic Supply voltages: 24 V a.c./d.c., 110 ... 120; 220 ... 240; 380 ... 440 V a.c.	Types	TP40DA, TP180DA Direct timing - Front mounting TP40IA, TP180 IA Inverse timing TE5S Direct timing - Separate mounting																																																			
Interlocks		VE 5-.. , Mechanical / Electrical VM... , Mechanical mounting between 2 contactors	Types	VE5-1 VM5-1																																																			
Surge suppressors		RV... , (Varistor) a.c./d.c. RC... , (Capacitor) a.c.	Types	RV5 RC5-1																																																			
O/L relays		TA..DU... , Thermal O/L relay E..DU... , Electronic O/L relay Standard starting time 2 ... 10 s tripping class 10 A	Types & setting range in Amps	<table border="1"> <tr> <td>TA25DU...</td> <td>TA42DU...</td> </tr> <tr> <td>0.10...0.16</td> <td>22...32</td> </tr> <tr> <td>0.16...0.25</td> <td>29...42</td> </tr> <tr> <td>0.25...0.40</td> <td></td> </tr> <tr> <td>0.40...0.63</td> <td></td> </tr> <tr> <td>0.63...1.0</td> <td></td> </tr> <tr> <td>1.0...1.4</td> <td></td> </tr> <tr> <td>1.3...1.8</td> <td></td> </tr> <tr> <td>1.7...2.4</td> <td></td> </tr> <tr> <td>2.2...3.1</td> <td></td> </tr> <tr> <td>2.8...4.0</td> <td></td> </tr> <tr> <td>3.5...5.0</td> <td></td> </tr> <tr> <td>4.5...6.5</td> <td></td> </tr> <tr> <td>6.0...8.5</td> <td></td> </tr> <tr> <td>7.5...11</td> <td></td> </tr> <tr> <td>10...14</td> <td></td> </tr> <tr> <td>13...19</td> <td></td> </tr> <tr> <td>18...25</td> <td></td> </tr> <tr> <td>24...32</td> <td></td> </tr> <tr> <td>E16DU...-10</td> <td></td> </tr> <tr> <td>0.1...0.32</td> <td></td> </tr> <tr> <td>0.3...1.0</td> <td></td> </tr> <tr> <td>0.9...2.7</td> <td></td> </tr> <tr> <td>2...6.3</td> <td></td> </tr> <tr> <td>5.7...18.9</td> <td></td> </tr> </table>		TA25DU...	TA42DU...	0.10...0.16	22...32	0.16...0.25	29...42	0.25...0.40		0.40...0.63		0.63...1.0		1.0...1.4		1.3...1.8		1.7...2.4		2.2...3.1		2.8...4.0		3.5...5.0		4.5...6.5		6.0...8.5		7.5...11		10...14		13...19		18...25		24...32		E16DU...-10		0.1...0.32		0.3...1.0		0.9...2.7		2...6.3		5.7...18.9	
TA25DU...	TA42DU...																																																						
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5.7...18.9																																																							



A50 A63 A75	A95 A110	A145 A185	A210 A260 A300	AF400 AF460	AF580 AF750	AF1350 AF1650
22 30 37	45 55	75 90	110 140 160	200 250	315 400	475 560
50 65 75 50 65 75 35 43 46	96 110 96 110 65 82	145 185 145 185 120 170	210 260 305 210 260 300 210 220 280	400 460 400 460 350 400	580 750 580 750 500 650	860 1050 860 1050 - -
100 115 125 85 95 105 70 80 85	145 160 135 145 115 130	250 275 230 250 180 180	350 400 500 300 350 400 240 290 325	600 700 500 600 400 480	800 1050 700 800 580 720	1350 1650 1150 1450 1000 1270
35 50 50	50 70	120 150	185 240 300	2 x 185 2 x 240	2x240 bar/ mm 2x80x5	bar/ mm 2//100x5 3//100x5
1000		690			1000	

A50-30-00 A63-30-00 A75-30-00	A95-30-00 A110-30-00	A145-30-11 A185-30-11	A210-30-11 A260-30-11 A300-30-11	AF400-30-11 AF460-30-11	AF580-30-11 AF750-30-11	AF1350-30-11 AF1650-30-11
AF ... typs also available. please consult us						

CAL5-11 2-pole, side mounting 1 x N.O. + 1 x N.C.	CAL18-11 2-pole, side mounting 1 x N.O. + 1 x N.C. (1 st block)	CAL18-11 B 1 x N.O. + 1 x N.C. (2 nd block)
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se timing - Front mounting	TE5S Sep. mounting	TE5S Direct timing - Separate mounting
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VE5-2 -	VM300H -	VM750H -	VM1650H -
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RV5 RC5-2	RC5-2	The built-in coil interface eliminates the need of extra surge suppressors on these sizes
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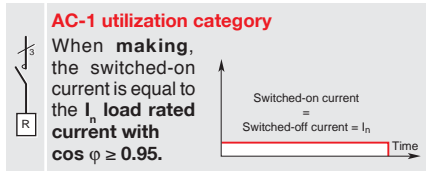
TA75DU... 29...42 36...52 45...63 60...80	TA80DU 60...80 TA110DU 65...90 80...110	TA 200 DU... 130...175 150...200 E 200 DU 60...200	TA450DU... 165...235 220...310 E320DU 100...320	E500DU 150...500	E800DU 250...800	E1250DU 375...1250
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A..., EK..., 4-pole Contactors



a.c. Circuit Switching

Switching of Resistive Circuits



AC-1	Rated operational current	$\theta \leq 40^\circ\text{C}$ $\theta \leq 55^\circ\text{C}$ $\theta \leq 70^\circ\text{C}$
	With conductor cross-sectional area	mm²
	Rated operational voltage	V

	A 9	A 16	A 26
A	25	30	45
A	22	27	40
A	18	23	32
mm ²	2.5	4	6
V	690		

4-pole Contactors

Selection & Ordering

- ▶ Select 4 N.O. or 2 N.O. + 2 N.C. main poles
- ▶ Select contactor type.
- ▶ Quote contactor coil voltage according to control circuit supply. (Please quote coil voltage in plain text).

4 N.O. main poles



a.c. Control circuit supply Types

A 9-40-00	A 16-40-00	A 26-40-00
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d.c. Control circuit supply Types

-	-	-
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2 N.O. + 2 N.C. main poles



a.c. Control circuit supply Types

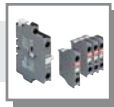
A 9-22-00	A 16-22-00	A 26-22-00
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Contactor Main Accessories

Selection & Ordering

- ▶ Select accessory type and quote required data in plain text.

Auxiliary contacts



CA 5-..., 1-pole
CAL ..., 2-pole Types

CA 5-10 1 x N.O.	CA 5-01 1 x N.C.
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Timers



TP..., Pneumatic
TE..., Electronic
Supply voltages: 24 V a.c./d.c.,
110 ... 120; 220 ... 240; 380 ... 440 V a.c.

TP 40 DA, TP 180 DA	Direct timing - Front mounting
TE5S	Direct timing - Separate

Interlocks



VE 5-..., Mechanical / Electrical
VM..., **VH...** Mechanical
mounting between 2 contactors Types

VE 5-1	VM 5-1
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Surge suppressors



RV..., (Varistor) a.c./d.c.
RC..., (Capacitor) a.c. Types

RV 5	RC 5-1
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A 45			A 50			A 75			EK 110		EK 150		EK 175		EK 210		EK 370		EK 550		EK 1000											
70	100	125	200	250	300	350	550	800	1000	60	85	105	180	230	270	310	470	650	800	50	70	85	155	200	215	250	400	575	720			
25	35	50	95	150	185	240	2 x 185	2 x 240	2 x 300																							
						690						1000																				

A 45-40-00			A 50-40-00			A 75-40-00			EK 110-40-11		EK 150-40-11		EK 175-40-11		EK 210-40-11		EK 370-40-11		EK 550-40-11		EK 1000-40-11	
			-						EK 110-40-21		EK 150-40-21		EK 175-40-21		EK 210-40-21		EK 370-40-21		EK 550-40-21		EK 1000-40-21	

A 45-22-00			-			A 75-22-00			-		-		-		-		-		-		-	
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CAL 5-11 2-pole, side mounting 1 x N.O. + 1 x N.C.						CAL 16-11 2-pole, side mounting 1 x N.O. + 1 x N.C.					
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TP 40 IA, TP 180 IA Inverse timing - Front mounting mounting						TE5S Direct timing - Separate mounting (interpose an N.. contactor relay for EK 370 ... EK 1000)					
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VE 5-2 -			VH 145 (Mechanical / Electrical)			VH 300 (Mechanical / Electrical)			- VH 800		
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RV 5 RC 5-2			- RC-EH 300			RC-EH 800 (Varistor + RC)		
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AL.. Contactors - d.c. Coil - Low Consumption

3-pole Contactors



AC-3 Power rating $\theta \leq 55^\circ\text{C}$, 400 V

kW

4 5.5 7.5

11 15 18.5

AC-3 Rated operational current $\theta \leq 55^\circ\text{C}$
400 V
415 V
690 V

A

AL 9 **AL 12** **AL 16**

AL 26 **AL 30** **AL 40**

A

9 12 17

26 32 37

A

9 12 17

26 32 37

A

7 9 10

13 18 21

AC-1 Rated operational current $\theta \leq 40^\circ\text{C}$

A

25 27 30

45 55 60

Type (State coil voltage)



AL 9-30-10 AL 12-30-10 AL 16-30-10

AL 26-30-10 AL 30-30-10 AL 40-30-10

Coil consumption, pull-in and holding at 20°C

W

3 3 3

3.5 3.5 3.5

O/L relays



TA 25 DU 0.4 ...0.63 2.2...3.1 7.5 ...11
0.63 ...1.0 2.8...4.0 10 ...14
0.10...0.16 1.0 ...1.4 3.5...5.0 13 ...19
0.16...0.25 1.3 ...1.8 4.5...6.5 18 ...25
0.25...0.4 1.7 ...2.4 6.0...8.5 24 ...32

TA 42 DU
22...32
29...42

Auxiliary contacts



Front mounting 1 N.O. CA 5-10 1 N.C. CA 5-01 4-pole CA 5
Side mounting 1 N.O. + 1 N.C. CAL 5-11

Timers



Electronic TE5S

Interlocks



Mechanical VM 5-1 / Electrical VE 5-1

Surge suppressors



Varistor RV5
Transil Diode RT5

4-pole Contactors



AC-1 Rated operational current $\theta \leq 40^\circ\text{C}$

A

25 30

45

AL 9 **AL 16**

AL 26

Type (State coil voltage)



AL 9-40-00 AL 16-40-00

AL 26-40-00