



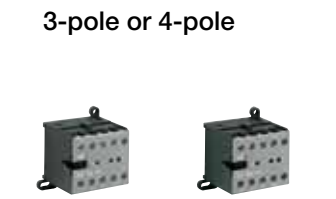
Motor starting solutions

- Perfect match in starter assembly with a large range of accessories.
- Short-circuit protection, type 1 and 2 coordination.
- Large offer of accessories for direct-on-line, reversing and star-delta starters which allows:
 - time / cost saving,
 - secure connection,
 - aesthetic starters,
 - easy assembly and wiring.



Mini contactors

3-pole contactors, for all industrial applications and motor starting



IEC	AC-3 Rated operational power	$\theta \leq 55\text{ }^{\circ}\text{C}^*$, 400 V	kW
UL/CSA	3-phase motor rating	480 V	hp
AC Control supply			Type
DC Control supply			Type
AC / DC Control supply			Type
IEC	AC-3 Rated operational current	$\theta \leq 55\text{ }^{\circ}\text{C}^*$, 400 V	A
	AC-1 Rated operational current	$\theta \leq 40\text{ }^{\circ}\text{C}$, 690 V	A
UL/CSA	General use rating	600 V	A
NEMA	NEMA Size		

* $\theta \leq 60\text{ }^{\circ}\text{C}$ for AS(L)09 ... AS(L)16 and AF09 ... AF38 contactors

Main accessories

Auxiliary contact blocks	Front mounting
	Side mounting
Timers	Pneumatic (Front mounting)
	Electronic
Interlocking units (1)	Mechanical
	Mechanical / Electrical
Connection sets	For reversing contactors
Surge suppressors	Varistor (AC/DC)
AF contactors have built-in surge protection	RC type (AC)
	Transil diode (DC)

(1) See available reversing contactors VB6, VB7 and VAS09 ... VAS16

Overload relays

Thermal relays	Class 10 (10A or 20 for TA42DU to TA80DU)
Accessories for thermal overload relays	Remote tripping coil
	Remote reset coil
	Wall/separate mounting kit
Electronic relays	Class 10E, 20E, 30E
Accessories for electronic overload relays	Wall/separate mounting kit

Manual motor starters

	Thermal / magnetic protection	Class 10
		Class 20
	Magnetic only types	
Accessories		
For contactor mounting		
Auxiliary trip units, auxiliary contacts, busbars		

MS116 for class 10A (0.10...32 A) lcs up to 50 kA
MS132 (0.10...32 A) lcs up to 100 kA
MO132 (0.16...32 A)
BEA7/132
HKF1, HK1, UA1, AA1, PS1, S1, SK1, CK1 (MS132, MO132 only)

New			New			New														
4	5.5	7.5	4	5.5	7.5	11	15	18.5	18.5	22	30	37	45	55	75	90				
5	7.5	10	5	7.5	10	15	20	20	30	40	60	60	60	75	100	125				
AS09	AS12	AS16	AF09	AF12	AF16	AF26	AF30	AF38	A40	A50	A63	A75	A95	A110	A145	A185				
ASL09	ASL12	ASL16	AF09	AF12	AF16	AF26	AF30	AF38	AL40	AE50	AE63	AE75	AF95	AF110	AF145	AF185				
—	—	—	AF09	AF12	AF16	AF26	AF30	AF38	—	AF50	AF63	AF75	AF95	AF110	AF145	AF185				
9	12	15.5	9	12	18	26	32	38	37	50	65	75	96	110	145	185				
22	24	24	25	28	30	45	50	50	60	100	115	125	145	160	250	275				
20	20	20	25	28	30	45	50	50	60	80	90	105	125	140	230	250				
00	00	0	00	0	—	1	—	—	—	2	—	3	—	—	4	—				

CA3-10 (1 x N.O.), CA3-01 (1 x N.C.)		CA4-10 (1 x N.O.), CA4-01 (1 x N.C.)		CA5-10 (1 x N.O.), CA5-01 (1 x N.C.)		
		CAL4-11 (1 x N.O. + 1 x N.C.)		CAL5-11 (1 x N.O. + 1 x N.C.)		CAL18-11 (1 x N.O. + 1 x N.C.)
				TP40DA, TP180DA Direct timing TP40IA, TP180IA Inverse timing		
TEF3-ON, TEF3-OFF						
VM3		VM4		VM5-1		VM300H / VM300V
VEM4				VE5-1		VE5-2
BER16C-3		BER16-4		BER40V		BEM75-30
RV5 (24...440 V)		BER38-4		BEM110-30		BEM185-30
RC5-1 (24...440 V)				RC5-1 (24...440 V)		RC5-2 (24...440 V)
RT5 (12...264 V)				RC5-3 (250...440V)		
				RT5 (12...264 V)		

T16 (0.10...16 A)	TF42 (0.10...38 A)		TA42DU (18...42 A)	TA75DU (18...80 A)	TA80DU (29...80 A) TA110DU (65...110 A)	TA200DU (66...200 A)
DB16	DB42		DB80	DB80, DB200		DB200
	EF19 (0.10...18.9 A)	EF19 (0.10...18.9 A), EF45 (9...45 A)	E45DU (9...45 A)	E80DU (27...80 A)	E140DU (50...140 A)	E200DU (60...200 A)
	DB16E (to use with E16DU), DB45 (to use with E45DU)		DB45E, DB80E		DB140E	

MS116 for class 10A (0.10...32 A) lcs up to 50 kA	MS450 (28...50 A) lcs up to 50 kA	MS495 (45...100 A) lcs up to 50 kA	Tmax Circuit breaker and accessories
MS132 (0.10...32 A) lcs up to 100 kA	MS497 (22...100 A) lcs up to 100 kA	MS451 (11...50 A) lcs up to 50 kA	
		MS496 (28...100 A) lcs up to 100 kA	
MO132 (0.16...32 A)	MO450 (40...50 A) lcs up to 50 kA	MO495 (63...100 A) lcs up to 50 kA	
	MO496 (16...100 A) lcs up to 100 kA	BEA40/450	BEA50/450, BEA75/495
BEA16-3	BEA16-4	BEA38-4	BEA40/450
HKF1, HK1, UA1, AA1, PS1, S1, SK1, CK1 (MS132, MO132 only)	HK4, HKS4, UA4, AA4, PS4, S4, SK4		

Circuit breakers