

ABB Contactors and Motor Control Price List PDF

Effective	11 May 2026
Region	India
Status	Current

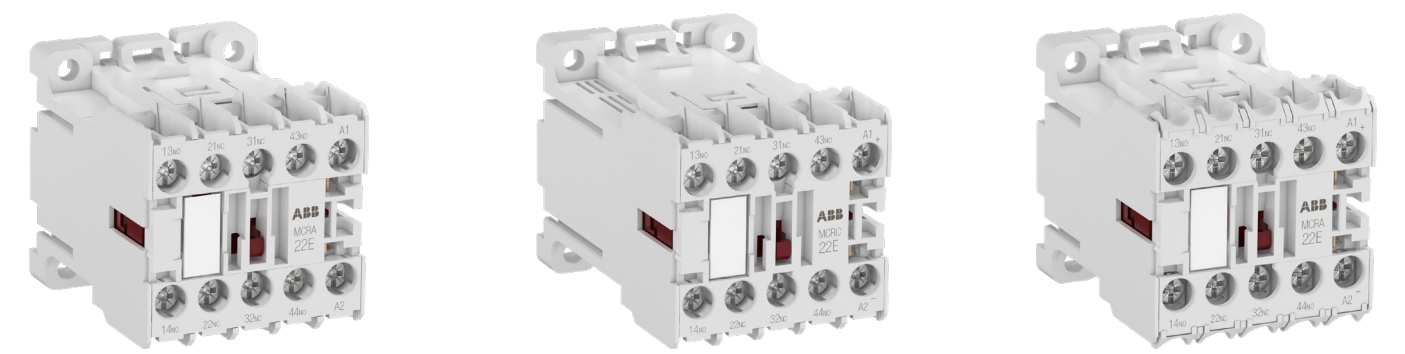
Extracted from: ABB Electrification Products Price List, effective 11 May 2026

Original source pages: 99-134

This section was extracted without changing product descriptions, prices or technical content.

M Mini contactor relay

MCRA/MCRC



4 pole - AC operated

4 pole - DC operated with extended operating limit

Contact configuration	Coil Voltage	Type code reference	Ordering code	L.P.(₹)	Coil Voltage	Type code reference	Ordering code	L.P. (₹)
4NO	24	MCRA040AT1	1SAH102013R9900	Upon request	24	MCRC040ATD	1SAH100006R9900	Upon request
3NO 1NC	24	MCRA031AT1	1SAH102034R9900		24	MCRC031ATD	1SAH100016R9900	
2NO 2NC	24	MCRA022AT1	1SAH220438R9900		24	MCRC022ATD	1SAH100026R9900	
4NO	110..115	MCRA040ATJ	1SAH100003R9900		110	MCRC040ATWJ	1SAH220407R9900	
3NO 1NC	110..115	MCRA031ATJ	1SAH100013R9900		110	MCRC031ATWJ	1SAH220406R9900	
2NO 2NC	110..115	MCRA022ATJ	1SAH100023R9900		77..143	MCRC022ATWJ	1SAH107171R9900	
4NO	220..240	MCRA040ATN	1SAH100004R9900		220	MCRC040ATWN	1SAH220404R9900	
3NO 1NC	220..240	MCRA031ATN	1SAH100014R9900		220	MCRC031ATWN	1SAH220403R9900	
2NO 2NC	220..240	MCRA022ATN	1SAH100024R9900		220	MCRC022ATWN	1SAH220402R9900	

Auxiliary contact blocks for mini contactors

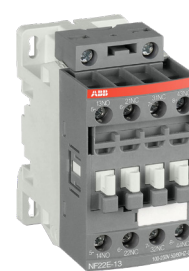
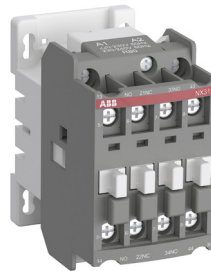
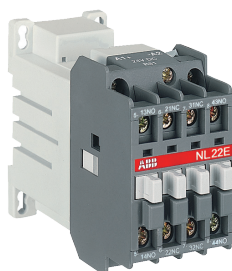
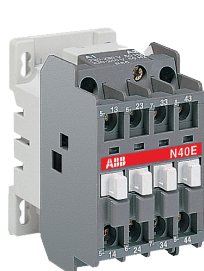
Ordering details

For contactor types	Auxiliary contacts	Type	Ordering code	L.P.(₹)
Front mounted instantaneous auxiliary contact blocks				
MC1 and MC2 variants	1NO + 1NC	MACN211AT	1SAL100999R9906	Upon request
	2NO	MACN202AT	1SAL100998R9906	
	3NO + 1NC	MACN431AT	1SAL100995R9906	
	2NO + 2NC	MACN422AT	1SAL100996R9906	
	1NO + 3NC	MACN413AT	1SAL100997R9906	
Side mounted instantaneous auxiliary contact block				
MC1 and MC2 variants	1NO	MACL110AT	1SAL100560R9906	Upon request
	1NC	MACL101AT	1SAL100561R9906	

For contactor types	Rated control circuit voltage	Type	Ordering code	L.P.(₹)
Surge suppressors for contactor coils				
MC1 and MC2 variants	24-48 V AC / DC	MP0DAE4	1SAL100536R9906	Upon request
	50-127 V AC / DC	MP0DAE5	1SAL204848R9906	
	130-250 V AC / DC	MP0DAE6	1SAL204849R9906	

For contactor types	Rated control circuit voltage	Time range	Type	Ordering code	L.P.(₹)
Electronic timers					
MC1 and MC2 variants	24-250 V AC / DC	0.5 ... 60 sec.	MREBC10AC2	1SAL100541R9906	Upon request
		0.2 ... 24 sec.	MREBC20AC2	1SAL100542R9906	

Auxiliary contactors



Standard control contactors

No. of contacts	Contact configuration		Type code reference	Ordering code	L.P.(₹)	Type code reference	Ordering code	L.P.(₹)
	NO	NC						
4	2	2	N22E-□□	1SBH141001R□□22 ■	2,630	NL22E-□□	1SBH143001R□□22 ■	3,940
4	3	1	N31E-□□	1SBH141001R□□31 ■		NL31E-□□	1SBH143001R□□31 ■	
4	4	0	N40E-□□	1SBH141001R□□40 ■		NL40E-□□	1SBH143001R□□40 ■	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

No. of contacts	Contact configuration		Type code reference	Ordering code	L.P.(₹)
	NO	NC			
4	2	2	NX22E-□□	1SBH901074R□□22 ■	2,160
4	3	1	NX31E-□□	1SBH901074R□□31 ■	
4	4	0	NX40E-□□	1SBH901074R□□40 ■	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Wide band AC / DC operated

No. of contacts	Contact configuration		Type code reference	Ordering code	L.P.(₹)
	NO	NC			
4	2	2	NF22E-□□	1SBH137001R□□22 ■	4,920
4	3	1	NF31E-□□	1SBH137001R□□31 ■	
4	4	0	NF40E-□□	1SBH137001R□□40 ■	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Wide band low power consumption

Type code reference #	Ordering code	L.P.(₹)
NFZ22E-□□	1SBH136001R□□22	6,160
NFZ31E-□□	1SBH136001R□□31	
NFZ40E-□□	1SBH136001R□□40	

#Allows direct control by PLC output ≥ 24 V DC 500 mA

Coil voltages and codes

N & NX range - AC operated

Voltage	Voltage	Code
□□ V - 50Hz	□□ V - 60Hz	□□
24	24	8 1 ■
110	110 ... 120	8 4 ■
220 ... 230	230 ... 240	8 0 ■
400 ... 415	415 ... 440	8 6 ■

NF range - AC/DC operated

Voltage	Voltage	Code
V 50/60 Hz	V DC	□□
24...60	20...60	1 1 ■
48...130	48...130	1 2 ■
100...250	100...250	1 3 ■
250...500	250...500	1 4 ■

■ Stock items

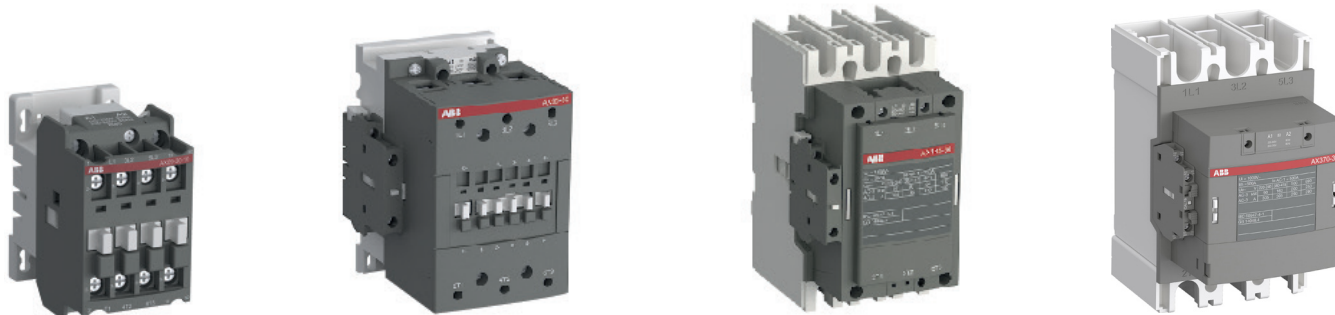
NL - DC operated

Voltage V DC	Code
□□	□□
24	8 1 ■
48	8 3 ■
110	8 6 ■
220	8 8 ■

NFZ range - AC/DC operated

Voltage	Voltage	Code
V 50/60 Hz	V DC	□□
-	12...20	2 0
24...60	20...60	2 1
48...130	48...130	2 2
100...250	100...250	2 3

3 pole contactors: AX09...AX370 : AC operated



AX Contactor

AX contactors are mainly used for controlling 3-phase motors and power circuits up to 690 V AC.

These contactors are of the block type design with:

- 3 main poles and built-in auxiliary contact
- Control circuit: AC operated
- Add-on auxiliary contact blocks for front or side mounting and a wide range of accessories

Contactors: 3-pole – AC operated

AC1 duty Amps	AC3 rating at 415V		Auxiliary contacts		Type code	Ordering code	L.P.(₹)
	Amps	kW					
22	9	4	1NO	-	AX09-30-10-□□	1SBL901074R□□10 ■	2,060
22	9	4	-	1NC	AX09-30-01-□□	1SBL901074R□□01 ■	2,060
25	12	5.5	1NO	-	AX12-30-10-□□	1SBL911074R□□10 ■	2,300
25	12	5.5	-	1NC	AX12-30-01-□□	1SBL911074R□□01 ■	2,300
27	18	9	1NO	-	AX18-30-10-□□	1SBL921074R□□10 ■	2,700
27	18	9	-	1NC	AX18-30-01-□□	1SBL921074R□□01 ■	2,700
32	25	11	1NO	-	AX25-30-10-□□	1SBL931074R□□10 ■	3,690
32	25	11	-	1NC	AX25-30-01-□□	1SBL931074R□□01 ■	3,690
55	32	15	1NO	-	AX32-30-10-□□	1SBL281074R□□10 ■	7,710
55	32	15	-	1NC	AX32-30-01-□□	1SBL281074R□□01 ■	7,710
60	40	18.5	1NO	-	AX40-30-10-□□	1SBL321074R□□10 ■	10,760
60	40	18.5	-	1NC	AX40-30-01-□□	1SBL321074R□□01 ■	10,760
100	50	25	1NO	1NC	AX50-30-11-□□	1SBL351074R□□11 ■	14,760
115	65	30	1NO	1NC	AX65-30-11-□□	1SBL371074R□□11 ■	20,060
125	80	37	1NO	1NC	AX80-30-11-□□	1SBL411074R□□11 ■	25,860
145	96	45	1NO	1NC	AX95-30-11-□□	1SFL431074R□□11 ■	31,250
160	115	55	1NO	1NC	AX115-30-11-□□	1SFL981074R□□11 ■	36,910
190	150	75	1NO	1NC	AX150-30-11-□□	1SFL991074R□□11 ■	47,990
250	185	90	1NO	1NC	AX185-30-11-□□	1SFL491074R□□11 ■	63,700
275	205	110	1NO	1NC	AX205-30-11-□□	1SFL501074R□□11 ■	68,110
400	265	132	1NO	1NC	AX260-30-11-□□	1SFL547074R□□11 ■	1,02,520
500	305	160	1NO	1NC	AX300-30-11-□□	1SFL587074R□□11 ■	1,08,370
600	370	200	1NO	1NC	AX370-30-11-□□	1SFL607074R□□11 ■	1,37,620

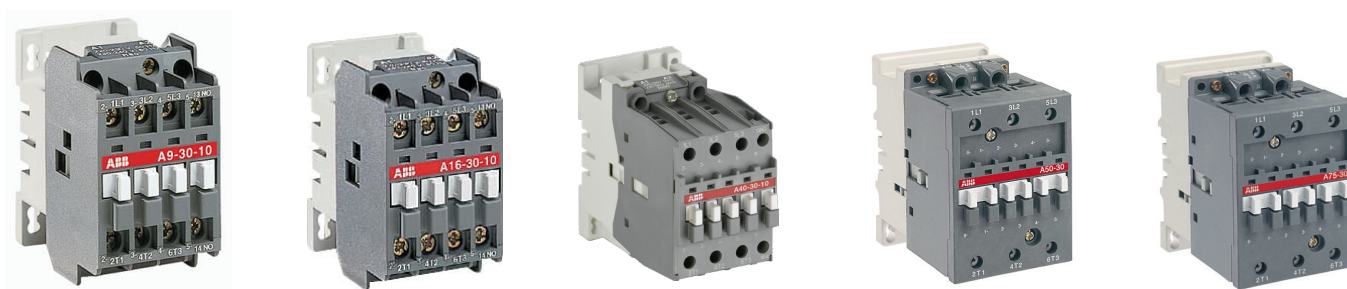
Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Coil voltages and codes AX range

Voltage	Voltage	Code
□□ V - 50Hz	□□ V - 60Hz	□□
24	24	8 1 ■
110	110	8 4 ■
220 ... 230	220 ... 230	8 0 ■
400 ... 415	400 ... 415	8 6 ■

■ Stock items

3 pole contactors: AC operated



Contactors: 3-pole - AC operated

AC1 duty Amps	AC3 rating at 415V			Auxiliary contacts		Type code	Ordering code	L.P.(₹)
	Amps	hP	kW					
25	9	5.5	4	1NO	-	A09-30-10-□□	1SBL141001R□□10 ■	2,320
25	9	5.5	4	-	1NC	A09-30-01-□□	1SBL141001R□□01 ■	2,320
27	12	7.5	5.5	1NO	-	A12-30-10-□□	1SBL161001R□□10 ■	2,640
27	12	7.5	5.5	-	1NC	A12-30-01-□□	1SBL161001R□□01 ■	2,640
30	17	12.5	7.5	1NO	-	A16-30-10-□□	1SBL181001R□□10 ■	3,110
30	17	12.5	7.5	-	1NC	A16-30-01-□□	1SBL181001R□□01 ■	3,110
45	26	15	11	1NO	-	A26-30-10-□□	1SBL241001R□□10 ■	4,080
45	26	15	11	-	1NC	A26-30-01-□□	1SBL241001R□□01 ■	4,080
55	32	20	15	1NO	-	A30-30-10-□□	1SBL281001R□□10 ■	8,330
55	32	20	15	-	1NC	A30-30-01-□□	1SBL281001R□□01 ■	8,330
60	37	30	18.5	1NO	-	A40-30-10-□□	1SBL321001R□□10 ■	12,210
60	37	30	18.5	-	1NC	A40-30-01-□□	1SBL321001R□□01 ■	12,210
100	50	40	25	-	-	A50-30-00-□□	1SBL351001R□□00 ■	15,420
115	65	50	37	-	-	A63-30-00-□□	1SBL371001R□□00 ■	21,670
125	75	60	40	-	-	A75-30-00-□□	1SBL411001R□□00 ■	29,610
145	96	70	55	1NO	1NC	A95-30-11-□□	1SFL431001R□□11 ■	38,060
160	110	75	59	1NO	1NC	A110-30-11-□□	1SFL451001R□□11 ■	48,270
250	145	100	75	1NO	1NC	A145-30-11-□□	1SFL471001R□□11 ■	60,460
275	185	115	90	1NO	1NC	A185-30-11-□□	1SFL491001R□□11 ■	73,680

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Coil voltages and codes: A09 ... A185 range

Voltage	Voltage	Code
□□ V - 50Hz	□□ V - 60Hz	□□
24	24	8 1 ■
110	110 ... 120	8 4 ■
220 ... 230	230 ... 240	8 0 ■
400 ... 415	415 ... 440	8 6 ■

Note: For non-standard coil voltage, other than this contact us.

4 pole contactors: AC operated



Contactors: 4-pole - AC operated (Main pole 2NO + 2NC)

Rating at 415V AC1 Amps	Main contact arrangement		Auxiliary contacts		Type code reference	Ordering code	L.P.(₹)
25	2NO	2NC	-	-	A09-22-00-□□	1SBL141501R□□00 ■	4,720
30	2NO	2NC	-	-	A16-22-00-□□	1SBL181501R□□00 ■	5,000
45	2NO	2NC	-	-	A26-22-00-□□	1SBL241501R□□00 ■	8,860
70	2NO	2NC	-	-	A45-22-00-□□	1SBL331501R□□00	27,210
125	2NO	2NC	-	-	A75-22-00-□□	1SBL411501R□□00	39,080

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Contactors: 4-pole - AC operated (Main pole 4NO)

Rating at 415V AC1 Amps	Main contact arrangement		Auxiliary contacts		Type code reference	Ordering code	L.P.(₹)
25	4NO	-	-	-	A09-40-00-□□	1SBL141201R□□00 ■	4,070
30	4NO	-	-	-	A16-40-00-□□	1SBL181201R□□00 ■	4,350
45	4NO	-	-	-	A26-40-00-□□	1SBL241201R□□00 ■	7,610
70	4NO	-	-	-	A45-40-00-□□	1SBL331201R□□00 ■	20,930
100	4NO	-	-	-	A50-40-00-□□	1SBL351201R□□00 ■	30,430
125	4NO	-	-	-	A75-40-00-□□	1SBL411201R□□00 ■	35,270

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Coil voltages and codes: A09 ... A 75 range

Voltage	Voltage	Code
V - 50Hz	V - 60Hz	□□
24	24	8 1
110	110 ... 120	8 4
220 ... 230	230 ... 240	8 0
400 ... 415	415 ... 440	8 6

Note: For non-standard coil voltage, other than this contact us.

3 pole contactors AL range: DC operated



AL contactors

AC 1 duty Amps	AC3 rating at 415V			Auxiliary contacts		Type code reference	Ordering code	L.P.(₹)
	Amps	hP	kW					
25	9	5	4	1NO	-	AL9-30-10-□□	1SBL143001R□□10 ■	4,010
25	9	5	4	-	1NC	AL9-30-01-□□	1SBL143001R□□01 ■	4,010
27	12	7.5	5.5	1NO	-	AL12-30-10-□□	1SBL163001R□□10	4,410
27	12	7.5	5.5	-	1NC	AL12-30-01-□□	1SBL163001R□□01	4,410
30	17	10	7.5	1NO	-	AL16-30-10-□□	1SBL183001R□□10 ■	5,320
30	17	10	7.5	-	1NC	AL16-30-01-□□	1SBL183001R□□01	5,320
45	26	20	11	1NO	-	AL26-30-10-□□	1SBL243001R□□10 ■	7,640
45	26	20	11	-	1NC	AL26-30-01-□□	1SBL243001R□□01	7,640
55	32	25	15	1NO	-	AL30-30-10-□□	1SBL283001R□□10	15,150
55	32	25	15	-	1NC	AL30-30-01-□□	1SBL283001R□□01	15,150
60	37	30	18.5	1NO	-	AL40-30-10-□□	1SBL323001R□□10	19,070
60	37	30	18.5	-	1NC	AL40-30-01-□□	1SBL323001R□□01	19,070

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Coil voltages and codes: AL

Voltage	Code
□□ V DC	□□
24	8 1
110	8 6 ■
220	8 8

Contactors for DC circuit switching: AC/DC operated

Coil	Current ratings at 440V DC			Type code reference	Ordering code	L.P.(₹)
	DC-1	DC-3	DC-5			
AC	100A	85A	50A	GA75-10-11-□□	1SBL411025R□□11	Upon request
DC	100A	85A	50A	GAE75-10-11-□□	1SBL419025R□□11	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table

Coil	Current ratings at 1000V DC		Type code reference	Ordering code	L.P.(₹)
	DC-1 L/R 1 ms				
AC/DC	275A		GAF185-10-11-□□	1SFL497025R□□11	Upon request
	450A		GAF300-10-11-□□	1SFL557025R□□11	
	700A		GAF460-10-11-□□	1SFL597025R□□11	
	1050A		GAF750-10-11-□□	1SFL637025R□□11	
	1250A		GAF1250-10-11-□□	1SFL647025R□□11	
	1650A		GAF1650-10-11-□□	1SFL677025R□□11	
	2050A		GAF2050-10-11-□□	1SFL707025R□□11	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table
For DC3, DC5 ratings refer technical catalog

Coil voltages and codes: GA 75

Voltage	Voltage	Code
□□ V - 50Hz	□□ V - 60Hz	□□
24	24	8 1
110	110 ... 120	8 4
220 ... 230	230 ... 240	8 0
400 ... 415	415 ... 440	8 6

Coil voltages and codes: GAE 75

Voltage	Code
□□ V d.c.	□□
12	8 0
24	8 2
42	8 1
110	8 6
240	8 9

Coil voltages and codes: GAF range (AC/DC operated)

Voltage	Voltage	Code
V 50/60 Hz	V DC	□□
-	24...60	6 8
48...130	48...130	6 9
100...250	100...250	7 0
250...500	250...500	7 1

Accessories for contactors



Auxiliary contact block



Description	Mounting on contactors	Contact configuration		Type code reference	Ordering code	L.P.(₹)
		NO	NC			
Front mounted single pole add-on blocks	A9...A110 AL9...AL40, TAL9...TAL40 N,NL &UA	1NO	-	CA5-10	1SBN010010R1010 ■	390
		-	1NC	CA5-01	1SBN010010R1001 ■	390
		4NO	-	CA5-40 E	1SBN010040R1040	1,690
		3NO	1NC	CA5-31 E	1SBN010040R1031	
		2NO	2NC	CA5-22 E	1SBN010040R1022 ■	
Side mounted 2 pole add-on blocks	A9...A75, AL9...AL40, TAL9...TAL40, N, NL & UA 16..75	4NC	CA5-04 E	CA5-04 E	1SBN010040R1004	1,270
		1NO	1NC	CAL5-11	1SBN010020R1011 ■	
	A95...A185, UA95...UA110, AF400...AF2050	1NO	1NC	CAL18-11	1SFN010720R1011 ■	1,460
	A145...A185 AF400...AF2050	1NO	1NC	CAL18-11B	1SFN010720R3311 ■	
	AF205...AF370	1NO	1NC	CAL19-11	1SFN010820R1011 ■	
		1NO	1NC	CAL19-11B	1SFN010820R3311	

Auxiliary contact blocks for EK range of contactors:

Description	Mounting on contactors	Contact configuration		Type code reference	Ordering code	L.P.(₹)
		NO	NC			
Side mounting Two pole auxiliary contact blocks	EK110 . . . EK1000	1NO	1NC	CAL16-11A	SK829002-A ■	1,490
		1NO	1NC	CAL16-11B	SK829002-B ■	
		1NO	1NC	CAL16-11C	SK829002-C	
		1NO	1NC	CAL16-11D	SK829002-D	

Note: Refer technical catalogue for proper selection.

■ Stock items

Accessories for contactors



Auxiliary contact block

Description	Mounting on contactors	Contact configuration		Type code reference	Ordering code	L.P. (₹)
		NO	NC			
Front mounted single pole add-on blocks	AX09...AX150, NX 4-pole	1NO	-	CA5X-10	1SBN019010R1010 ■	360
		-	1NC	CA5X-01	1SBN019010R1001 ■	360
Front mounted Four pole add-on blocks	AX09...AX150, NX 4-pole	2NO	2NC	CA5X-22E	1SBN019040R1022 ■	1,290
		3NO	1NC	CA5X-31E	1SBN019040R1031	
		4NO	-	CA5X-40E	1SBN019040R1040	
		-	4NC	CA5X-04E	1SBN019040R1004	
Side mounted 2 pole add-on blocks	AX09...AX80, NX 4-pole	1NO	1NC	CAL5X-11	1SBN019020R1011 ■	1,170
	AX95...AX205	1NO	1NC	CAL18X-11	1SFN019820R1011 ■	1,180
		1NO	1NC	CAL18X-11B	1SFN019820R3311 ■	
	AX260...AX370	1NO	1NC	CAL19-11	1SFN010820R1011	1,460
		1NO	1NC	CAL19-11B	1SFN010820R3311	

Surge suppressors



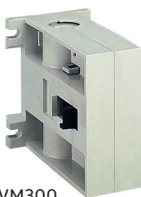
For contactor types	Voltage range	Type code reference	Ordering code	L.P. (₹)
AL9...AL40, TAL9...TAL40 NL	12...32 DC	RT5/32	1SBN050020R1000 ■	1,520
	25...65 DC	RT5/65	1SBN050020R1001	
	50...90 DC	RT5/90	1SBN050020R1002	
	77...150 DC	RT5/150	1SBN050020R1003 ■	
	150...264 DC	RT5/264	1SBN050020R1004	
A9...A110, AL9...AL40, TAL9...TAL40, N/NL AX09...AX150	24...50V AC/DC	RV5/50	1SBN050010R1000	1,520
	50...133V AC/DC	RV5/133	1SBN050010R1001	
	110...250V AC/DC	RV5/250	1SBN050010R1002	
	250...440V AC/DC	RV5/440	1SBN050010R1003	
A9...A40, N AX09...AX40	24...50V AC	RC5-1/50	1SBN050100R1000	1,520
	50...133V AC	RC5-1/133	1SBN050100R1001	
	110...250V AC	RC5-1/250	1SBN050100R1002 ■	
	250...440V AC	RC5-1/440	1SBN050100R1003 ■	
A45...A110 AX50...AX150	24...50V AC	RC5-2/50	1SBN050200R1000	2,100
	50...133V AC	RC5-2/133	1SBN050200R1001	
	110...250V AC	RC5-2/250	1SBN050200R1002 ■	
	250...440V AC	RC5-2/440	1SBN050200R1003 ■	
A145...A185, AX185...AX205	250...440	RC5-3/440	1SFN050300R1003 ■	4,250
EK550.....EK1000	48...110V/AC	RC-EH 800/110	SK829007-C	6,420
	220...600V/AC	RC-EH 800/600	SK829007-D	

■ Stock items

Accessories for contactors



VM5-1



VM300

Mechanical interlocks

For contactor types	Description	Type code reference	Ordering code	L.P.(₹)
A9...A40, AL9...AL40 AX09...AX40	Horizontal Mechanical Interlock	VM5-1	1SBN030100R1000 ■	1,010
A9...A40, AL9...AL40 AX09...AX40	Horizontal Mechanical & Electrical Interlock with 2NC contacts	VE5-1	1SBN030110R1000 ■	1,500
A30...A110 AX50...AX115	Horizontal Mechanical & Electrical Interlock with 2NC contacts	VE5-2	1SBN030210R1000 ■	2,890
A95...A185, AX185...AX205	Horizontal with 2NC contacts	VM300H	1SFN034700R1000	6,050
EK110...EK150	Horizontal Mechanical Interlock	VH145	SK829071-A	8,150
EK175...EK210	Horizontal Mechanical Interlock	VH300	SK829071-B	9,440
AF116...AF146 and AF190. AF205	Horizontal Mechanical Interlock	VM140/190	1SFN034403R1000 ■	6,230
AF190, AF205 and AF265 ... AF370	Horizontal Mechanical Interlock	VM205/265	1SFN035203R1000 ■	6,300
AF116...AF370 AX260...AX370	Horizontal Mechanical Interlock	VM19	1SFN030300R1000	6,510

Note: Refer technical catalogue for proper selection.

For converting standard contactors into latched contactors. The WB75-A block contains a mechanical latching device with electromagnetic impulse unlatching (AC or DC) or manual unlatching.

Ordering details



For contactors	Rated control circuit voltage U _c		Type	Ordering code	L.P.(₹)
	V 50 Hz or DC	V 60 Hz			
N, NL, A9-A75	24	24...28	WB75-A	FPTN372726R1001	11,140
	220...230	220...255	WB75-A	FPTN372726R1006	11,140

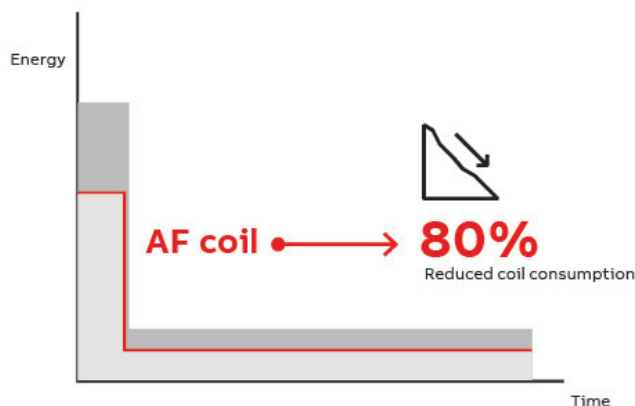


For contactors	Rated control circuit voltage U _c	Time ranges	Delay type	Auxiliary contacts	Type	Ordering code	L.P.(₹)
Electronic timers							
Separate mounting	24-240 V AC 24-48 V DC	0.05s - 100 h	ON-delay	1C/O	CT-ERC.12	1SVR508100R0000	3,880
			ON-delay	2C/O	CT-ERC.22	1SVR508100R0100	7,660
			OFF-delay	1C/O	CT-AHC.12	1SVR508110R0000	4,530
			OFF-delay	2C/O	CT-AHC.22	1SVR508110R0100	8,200

Contactors: Wide band AC/DC operated AF technology



Conventional AC coil



Reliable in all networks

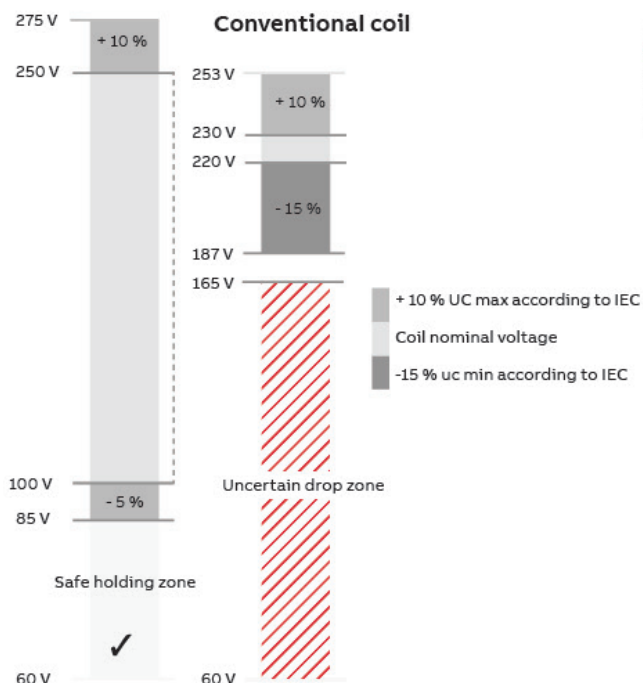
The electronic system within the AF contactor continuously monitor the current and voltage apply to the coil. The contactor is safely operated in an always optimized condition and hum free.

Reduced coil consumption

AF coil and energy consumption is reduced up to 80%. This allows a reduction of the temperature rise, the size of control transformers and size of cabinets.



AF coil



Wide control voltage range

With conventional contactor technology, different contactors are needed for different network voltages. Thanks to the wide operating range of the AF contactor, it can operate just as well in Europe as in Asia or North America. The core coil of the AF contactor range covers 100-250 V AC / DC, 50 / 60 Hz.

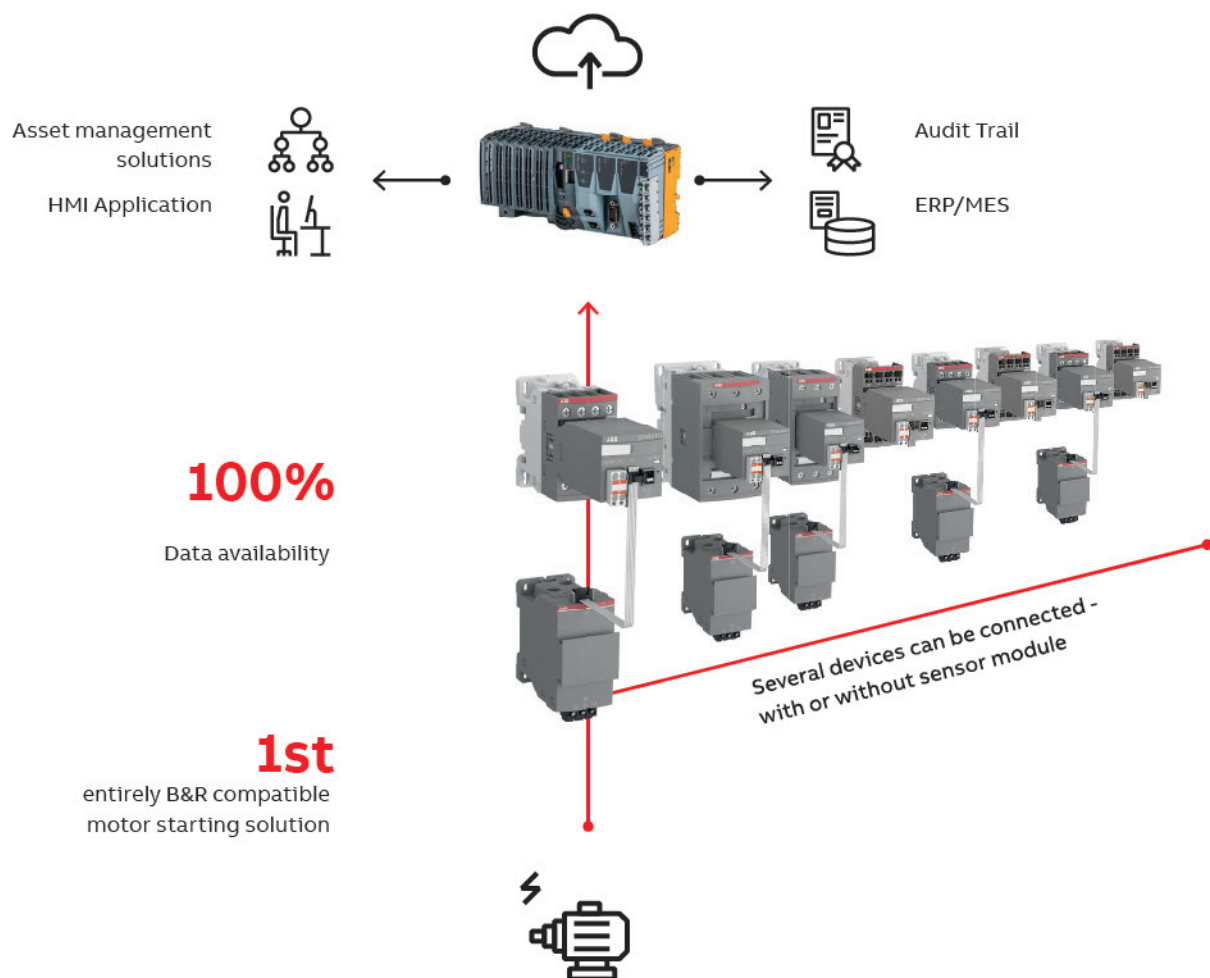
Built-in surge suppression

With conventional contactor technology, it is recommended to use an external surge suppressor, an accessory that could cost as much as half of the contactor. With the AF technology, the surges are handled by the contactor and never reach the control circuit. One less product and one less complication to worry about.



INTRODUCING **NEW** Novolink™ – smart function and sensor modules for AF contactors

Integrated into the B&R X20 system



Engineering efficiency - only two configurable components cover a wide range of applications, reducing devices where otherwise auxiliary devices are needed.



Preventive machine maintenance uses live data from relevant motor parameters.



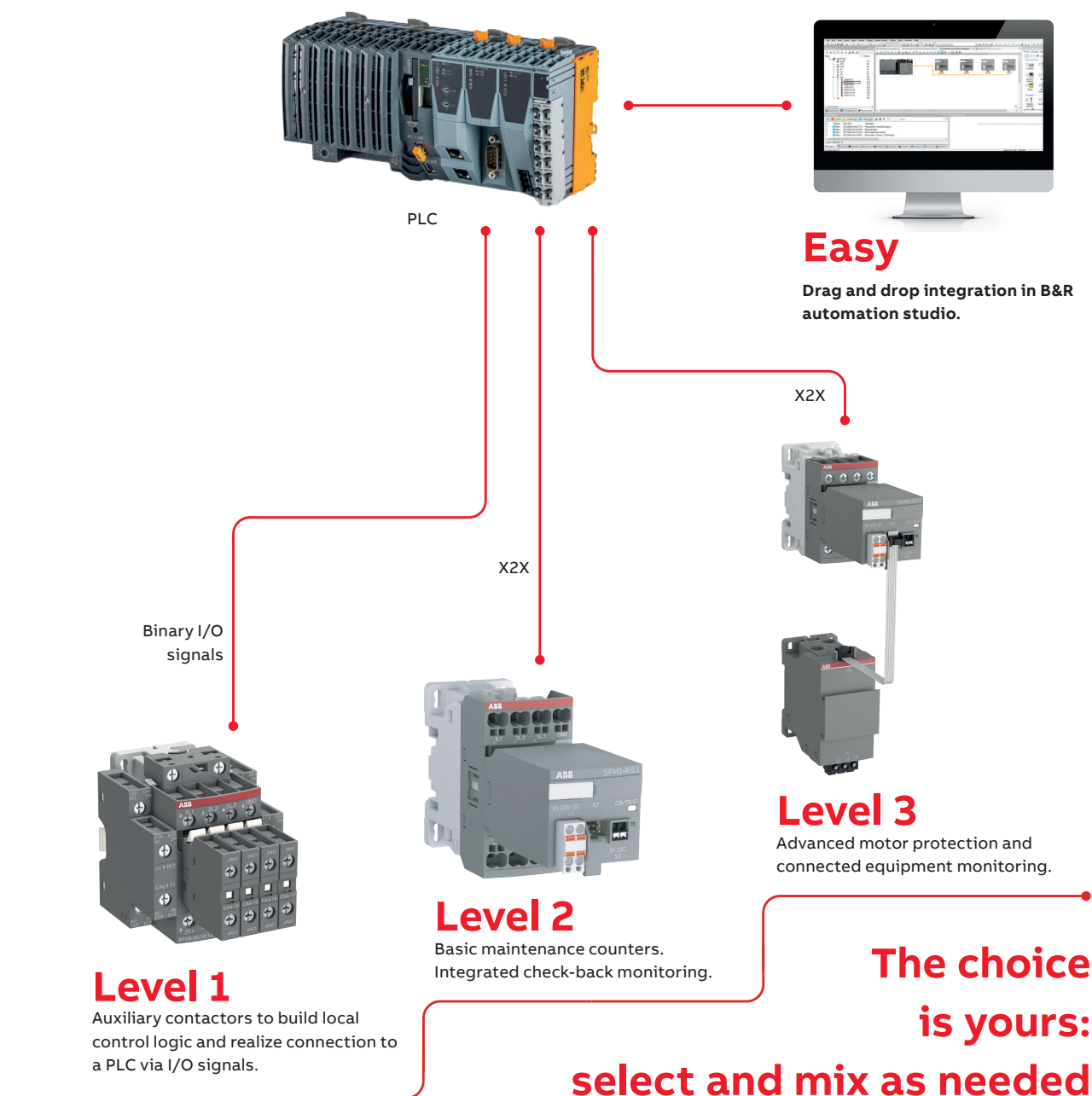
Digitalization allows remote contactor control and condition monitoring.



Speed of installation
Reduction of control side wiring. Integration of multiple functions into one device. Reduction of required PLC I/O signals.

Digitalize one of the best motor starting portfolios on the market

You have the choice



Ordering details

Type	Description	Order code	L.P.(₹)
SFM-CAB-RJTB.1-500	Connection cable RJ45 - X20 Terminal Block of X20BT9400, 5m	1SVM823000R0500	Upon request
SFM-CAB-S.1-50	Connection cable SFM to Sensor 0.5m	1SVM811000R0050	
SFM-CAB-S.1-25	Connection cable SFM to Sensor 0.25m	1SVM811000R0025	
SCV10-40.1	Current – Voltage Sensor	1SVM320010R0000	
SFM1-A11.1	Advanced Function Module with X2X	1SVM120012R0000	

3 pole contactors AF range: Wide band AC/DC operated

AF contactors are built in with:

- Universal coil operable on wide band AC / DC voltages
- Surge suppressors
- Low power consumption coil



AC1duty Amps	AC3 rating at 415V			Auxiliary contacts		Type code	Ordering code	L.P.(₹)
	Amps	hP	kW					
25	9	5.5	4	1NO	-	AF09-30-10-□□	1SBL137001R□□10 ■	5,290
				-	1NC	AF09-30-01-□□	1SBL137001R□□01 ■	5,290
28	12	7.5	5.5	1NO	-	AF12-30-10-□□	1SBL157001R□□10 ■	5,560
				-	1NC	AF12-30-01-□□	1SBL157001R□□01	5,560
30	18	12.5	7.5	1NO	-	AF16-30-10-□□	1SBL177001R□□10 ■	7,600
				-	1NC	AF16-30-01-□□	1SBL177001R□□01 ■	7,600
45	26	15	11	-	-	AF26-30-00-□□	1SBL237001R□□00 ■	8,620
50	32	20	18	-	-	AF30-30-00-□□	1SBL277001R□□00 ■	18,250
50	38	25	18.5	-	-	AF38-30-00-□□	1SBL297001R□□00 ■	20,350
70	40	30	18.5	-	-	AF40-30-00-□□	1SBL347001R□□00 ■	21,630
100	53	40	22	-	-	AF52-30-00-□□	1SBL367001R□□00 ■	27,120
105	65	50	30	-	-	AF65-30-00-□□	1SBL387001R□□00 ■	31,110
125	80	60	37	-	-	AF80-30-00-□□	1SBL397001R□□00 ■	37,810
130	96	70	45	-	-	AF96-30-00-□□	1SBL407001R□□00 ■	46,290
160	116	75	55	1NO	1NC	AF116-30-11-□□	1SFL427001R□□11 ■	50,090
200	140	100	75	1NO	1NC	AF140-30-11-□□	1SFL447001R□□11 ■	54,220
225	146	100	75	1NO	1NC	AF146-30-11-□□	1SFL467001R□□11 ■	59,500
275	190	120	90	1NO	1NC	AF190-30-11-□□	1SFL487002R□□11 ■	71,760
350	205	150	110	1NO	1NC	AF205-30-11-□□	1SFL527002R□□11 ■	76,150
400	265	175	140	1NO	1NC	AF265-30-11-□□	1SFL547002R□□11 ■	93,840
500	305	215	160	1NO	1NC	AF305-30-11-□□	1SFL587002R□□11	1,14,140
600	370	270	200	1NO	1NC	AF370-30-11-□□	1SFL607002R□□11	1,40,490
600	400	300	220	1NO	1NC	AF400-30-11-□□	1SFL577001R□□11	1,44,330
700	460	340	250	1NO	1NC	AF460-30-11-□□	1SFL597001R□□11	1,89,150
800	580	470	355	1NO	1NC	AF580-30-11-□□	1SFL617001R□□11 ■	3,07,120
1050	750	570	425	1NO	1NC	AF750-30-11-□□	1SFL637001R□□11 ■	Upon request
1260	-	-	-	1NO	1NC	AF1250-30-11-□□	1SFL647001R□□11	
1350	860	-	500	1NO	1NC	AF1350-30-11-□□	1SFL657001R□□11	
1650	1050	-	600	1NO	1NC	AF1650-30-11-□□	1SFL677001R□□11	
2050	-	-	-	1NO	1NC	AF2050-30-11-□□	1SFL707001R□□11	
2650	-	-	-	1NO	1NC	AF2650-30-11-□□	1SFL667001R□□11	
2850	-	-	-	1NO	1NC	AF2850-30-11-□□	1SFL687001R□□11	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table. AF contactors have advanced electronic coil interface with wideband AC/DC coil

Coil voltages and codes:
New AF09...AF370 range
(AC/DC operated)

Voltage	Voltage	Code
V 50/60 Hz	V DC	□□
24...60	20...60	1 1 ■
48...130	48...130	1 2 ■
100...250	100...250	1 3 ■
250...500	250...500	1 4 ■

AF400...AF1250 range
(AC/DC operated)

Voltage	Voltage	Code
V 50/60 Hz	V DC	□□
-	24...60	6 8
48...130	48...130	6 9
100...250	100...250	7 0 ■
250...500	250...500	7 1 ■

AF1350...AF2850 range (AC/DC operated)

Voltage	Voltage	Code
V 50/60 Hz	DC	□□
100...250	100...250	7 0

Note: For non-standard coil voltage, other than this, contact us.

■ Stock items

4 pole contactors: Wide band AC/DC operated

Contactors: 4-pole - Wide band AC/DC operated (Main pole 2NO+2NC)

Rating at 415V AC1 Amps	Main contact arrangement		Auxiliary contacts		Type code reference	Ordering code	L.P.(₹)
25	2NO	2NC	-	-	AF09-22-00-□□	1SBL137501R□□00	7,580
30	2NO	2NC			AF16-22-00-□□	1SBL177501R□□00 ■	9,440
45	2NO	2NC			AF26-22-00-□□	1SBL237501R□□00	14,200
55	2NO	2NC	-	-	AF38-22-00-□□	1SBL297501R□□00	29,120
70	2NO	2NC	-	-	AF40-22-00-□□	1SBL347501R□□00	39,160
125	2NO	2NC	-	-	AF80-22-00-□□	1SBL397501R□□00	51,040

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Contactors: 4-pole - Wide band AC/DC operated (Main pole 4NO)

Rating at 415V AC1 Amps	Main contact arrangement		Auxiliary contacts		Type code reference	Ordering code	L.P.(₹)
25	4NO	-	-	-	AF09-40-00-□□	1SBL137201R□□00 ■	5,740
30	4NO	-	-	-	AF16-40-00-□□	1SBL177201R□□00	7,380
45	4NO	-	-	-	AF26-40-00-□□	1SBL237201R□□00	10,880
55	4NO	-	-	-	AF38-40-00-□□	1SBL297201R□□00 ■	22,370
70	4NO	-	-	-	AF40-40-00-□□	1SBL347201R□□00	34,130
100	4NO	-	-	-	AF52-40-00-□□	1SBL367201R□□00 ■	36,110
125	4NO	-	-	-	AF80-40-00-□□	1SBL397201R□□00	45,480
160	4NO	-	-	-	AF116-40-00-□□	1SFL427102R□□00	67,640
200	4NO	-	-	-	AF140-40-00-□□	1SFL447102R□□00	76,800
275	4NO	-	-	-	AF190-40-00-□□	1SFL487102R□□00 ■	1,11,190
350	4NO	-	-	-	AF205-40-00-□□	1SFL527102R□□00 ■	1,40,430
400	4NO	-	-	-	AF265-40-00-□□	1SFL547102R□□00 ■	1,69,370
500	4NO	-	-	-	AF305-40-00-□□	1SFL587102R□□00 ■	2,09,820
525	4NO	-	-	-	AF370-40-00-□□	1SFL607102R□□00 ■	2,32,170

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Contactors: 4-pole - AC operated (Main pole 4NO)

Rating at 415V AC1 Amps	Main contact arrangement		Auxiliary contacts		Type code reference	Ordering code	L.P.(₹)
800	4NO	-	1NO	1NC	EK550-40-11-□□	SK827041-□□ ■	Upon request
1000	4NO	-	1NO	1NC	EK1000-40-11-□□	SK827044-□□	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Coil voltages and codes: AF range (AC/DC operated)

Voltage	Voltage	Code
V 50/60 Hz	V DC	□□
24...60	20...60	1 1 ■
48...130	48...130	1 2 ■
100...250	100...250	1 3 ■
250...500	250...500	1 4 ■

Coil voltages and codes: EK550 ... EK1000

Voltage	Voltage	Code
 V - 50Hz	 V - 60Hz	□□
-	110	A E
110	120	A F
220 ... 230	-	A L ■
230 ... 240	-	A M
400 ... 415	-	A R

■ Stock items

Contactors for special application - capacitors switching



Contactors for capacitor switching: 3 pole - AC operated:

kVAR Rating at 415V	Auxiliary contacts	Type code reference	Ordering code	L.P.(₹)
Type UA..RA with in-built damping resistors:				
12.5	1NO	UA16-30-10RA-□□	1SBL181024R□□10 ■	5,060
22	1NO	UA26-30-10RA-□□	1SBL241024R□□10 ■	8,580
30	1NO	UA30-30-10RA-□□	1SBL281024R□□10 ■	9,850
40	--	UA50-30-00RA-□□	1SBL350024R□□00 ■	27,720
50	--	UA63-30-00RA-□□	1SBL371024R□□00 ■	29,810
60	--	UA75-30-00RA-□□	1SBL411024R□□00 ■	34,520
70	--	UA95-30-00RA-□□	1SFL431024R□□00 ■	36,100
80	--	UA110-30-00RA-□□	1SFL451024R□□00 ■	44,000

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Type UA..RA with in-built damping resistors

Peak current $\hat{I} \leq 100$ times the rms current

kVAR rating at 415V	Max peak current $\hat{I}$	Auxiliary contacts fitted		Type	Ordering code	L.P.(₹)
kvar	kA	NO	NC			
12.5	1.8	1	0	UA16-30-10-□□	1SBL181022R□□10 ■	4,430
20	3	1	0	UA26-30-10-□□	1SBL241022R□□10 ■	5,510
27.5	33.5	1	0	UA30-30-10-□□	1SBL281022R□□10 ■	9,440
33	5	0	0	UA50-30-00-□□	1SBL351022R□□00 ■	21,610
45	6.5	0	0	UA63-30-00-□□	1SBL371022R□□00 ■	22,740
50	7.5	0	0	UA75-30-00-□□	1SBL411022R□□00 ■	27,190
65	9.3	1	1	UA95-30-11-□□	1SFL431022R□□11 ■	34,110
75	10.5	1	1	UA110-30-11-□□	1SFL451022R□□11	43,700

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Single step - Peak current $\hat{I} \leq 30$ times the RMS current

kVAR Rating at 415V	Type code	Ordering code	L.P.(₹)
60	A95-30-11-□□	1SFL431001R□□11 ■	38,060
70	A110-30-11-□□	1SFL451001R□□11 ■	48,270
90	A145-30-11-□□	1SFL471001R□□11 ■	60,460
110	A185-30-11-□□	1SFL491001R□□11 ■	73,680
130	AF205-30-11-□□	1SFL527002R□□11 ■	76,150
145	AF265-30-11-□□	1SFL547002R□□11 ■	93,840
165	AF305-30-11-□□	1SFL587002R□□11 ■	1,14,140
200	AF370-30-11-□□	1SFL607002R□□11 ■	1,40,490
210	AF400-30-11-□□	1SFL577001R□□11 ■	1,44,330
240	AF460-30-11-□□	1SFL597001R□□11 ■	1,89,150
285	AF580-30-11-□□	1SFL617001R□□11 ■	3,07,120
400	AF750-30-11-□□	1SFL637001R□□11 ■	Upon request

Note : Complete the Contactor code by replacing □□ with desired coil voltage.

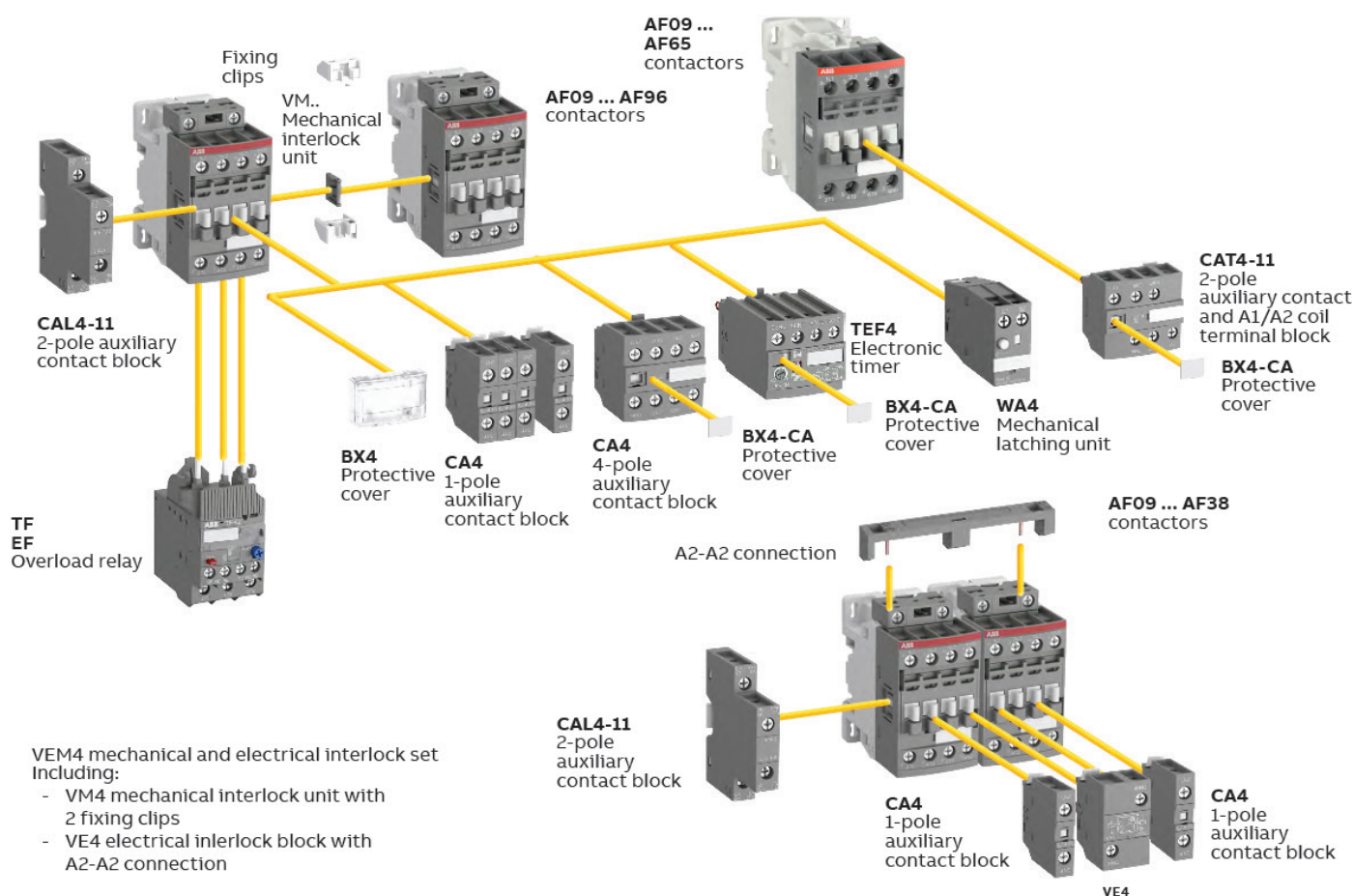
For A contactor coil refer page 94 and AF contactor coil refer page 103

■ Stock items

Coil voltages and codes UA...RA & UA

Voltage	Voltage	Code
□□ V - 50Hz	□□ V - 60Hz	□□
24	24	8 1 ■
110	110 ... 120	8 4 ■
220 ... 230	230 ... 240	8 0 ■
400 ... 415	415 ... 440	8 6 ■

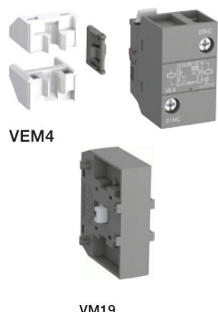
Accessories for AF contactors



Accessories for AF contactors

Auxiliary contact block						
Description	Mounting on contactors	Contact configuration		Type code reference	Ordering code	L.P.(₹)
		NO	NC			
  CAL4-10 CAL4-11 Front mounted 1 pole add-on blocks	AF09....AF96 / NF	1NO	-	CA4-10	1SBN010110R1010 ■	410
		-	1NC	CA4-01	1SBN010110R1001 ■	410
 CAL19-11 Front mounted 4 pole add-on blocks	AF09....AF80 / NF	4NO	-	CA4-40E	1SBN010140R1040 ■	1,720
		3NO	1NC	CA4-31E	1SBN010140R1031	1,720
		2NO	2NC	CA4-22E	1SBN010140R1022 ■	1,720
		-	4NC	CA4-04E	1SBN010140R1004	1,720
Side mounted 2 pole add-on blocks	AF09....AF96 / NF	1NO	1NC	CAL4-11	1SBN010120R1011 ■	1,120
	AF96...AF370	1NO	1NC	CAL19-11	1SFN010820R1011 ■	1,460
		1NO	1NC	CAL19-11B	1SFN010820R3311 ■	

Accessories for AF contactors



Mechanical interlocks

Description	For contactor types	Type Code reference	Ordering code	L.P.(₹)
Horizontal Mechanical Interlock	AF09...AF38	VM4	1SBN030105T1000	1,190
Horizontal Mechanical & Electrical Interlock	AF09...AF38	VEM4	1SBN030111R1000	2,110
Horizontal Mechanical Interlock	AF40...AF96	VM96-4	1SBN033405T1000	4,310
Horizontal Mechanical Interlock	AF116...AF146 and AF190. AF205	VM140/190	1SFN034403R1000	6,230
Horizontal Mechanical Interlock	AF190, AF205 and AF265 ... AF370	VM205/265	1SFN034403R1000	6,230
Horizontal Mechanical Interlock	AF116...AF370	VM19	1SFN030300R1000	6,510

Note: Refer technical catalogue for proper selection.

Ordering details

For contactors	Rated control circuit voltage Uc	Type	Ordering code	L.P.(₹)
NF(Z),AF(Z)09....38,AF40...65	24V DC	WA4-10	1SBN040100R1010	4,440
NF(Z),AF(Z)09....38,AF40...65	24-60V50/60HZ-DC	WA4-11	1SBN040100R1011	
NF(Z),AF(Z)09....38,AF40...65	48-130V50/60HZ-DC	WA4-12	1SBN040100R1012	
NF(Z),AF(Z)09....38,AF40...65	100-250V50/60HZ-DC	WA4-13	1SBN040100R1013	
NF(Z),AF(Z)09....38,AF40...65	250-500V50/60HZ-DC	WA4-14	1SBN040100R1014	
AF80....96	24-60V50/60HZ-DC	WA4-96-11	1SBN040200R1011	
AF80....96	48-130V50/60HZ-DC	WA4-96-12	1SBN040200R1012	
AF80....96	100-250V50/60HZ-DC	WA4-96-13	1SBN040200R1013	
AF80....96	250-500V50/60HZ-DC	WA4-96-14	1SBN040200R1014	



Electronic timers

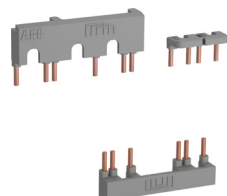
For contactor types	Time delay range selected by switch	Delay type	Auxiliary contacts	Type	Ordering code	L.P.(₹)
AF09 ... AF96	0.1...1 s	ON-delay	1NO + 1NC	TEF4-ON	1SBN020112R1000	11,610
	1...10 s 10...100 s	OFF-delay	1NO + 1NC	TEF4-OFF	1SBN020114R1000	11,030

Note: Rated control circuit voltage Uc 24...240 V 50/60 Hz or DC.



Connecting links with manual motor starters

For contactor types	Used with	Type	Ordering code	L.P.(₹)
AF09 ... AF16	MS116-0.16 ... MS116-25, MS132-0.16 ... MS132-25	BEA16-4	1SBN081306T1000	850
AF26 ... AF30	MS116-0.16 ... MS116-16, MS132-0.16 ... MS132-10	BEA26-4	1SBN082306T1000	960
	MS116-20 ... MS116-32, MS132-12 ... MS132-32	BEA38-4	1SBN082306T2000	1,050



Connection sets for reversing contactors

For contactor types	Type	Ordering code	L.P.(₹)
AF09 ... AF16	BER16-4	1SBN081311R1000	2,100
AF26 ... AF30	BER38-4	1SBN082311R1000	2,850
AF40 ... AF65	BER65-4	1SBN083411R1000	3,390
AF80 ... AF96	BER96-4	1SBN083911R1000	5,890

Connection sets for star-delta starting

For contactor types	Type	Ordering code	L.P.(₹)
AF09 ... AF16	BEY16-4	1SBN081313R2000	2,920
AF26 ... AF30	BEY38-4	1SBN082713R2000	4,440
AF40 ... AF65	BEY65-4	1SBN083413R2000	5,750
AF80 ... AF96	BEY96-4	1SBN083913R2000	7,360

AFC contactors for AC control **NEW**

applications

Flexible and safe

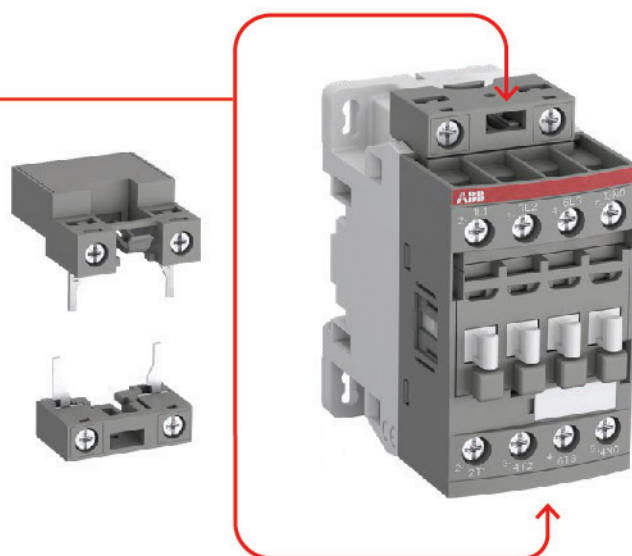
Part of the AF platform

AFC contactors are an extension of the AF platform. Sharing same footprint and having equivalent electrical performance, installation design and maintenance are easier and faster. Protection devices (manual motor starters, overloads relays), accessories (auxiliary contacts, electronic timers, ...) and connection kits (direct-on-line, reversing, start delta) are common to the entire platform.



Great flexibility for coil terminal access and surge suppressor

AFC contactors offer free choice of coil terminal access from top, bottom or front. Surge suppressor can be mounted from top or bottom.



Compatible and easy to use accessories

1-pole, 2-pole and 4-pole auxiliary contact blocks (front or side mounted) are available with screw and Push-in Spring terminals: They can be mounted on every contactor of the AF platform, whatever its terminal connection type.



Easy, fast and secure starters assembly

The AF contactor range is perfect for motor starting applications and for solutions where space is limited. You can create any motor starting type and save assembly time with a complete range of accessories and connection sets.



Protect from overload in all conditions

Select thermal overload relays (trip class 10) or electronic overload relays (trip class 10E, 20E, 30E in the same product) to protect your motors against overload and phase failure.

AFC contactors: AC operated NEW



Contactors: 3-pole - AC operated

AC1 duty Amps	AC3 rating at 415V			Auxiliary contacts		Type code	Ordering code	L.P.(₹)
	Amps	hP	kW					
25	9	5.5	4	1NO	-	AFC09-30-10-□□	1SBL131001R□□10 ■	Upon request
25	9	5.5	4	-	1NC	AFC09-30-01-□□	1SBL131001R□□01 ■	
28	12	7.5	5.5	1NO	-	AFC12-30-10-□□	1SBL151001R□□10 ■	
28	12	7.5	5.5	-	1NC	AFC12-30-01-□□	1SBL151001R□□01 ■	
30	18	12.5	7.5	1NO	-	AFC16-30-10-□□	1SBL171001R□□10 ■	
30	18	12.5	7.5	-	1NC	AFC16-30-01-□□	1SBL171001R□□01 ■	
45	26	15	11	-	-	AFC26-30-00-□□	1SBL231001R□□00 ■	
50	32	20	15	-	-	AFC30-30-00-□□	1SBL271001R□□00 ■	
50	38	30	18.5	-	-	AFC38-30-00-□□	1SBL291001R□□00 ■	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Contactors: 4-pole - AC operated

Rating at 415V	Main contact arrangement				Auxiliary contacts		Type code reference	Ordering code	L.P.(₹)
AC1 Amps									
25	4NO	-	-	-	-	AFC09-40-00-□□	1SBL131201R□□00 ■	Upon request	
30	4NO	-	-	-	-	AFC16-40-00-□□	1SBL171201R□□00 ■		
45	4NO	-	-	-	-	AFC26-40-00-□□	1SBL231201R□□00 ■		
55	4NO	-	-	-	-	AFC38-40-00-□□	1SBL291201R□□00 ■		
25	2NO	2NC	-	-	-	AFC09-22-00-□□	1SBL131501R□□00 ■		
30	2NO	2NC	-	-	-	AFC16-22-00-□□	1SBL171501R□□00 ■		
45	2NO	2NC	-	-	-	AFC26-22-00-□□	1SBL231501R□□00 ■		
55	2NO	2NC	-	-	-	AFC38-22-00-□□	1SBL291501R□□00		

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Auxiliary contactors

No. of contacts	Contact configuration		Type code reference	Ordering code	L.P.(₹)
	NO	NC			
4	2	2	NFC22E-□□	1SBH131001R□□22 ■	Upon request
4	3	1	NFC31E-□□	1SBH131001R□□31 ■	
4	4	0	NFC40E-□□	1SBH131001R□□40 ■	
8	4	4	NFC44E-□□	1SBH131001R□□44 ■	
8	5	3	NFC53E-□□	1SBH131001R□□53 ■	
8	6	2	NFC62E-□□	1SBH131001R□□62 ■	
8	7	1	NFC71E-□□	1SBH131001R□□71 ■	
8	8	0	NFC80E-□□	1SBH131001R□□80 ■	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Coil voltages and codes: AFC09 ... AFC38/NFC range

Voltage	Voltage	Code
□□ V - 50Hz	□□ V - 60Hz	□□
24	24	8 1 ■
110	110 ... 120	8 4 ■
220 ... 230	230 ... 240	8 0 ■
400 ... 415	415 ... 440	8 6 ■

Note: For non-standard coil voltage, other than this contact us.

Powerful light switching made easy

ESB and EN installation contactors



ABB's hum-free installation contactor designs offer a wide range of ratings from 16 A to 100 A. With an innovative AC/DC coil design that eliminates hum, a broad selection of common accessories as well as manual and automatic versions, ESB..N contactors cover all your needs in both domestic and residential applications. Find out more at abb.com/lowvoltage



ESB and EN Installation contactors



Hum-free operation



Tool-free to save time



**More choice,
less inventory**



Comprehensive solution



Optimum interface



Easy to install



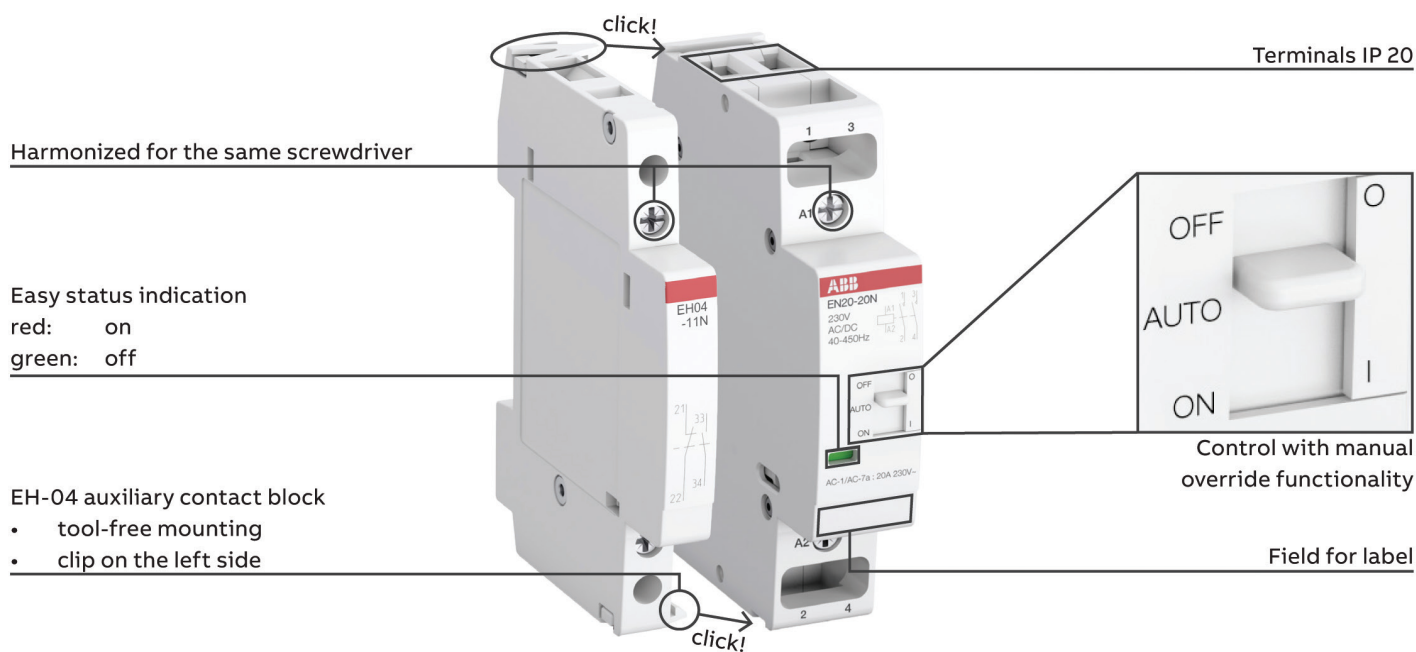
**Group mounting
saves space**



**Global
availability**



Easy identification



ESB and EN Installation contactors

ABB’s installation contactor range comes with a host of features to make installation and maintenance easier. A mechanical indicator shows the status in green or red color to make system diagnostics quicker. Some speciality types also feature a manual override functionality with a toggle switch providing independent control. Accessories such as auxiliaries, space holders, as well as safety covers can be mounted tool-free onto the contactor.

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P.(₹)
	1	24	ESB16-20N-01	1SBE111111R0120	5,030
	1	230	ESB16-20N-06	1SBE111111R0620	5,030
	1	24	ESB16-11N-01	1SBE111111R0111	5,130
	1	230	ESB16-11N-06	1SBE111111R0611	5,130
	1	24	ESB16-02N-01	1SBE111111R0102	5,280
	1	230	ESB16-02N-06	1SBE111111R0602	5,280

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P. (₹)
	2	24	ESB25-40N-01	1SAE231111R0140	5,680
		230 ... 240	ESB25-40N-06	1SAE231111R0640	5,680
	2	24	ESB25-04N-01	1SAE231111R0104	5,890
		230 ... 240	ESB25-04N-06	1SAE231111R0604	5,890
	2	24	ESB25-22N-01	1SAE231111R0122	5,890
		230 ... 240	ESB25-22N-06	1SAE231111R0622	5,890
	2	24	ESB25-31N-01	1SAE231111R0131	5,890
		230 ... 240	ESB25-31N-06	1SAE231111R0631	5,890
	2	24	ESB25-13N-01	1SAE231111R0113	5,890
		230 ... 240	ESB25-13N-06	1SAE231111R0613	5,890

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P. (₹)
	3	24	ESB63-20N-01	1SAE351111R0120	13,040
		230	ESB63-20N-06	1SAE351111R0620	13,040
	3	230	ESB63-30N-06	1SAE351111R0630	13,260
		24	ESB63-40N-01	1SAE351111R0140	13,630
	3	230	ESB63-40N-06	1SAE351111R0640	13,630
		230	ESB63-31N-06	1SAE351111R0631	13,990

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P. (₹)
	1	24	ESB20-20N-01	1SBE121111R0120	5,580
	1	230	ESB20-20N-06	1SBE121111R0620	5,580
	1	24	ESB20-11N-01	1SBE121111R0111	5,630
	1	230	ESB20-11N-06	1SBE121111R0611	5,630
	1	24	ESB20-02N-01	1SBE121111R0102	5,820
	1	230	ESB20-02N-06	1SBE121111R0602	5,820

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P.(₹)
	3	24	ESB40-20N-01	1SAE341111R0120	10,050
		230	ESB40-20N-06	1SAE341111R0620	10,050
	3	24	ESB40-30N-01	1SAE341111R0130	10,050
		230	ESB40-30N-06	1SAE341111R0630	10,050
	3	24	ESB40-40N-01	1SAE341111R0140	10,460
		230	ESB40-40N-06	1SAE341111R0640	10,460
	3	24	ESB40-22N-01	1SAE341111R0122	10,630
		230	ESB40-22N-06	1SAE341111R0622	10,630
	3	24	ESB40-31N-01	1SAE341111R0131	10,630
		230	ESB40-31N-06	1SAE341111R0631	10,630

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P.(₹)
	3	24	ESB100-20N-01	1SAE361111R0120	44,580
		230	ESB100-20N-06	1SAE361111R0620	44,580
	6	24	ESB100-40N-01	1SAE661111R0140	46,560
		230	ESB100-40N-06	1SAE661111R0640	46,560

ESB and EN Installation contactors

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P. (₹)
	1	24	EN20-20N-01	1SBE122111R0120	7,840
		230	EN20-20N-06	1SBE122111R0620	

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P. (₹)
	2	230 ... 240	EN25-30N-06	1SAE232111R0630	20,890
		24	EN25-40N-01	1SAE232111R0140	23,410
	2	230 ... 240	EN25-40N-06	1SAE232111R0640	23,880
		24	EN25-31N-01	1SAE232111R0131	24,060
	2	230 ... 240	EN25-31N-06	1SAE232111R0631	24,060

Main contacts	Width in number of modular spacings	Rated control circuit voltage ⁽¹⁾ V AC / DC	Type	Ordering code	L.P. (₹)
	3	230	EN40-20N-06	1SAE342111R0620	20,890
	3	230	EN40-30N-06	1SAE342111R0630	21,450
	3	24	EN40-40N-01	1SAE342111R0140	23,970
		230	EN40-40N-06	1SAE342111R0640	23,970
	3	24	EN40-31N-01	1SAE342111R0131	24,180
		230	EN40-31N-06	1SAE342111R0631	24,180

Auxiliary contact blocks

Auxiliary contacts	Suitable for	Type	Ordering code	L.P. (₹)
Single packaging				
	ESB16..N, ESB20..N, ESB25..N, ESB40..N, ESB63..N, ESB100..N, EN20..N, EN25..N, EN40..N	EH04-11N	1SAE901901R1011	1,840
		EH04-20N	1SAE901901R1020	1,840

Distant piece

Suitable for	Type	Ordering code	L.P. (₹)
Single packaging			
ESB25..N, ESB40..N, ESB63..N, EN25..N, EN40..N, ESB100..N, EN100..N	ESB-DIS	GHE3201902R0001	340

Mini contactors



Mini contactors with screw connection:

AC1 duty Amps	AC3 rating at 415V		Auxiliary contacts		
	Amps	hP	kW		
16A	9	5.5	4	1NO	-
16A	9	5.5	4	-	1NC
20A	12	7.5	5.5	1NO	-
20A	12	7.5	5.5	-	1NC

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Mini contactors are also available in 4 pole (4NO / 2NO + 2NC)

Mini reversing contactors with screw connection:

AC1 duty Amps	AC3 rating at 415V		Auxiliary contacts		
	Amps	hP	kW		
16A	9	5.5	4	1NO	-
16A	9	5.5	4	-	1NC
20A	12	7.5	5.5	1NO	-
20A	12	7.5	5.5	-	1NC

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

3 pole - AC operated

Type code reference	Ordering code	L.P.(₹)
B06-30-10-□□	GJL1211001R□10□ ■	2,250
B06-30-01-□□	GJL1211001R□01□ ■	
B07-30-10-□□	GJL1311001R□10□ ■	2,450
B07-30-01-□□	GJL1311001R□01□ ■	

3 pole - DC operated

Type code reference	Ordering code	L.P.(₹)
BC6-30-10-□□	GJL1213001R□10□ ■	3,090
BC6-30-01-□□	GJL1213001R□01□ ■	
BC7-30-10-□□	GJL1313001R□10□ ■	3,350
BC7-30-01-□□	GJL1313001R□01□ ■	

3 pole - AC operated

Type code reference	Ordering code	L.P.(₹)
VB06-30-10-□□	GJL1211901R□10□ □	6,620
VB06-30-01-□□	GJL1211901R□01□ □	
VB07-30-10-□□	GJL1311901R□10□ □	6,980
VB07-30-01-□□	GJL1311901R□01□ □	

3 pole - DC operated

Type code reference	Ordering code	L.P.(₹)
VBC6-30-10-□□	GJL1213901R□10□ □	6,920
VBC6-30-01-□□	GJL1213901R□01□ ■	
VBC7-30-10-□□	GJL1313901R□10□ □	7,410
VBC7-30-01-□□	GJL1313901R□01□ □	

Mini auxiliary contactor 4 pole with screw connection

Control circuit	Contact configuration		Type code reference	Ordering code	L.P.(₹)
	NO	NC			
AC	2NO	2NC	K6-22Z-□□	GJH1211001R□22□ □	2,450
	3NO	1NC	K6-31Z-□□	GJH1211001R□31□ □ ■	
	4NO	-	K6-40E-□□	GJH1211001R□40□ □	
DC	2NO	2NC	KC6-22Z-□□	GJH1213001R□22□ □ ■	3,120
	3NO	1NC	KC6-31Z-□□	GJH1213001R□31□ □	
	4NO	-	KC6-40E-□□	GJH1213001R□40□ □	

Note : Complete the Contactor code by replacing □□ with desired coil voltage from below table.

Coil voltage for mini contactors

AC	Code	DC	Code
50-60Hz	□□	DC V	□□
24	0 ... 1 ■	24	0 ... 1 ■
48	0 ... 3	110 ... 125	0 ... 4 ■
110 ... 127	8 ... 4 ■	220 ... 240	0 ... 5
220 ... 240	8 ... 0 ■		
380 ... 415	8 ... 5		

Auxiliary contact blocks for mini contactors

For contactor types	Auxiliary contacts	Type	Ordering code	L.P.(₹)
Front mounted instantaneous auxiliary contact blocks				
B6-, B7-30-10, BC6-, BC7-30-10	1NO + 1NC	CAF6-11M	GJL1201330R0003	1,310
VB6, VB7, VBC6, VBC7, VB6A, VB7A	2NO	CAF6-20M	GJL1201330R0007	
VBC6A, VBC7A	2NC	CAF6-02M	GJL1201330R0011	
Side mounted instantaneous auxiliary contact block				
B6-, B7-30-10, BC6-, BC7-30-10	1NO + 1NC	CA6-11M	GJL1201317R0003	1,320

■ Stock items

DOL and star delta starters



Direct on line starter:

Rating at 415V 50Hz		Back-up Fuse rating (A)	Type code reference	Ordering code	L.P.(₹)
HP	kW				
0.25	0.18	4A	MA-0.25 **	1SYN140318R□□25	6,050
0.50	0.37	4A	MA-0.50 **	1SYN140318R□□05	6,050
0.75	0.52	6A	MA-0.75 **	1SYN140318R□□75	6,050
1.00	0.75	6A	MA-1.00 **	1SYN140318R□□10 ■	6,050
1.50	1.10	10A	MA-1.50 **	1SYN140318R□□15	6,050
2.00	1.50	10A	MA-2.00 **	1SYN140318R□□20 ■	6,050
3.00	2.20	16A	MA-3.00 **	1SYN140318R□□30 ■	6,050
5.00	3.70	25A	MA-5.00 **	1SYN140318R□□50 ■	6,050
7.50	5.50	32A	MA-7.50 **	1SYN160318R□□75 ■	6,050
10.00	7.50	32A	MA-10.00 **	1SYN180318R□□10 ■	6,550



Fully automatic Star Delta starter:

Rating at 415V 50Hz		Type code reference	Ordering code	L.P.(₹)
HP	kW			
12.5	12.5/9.3	SDA-12.5 **	1SYN184322R□□00 ■	23,670
15	15/11	SDA-15 **	1SYN242322R□□00 ■	25,740
20	20/15	SDA- 20 **	1SYN244322R□□00 ■	29,840
25	25/18.5	SDA-25 **	1SYN246322R□□00	31,080
30	30/22	SDA-30 **	1SYN282322R□□00	37,540
35	35/26	SDA-35 **	1SYN284322R□□00	41,660
40	40/30	SDA-40 **	1SYN322322R□□00	50,550
50	50/37	SDA-50 **	1SYN352342R□□00	61,270
60	60/45	SDA-60 **	1SYN372342R□□00	78,790
75	75/55	SDA-75 **	1SYN412342R□□00	92,340

Complete the starter type code by replacing the ** with the desired coil voltage.

Voltage	Code
□□□	□□
220 ... 230 V coil	3 8
400 ... 415 V coil	8 6 ■

Manual motor starter

With thermal and electromagnetic protection



MS116 Manual motor starters with short-circuit, overload and phase loss protection

Rated power 415V KW	Ie current setting range Amp	S/C Icu breaking capacity kA	Type	Ordering code	L.P. (₹)
0.03	0.10 ... 0.16	50	MS116-0.16	1SAM250000R1001 ■	6,090
0.06	0.16 ... 0.25	50	MS116-0.25	1SAM250000R1002 ■	6,090
0.09	0.25 ... 0.40	50	MS116-0.4	1SAM250000R1003 ■	6,090
0.12	0.40 ... 0.63	50	MS116-0.63	1SAM250000R1004 ■	7,080
0.25	0.63 ... 1.00	50	MS116-1.0	1SAM250000R1005 ■	7,080
0.55	1.00 ... 1.60	50	MS116-1.6	1SAM250000R1006 ■	7,080
0.75	1.60 ... 2.50	50	MS116-2.5	1SAM250000R1007 ■	7,080
1.5	2.50 ... 4.00	50	MS116-4.0	1SAM250000R1008 ■	7,360
2.2	4.00 ... 6.30	50	MS116-6.3	1SAM250000R1009 ■	7,360
4.0	6.30 ... 10.0	50	MS116-10	1SAM250000R1010 ■	7,720
5.5	8.00 ... 12.0	25	MS116-12	1SAM250000R1012 ■	8,700
7.5	10.0 ... 16.0	16	MS116-16	1SAM250000R1011 ■	9,300
9.0	16.0 ... 20.0	15	MS116-20	1SAM250000R1013 ■	9,890
12.5	20.0 ... 25.0	15	MS116-25	1SAM250000R1014 ■	10,490
15.5	25.0 ... 32.0	10	MS116-32	1SAM250000R1015 ■	19,490



MS132 Manual motor starters with short-circuit, overload and phase loss protection

Rated power 415V KW	Ie current setting range Amp	S/C Icu breaking capacity kA	Type	Ordering code	L.P. (₹)
0.03	0.10 ... 0.16	100	MS132-0.16	1SAM350000R1001	8,640
0.06	0.16 ... 0.25	100	MS132-0.25	1SAM350000R1002 ■	8,640
0.09	0.25 ... 0.40	100	MS132-0.4	1SAM350000R1003 ■	8,640
0.12	0.40 ... 0.63	100	MS132-0.63	1SAM350000R1004 ■	9,960
0.25	0.63 ... 1.00	100	MS132-1.0	1SAM350000R1005 ■	10,280
0.55	1.00 ... 1.60	100	MS132-1.6	1SAM350000R1006 ■	10,330
0.75	1.60 ... 2.50	100	MS132-2.5	1SAM350000R1007 ■	10,330
1.5	2.50 ... 4.00	100	MS132-4.0	1SAM350000R1008 ■	10,480
2.2	4.00 ... 6.30	100	MS132-6.3	1SAM350000R1009 ■	10,790
4.0	6.30 ... 10.0	100	MS132-10	1SAM350000R1010 ■	11,540
5.5	8.00 ... 12.0	100	MS132-12	1SAM350000R1012 ■	12,500
7.5	10.0 ... 16.0	100	MS132-16	1SAM350000R1011 ■	14,560
9.0	16.0 ... 20.0	100	MS132-20	1SAM350000R1013 ■	15,670
12.5	20.0 ... 25.0	50	MS132-25	1SAM350000R1014 ■	15,840
15.5	25.0 ... 32.0	50	MS132-32	1SAM350000R1015 ■	26,360



MS165 manual motor starters with short-circuit, overload and phase loss protection

Ie current setting range Amp	S/C Icu breaking capacity kA	Type	Ordering code	L.P. (₹)
10 ... 16	100	MS165-16	1SAM451000R1011	25,540
14 ... 20	100	MS165-20	1SAM451000R1012	26,700
18 ... 25	100	MS165-25	1SAM451000R1013	28,130
23 ... 32	100	MS165-32	1SAM451000R1014 ■	28,180
30 ... 42	50	MS165-42	1SAM451000R1015 ■	30,350
40 ... 54	50	MS165-54	1SAM451000R1016 ■	38,240
52 ... 65	50	MS165-65	1SAM451000R1017 ■	39,590
62 ... 73	-	MS165-73	1SAM451000R1018	41,640
70 ... 80	-	MS165-80	1SAM451000R1019	42,830

■ Stock items

Manual motor starter

With thermal and electromagnetic protection



MO132 Manual motor starters with short-circuit protection only

Rated power 415V KW	Rated operational current Amp	S/C Icu breaking capacity kA	Type	Ordering code	L.P. (₹)
0.03	0.16	100	MO132-0.16	1SAM360000R1001	8,470
0.06	0.25	100	MO132-0.25	1SAM360000R1002	8,470
0.09	0.40	100	MO132-0.4	1SAM360000R1003	8,470
0.12	0.63	100	MO132-0.63	1SAM360000R1004	9,810
0.25	1.0	100	MO132-1.0	1SAM360000R1005 ■	9,840
0.55	1.6	100	MO132-1.6	1SAM360000R1006 ■	9,840
0.75	2.5	100	MO132-2.5	1SAM360000R1007 ■	9,840
1.5	4.0	100	MO132-4.0	1SAM360000R1008 ■	10,300
2.2	6.3	100	MO132-6.3	1SAM360000R1009 ■	10,300
4.0	10	100	MO132-10	1SAM360000R1010 ■	10,760
5.5	12	100	MO132-12	1SAM360000R1012 ■	11,420
7.5	16	100	MO132-16	1SAM360000R1011 ■	12,530
9.0	20	100	MO132-20	1SAM360000R1013 ■	13,970
12.5	25	50	MO132-25	1SAM360000R1014 ■	14,440
15.5	32	50	MO132-32	1SAM360000R1015 ■	25,500



MO165 Manual motor starters with short-circuit protection only

Rated operational current Amp	S/C Icu breaking capacity kA	Type	Ordering code	L.P. (₹)
16	100	MO165-16	1SAM461000R1011	24,560
20	100	MO165-20	1SAM461000R1012	25,790
32	100	MO165-32	1SAM461000R1014 ■	26,220
42	50	MO165-42	1SAM461000R1015	26,520
54	50	MO165-54	1SAM461000R1016 ■	31,640
65	50	MO165-65	1SAM461000R1017	32,860
73	30	MO165-73	1SAM461000R1018	37,960
80	30	MO165-80	1SAM461000R1019	39,900

MS132-T circuit breakers for transformer protection

MS132-T Circuit breakers for transformer protection are electro-mechanical protection devices specially designed to protect control transformers on the primary side. The short-circuit current setting is fixed to 20 times the operating current to handle the high inrush current generated by transformers.



Ie current setting range Amp	S/C Icu breaking capacity kA	Type	Ordering code	L.P. (₹)
0.10 ... 0.16	100	MS132-0.16T	1SAM340000R1001	9,520
0.16 ... 0.25	100	MS132-0.25T	1SAM340000R1002	9,520
0.25 ... 0.40	100	MS132-0.4T	1SAM340000R1003	9,520
0.40 ... 0.63	100	MS132-0.63T	1SAM340000R1004	10,360
0.63 ... 1.00	100	MS132-1.0T	1SAM340000R1005	10,440
1.00 ... 1.60	100	MS132-1.6T	1SAM340000R1006	10,920
1.60 ... 2.50	100	MS132-2.5T	1SAM340000R1007	10,920
2.50 ... 4.00	100	MS132-4.0T	1SAM340000R1008 ■	10,980
4.00 ... 6.30	100	MS132-6.3T	1SAM340000R1009 ■	11,140
6.30 ... 10.0	100	MS132-10T	1SAM340000R1010 ■	11,880
8.00 ... 12.0	100	MS132-12T	1SAM340000R1012	13,130
10.0 ... 16.0	100	MS132-16T	1SAM340000R1011 ■	13,130
16.0 ... 20.0	100	MS132-20T	1SAM340000R1013	15,850
20.0 ... 25.0	50	MS132-25T	1SAM340000R1014	15,880

■ Stock items

Manual motor starter

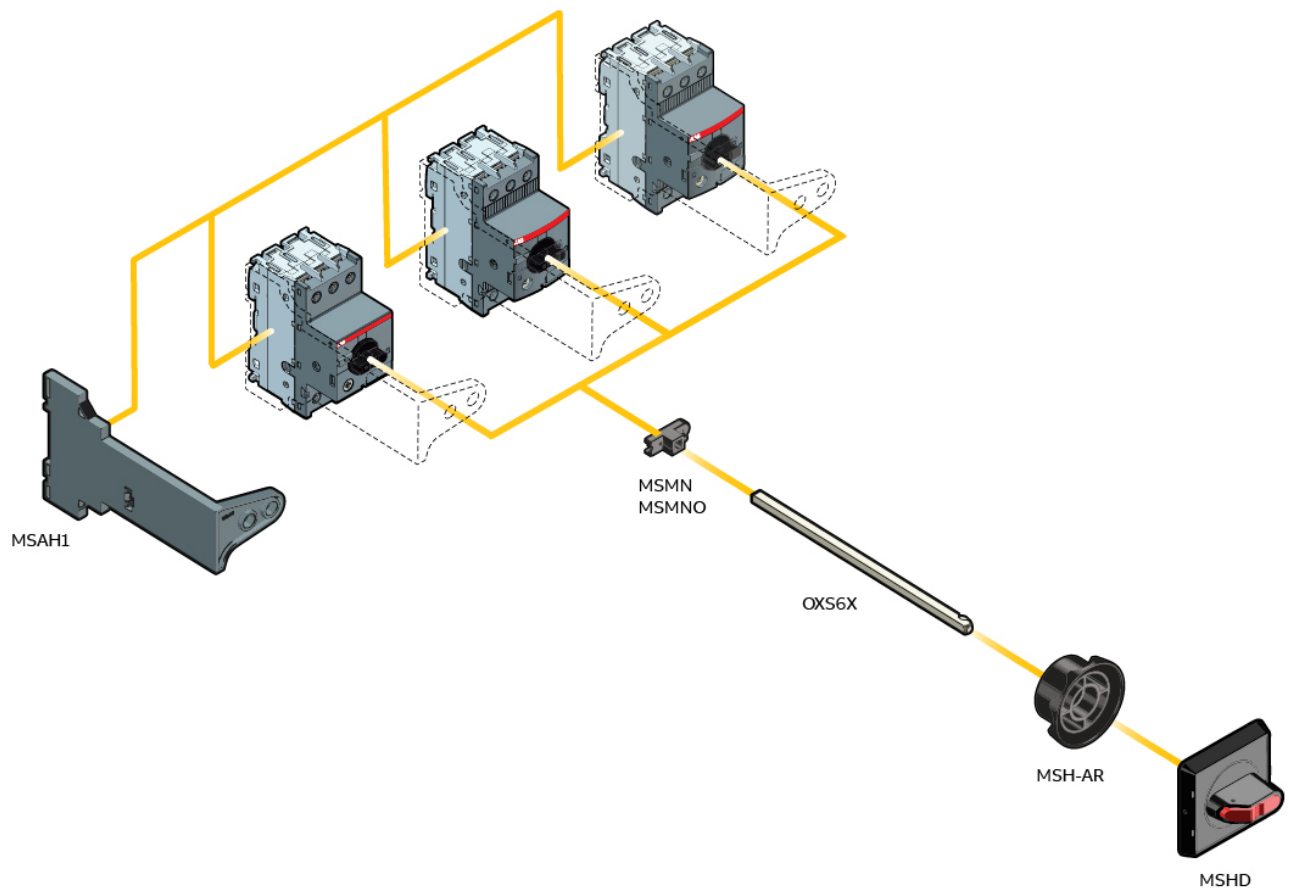
MS116, MS132, MO132, MS165 and MO165

General accessories

Description
 With this solution of door coupling rotary mechanism, it is possible to operate a Manual Motor Starter in the back of a switch cabinet from outside. The door coupling mechanism prevents opening of the door of a switch cabinet with the Manual Motor Starter in ON position. The complete mechanism includes handle, shaft, driver, shaft alignment ring and shaft supporter. All accessories fit for 6 mm shafts with a maximum length of 180 mm. The degree of protection for handles MSHD is IP64.

Ordering details

Frame	Description	Type	Ordering code	L.P.(₹)
MS116 MS132 MO132 MS165 MO165	SHAFT - Shaft diameter 6 mm. Shaft extension for door coupling driver	OXS6X130	1SCA101655R1001	850
	MSHD - Handle	MSHD-LB1	1SAM201920R1001	2,480
		MSHD-LY2	1SAM201920R1002	2,480
		MSHD-LTB3	1SAM201920R1011	2,480
		MSHD-LTY3	1SAM201920R1012	2,480
	MSMN- Driver	MSMN4	1SAM101923R0002	350
		MSMNO5	1SAM101923R0012	350
MS116, MS132	MSH-AR Shaft alignment ring	MSH-AR	1SAM201920R1000	420
	MSAH1-Shaft supporter	MSAH1	1SAM201909R1021	1,660



■ Stock items

Manual motor starter

Accessories for MS116, MS132, MO132, MS132-T, MS165, MO165



AA1-24

Suitable for	Rated voltage	Type	Ordering code	L.P.(₹)
MS116, MS132, MO132, MS132-T MS165 MO165	Shunt trip			
	20 ... 24	AA1-24	1SAM201910R1001	6,600
	110	AA1-110	1SAM201910R1002 ■	6,600
	200-240	AA1-230	1SAM201910R1003 ■	6,600
	350-415	AA1-400	1SAM201910R1004	6,600
	Undervoltage release			
	24	UA1-24	1SAM201904R1001	5,410
	110	UA1-110	1SAM201904R1004	5,410
	230	UA1-230	1SAM201904R1005	5,410
	415	UA1-415	1SAM201904R1007	5,410



HKF1-11

Suitable for	Aux contacts	Type	Ordering code	L.P.(₹)
MS116, MS132, MO132, MS132-T MS165 MO165	Auxiliary contacts - mountable on the front			
	1NO+1NC	HKF1-11	1SAM201901R1001 ■	1,290
	2 NO	HKF1-20	1SAM201901R1002 ■	1,290
	1NO	HKF1-10	1SAM201901R1003 ■	830
	1NC	HKF1-01	1SAM201901R1004 ■	830
	Auxiliary contacts - mountable on the right			
	1NO+1NC	HK1-11	1SAM201902R1001 ■	1,770
	2 NO	HK1-20	1SAM201902R1002 ■	1,770
	2 NC	HK1-02	1SAM201902R1003 ■	1,770



SK1-11

CK1-11

Suitable for	Aux contacts	Type	Ordering code	L.P.(₹)
MS116, MS132, MO132, MS 165 MO 165 MS132-T MS132 MS132-T MS165	Signalling contacts			
	1NO+1NC	SK1-11**	1SAM201903R1001 ■	2,430
	2 NO	SK1-20**	1SAM201903R1002 ■	2,430
	2 NC	SK1-02**	1SAM201903R1003	2,430
	Short circuit Signalling contacts			
	1NO+1NC	CK1-11#	1SAM301901R1001 ■	3,400
	2 NO	CK1-20#	1SAM301901R1002 ■	3,400
	2 NC	CK1-02#	1SAM301901R1003	3,400

**for tripped alarm, max 2 piece

#for short-circuit alarm, max. 2 pieces

Thermal overload relays



TA25, TA42 and TA75 relays

Relay range in Amps	Direct mounting on contactors	Type code reference	Ordering code	L.P.(₹)
0.1 ... 0.16		TA25DU 0.16M	1SAZ211201R2005 ■	3,160
0.16 ... 0.25		TA25DU 0.25M	1SAZ211201R2009 ■	3,160
0.25 ... 0.4		TA25DU 0.4M	1SAZ211201R2013 ■	3,160
0.4 ... 0.63		TA25DU 0.63M	1SAZ211201R2017 ■	3,160
0.63 ... 1.0		TA25DU 1.0M	1SAZ211201R2021 ■	3,210
1.0 ... 1.4		TA25DU 1.4M	1SAZ211201R2023 ■	3,210
1.3 ... 1.8		TA25DU 1.8M	1SAZ211201R2025 ■	3,210
1.7 ... 2.4	A9...A40	TA25DU 2.4M	1SAZ211201R2028 ■	3,210
2.2 ... 3.1	AX9...AX40	TA25DU 3.1M	1SAZ211201R2031 ■	3,210
2.8 ... 4.0	AL9...AL40	TA25DU 4.0M	1SAZ211201R2033 ■	3,210
3.5 ... 5.0	TAL9...TAL40	TA25DU 5.0M	1SAZ211201R2035 ■	3,210
4.5 ... 6.5		TA25DU 6.5M	1SAZ211201R2038 ■	3,210
6.0 ... 8.5		TA25DU 8.5M	1SAZ211201R2040 ■	3,210
7.5 ... 11.0		TA25DU 11M	1SAZ211201R2043 ■	3,260
10.0 ... 14.0		TA25DU 14M	1SAZ211201R2045 ■	3,260
13.0 ... 19.0		TA25DU 19M	1SAZ211201R2047 ■	3,700
18.0 ... 25.0		TA25DU 25M	1SAZ211201R2051 ■	3,890
24.0 ... 32.0		TA25DU 32M	1SAZ211201R2053 ■	3,890

TA42DU				
18.0 ... 25.0	A30, A40,	TA42DU 25	1SAZ311201R2001 ■	6,120
22.0 ... 32.0	AX32...AX40	TA42DU 32	1SAZ311201R2002 ■	6,300
29.0 ... 42.0	AL30, AL40, TAL30, TAL 40	TA42DU 42	1SAZ311201R2003 ■	6,780

TA75DU				
22 ... 32		TA75DU 32	1SAZ321201R2002 ■	7,670
29 ... 42		TA75DU 42	1SAZ321201R2003 ■	9,030
36 ... 52	A50...A75	TA75DU 52	1SAZ321201R2004 ■	9,220
45 ... 63	AX50...AX80	TA75DU 63	1SAZ321201R2005 ■	9,550
60 ... 80		TA75DU 80	1SAZ321201R2006 ■	10,430

TA80DU				
29 ... 42		TA80DU-42M	1SAZ331201R2003 ■	11,530
36 ... 52	A95...A110,	TA80DU-52M	1SAZ331201R2004 ■	11,530
45 ... 63	AX95...AX150	TA80DU-63M	1SAZ331201R2005 ■	11,530
60 ... 80		TA80DU-80M	1SAZ331201R2006 ■	12,410

TA25/TA42/TA75/TA80/TA110/TA200 are direct operated relays with trip class 10A

TA110DU				
65.0 ... 90.0 A	A95...A110,	TA110DU-90M	1SAZ411201R2001	18,660
80.0 ... 110.0 A	AX95...AX150	TA110DU-110M	1SAZ411201R2002	20,250

TA200DU				
66 ... 90		TA200DU-90	1SAZ421201R1001 ■	21,460
80 ... 110		TA200DU-110	1SAZ421201R1002 ■	23,240
100 ... 135	A145...A185	TA200DU-135	1SAZ421201R1003 ■	24,810
110 ... 150	AX185...AX205	TA200DU-150	1SAZ421201R1004 ■	27,030
130 ... 175	AF190, AF205	TA200DU-175	1SAZ421201R1005 ■	28,120
150 ... 200		TA200DU-200	1SAZ421201R1006 ■	29,400

Accessories

Independent Mounting Kit	TA25DU0.16..25A	DB25/25	1SAZ201108R0001 ■	700
	TA25DU32	DB25/32	1SAZ201108R0002	1,540
	TA42DU, TA75DU, TA80DU	DB80	1SAZ301110R0001 ■	6,750
	TA110DU, TA200DU	DB200	1SAZ401110R0001 ■	6,990

■ Stock items

Thermal overload relays



T16

T16 Relays

Relay range in Amps	Direct mounting on contactors	Type code reference	Ordering code	L.P. (₹)
0.10 ... 0.13	B6/BC6 B7/BC7 VB6/VBC6 VB7/VBC7 AS/ASL DOL starter IP65	T16-0.13	1SAZ711201R1005	Upon request
0.13 ... 0.17		T16-0.17	1SAZ711201R1008	
0.17 ... 0.23		T16-0.23	1SAZ711201R1009	
0.23 ... 0.31		T16-0.31	1SAZ711201R1013	
0.31 ... 0.41		T16-0.41	1SAZ711201R1014	
0.41 ... 0.55		T16-0.55	1SAZ711201R1017	
0.55 ... 0.74		T16-0.74	1SAZ711201R1021	
0.74 ... 1.00		T16-1.0	1SAZ711201R1023	
1.00 ... 1.30		T16-1.3	1SAZ711201R1025	
1.30 ... 1.70		T16-1.7	1SAZ711201R1028	
1.70 ... 2.30		T16-2.3	1SAZ711201R1031	
2.30 ... 3.10		T16-3.1	1SAZ711201R1033	
3.10 ... 4.20		T16-4.2	1SAZ711201R1035	
4.20 ... 5.70		T16-5.7	1SAZ711201R1038 ■	
5.70 ... 7.60		T16-7.6	1SAZ711201R1040	
7.60 ... 10.0		T16-10	1SAZ711201R1043	
10.0 ... 13.0		T16-13	1SAZ711201R1045	
13.0 ... 16.0		T16-16	1SAZ711201R1047	
16.0 ... 20.0				
20.0 ... 24.0				
24.0 ... 29.0				
29.0 ... 35.0				
35.0 ... 38.0/40.0				

■ Stock items



TF42

TF42 Relays

Direct mounting on contactors	Type code reference	Ordering code	L.P. (₹)
AF09...AF38 AFC09...AFC38	TF42-0.13	1SAZ721201R1005	Upon request
	TF42-0.17	1SAZ721201R1008	
	TF42-0.23	1SAZ721201R1009	
	TF42-0.31	1SAZ721201R1013	
	TF42-0.41	1SAZ721201R1014	
	TF42-0.55	1SAZ721201R1017	
	TF42-0.74	1SAZ721201R1021	
	TF42-1.0	1SAZ721201R1023	
	TF42-1.3	1SAZ721201R1025	
	TF42-1.7	1SAZ721201R1028 ■	
	TF42-2.3	1SAZ721201R1031 ■	
	TF42-3.1	1SAZ721201R1033 ■	
	TF42-4.2	1SAZ721201R1035 ■	
	TF42-5.7	1SAZ721201R1038 ■	
	TF42-7.6	1SAZ721201R1040 ■	
	TF42-10	1SAZ721201R1043	
	TF42-13	1SAZ721201R1045 ■	
	TF42-16	1SAZ721201R1047 ■	
	TF42-20	1SAZ721201R1049	
	TF42-24	1SAZ721201R1051	
	TF42-29	1SAZ721201R1052	
	TF42-35	1SAZ721201R1053	
	TF42-38	1SAZ721201R1055	

Thermal overload relays



TF65

TF65/TF96/TF140 Relay

Relay range in Amps	Direct mounting on contactors	Type code reference	Ordering code	L.P. (₹)
22.0...28.0	AF40, AF52, AF65 AFC40	TF65-28	1SAZ811201R1001	Upon request
25.0...33.0		TF65-33	1SAZ811201R1002	
30.0...40.0		TF65-40	1SAZ811201R1003	
36.0...47.0		TF65-47	1SAZ811201R1004	
44.0...53.0		TF65-53	1SAZ811201R1005	
50.0...60.0		TF65-60	1SAZ811201R1006	
57.0...67.0		TF65-67	1SAZ811201R1007	
40.0...51.0	AF80, AF96	TF96-51	1SAZ911201R1001	
48.0...60.0		TF96-60	1SAZ911201R1002	
57.0...68.0		TF96-68	1SAZ911201R1003	
65.0...78.0		TF96-78	1SAZ911201R1004	
75.0...87.0		TF96-87	1SAZ911201R1005	
84.0...96.0	AF116, AF140	TF96-96	1SAZ911201R1006	
66...90		TF140DU-90	1SAZ431201R1001	
80...110		TF140DU-110	1SAZ431201R1002	
100...135		TF140DU-135	1SAZ431201R1003	
110...142		TF140DU-142	1SAZ431201R1004	

For AF190 and AF205 use TA200DU OLR

Description	Type	Ordering code	L.P. (₹)
Separate mounting kit	DB16E	1SAX101110R0001 ■	Upon request
Separate mounting kit	DB42	1SAZ701902R0001 ■	
Separate mounting kit for TF65	DB65	1SAZ801901R1001	
Separate mounting kit for TF96	DB96	1SAZ901901R1001	

Electronic overload relays and suitable contactors

Suitable for Contactor	A9 ... A16 TAL9...TAL16	A26 ... A40	A50 ... A75	A95, A110	AF190, AF205			
	AL9 ... AL16	AL30 ... AL40						
EOLR	E16DU	E45DU	E80DU	E140DU	EF205			
Suitable for Contactor	AF400,	AF580,	AF1350,		B6/BC6			
	AF460	AF750	AF1650		B7/BC7			
EOLR	EF460	EF750	E1250DU		E16DU, T16			
Suitable for Contactor	AF09 ... AF16	AF26, AF38	AF40, AF52, AF65	AF80, AF96	AF116, AF140, AF146	AF265, AF305, AF370	AF400, AF460,	AF580, AF750, AF1250
EOLR	EF19	EF45	EF65	EF96	EF146	EF370	EF460	EF750

■ Stock items

Electronic overload relays class 10, 20, 30



Electronic overload relays

Trip class 10, 20, 30 selectable

Setting range	Trip class	Type	Ordering code	L.P.(₹)
0.1... 0.32A	Selectable 10E, 20E and 30E	E16DU 0.32	1SAX111001R1101	16,650
0.3 ... 1.0A		E16DU 1.0	1SAX111001R1102	16,650
0.8 ... 2.7A		E16DU 2.7	1SAX111001R1103 ■	16,650
1.9 ... 6.3A		E16DU 6.3	1SAX111001R1104 ■	17,310
5.7... 18.9A		E16DU 18.9	1SAX111001R1105 ■	18,580
9 ... 30A		E45DU 30	1SAX211001R1101 ■	21,480
15 ... 45A		E45DU 45	1SAX211001R1102 ■	23,400
27 ... 80A		E80DU 80	1SAX311001R1101 ■	30,720
50 ... 140A		E140DU 140	1SAX321001R1101 ■	36,980
63 ... 210A		EF205-210	1SAX531001R1101	Upon request
115 ... 380A		EF370-380	1SAX611001R1101	
150 ... 500A		EF460	1SAX721001R1101 ■	
250 ... 800A		EF750	1SAX821001R1101	
375 ... 1250A		E1250DU 375 - 1250 A	1SFA739001R1000	
0.10...0.32A	Selectable 10E, 20E and 30E	EF19-0.32	1SAX121001R1101	Upon request
0.30...1.00A		EF19-1.0	1SAX121001R1102	
0.80...2.70A		EF19-2.7	1SAX121001R1103 ■	
1.90...6.30A		EF19-6.3	1SAX121001R1104 ■	
5.70...18.9A		EF19-18.9	1SAX121001R1105 ■	
9.00...30.0A		EF45-30	1SAX221001R1101 ■	
15.0...45.0A		EF45-45	1SAX221001R1102 ■	
25...70A		EF65-70	1SAX331001R1101 ■	
36...100A		EF96-100	1SAX341001R1101 ■	
54...150A		EF146-150	1SAX351001R1101 ■	
63 ... 210A		EF205-210	1SAX531001R1101 ■	
115 ... 380A		EF370-380	1SAX611001R1101 ■	
150 ... 500A		EF460	1SAX721001R1101	
250 ... 800A		EF750	1SAX821001R1101	

Accessories

Description	Type	Ordering code	L.P.(₹)
Separate mounting kit	DB16E	1SAX101110R0001	5,250
Separate mounting kit - EF19	DB19EF	1SAX101910R1001 ■	5,300
Separate mounting kit - EF45	DB45EF	1SAX201910R0001 ■	8,480
Separate mounting kit	DB45E	1SAX201110R1001	8,480
Separate mounting kit	DB80E	1SAX301110R1001 ■	10,550
Separate mounting kit	DB140E	1SAX301110R1002	15,250

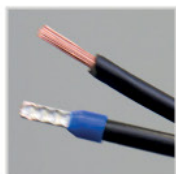
For suitable contactors refer page no. 101

■ Stock items

Push-in Spring solution

Complete range, complete efficiency

The Push-in Spring motor starting solution products provide you with a range of benefits.



2-in-1

Benefit from both Push-in mode and Spring mode and use ferruled cables or cables without ferrules in the same terminal.



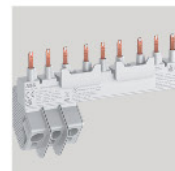
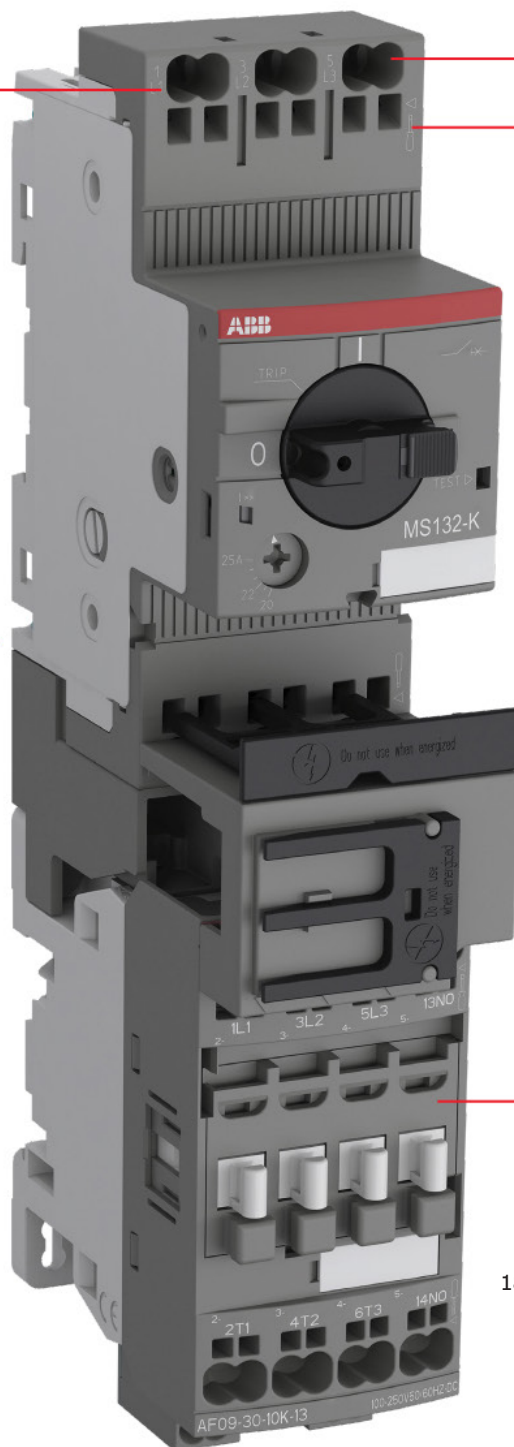
Tool-free connecting links

100% tool-free mounting connecting links.



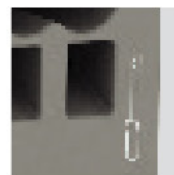
Compatible with screw range

Mount accessories for control circuits on the screw range up to 45 kW AC-3 400 V on manual motor starters and up to 45 kW AC-3 400 V, 130 A AC-1 on contactors.



Tool-free busbars

Parallel connection of manual motor starters without the need for tools (also certified for UL Type E/ Type F applications)



Just one tool for everything

You only need a 3 mm screwdriver in Spring mode as well as for de-wiring the complete solution.



Higher connecting capacity

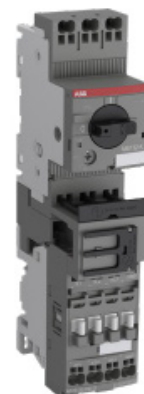
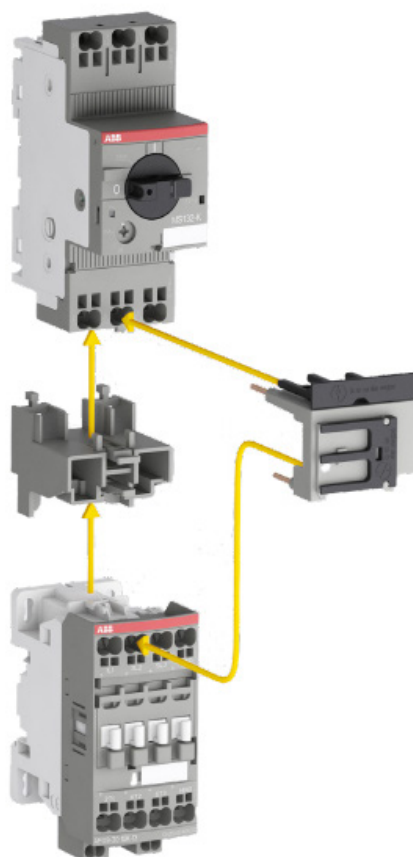
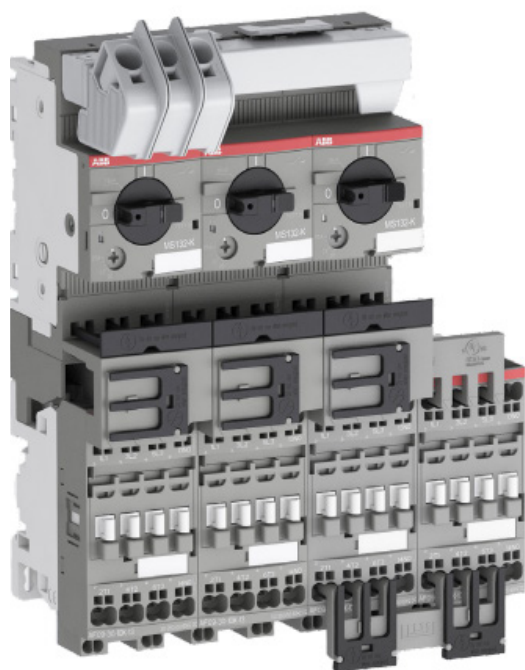
The solution ranges up to 18.5 kW 400 V AC-3 and 50 A AC-1 (25 hp 480 V and 45 A 600 V general use).

Just push it!

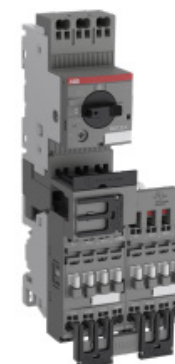
The next evolution in motor starter solutions is here.

NEW

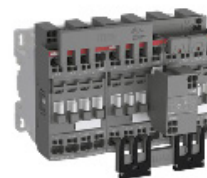
So up to 18.5 kW, one push is all you need!



Direct on-line Starter



Reversing Starter



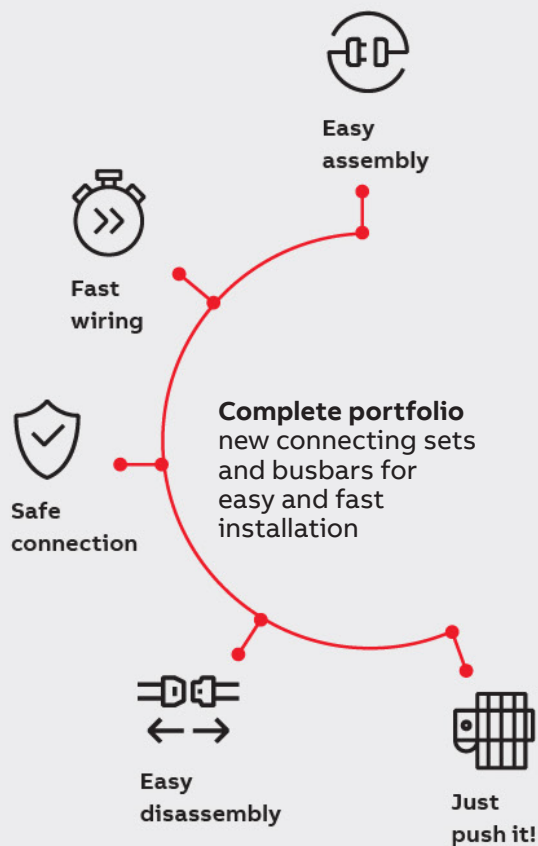
Star-Delta Starter

Save up to 50% wiring time with Push-in Spring compared to conventional spring solutions. And the connections are just as reliable. So for speed, ease and reliability, just push it.

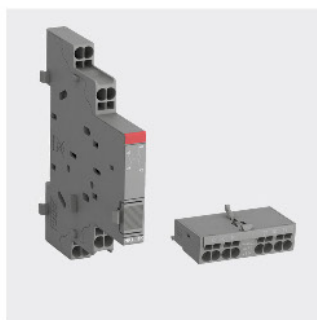
NEW

Benefits / Features

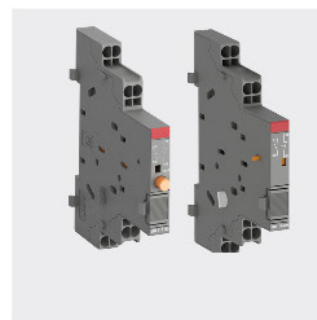
- Fast and intuitive wiring
- Tool-free mounting
- Vibration & shock proof
- Robust design for higher up-time
- Future proof connection technology
- Terminals accessible from the front
- One-hand mounting
- 2-in-1 Push-in / Spring
- Higher connection capacity
- No mounting plate required for starters
- Enabled for automated wiring



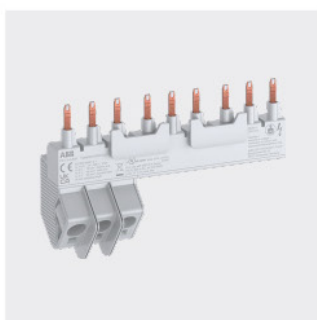
CA4..K, CAL4-11K 1, 2 and 4 pole auxiliary contacts



HK1-K, HKF1-K auxiliary contacts



SK1-K and SK1-ARK signaling contacts



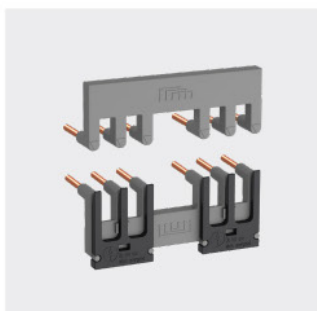
PS1-...-65K busbars for 2, 3, 4 or 5 manual motor starters



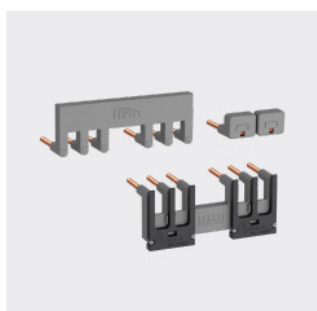
TS1-M3-K terminal spacer for UL Type E/F combination motor controllers



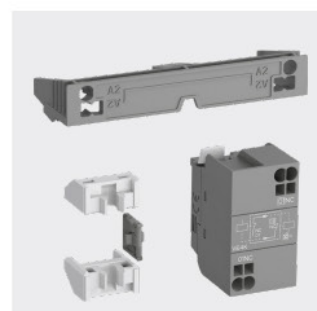
BEA16-4KF and BEA38-4KF connecting links with manual motor starters



BER16-4KF and BER38-4KF connecting links for reversing starters



BEY16-4KF and BEY38-4KF connection sets for Star-Delta starters



VEM4K electrical and mechanical interlock

15BC100.445S0201