

Mini Contactors

for compact equipments

3-pole or 4-pole



IEC	AC-3 Power Rating	$\theta \leq 55^\circ\text{C}$, 400 V	kW	4	5.5
UL/CSA	3-phase Motor Rating	480 V	hp	3	5
a.c. Control Supply		Type	B 6	B 7	
d.c. Control Supply		Type	BC 6	BC 7	
a.c. / d.c. Control Supply		Type	–	–	
IEC	AC-3 Rated Current	$\theta \leq 55^\circ\text{C}$, 400 V	A	9	12
		$\theta \leq 55^\circ\text{C}$, 690 V	A	3.5	3.5
	AC-1 Rated Current	$\theta \leq 40^\circ\text{C}$, 400 V	A	16	20
		$\theta \leq 55^\circ\text{C}$, 400 V	A	16	16
		$\theta \leq 70^\circ\text{C}$, 400 V	A	–	–
UL/CSA	3-phase Amp-Rating	480 V	A	4.8	7.6
	General Use Rating	300 V * / 600 V *	A	12 *	16 *
	Nema Size			–	–

* 12 A / 300 V for B 6, BC 6
16 A / 600 V for B 7, BC 7

Main Accessories

Auxiliary Contact Blocks	Side mounting	CA 6
	Front mounting	CAF 6
Timers	Pneumatic	–
	Electronic	–
Interlocking Units (compact reversing contactors)	Mechanical	VB
	With safety blocking	VBA
Surge Suppressors	Integrated (a.c.)	–
	Varistor (d.c.)	RV-BC6
	–	–
Connection Sets	For reversing contactors	B 6-30

Overload Relays

Thermal Relays	Class 10A	T7 DU (0.1 ... 12 A)
	–	–
Electronic Relays	Class 10, 20, 30	E 16 DU (0.1 ... 18.9 A)

Manual Motor Starters

Thermal / magnetic protection	MS 116	
	MS 325	
Connecting Links	For contactor mounting	BEA 7

3-pole Block Contactors

for all industrial applications



IEC	AC-3 Power Rating	$\theta \leq 55^\circ\text{C}$, 400 V	kW	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75
UL/CSA	3-phase Motor Rating	480 V	hp	5	7.5	10	20	25	30	40	60	60	60	75	100
a.c. Control Supply		Type	A 9	A 12	A 16	A 26	A 30	A 40	A 50	A 63	A 75	A 95	A 110	A 145	
d.c. Control Supply		Type	AL 9	AL 12	AL 16	AL 26	AL 30	AL 40	AE 50	AE 63	AE 75	AE 95	AE 110	AF 145	
a.c. / d.c. Control Supply		Type	–	–	–	–	–	–	AF 50	AF 63	AF 75	AF 95	AF 110	AF 145	
IEC	AC-3 Rated Current	$\theta \leq 55^\circ\text{C}$, 400 V	A	9	12	17	26	32	37	50	65	75	96	110	145
		$\theta \leq 55^\circ\text{C}$, 690 V	A	7	9	10	17*	21*	25*	35	43	46	65	82	120
	AC-1 Rated Current	$\theta \leq 40^\circ\text{C}$, 690 V	A	25	27	30	45	55	60	100	115	125	145	160	250
		$\theta \leq 55^\circ\text{C}$, 690 V	A	22	25	27	40	55	60	85	95	105	135	145	230
		$\theta \leq 70^\circ\text{C}$, 690 V	A	18	20	23	32	39	42	70	80	85	115	130	180
UL/CSA	3-phase Motor Rating	480 V	hp	5	7.5	10	20	25	30	40	60	60	60	75	100
	General Use Rating	600 V	A	21	25	30	40	50	60	80	90	105	125	140	230
	Nema Size			00	0	–	1	1P	–	2	–	3	–	–	4

* For AL 26 ... AL 40, see the technical documentation

Main Accessories

Auxiliary Contact Blocks	Front mounting (1 or 4-pole)	CA 5-10 (1 x N.O.)	CA 5-01 (1 x N.C.)	CA 5-40.. (4 x N.O.)	CA 5-31.. (3 x N.O. + 1 x N.C.)	CA 5-22.. (2 x N.O. + 2 x N.C.)	CA 18-11 (1 x N.O. + 1 x N.C.)	CA 18-11 (1 x N.O. + 1 x N.C.)
	Side mounting (2-pole)	CAL 5-11 (1 x N.O. + 1 x N.C.)	CAL 5-11 (1 x N.O. + 1 x N.C.)	CAL 5-11 (1 x N.O. + 1 x N.C.)	CAL 5-11 (1 x N.O. + 1 x N.C.)	CAL 18-11 (1 x N.O. + 1 x N.C.)	CAL 18-11 (1 x N.O. + 1 x N.C.)	
Timers	Pneumatic*	TP 40 DA, TP 180 DA Direct timing - Front mounting			TP 40 IA, TP 180 IA Inverse timing - Front mounting			
	Electronic**	TE5S-.. Direct timing - Separate mounting	TE5S-.. Direct timing - Separate mounting	TE5S-.. Direct timing - Separate mounting	TE5S-.. Direct timing - Separate mounting	TE5S-.. Direct timing - Separate mounting	TE5S-.. Direct timing - Separate mounting	
Interlocking Units	Mechanical	VM 5-1	VM 5-1	VM 5-1	VM 5-1	VM 5-1	VM 300H	
	Mechanical / Electrical	VE 5-1	VE 5-1	VE 5-2	VE 5-2	VE 5-2	VE 5-2	
Surge Suppressors**	Varistor (a.c./d.c.)	RV 5/.. (24 ... 440 V)	RV 5/.. (24 ... 440 V)	RV 5/.. (24 ... 440 V)	RV 5/.. (24 ... 440 V)	RV 5/.. (24 ... 440 V)	RV 5/.. (24 ... 440 V)	
	RC Type (a.c.)	RC 5-1/.. (24 ... 440 V)	RC 5-1/.. (24 ... 440 V)	RC 5-2/.. (24 ... 440 V)	RC 5-2/.. (24 ... 440 V)	RC 5-2/.. (24 ... 440 V)	RC-EH 300	
	Transil diode (d.c.)	RT 5/.. (12 ... 264 V)	RT 5/.. (12 ... 264 V)	RT 5/.. (12 ... 264 V)	RT 5/.. (12 ... 264 V)	RT 5/.. (12 ... 264 V)	RT 5/.. (12 ... 264 V)	
	–	BER 16..	BER 40..	BEM 75-30	BEM 110-30	BEM 185-30	BEM 185-30	

* TP pneumatic timer not suitable for (T)AL contactors and (T)N...E contactor relays
** AF contactors do not need TESS electronic timer or extra surge suppressor

Overload Relays

Thermal Relays	Class 10A	TA 25 DU (0.1 ... 32 A)	TA 25 DU (0.1 ... 32 A)	TA 75 DU (18 ... 80 A)	TA 80 DU (29 ... 80 A)	TA 200 DU (60 ... 200 A)
	(10 A or 20 for TA 25 to TA 80)	TA 42 DU (18 ... 42 A)	TA 42 DU (18 ... 42 A)	TA 110 DU (65 ... 110 A)	TA 110 DU (65 ... 110 A)	TA 200 DU (60 ... 200 A)
Electronic Relays	Class 10, 20, 30	E 16 DU (0.1 ... 18.9 A)	E 45 DU (9 ... 45 A)	E 80 DU (27 ... 80 A)	E 140 DU (50 ... 140 A)	E 200 DU (60 ... 200 A)

Manual Motor Starters

Thermal / magnetic protection	MS 116 (0.16 ... 16 A)	MS 450 (11 ... 50 A)	MS 495 (28 ... 100 A)	MS 495 (28 ... 100 A)
	MS 325 (0.16 ... 25 A)	MS 325 (0.16 ... 25 A)	MS 495 (28 ... 100 A)	MS 495 (28 ... 100 A)
Connecting Links	For contactor mounting	BEA 16/..	BEA 26/.. BEA 40/..	BEA 50/.. BEA 75/.. BEA 110..

Circuit

Tmax Circuit

and motor starting

90	110	140	160	200	250	315	400	475	560	
125	150	200	250	350	400	500	600	800	900	
A 185	A 210	A 260	A 300	AF 400	AF 460	AF 580	AF 750	AF 1250	AF 1350	AF 1650
AF 185	AF 210	AF 260	AF 300	AF 400	AF 460	AF 580	AF 750	AF 1250	AF 1350	AF 1650
AF 185	AF 210	AF 260	AF 300	AF 400	AF 460	AF 580	AF 750	AF 1250	AF 1350	AF 1650
185	210	260	305	400	460	580	750	860	1050	
170	210	220	280	350	400	500	650	800	950	
275	350	400	500	600	700	800	1050	1260	1350	1650
250	300	350	400	500	600	700	875	1040	1150	1450
180	240	290	325	400	480	580	720	875	1000	1270
125	150	200	250	350	400	500	600	800	900	
250	300	350	400	550	650	750	900	1350	1650	
-	-	5	-	-	6	-	7	-	8	

1 N.O. + 1 x N.C.)	CAL 18-11 (1 x N.O. + 1 x N.C.)	CAL 18-11 (1 x N.O. + 1 x N.C.)	CAL 18-11 (1 x N.O. + 1 x N.C.)	CAL 18-11 (1 x N.O. + 1 x N.C.)
Timing late mounting	TE5S... Direct timing - Separate mounting			
	VM 300H	VM 750H	VM 750H	VM 1650H
	RC-EH 300			
	BEM 300-30	BEM 460-30	BEM 750-30	

5 ... 200 A)	TA 450 DU (130 ... 310 A)			
... 200 A)	E 320 DU (100 ... 320 A)	E 500 DU (150 ... 500 A)	E 800 DU (250 ... 800 A)	E 1250 DU (375 ... 1250 A)

Breakers

Breaker and accessories				
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4-pole Block Contactors

IEC	AC-1 Current Rating	$\theta \leq 40^\circ\text{C}$, 690 V	A	25	30	45	70	100	125	200	250	300	350	550	800	1000				
UL/CSA	General Use Rating	600 V	A	21	30	40	80	80	105	170	200	250	300	420	540	-				
a.c. Control Supply			Type	A 9	A 16	A 26	A 45	A50	A 75	EK 110	EK 150	EK 175	EK 210	EK 370	EK 550	EK 1000				
d.c. Control Supply			Type	AL 9	AL 16	AL 26	AE 45	AE 50	AE 75	EK 110	EK 150	EK 175	EK 210	EK 370	EK 550	EK 1000				

Bar Contactors

with variable pole number
for heavy duty applications,
up to 5000 A - AC-1 (on request)

Max. Rated Voltage																			
500 V a.c.	AC-3 Rated Current 400-415 V	A	77 to 550	800	800	1060	1260	1520											
	AC-1 Rated Current	A	85 to 550	900	1000	1350	1650	2000											
		Type	IOR. 85 to 550	IOR. 800	IOR. 1000	IOR. 1400	IOR. 1700	IOR. 2100											
1000 V a.c.	AC-3 Rated Current	A	56 to 380	580		610	680	810											
		Type	IOR. 63-MT to 500-MT	IOR. 800-MT		IOR. 1400-MT	IOR. 1700-MT	IOR. 2100-MT											
1500 V d.c.	DC-5 Rated Current	A	68 to 500	720	1000														
		Type	IOR. 63-CC to 500-CC	IOR. 800-CC	IOR. 1000-CC	IOR. 1400-CC	IOR. 1700-CC	IOR. 2100-CC											

Specific Contactors

Large Voltage Range (d.c.)	Capacitor Switching	d.c. Circuit Switching	Magnetical Latching
 4 to 37 kW 5 to 60 hp TAL 9 to TAE 75 types	 12.5 to 80 kvar UA 16 to UA 110 types UA 16..RA to UA 110..RA types	 100 A, 440 V, DC-1 GA 75, GAE 75 types	 3 N.O. poles, 22 to 90 kW, 400 V, AC-3 2 N.O. + 2 N.C. poles, 70 to 125 A, AC-1 AM 45 to AM 185 types

Mini Contactor Relays

Contactor Relays

4-pole	4-pole	8-pole	8-pole, with overlapping of lagging / leading contacts	
IEC	AC-15 Current Rating	400 V	A	3
UL/CSA	Pilot Duty			A 600
a.c. Control Supply		Type	K 6	N..E N 22 E N 31 E N 40 E N 44 E N 53 E N 62 E N 71 E N 80 E N 33/11 N 51/11
d.c. Control Supply		Type	KC 6	NL..E NL 22 E NL 31 E NL 40 E NL 44 E NL 53 E NL 62 E NL 71 E NL 80 E NL 33/11 NL 51/11