



Across the line contactors Type A, B & EH



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B9 – B75, A95 – A110

- Maximum UL/CSA horsepower ratings
- Includes NEMA sizes 00 - 3
- CE mark
- Compact space saving design
- Standard auxiliary contact configurations:
 - B9 – B25 1 N.O. or 1 N.C.
 - B30 2 N.O. & 2 N.C.
 - B40 – B75 1 N.O. & 1 N.C.
 - A95 – A110 1 N.O. & 1 N.C.
- Additional auxiliary contact blocks are available
- D.C. ratings & D.C. control operation available
- Fast, snap-on DIN rail mounting
- Double break contact design
- Snap-on front mounted accessories include mechanical latch, pneumatic timer, and 1 & 4 pole auxiliary contact blocks
- Easy coil change
- Captive terminal screws
- NEMA, UL, IEC, CSA, VDE and most other international standards
- UL File No: E39231 (B9 – B75)
- UL File No: E79416 (A95 – A110)
- CSA File No: LR56745 (B9 – B75)
- CSA File No: LR19700 (A95 – A110)
- Touch safe design: All connection terminals are protected against accidental touch
- Terminals supplied open for ease of wiring
- Operates over an extended voltage range of 85% to 110% of rated control voltage
- Screwdriver guide holes

EH145 – EH800

- Maximum UL/CSA horsepower ratings
- Includes NEMA sizes 3 - 7
- CE mark
- Double break contact design with magnetic arc chamber extinguishes arc in shortest possible time
- High quality plastic for sizes EH145 – EH300
- Die cast aluminum frame, EH450 – EH800
- High temperature encapsulated coil
- 1 N.O. & 1 N.C. auxiliary contacts are standard and up to 6 additional auxiliary contacts may be added to provide a total of 8 (4 N.O. & 4 N.C.)
- Early make & late break auxiliary contacts available
- D.C. ratings and D.C. control operation available
- Easy removal of arc chute for quick inspection and change of contacts
- Mechanical latch available for all sizes
- Can be mounted in any position
- Operates over an extended voltage range of 85% to 110% of rated control voltage
- NEMA, UL, IEC, CSA, VDE and most other international standards
- UL File No: E79416
- CSA File No: LR19700
- CSA approved for elevator service

New!!

• New withdrawable coil for EH175 – 300

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Across the line contactors

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Across the line contactors

Type A, B, BC & BE

Description

Application

3 and 4-pole contactors A, B, BC, BE are mainly used for controlling three phase motors and for controlling power circuits up to 600VAC and 500VDC, in accordance with their characteristics and utilization data.

Construction details

A95 & A110, B9 ... B75, BC9 ... BC30, BE40 ... BE75

All the contactors can be side by side mounted.

● Standard contactors :

- A & B types, a.c. operated, with laminated electro-magnet, coil directly fed from an a.c. supply.
- BC types, d.c. operated, with solid core electro-magnet, coil directly fed from a d.c. supply.

- BE types, d.c. operated, with laminated electro-magnet, double wound coil fed from d.c. supply via an insertion contact (type CDL 7) with normally closed lagging contact and varistor.

● Contactors with 4 pole auxiliary block

- Same width as standard contactor of same ratings

● Contactors for specific application :

- UB ... and UB ... R types for 3-phase capacitor switching.
- 4-pole types with N/C main poles.
- TBC ... types with large coil voltage range. d.c. operated.

- Fast mounting on DIN rail according to IEC 715 and EN 50022 :
 - 35 x 7.5 mm
 - 35 x 15 mm

- Location for side mounted accessories. Same facilities on right handside.

- Connecting point on main terminals for control leads.

- Location for side mounted accessories. Same on right side.

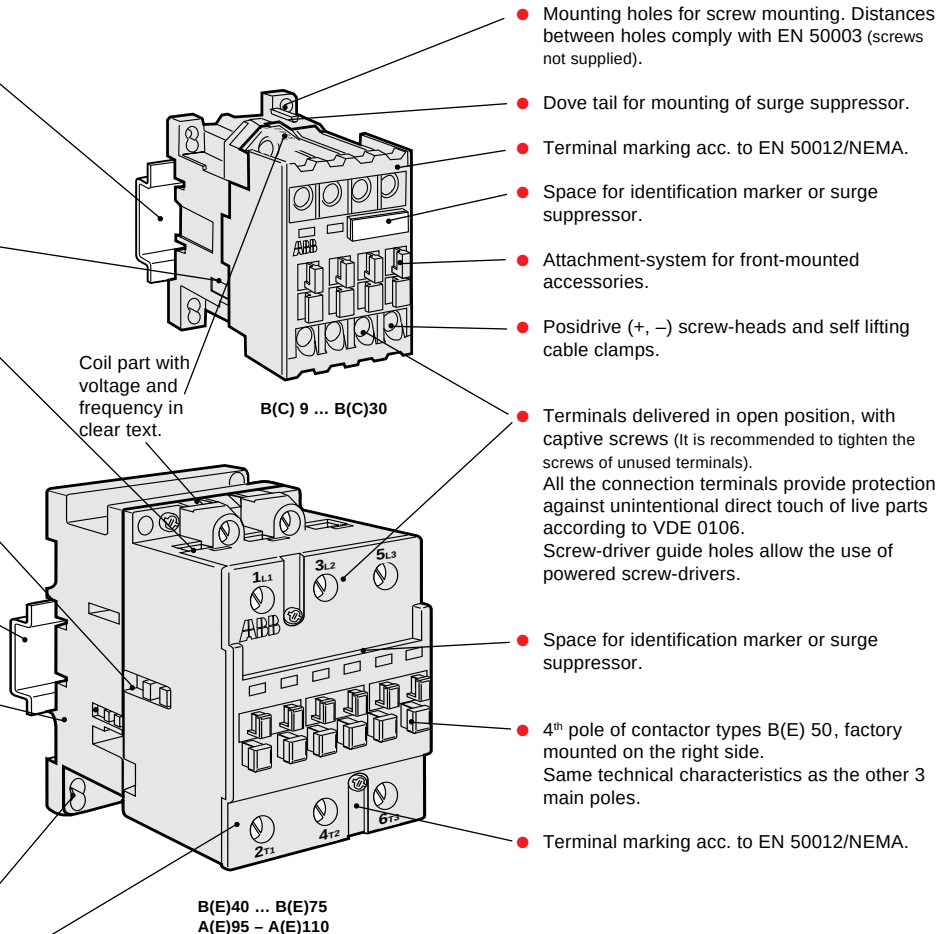
- Fast mounting on DIN rail
 - 35 x 15 mm acc. to IEC 715 and EN50022 B40 – 75
 - 75 mm acc. to IEC 715 and EN 50023 B40 – 75
 - A95 – 110

- Location for :
 - aux. contact block left side mounted on 3-pole contactor types A(E)95 – 110, B(E)40 to 75
 - economizing contact mounted on DC operated contactors :
 - right side for 3-pole types A(E)95 – 110, BE40 to BE75.
 - left side for 4-pole types BE50-40.

- Mounting holes for screw mounting. Distances between holes comply with EN 50003 (screws not supplied).

- Slotted screw-heads and connectors 13 x 10 mm. B40 – B75 contactors.

- Socket head screws for A95 – A110.



Across the line contactors

Type EH & EK

Description

Application

3-pole Type EH contactors are mainly used for controlling three phase motors and for controlling power circuits up to 600VAC and 500VDC at their corresponding rated operating currents as indicated in the tables of characteristics and utilization data.

4-pole Type EK contactors are mainly used for switching of emergency circuits and all distribution circuits where neutral needs to be broken.

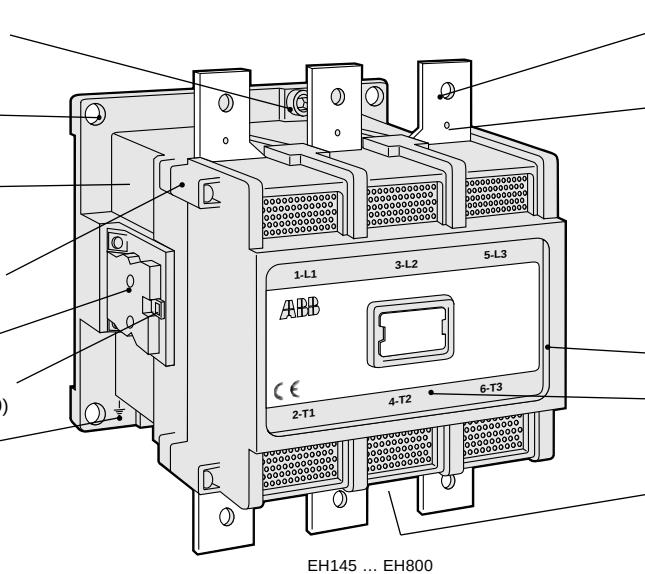
Construction details

EH145 ... EH800 and EK110 ... EK550.

Complete closing in one operation is ensured, even at the lowest limit value of the operating voltage, by the patented spring system. Coil encapsulated in glass-fiber reinforced and temperature resistant thermoplastic.

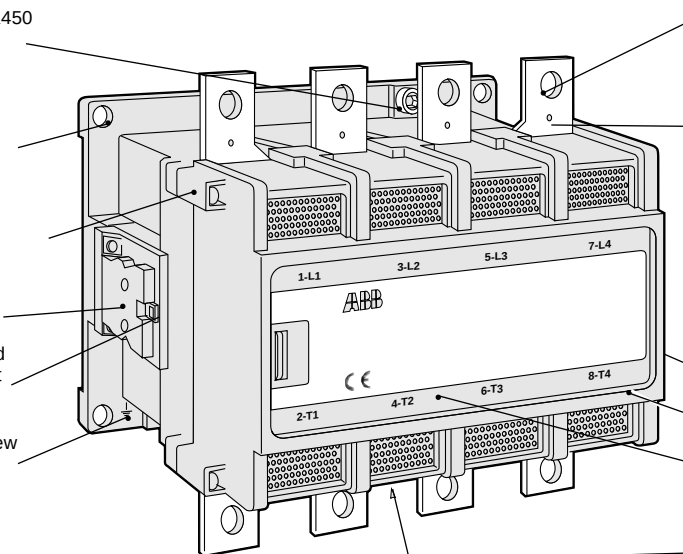
- 3-pole Type EH contactors and 4-pole Type EK contactors can be supplied:
 - AC operated types with laminated electro-magnet, coil directly fed from an AC supply. 1 NO and 1 NC auxiliary standard.
 - DC operated types with laminated electro-magnet, coil fed from DC supply via an economizing resistor inserted by an auxiliary contact block with normally closed lagging contact. 1 NO and 1 NC auxiliary contact can be added to left side of contactor.

- Ground screw M10 for EH450 ... 800. Can also be located at the bottom.
- Dampers for EH450 ... 800 are supplied, c/w screw & washers.
- Body of glass-fiber reinforced polyester for EH145 ... 300, pressured die-cast light alloy for EH450 ... 800.
- Quick-release clip for removing of arc-shield.
- Existing auxiliary contact block.
- Clamp-terminals protected against accidental contact (IP 20)
- Alternative grounding screw position.



- Screw, nut and washer are supplied for every main terminal. Terminal clamps for either copper or aluminium cables can be ordered separately.
- Holes for M4 self tapping screws. Power take-off screw on L1 & L2
- Main contacts with contact coatings that combine high conductivity with low tendency to oxidation.
- Separate arc contacts on EH450 ... 800 with contact plates having high melting point, low tendency to weld and hard material.
- Arc shield of glass-fiber reinforced polyester.
- Terminal marking complying with EN 50005, EN 50012 and NEMA. Phase terminals and phase wiring with clearly readable markings.
- Coil part with voltage and frequency clearly marked. Clamp terminals protected against accidental contact (IP 20). EH175 - EH300 contactors have a withdrawable coil on top.

- Ground screw M10 for EK450 and EK550. Can also be fitted at the bottom.
- Dampers for EK550 are supplied, c/w screws & washers.
- Quick-release clip for removing of arc-shield.
- Existing auxiliary contact block.
- Clamp-terminals protected against accidental contact (IP 20)
- Alternative grounding screw position.



- Screw, nut and washer are supplied for every main terminal. Terminal clamps for either copper or aluminium cables can be ordered separately.
- Holes for M4 self tapping screws. Power take-off screw on L1 & L2
- Main contacts with contact coatings that combine high conductivity with low tendency to oxidation.
- Separate arc contacts on EK450 and 550 with contact plates having high melting point, low tendency to weld and hard material.
- Economizing contact block with economizing resistor on DC operated contactors.
- Arc shield of fiberglass reinforced polyester.
- Terminal marking complying with EN 50005, EN 50012 and NEMA. Phase terminals and phase wiring with clearly readable markings.
- Coil with voltage and frequency shown. Clamp terminals protected against accidental contact (IP 20). EK175 & EK210 contactors have a withdrawable coil on top.

Across the line contactors

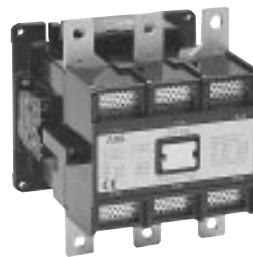
Non-reversing, 3 pole



B12C-1



B50C-1



EH260C-1

3 Pole, A.C., Open

	General purpose current		Maximum motor horsepower ratings 				AC operated		DC operated	
			200V	230V	460/480V	575/600V	Catalog number	List price	Catalog number	List price
	AC1	AC3	UL rated							
—	21	9	2	2	5	7.5	B9C-1	\$ 52	BC9C-P	\$ 82
—	21	11	3	3	7.5	10	B12C-1	56	—	—
—	21	17	5	5	10	15	B16C-1	68	BC16C-P	98
—	33	28	7.5	10	20	25	B25C-1	122	BC25C-P	152
—	45	32	10	10	20	30	B30C-1	168	BC30C-P	198
—	55	41	10	15	30	40	B40C-1	198	BE40C-P	228
—	65	52	15	20	40	50	B50C-1	220	BE50C-P	250
—	85	65	20	25	50	50	B63C-1	248	BE63C-P	318
—	105	80	25	30	60	75	B75C-1	275	BE75C-P	345
—	125	80	30	30	60	75	A95C-1	300	AE95C-P	370
—	140	105	30	40	75	100	A110C-1	320	AE110C-P	460
—	170	130	40	50	100	125	EH145C-1	600	EH145C-P	740
—	190	156	50	60	125	150	EH175C-1	920	EH175C-P	1090
—	230	192	60	75	150	200	EH210C-1	1150	EH210C-P	1320
—	300	242	75	100	200	250	EH260C-1	1300	EH260C-P	1490
—	350	302	100	100	250	250	EH300C-1	1400	EH300C-P	1590
—	525	420	125	150	350	400	EH450C-1	2200	EH450C-P	2440
—	600	480	150	200	400	500	EH550C-1	3100	EH550C-P	3430
—	715	602	200	250	500	600	EH700C-1	4800	EH700C-P	5130
—	900	810	250	300	600	700	EH800C-1	5000	EH800C-P	5330

NEMA rated										
NEMA Size	Continuous current									
00	9	1.5	1.5	2	2	BN9C-1	\$ 75	BCN9C-P	\$ 105	
0	18	3	3	5	5	BN16C-1	108	BCN16C-P	138	
1	27	7.5	7.5	10	10	BN25C-1	148	BCN25C-P	178	
2	45	10	15	25	25	BN50C-1	220	BEN50C-P	250	
3	90	25	30	50	50	BN75C-1	275	BEN75C-P	345	
4	135	40	50	100	100	EHN145C-1	600	EHN145C-P	740	
5	270	75	100	200	200	EHN260C-1	1300	EHN260C-P	1490	
6	540	150	200	400	400	EHN550C-1	3100	EHN550C-P	3430	
7	810	—	300	600	600	EHN800C-1	5000	EHN800C-P	5330	

Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. All DC operated catalog numbers include a 110VDC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection chart for the first digit after the dash in the catalog number.

Coil voltage selection chart

Hz	Contr. type	Volts															
		24	48	110	120	125	208	220	240	277	380	415	440	480	500	600	
60	A,B,EH	F	G		1		B		2	C	Z		3	4		6	
50	A,B	F		1				2			3	4			6		
50	EH	N		1				J			3	M			5		
DC	A,B,EH	Y	W	P		Q		R					T				

- For other voltages, consult factory.
- 24 & 48VAC coils are not available for sizes EH450 – EH800. For these applications, use an interposing control relay.

Auxiliary contacts as standard

Frame size	Number of contacts	Mounting
B(C)9 – B(C)25 ①	1 N.O.	Internal
B(C)30	2 N.O. & 2 N.C.	Top
B(E)40 – EH800	1 N.O. & 1 N.C.	Side
A(E)95 – A(E)110	1 N.O. & 1 N.C.	Side

Additional auxiliary contacts are available for all contactor sizes. See Accessories.

EH Contactors are supplied with lugs

If terminal lugs are not required, subtract the terminal kit price shown on page 1.13. Add the "L" suffix as the last digit in the catalog number. Example: EH145C-1L, \$575

① Frame size B(C)9 - 25 contactors can be supplied with 1 N.C. auxiliary contact as standard. Add suffix "01" after the coil voltage suffix. Price is the same.

Across the line contactors

Non-reversing, 4-pole UL rated



B12C4P-1



B25C4P-1



EK175C4P-1

4 Pole A.C., Open

UL general purpose current	AC operated		DC operated	
	Catalog number	List price	Catalog number	List price
10	B9C4P-1	\$ 80	BC9C4P-P	\$ 110
15	B12C4P-1	90	—	—
20	B16C4P-1	110	BC16C4P-P	140
30	B25C4P-1	152	BC25C4P-P	182
40	B40C4P-1	240	BE40C4P-P	270
60	B50C4P-1	275	BE50C4P-P	315
85	B63C4P-1	300	BE63C4P-P	330
105	B75C4P-1	350	BE75C4P-P	380
150	EK110C4P-1L	495	EK110C4P-PL	635
200	EK150C4P-1L	675	EK150C4P-PL	825
250	EK175C4P-1L	1175	EK175C4P-PL	1325
300	EK210C4P-1L	1350	EK210C4P-PL	1520
400	EK370C4P-1L	3100	EK370C4P-PL	3340
600	EK550C4P-1L	4340	EK550C4P-PL	4670

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4 Pole, A.C., Open – 2 N.O. & 2 N.C. Power Poles

UL general purpose current	AC operated		DC operated	
	Catalog number	List price	Catalog number	List price
20A	B12C4P22-1	\$ 76	—	—
30A	B25C4P22-1	142	BC25C4P22-P	\$ 172

Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. All DC operated catalog numbers include a 110VDC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection chart for the first digit after the dash in the catalog number.

Coil voltage selection chart

Hz	Contr. type	Volts														
		24	48	110	120	125	208	220	240	277	380	415	440	480	500	600
60	A,B,EH	F	G		1		B		2	C	Z		3	4		6
50	A,B	F		1				2			3	4			6	
50	EH	N		1				J			3	M			5	
DC	A,B,EH	Y	W	P		Q		R					T			

- For other voltages, consult factory.
- 24 & 48VAC coils are not available for sizes EH450 – EH800. For these applications, use an interposing control relay.

Auxiliary contacts as standard

Frame size	Number of contacts	Mounting
B(C)9 – B(C)25 ①	1 N.O.	Internal
B(C)30	2 N.O. & 2 N.C.	Top
B(E)40 – EH800	1 N.O. & 1 N.C.	Side
A(E)95 – A(E)110	1 N.O. & 1 N.C.	Side

Additional auxiliary contacts are available for all contactor sizes. See Accessories.

EK Contactors are supplied without lugs

Lug kits can be ordered for EK contactors. See page 1.13. Subtract the terminal kit price shown on page 1.13 and add the "L" suffix as the last digit in the catalog number. EX: EK110C4P-1L

① Frame size B(C)9 - 25 contactors can be supplied with 1 N.C. auxiliary contact as standard. Add suffix "01" after the coil voltage suffix. Price is the same.

Across the line contactors

Mechanically interlocked, 3 pole



B25M-1



B63M-1



EH450M-1

3 Pole, A.C., Open

	General purpose current		Maximum motor horsepower ratings 				AC operated		DC operated	
			200V	230V	460/480V	575/600V	Catalog number	List price	Catalog number	List price
	AC1	AC3	UL rated							
—	21	9	2	2	5	7.5	B9M-1	\$ 170	BC9M-P	\$ 230
—	21	11	3	3	7.5	10	B12M-1	210	—	—
—	21	17	5	5	10	15	B16M-1	230	BC16M-P	290
—	33	28	7.5	10	20	25	B25M-1	270	BC25M-P	330
—	45	32	10	10	20	30	B30M-1	365	BC30M-P	445
—	55	41	10	15	30	40	B40M-1	426	BE40M-P	506
—	65	52	15	20	40	50	B50M-1	475	BE50M-P	535
—	85	65	20	25	50	50	B63M-1	580	BE63M-P	720
—	105	80	25	30	60	75	B75M-1	770	BE75M-P	910
—	125	80	30	30	60	75	A95M-1	820	AE95M-P	960
—	140	105	30	40	75	100	A110M-1	910	AE110M-P	1190
—	170	130	40	50	100	125	EH145M-1	1490	EH145M-P	1770
—	190	156	50	60	125	150	EH175M-1	2240	EH175M-P	2580
—	230	192	60	75	150	200	EH210M-1	2690	EH210M-P	3030
—	300	242	75	100	200	250	EH260M-1	2990	EH260M-P	3370
—	350	302	100	100	250	250	EH300M-1	3640	EH300M-P	4020
—	525	420	125	150	350	400	EH450M-1	3990	EH450M-P	4470
—	600	480	150	200	400	500	EH550M-1	8190	EH550M-P	8850
—	715	602	200	250	500	600	EH700M-1	11,590	EH700M-P	12,250
—	900	810	250	300	600	700	EH800M-1	12,490	EH800M-P	13,150

NEMA rated										
NEMA Size	Continuous Current									
00	9	1.5	1.5	2	2	BN9M-1	\$ 170	BCN9M-P	\$ 230	
0	18	3	3	5	5	BN16M-1	230	BCN16M-P	290	
1	27	7.5	7.5	10	10	BN25M-1	270	BCN25M-P	330	
2	45	10	15	25	25	BN50M-1	475	BEN50M-P	535	
3	90	25	30	50	50	BN75M-1	770	BEN75M-P	910	
4	135	40	50	100	100	EHN145M-1	1490	EHN145M-P	1770	
5	270	75	100	200	200	EHN260M-1	2990	EHN260M-P	3370	
6	540	150	200	400	400	EHN550M-1	8190	EHN550M-P	8850	
7	810	—	300	600	600	EHN800M-1	12,490	EHN800M-P	13,150	

Description

Mechanically interlocked contactors are designed for reversing, 2-speed, reduced voltage, etc. type starter applications. The complete assembly consists of two mechanically and electrically interlocked contactors mounted as follows with line and load terminals:

- B9 - B16 – mounted on 35mm DIN rail
- B25 - EH800 – mounted on common baseplate

Control and power wiring are not included

Auxiliary contacts as standard

Frame size	Number of contacts	Mounting
B(C)9 – B(C)25 	1 N.O.	Internal
B(C)30	2 N.O. & 2 N.C.	Top
B(E)40 – EH800	1 N.O. & 1 N.C.	Side
A(E)95 – A(E)110	1 N.O. & 1 N.C.	Side

Additional auxiliary contacts are available for all contactor sizes. See Accessories.

Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. All DC operated catalog numbers include a 110VDC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection chart for the first digit after the dash in the catalog number.

Coil voltage selection chart

Hz	Contr. type	Volts															
		24	48	110	120	125	208	220	240	277	380	415	440	480	500	600	
60	A,B,EH	F	G		1		B		2	C	Z		3	4		6	
50	A,B	F		1				2			3	4			6		
50	EH	N		1				J			3	M			5		
DC	A,B,EH	Y	W	P		Q		R					T				

- For other voltages, consult factory.
- 24 & 48VAC coils are not available for sizes EH450 – EH800. For these applications, use an interposing control relay.

EH Contactors supplied less lugs

Lug kits can be ordered for EH contactors. Subtract the terminal kit price shown on page 15 and add the "L" suffix as the last digit in the catalog number. EX: EH145M-1L

Across the line contactors

Reversing, 3 pole



B9R-1



B50R-1



EH260R-1

3 Pole, A.C., Open

	General purpose current		Maximum motor horsepower ratings ^{UL} ^{CE}				AC operated		DC operated	
			200V	230V	460/480V	575/600V	Catalog number	List price	Catalog number	List price
	AC1	AC3	UL rated							
—	21	9	2	2	5	7.5	B9R-1	\$ 210	BC9R-P	\$ 270
—	21	11	3	3	7.5	10	B12R-1	250	—	—
—	21	17	5	5	10	15	B16R-1	275	BC16R-P	335
—	33	28	7.5	10	20	25	B25R-1	320	BC25R-P	380
—	45	32	10	10	20	30	B30R-1	375	BC30R-P	435
—	55	41	10	15	30	40	B40R-1	500	BE40R-P	580
—	65	52	15	20	40	50	B50R-1	540	BE50R-P	620
—	85	65	20	25	50	50	B63R-1	675	BE63R-P	715
—	105	80	25	30	60	75	B75R-1	865	BE75R-P	905
—	125	80	30	30	60	75	A95R-1	950	AE95R-P	1090
—	140	105	30	40	75	100	A110R-1	1085	AE110R-P	1200
—	170	130	40	50	100	125	EH145R-1	1500	EH145R-P	1780
—	190	156	50	60	125	150	EH175R-1	2250	EH175R-P	2590
—	230	192	60	75	150	200	EH210R-1	2700	EH210R-P	3040
—	300	242	75	100	200	250	EH260R-1	3000	EH260R-P	3380
—	350	302	100	100	250	250	EH300R-1	3650	EH300R-P	4030
—	525	420	125	150	350	400	EH450R-1	4000	EH450R-P	4480
—	600	480	150	200	400	500	EH550R-1	8200	EH550R-P	8860
—	715	602	200	250	500	600	EH700R-1	11,600	EH700R-P	12,260
—	900	810	250	300	600	700	EH800R-1	12,500	EH800R-P	13,160

NEMA rated										
NEMA Size	Continuous Current									
00	9	1.5	1.5	2	2	BN9R-1	\$ 210	BCN9R-P	\$ 270	
0	18	3	3	5	5	BN16R-1	275	BCN16R-P	335	
1	27	7.5	7.5	10	10	BN25R-1	320	BCN25R-P	380	
2	45	10	15	25	25	BN50R-1	540	BEN50R-P	620	
3	90	25	30	50	50	BN75R-1	865	BEN75R-P	905	
4	135	40	50	100	100	EHN145R-1	1500	EHN145R-P	1780	
5	270	75	100	200	200	EHN260R-1	3000	EHN260R-P	3380	
6	540	150	200	400	400	EHN550R-1	8200	EHN550R-P	8860	
7	810	—	300	600	600	EHN800R-1	12,500	EHN800R-P	13,160	

Description

Reversing contactors are designed for reversing, 2-speed, reduced voltage, etc. type starter applications. The complete assembly consists of two mechanically and electrically interlocked contactors mounted as follows with line and load terminals:

- B9 - B16 – mounted on 35mm DIN rail
- B25 - EH800 – mounted on common baseplate

Control and power wiring are included.

Auxiliary contacts as standard

Frame size	Number of contacts	Mounting
B(C)9 – B(C)25 ①	1 N.O.	Internal
B(C)30	2 N.O. & 2 N.C.	Top
B(E)40 – EH800	1 N.O. & 1 N.C.	Side
A(E)95 – A(E)110	1 N.O. & 1 N.C.	Side

Additional auxiliary contacts are available for all contactor sizes. See Accessories.

Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. All DC operated catalog numbers include a 110VDC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection chart for the first digit after the dash in the catalog number.

Coil voltage selection chart

Hz	Contr. type	Volts															
		24	48	110	120	125	208	220	240	277	380	415	440	480	500	600	
60	A,B,EH	F	G		1		B		2	C	Z		3	4		6	
50	A,B	F		1				2			3	4			6		
50	EH	N		1				J			3	M			5		
DC	A,B,EH	Y	W	P		Q		R					T				

- For other voltages, consult factory.
- 24 & 48VAC coils are not available for sizes EH450 – EH800. For these applications, use an interposing control relay.

EH Contactors supplied less lugs

Lug kits can be ordered for EH contactors. Subtract the terminal kit price shown on page 15 and add the "L" suffix as the last digit in the catalog number. EX: EH145R-1L

Accessories for across the line contactors

Auxiliary contact blocks



CA7-10



CA7-40 E



CB7-10



CAL7-11

Auxiliary contact blocks for A & B Contactors

Contactors size	Description	Mounting position	Catalog number	List price
K(C) & B9 – B75	1 N.C. 1 N.O. N.O. Leading N.C. Lagging Impulse N.O. Impulse N.C.	Top	CA7-01 CA7-10 CC7-10 CC7-01 CB7-10 CB7-01	\$ 10
A(E)95 – 110	1 N.C. 1 N.O.	Top	CA5-10 CA5-01	
B(E)40 – B(E)75 B(C)9...B(C)25, B(C)30	1 N.O./1N.C. Overlapping 1 N.O./1 N.C. Overlapping	Top	CA7-11/11E CA7-11/11M	20
B(C)9 – B(C)25 (4 pole) B(C)30	4 N.O. 3 N.O. & 1 N.C. 2 N.O. & 2 N.C.	Top	CA7-40E CA7-31E CA7-22E	40
A(E)95 – 110	4 N.O. 2 N.O. & 2 N.C.	Top	CA5-40E CA5-22E	
K(C) B(E)40 – B(E)75	4 N.O. 2 N.O. & 2 N.C. 4 N.C.	Top	CA7-40K CA7-22K CA7-04K	
B(C)9 – B(C)25	4 N.C. 3 N.O. & 1 N.C. 2 N.O. & 2 N.C.	Top	CA7-04M CA7-31M CA7-22M	20
B(E)40 – B(E)75	1 N.O. & 1 N.C.	Side	CAL7-11	
A(E)95 – 110	1 N.O. & 1 N.C.	Side	CAL5-11	

Auxiliary contact blocks for EH contactors

Description	Terminal Markings		Catalog number	List price
	NO	NC		
Standard 1 N.O. & 1 N.C.	13, 14	21, 22	CAL16-11A	\$ 44
Standard 1 N.O. & 1 N.C.	43, 44	31, 32	CAL16-11B	44
Standard 1 N.O. & 1 N.C.	53, 54	61, 62	CAL16-11C	44
Standard 1 N.O. & 1 N.C.	83, 84	71, 72	CAL16-11D	44
Late break 1 N.O. & 1 N.C.	47, 48	35, 36	CAL16-11E	50
Mechanical interlock auxiliary, N.O. (VH80-VH300)	93, 94	—	CA16-10	22
Mechanical interlock auxiliary, N.C. (VH80-VH300)	—	91, 92	CA16-01	22

Auxiliary contacts are available in various versions single pole, two pole and four pole blocks.

Types CA : instantaneous normally open and normally closed.
CC : normally open leading and normally closed lagging.
CB : impulse, normally open and normally closed.

Description

- CA7, CC7, CD7, CAL7, CA5, CAL5 offer captive terminal screws and self-lifting cable clamps. The terminal screws are supplied open and are protected against accidental touch. Screwdriver guide holes aid speedy wiring.
- CAL16 and CCL16 have self cleaning contacts. They offer captive terminal screws and self lifting cable clamps. They are protected against unintentional direct touch.
- CB7 impulse contact are mainly used as "start" contact (e.g. across the line starters). They are delivered with built-in terminal leads. (red leads for CB 7-01 and black leads for CB 7-10).

All auxiliary contacts provide "positive safety" between N/O and N/C contacts thus avoiding the overlapping between opposite functions according to regulations (e.g. ZH1/457, INRS, SÜV...). This is not applicable to auxiliary contact blocks fitted with leading or lagging or adjustable contacts.

Mounting

- Single pole and four pole blocks : Clip-on the front face of control relays (K & KC) and contactors (B9 to B75, BC9 to BC30, BE40 to BE75, A95, A110).
- Two pole blocks : on left and right side of the contactors :
CAL7-11 on B and BE40 to 75 clip on the side of the contactor
CAL16 on EH145 to EH800 and EK110 to EK550 are screwed on to the side of the contactor
CAL5-11 clips on the side of the A95 & A110 contactors.

Accessories for across the line contactors

Surge suppressors, mechanical interlocks



RV-BC6/60



RV-BC6/60



VH300



VH550A

Surge suppression devices for B, A and EH contactors

Contactor	Coil voltage (AC/DC)	Catalog number	List price
Varistor type B, BC, BE	24 – 60V	RV-BC6/60	\$ 17
	110 – 250V	RV-BC6/250	
	200 – 420V	RV-BC6/380	
RC type EH145 – EH300	24 – 48V (AC only)	RC-EH250/48	
	110 – 415V (AC only)	RC-EH250/415	
RC type EH450 – EH800	24 - 125VDC /48 – 110VAC	RC-EH800/110	
	220 – 600V (AC only)	RC-EH800/600	
RC Type A95 – A110	24 – 50V	RC5-2/50	20
	50 – 133V	RC5-2/133	
	110 – 250V	RC5-2/250	
	250 – 440V	RC5-2/440	
Varistor type A95 – A110	24 – 50V	RV5/50	
	50 – 133V	RV5/133	
	110 – 250V	RV5/250	
	250 – 440V	RV5/440	

Mechanical interlocks for A & B contactors

For contactor type	Current	Catalog number	List price
B9 – B30	AC	VB30	\$ 14
BC9 – BC30	DC	VBC30	18
A95 – A110	AC & DC	VE5-2	30
B(E)50 – B(E)75	AC & DC	VB75	20

Mechanical interlocks are designed to mechanically interlock two contactors or starters, B9, BC9-B75, BE75, A95, A110. They are used on reversing, multispeed, reduced voltage, transfer switch and other applications.

The mechanical interlock incorporates a mechanism which will accept two contactors of the same size or two dissimilar size contactors. The beginning stroke of either contact carrier locks the interference mechanism and prevents the contacts on the other contactor from closing.

A95 – A110 mechanical interlock includes two normally closed contacts for electrical interlock between the contactors.

Mechanical interlocks — Between EH contactors of same sizes

Left contactor size	Right contactor size	Catalog number	List price
EH145	EH145	VH145	\$ 70
EH175, 210, 260, 300	EH175, 210, 260, 300	VH300	130

Mechanical interlocks — Between EH contactors of different sizes

Left contactor size	Right contactor size	Catalog number	List price
EH175, 210	EH110, 145	VH210A	\$ 172
EH260, 300	EH175, 210	VH300A	264
EH450, 550	EH260, 300, 450, 550	VH550A	324
EH700, 800	EH450, 550, 700, 800	VH800A	384

Mechanical interlocks — For use with EH contactors with a mechanical latch

Left contactor size	Right contactor size	Catalog number	List price
EH145	EH145	VH145W	\$ 148
EH175, 210	EH145 – 210	VH210W	172
EH260, 300	EH175 – 300	VH300W	204

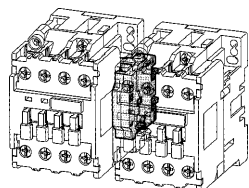
Mechanical interlocks are designed to mechanically interlock two contactors or starters, EH145 - EH800. They are used on reversing, multispeed, reduced voltage and transfer switch applications.

The mechanical interlock incorporates a mechanism which will accept two contactors of the same size or two dissimilar size contactors. The beginning stroke of either contact carrier locks the interference mechanism and prevents the contacts on the other contactor from closing.

The VH80 - VH300 mechanical interlocks also include (2) N.C. contacts for electrical interlock between the contactors. On top of the mechanical interlock it is also possible to mount an auxiliary contact block, N.O. (CA16-10) or N.C.(CA16-01), one for each contactor.

Accessories

Mechanical interlocks for A, B, EH & EK contactors



B25M-1
(2) B25 contactors interlocked by
(1) VB30 mechanical interlock



VB30



VBC30



VH145



VH170



VH550

Utilization

A mechanical interlock between two contactors prevents the closing of one of the contactors as long as the other remains closed.

Mechanical interlocks for horizontal mounted contactors (a.c. or d.c. operated)

Catalog number	Description	Mech. interlock mounting	2 contactors side by side		Contactor mounting ①
			Left	Right	
VB30	Block type	sideways ; clip-on	K, B9 ... 75 K, B9 ... 30	K, B9 ... 30 K, B9 ... 75	┌ or extra └ plate
VBC30	Block type	front side ; clip-on (free space for 2 aux. contacts CA 7-... on each contactor)	KC, BC9 ... 16 BC25 BC30	KC, BC9 ... 16 BC25 BC30	┌ or extra └ plate
VB75	Block type	sideways ; clip-on	B(E)40 ... 75	B(E)40 ... 75	┌ or extra └ plate
VE5-2	Block type	sideways ; clip-on	A95, 110	A95, 110	┌ or extra └ plate
VH145	Block types c/w 2 N.C. contacts electrical interlocking of both contactors. Add-on aux. contacts N.O. or N.C. type CA 16-... can be fitted as extra.	sideways, by-screws	EH145 EK110, 150	EH145 EK110, 150	extra plate extra plate
VH210 A	See "Accessories" on following page.		EH175, 210	EH145	extra plate
VH300			EH175...300 EK175, 210	EH175...300 EK175, 210	extra plate extra plate
VH145W	Base-plate c/w mechanism	rear side ; by-screws	EH145	EH145	(the plate is supplied with the mechanism)
VH210W	These types are adaptable for interlocking of contactors with WH .. latch.		EH175, 210	EH145 ... 210	
VH300W			EH260, 300	EH175 ... 300	
VH550	Base-plate	rear side,	EH450, 550	EH300 ... 550	
VH800	c/w mechanism	by-screws	EH700, 800 EK370, 550	EH450 ... 800 EK370, 550	

① Mounting: depending on their construction details, physical size, contactors can be mounted on din rail ┌ or on ABB base-plates or directly on user's own baseplate.

Accessories for across the line contactors

Mechanical latches for B Contactors

Range

WB 75 for contactors **B 9** to **B 75**, **BC 9** to **BC 30**, **BE 40** to **BE 75** and contactor relays **K**, **KC 1** stack.

WH80 ... WH800 for contactors **EH145 ... EH800** a.c. and d.c. operated.

WH80 R ... WH800 R for mounting on right side contactor of a reversing pair.

WH80 L ... WH800 L for mounting on left side contactor of a reversing pair.

Description

● **WB75** is a compact block which comprises a latch mechanism with both electrical and manual de-latching. It can be a.c. or d.c. operated,

but can not withstand continuous supply on either a.c. or d.c.

The connection terminals of the latching block are delivered in open position, with captive screws M 3.5 and self-lifting cable-clamps, pozidriv (+, -) screwhead designed for guiding of screwdriver and protected against unintentional direct touch.

Operation

The contactor closing sets the **WB 75** in latched position thus holding the contactor in closed position even if the contactor coil is not energized. In this case, the contactor de-latching can be achieved in two ways :

- electrically, with a short electric impulse to the coil of the latching block;
- manually, by pushing on the button located at the front of the latching block.



WB75-04

Mechanical latches for B contactors

Contactor	Catalog number	List price
B, BC, BE	WB75-★	\$ 56

★ Coil voltage suffix. Refer to Coil Voltage Selection Chart and substitute the desired coil voltage suffix for the ★.

Coil voltage selection chart — Mechanical latches for B contactors

Hz	Volts										
	24	42	48	110	120	220	240	277	380	415	480
60	01	02	03	04	04	06	05	05	07	07	08
50	01	02	03	04	—	06	—	—	07	08	—
DC	01	02	03	04	—	06	05	—	07	08	—

Accessories for across the line contactors

Mechanical latches for EH contactors

Range

WB75 for contactors **B9** to **B75**, **BC9** to **BC30**, **BE40** to **BE75** and contactor relays **K**, **KC** 1 stack.

WH145 ... WH800 for contactors **EH145 ... EH800** a.c. and d.c. operated.

WH145 R ... WH800 R for mounting on right handside contactor of a reversing pair.

WH145 L ... WH800 L for mounting on left handside contactor of a reversing pair.

Description

● **WH145 ... WH800** are supplied with a mounting plate. They can be delivered with either a.c. or d.c. coils but cannot withstand continuous supply.

They are also available for reversing, and then delivered without mounting plate. Latches can be mounted on one or both contactors. Should contactors of different sizes be used on the same interlocking device, then select the mechanical latch corresponding to the size of the contactor.

Operation

The closing of contactor **M** sets the **WH ...** in latched position thus holding the contactor in closed position and automatically opening the coil circuit of the contactor by means of a built-in auxiliary contact of the latch (11-12).

However, a separately mounted contactor relay is required for d.c. operated contactors). The contactor de-latching is operated by means of a current pulse to the coil of the on-position latch.

For latched d.c. operated contactors, the economizing device of the contactor **M** has to be removed and the releasing contact (11-12) of the latch has to be connected acc. to the diagram: see opposite page.

For d.c. voltages wire two aux. contacts in series with the latching coil. i. e. 13-14 and 43-44.

Mounting

WB75 snaps on the front face of the contactor.

WH145 ... WH800 Contactor and latch have to be mounted on the base plate of the latch.

WH145 (R or L) ... WH800 (R or L) Contactors and latches have to be screwed on the interlocking plate.

See Transition section for contactors EH80 through EH270.

Mechanical latches — One contactor

Contactor size	With AC release coil		With DC release coil	
	Catalog number	List price	Catalog number	List price
EH145	WH145-★	\$ 144	WH145-★	\$ 174
EH175 - EH210	WH210-★	382	WH210-★	412
EH260 - EH300	WH300-★	382	WH300-★	440
EH450 - EH550	WH550-★	444	WH550-★	494
EH700 - EH800	WH800-★	540	WH800-★	600

★ Coil voltage suffix. Refer to the Coil voltage selection chart and substitute the desired coil voltage for the ★.

Mechanical latches — Right mounting on reversing pair

Contactor size	With AC release coil		With DC release coil	
	Catalog number	List price	Catalog number	List price
EH145	WH145R-★	\$ 144	WH145R-★	\$ 174
EH175 - EH210	WH210R-★	382	WH210R-★	412
EH260 - EH300	WH300R-★	382	WH300R-★	440
EH450 - EH550	WH550R-★	444	WH550R-★	494
EH700 - EH800	WH800R-★	540	WH800R-★	600

★ Coil voltage suffix. Refer to the Coil voltage selection chart and substitute the desired coil voltage for the ★.

Mechanical latches — Left mounting on reversing pair

Contactor size	With AC release coil		With DC release coil	
	Catalog number	List price	Catalog number	List price
EH145	WH145L-★	\$ 144	WH145L-★	\$ 174
EH175 - EH210	WH210L-★	382	WH210L-★	412
EH260 - EH300	WH300L-★	382	WH300L-★	440
EH450 - EH550	WH550L-★	444	WH550L-★	494
EH700 - EH800	WH800L-★	540	WH800L-★	600

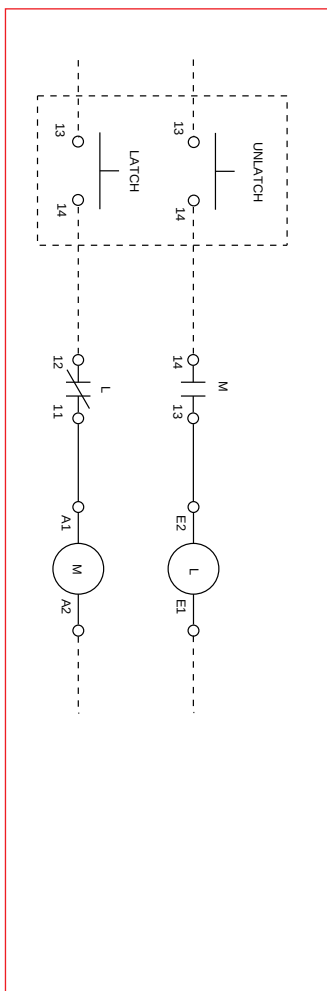
★ Coil voltage suffix. Refer to the Coil voltage selection chart and substitute the desired coil voltage for the ★.

Coil voltage selection chart

Hz	Contr. type	Volts															
		24	48	110	120	125	208	220	240	277	380	415	440	480	500	600	
60	A,B,EH	F	G		1		B		2	C	Z		3	4		6	
50	A,B	F		1				2			3	4			6		
50	EH	N		1				J			3	M			5		
DC	A,B,EH	Y	W	P		Q		R					T				

• For other voltages, consult factory.

• 24 & 48VAC coils are not available for sizes EH450 – EH800. For these applications, use an interposing control relay.

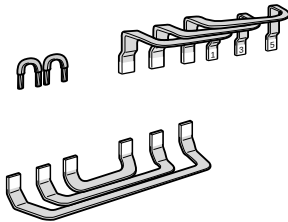


Accessories for across the line contactors

Shorting bars, terminal kits, bus bar kits, power takeoff terminals



LY210



BES75-30

Shorting bars for EH contactors

Contactors size	Catalog number	List price
EH145, EH175, EH210	LY210	\$ 12
EH260, EH300	LY300	16
EH450, EH550	LY550	30
EH700, EH800	LY700	34

Copper shorting bars for interconnecting the load terminals are available for EH145 – EH800 contactors. Mounting hardware supplied with the contactors may be used to mount the shorting bars.

Terminal kits for EH contactors

3 pole	Contactors size	4 pole	Wire size	Catalog number	List price
EH145 (Cu only)	EK150 ①		8 – 3/0 (Cu only)	EHTK145	\$ 25
EH175, 210	EK175 ①		6 – 250 MCM	EHTK210	30
—	EK210 ①		4-500 MCM	EHWTK160	30
EH260	—		4 – 500 MCM	EHTK260	45
EH300, 550	EK370, 550 ①		(2) 4 – 500 MCM	EHTK550N	75
EH450			(2) 6 – 300 MCM	EHTK450	60
EH700			(2) 4 – 500 MCM	EHTK700	100
EH800			(3) 2 – 600 MCM	EHTK800	225

Terminal kit includes a set of three terminals and mounting hardware for mounting the terminals on either the line or the load side of the contactor. All terminals are CU/AL and are UL recognized.

Bus bar kits for B & A contactors

Mechanically interlocked contactor size	Phase to phase catalog number	List price	Reversing catalog number	List price
B40 – B75	BES75-30	\$ 50	BEM75-30	\$ 100
A95 – A110	BES110-30	60	BEM110-30	120

Bus bar kits for EH contactors

Mechanically interlocked contactor size	Phase to phase catalog number	List price	Reversing catalog number	List price
EH145	BES145-30	\$ 110	BEM145-30	\$ 220
EH175/210	BES210-30	150	BEM210-30	300
EH260/300	BES300-30	175	BEM300-30	350
EH450/500	BES550-30	350	BEM550-30	700
EH700	BES700-30	400	BEM700-30	800
EH800	BES800-30	510	BEM800-30	1020

Two bus bar connector kits are available for EH145 – EH800 mechanically interlocked contactors. The phase to phase bus bar kit provides three parallel connections for the line side of two mechanically interlocked contactors. The reversing bus bar kit provides six busbars; three connections for reversing phases A and C on the load side of two mechanically interlocked contactors; and three parallel connections. Mechanically interlocked contactors intended for use on reversing applications require both kits.

Power takeoff terminals for B & A contactors

Contactors sizes	Reversing catalog number	List price
B40 - B75	LK75	\$ 10
A95 - A110	LK110	

① For EK contactors, use three lug kits for both line and load sides.

Accessories for across the line contactors

Mounting rail, end supports, timers, Transparent cover, labels, terminal covers



Mounting rail, BMR-40 & end support, BESK-40



TP40D



C461.13-30-2



BX-TP



BA50

Mounting rail for B contactors

Contactor	Catalog number	List price
B, BC, BE	BMR-40	\$ 14

Universal mounting rails (35mm DIN type) are available in 39 inch strips (1 meter) and can be cut to desired lengths and attached to panels. Contactors have built in clips which allow for snap-on mounting.

End supports for B contactors

Description	Catalog number	List price
Set of 2	BESK-40	\$ 4

Pneumatic timers for B contactors

Timing range (seconds)	Catalog number	List price
0.1 – 40 (On delay)	TP40D	\$ 72
10 – 180 (On delay)	TP180D	
0.1 – 40 (Off delay)	TP40I	
10 – 180 (Off delay)	TP180I	

Snaps onto the top of the B contactor. The adjustable timer is equipped with 1 N.O. and 1 N.C. timed contact which operates after the timer coil has energized (on-delay) or after the timer coil has de-energized (off delay). Available in two ranges.

Electronic timers for Wye-Delta starters

Timing range (seconds)	Voltage	Catalog number	List price
1.5 – 30 (On-delay)	110-240	C461.13-30-2	\$ 175

Transparent cover for pneumatic timer

Description	Catalog number	List price
Snaps onto top of pneumatic timer	BX-TP	\$ 10

Identification labels

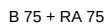
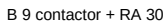
Description	Catalog number	List price
Snap-on label holders with labels	BA50	\$ 20

Includes 50 non-adhesive labels, 75 self-adhesive labels, 50 label holders and 50 transparent covers.

Terminal covers for EH & EK contactors

Description	Catalog number	List price
EH145– EH210 with terminal kits	LT210-EL	\$ 12
EH145 – EH210 without terminal kits	LT210-EC	16
EH260 – EH300 with or without terminal kits	LT300-E	24
EH450, EH500 with or without terminal kits	LT550-E	26
EH700 with or without terminal kits	LT700-E	28
EH800 without terminal kits	LT800-E	30
EK110, EK150 with or without terminal kits	LT150-EK	35
EK175, EK210 with or without terminal kits	LT210-EK	60
EK370, EK550 with or without terminal kits	LT550-EK	60

Accessories for across the line contactors



Operating voltage	For contactor types V _c	Coil voltages	Catalog number	List price
24V.D.C.	K, B9 ... B30 KC, BC9 ... BC30	24 ... 250 V 50, 60Hz 12 ... 250 V.D.C.	RA30	\$ 35
24V.D.C.	B40 ... B75	24 ... 250 V 50, 60Hz	RA75	50

Utilization

Interface relays RA30 and RA75 are controlled from signals delivered by PLC's or any other type of sources characterized by a low rated power on their output side; those signals are then restored with the suitable power required to operate the associated contactors.

Types

- RA30 suitable for contactors B(C)9 to B(C)30 and auxiliary contactors K(C).
- RA75 suitable for contactors B40 to B75.

Description

Interface relays RA30 and RA75 consist of a small electromechanical relay comes with a normally open contact and a 24 V d.c. low consumption coil. The interface relay coil is controlled from the PLC and its normally open contact operates the contactor. The switching of coils (inductive loads) causes voltage surges which are generating disturbances in the electronic devices, burning out the insulators, or shortening life, of the sensitive components. The interface relays RA30 and RA75 are equipped with built-in surge suppressors on :- the interface relay coil, via a diode- the contactor coil, via a varistor. In addition, interface relays RA30 and RA75 are protected against a reverse polarity energization of their coil, via a diode connected to the incoming terminals E1 and E2.

Connecting

Incoming terminals "E1+" and "E2-" must be wired to the "+" and "-" PLC outputs respectively.

- The RA30 type is equipped with two wires to be connected to the contactor coil terminals A1 and A2.

Terminal A2 (on contactor coil) and terminal A0 (on the RA30 interface relay) are used for the contactor coil energization.

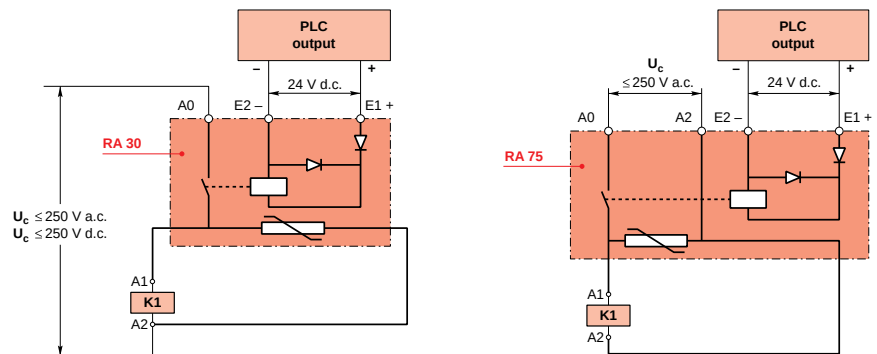
- The RA75 type is equipped with two flat connections ("Y" shaped) which fit contactor coil terminals A1 and A2. Both terminals A0 and A2 of the RA75 interface relay, are used for the contactor coil energization.

Mounting

- RA30: on a dovetail, located on the top part of the contactor base.
- RA75: straight onto contactor terminals A1 and A2.

Wiring diagrams

Interface relay RA 30 for contactors K, Interface relay RA75 for contactors B40 ... B75, B9 ... B30 and KC, BC9 ... BC30



Accessories for across the line contactors

Interface relays RA30, RA75

Technical data

	Types	RA 30	RA 75
General technical data			
Standards		IEC 255-5	
Rated insulation voltage V_i acc. to VDE 0110 (Gr.C)	VAC	250	
Permissible ambient temperature:			
• for operation in free air:			
– at V_c (between E1 and E2) = 24V d.c.	°C	– 25 ... + 70	
– from 0.85 to 1.1 V_c	°C	– 25 ... + 55	
• for storage	°C	– 40 ... + 70	
Climatic resistance		Same as for associated contactors	
Mounting positions		No limitation	
Operating altitude	metres	≤ 3000	
Fixing		On a dovetail on top part of the contactor base	Via connecting parts onto contactor terminals A1 and A2
Connecting terminals (delivered in open position)		Cable clamps with pozidrive +, –, screw heads M 3.5	
Connecting capacity :			
• rigid solid	2 x AWG	18 – 12 AWG	
• flexible	2 x AWG	18 – 14 AWG	
Protection degree		Protection against unintentional direct touch of live parts acc. to VDE 0106	
Construction and operating data			
Integrated surge suppression:			
• for contactor coil		Varistor	
• for interface relay coil		Diode	
Protection against polarity inversion between terminals E1, E2		Diode	
Utilization for contactors with coils:			
• 24 ... 250V / 50, 60 Hz	types	K, B9...B18, B26	B25, B30
• 12 ... 250V d.c.	types	—	—
Interface relay operating times	ms	KC, BC9...BC30	
Total operating times, interface relay + contactor :		Closing or opening ≤ 10	
• from energization to :			
– closing of the N.O. contact	ms	18 ... 26	19 ... 29
– opening of the N.C. contact	ms	15 ... 23	16 ... 26
• from de-energization to :			
– opening of the N.O. contact	ms	15 ... 23	15 ... 25
– closing of the N.C. contact	ms	17 ... 25	17 ... 27
Input electrical data			
Coil operating voltage (terminals E1, E2) V_c : rated value	VDC	24	
max. range	VDC	17 ... 30	
Max. coil consumption for $U_c = 24V$ d.c., $q = 20$ °C	W	0.3	
State "0" (relay in open position) for V_c	VDC	≤ 2.4	
or I_c	mA	< 1	
State "1" (relay in closed position) for V_c	VDC	≥ 17	
Max. voltage drop time	ms	4	
Output electrical data			
Switching voltage (terminals A0, A2)	VDC	≤ 250	≤ 250
	VDC	≤ 250	—
Electrical endurance for 220/240V a.c.	ops.	10 million with 1200 ops./h	3 million with 600 ops./h

Accessories for across the line contactors

Coils



KB16-1



KH145-1



KH300-1



KX800

Coils for A contactors

Contactor size	AC coils catalog number	List price	DC coils catalog number	List price
A 95, A110	ZA110-★	\$ 40	ZAE110-★	\$ 60

Coils for B contactors

Contactor size	AC coils catalog number	List price	DC coils catalog number	List price
B9 – B16	KB16-★	\$ 12	KBC30-★	\$ 24
B25 – B30	KB30-★	20	KBC30-★	40
B40 – B75	KB75-★	38	KBE75-★	76

★ Coil voltage suffix. Refer to Coil Voltage Selection Chart and substitute the desired coil voltage suffix for the ★. A.C. and D.C. operated contactors DO NOT have the same magnet structure. Therefore, D.C. coils will not fit on an A.C. magnet structure and vice versa.

Coils for EH contactors

Contactor size	AC coils catalog number	List price	DC coils catalog number	List price
EH145	KH145-★	\$ 80	KH145-★	\$ 100
EH175, 210	KH210-★	100	KH210-★	130
EH260, 300	KH300-★	120	KH300-★	160
EH450, 550	KH550-★	240	KH550-★	300
EH700, 800	KH800-★	290	KH800-★	350

★ Coil voltage suffix. Refer to Coil Voltage Selection Chart and substitute the desired coil voltage suffix for the ★. A.C. and D.C. operated contactors DO NOT have the same magnet structure. Therefore, D.C. coils will not fit on an A.C. magnet structure and vice versa.

Mechanical latch coils for EH contactors

Contactor size	AC coils Catalog number	List price	DC coils Catalog number	List price
EH145 – EH800	KX800-★	\$ 40	KX800-★	\$ 50

★ Coil voltage suffix. Refer to Coil Voltage Selection Chart and substitute the desired coil voltage suffix for the ★.

EH145 - EH800

A.C. and D.C. operated contactors have the same magnet structure except the D.C. coils include a resistor and a normally closed late break auxiliary interlock.

Replacement auxiliary contact blocks

Replacement auxiliary contact blocks are identical to the extra auxiliary contact blocks which can be added to the contactor. See Accessories.

Coil voltage selection chart

Hz	Contr. type	Volts															
		24	48	110	120	125	208	220	240	277	380	415	440	480	500	600	
60	A,B,EH	F	G		1		B		2	C	Z		3	4		6	
50	A,B	F		1				2			3	4			6		
50	EH	N		1				J			3	M			5		
DC	A,B,EH	Y	W	P		Q		R					T				

- For other voltages, consult factory.
- 24 & 48VAC coils are not available for sizes EH450 – EH800. For these applications, use an interposing control relay.

1

Renewal parts for across the line contactors

Contact kits, arc shields

B, A , EH & EK contactors



Contact kit, KL50



Contact kit, KZ800



Arc shield, KW260

Contact kits for B contactors

	Contactor	Catalog	List
3 Pole	B30, BC30	KL30	\$ 60
	B40, BE40	KL40	70
	B50, BE50	KL50	75
	B63, BE63	KL63	90
	B75, BE75	KL75	105
4 Pole	B/BE 40	KLT40	80
	B/BE 50	KLT50	100

Contact kits for A contactors

	Contactor size	Catalog number	List price
	A95	ZL95	\$ 150
	A110	ZL110	170

Contact kits for EH & EK contactors

	Contactor size	Catalog number	List price
3 Pole	EH145	KZ145	\$ 200
	EH175	KZ175	280
	EH210	KZ210	350
	EH260	KZ260	570
	EH300	KZ300	680
	EH450	KZ370	855
	EH550	KZ550	1140
	EH700	KZ700	1425
	EH800	KZ800	1710
4 Pole	EK110	KZK110	230
	EK145, 150	KZK150	270
	EK175	KZK175	375
	EK210	KZK210	470
	EK370	KZK370	1135
	EK550	KZK550	1520

Arc shields for EH & EK contactors

	Contactor size	Catalog number	List price
3 Pole	EH145	KW145	\$ 75
	EH175	KW175	85
	EH210	KW210	90
	EH260	KW260	110
	EH300	KW300	120
	EH450	KW450	130
	EH550	KW550	145
	EH700	KW700	190
	EH800	KW800	205
4 Pole	EK110	KWK110	90
	EK150	KWK150	100
	EK175	KWK175	115
	EK210	KWK210	120
	EK370	KWK370	175
	EK550	KWK550	195

UL/CSA technical data for across the line contactors

B contactors

ABB contactor frame size	B9	B12	B16	B25	B30	B40	B50	B63	B75
NEMA size	00	--	0	1	1P	--	2	--	3
A.C. rating information									
NEMA cont. amp rating (thermal current)	9	—	18	27	36	—	45	—	90
NEMA maximum H.P. ratings (1 phase)									
115VAC	1/3	—	1	2	3	—	3	—	—
230VAC	1	—	2	3	5	—	7.5	—	—
NEMA maximum H.P. ratings (3 phase)									
200VAC	1.5	—	3	7.5	—	—	10	—	25
230VAC	1.5	—	3	7.5	—	—	15	—	30
460/575VAC	2	—	5	10	—	—	25	—	50
U.L. general purpose current (40°C)	21	21	21	33	45	55	65	85	105
U.L. max 3 Ph. switching motor loads, amps	9	11	17	28	32	41	52	65	80
U.L. maximum H.P. ratings (1 phase)									
115 VAC	0.5	1	1.5	3	3	3	3	5	7.5
230 VAC	1	2	3	5	5	7.5	7.5	10	15
U.L. maximum H.P. ratings (3 phase)									
200 - 208 VAC	2	3	5	7.5	10	10	15	20	25
220 - 240 VAC	2	3	5	10	10	15	20	25	30
440 - 480 VAC	5	7.5	10	20	20	30	40	50	60
550 - 600 VAC	7.5	10	15	25	30	40	50	60	75
Lighting-ballast and incand., 600 VAC	15	—	—	33	35	65	65	85	85
Resistive heating applications, 600 VAC	15	—	—	33	35	65	65	85	85
CSA elevator ratings									
220 - 240 VAC, (3 phase)	—	—	5	—	10	—	15	—	15
440 - 480 VAC, (3 phase)	—	—	10	—	20	—	30	—	30
550 - 600 VAC, (3 phase)	—	—	10	—	20	—	30	—	40
230 VAC, (1 phase)	—	—	2	—	5	—	7.5	—	7.5
Coil operating data									
A.C. power consumption									
Inrush 60 Hz, VA	80	80	80	100	100	200	200	200	200
Holding 60 Hz, VA	10	10	10	11	11	20	20	20	20
Holding 60 Hz, W	2.4	2.4	2.4	3.3	3.3	5.5	5.5	5.5	5.5
D.C. power consumption									
Inrush, cold, W	7	—	7	7	7	200	200	200	200
Holding, warm, W	7	—	7	7	7	4	4	4	4
A.C. operating time, ms (milliseconds)									
Closing time, ms	9 - 17	9 - 17	9 - 17	10 - 20	10 - 20	10 - 27	10 - 27	10 - 27	10 - 27
Opening time, ms	5 - 13	5 - 13	5 - 13	5 - 15	5 - 15	5 - 15	5 - 15	5 - 15	5 - 15
D.C. operating time, ms (milliseconds)									
Closing time, ms	50 - 75	—	50 - 75	50 - 75	50 - 75	40 - 49	40 - 49	40 - 49	40 - 49
Opening time, ms	15 - 30	—	15 - 30	15 - 30	15 - 30	16 - 20	16 - 20	16 - 20	16 - 20
Auxiliary contacts									
NEMA Rating, AC	A600	A600	A600	A600	A600	A600	A600	A600	A600
AC rated voltage, VAC	600	600	600	600	600	600	600	600	600
AC thermal rated current, (Amps)	10	10	10	10	10	10	10	10	10
AC maximum volt-ampere making, VA	7200	7200	7200	7200	7200	7200	7200	7200	7200
AC maximum volt-ampere breaking, VA	720	720	720	720	720	720	720	720	720
NEMA Rating, DC	P600	P600	P600	P600	P600	P600	P600	P600	P600
DC rated voltage, VDC	600	600	600	600	600	600	600	600	600
DC thermal rated current, Amps	5	5	5	5	5	5	5	5	5
DC Maximum make-break, Amps	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Approximate weight, lbs.									
Contactor	0.7	0.7	0.7	1.01	1.2	2.25	2.25	2.25	2.25
Starter	1.04	1.04	1.04	1.35	1.54	3	3	3	3
Frequency of operations per hour									
Maximum (mechanical switching)	6000	6000	6000	3000	3000	3000	3000	3000	3000
At full load (electrical switching)	1200	1200	1200	1200	1200	1200	1200	1200	1200
Plugging, inching, or jogging	300	300	300	300	300	300	300	300	300
Wire range, AWG									
Number of wires per phase	18 - 10	18 - 10	18 - 10	14 - 10	12 - 8	8 - 1	8 - 1	8 - 1	8 - 1
Tightening torque, lb.-in.	2	2	2	2	2	1	1	1	1
	9	9	12	12	20	40	40	40	40
Maximum short circuit ratings									
MCP, Amps/kA @ 480 VAC	25/18	25/18	25/18	50/18	50/18	100/18	100/18	100/18	100/18
MCCB, Amps/kA @ 480 VAC	50/35	50/35	50/35	70/35	100/35	100/35	100/35	100/35	100/35
Fuse, Amps-Type/kA, 600 VAC	35J/50	35J/50	60J/50	100J/50	100J/50	200J/50	200J/50	200J/50	200J/50

UL/CSA technical data for across the line contactors A, EH contactors

ABB contactor frame size	A95	A110	EH145	EH175	EH210	EH260	EH300	EH450	EH550	EH700	EH800
NEMA Size	—	—	4	—	—	5	—	—	6	—	7
AC rating information											
NEMA cont. amp rating (thermal current)	—	—	135	—	—	270	—	—	540	—	810
NEMA maximum H.P ratings (1 Phase)	—	—	—	—	—	—	—	—	—	—	—
115VAC	—	—	—	—	—	—	—	—	—	—	—
230VAC	—	—	—	—	—	—	—	—	—	—	—
NEMA maximum H.P. ratings (3 Phase)	—	—	40	—	—	75	—	—	150	—	—
200VAC	—	—	50	—	—	100	—	—	200	—	300
230VAC	—	—	100	—	—	200	—	—	400	—	600
460/575V	—	—	—	—	—	—	—	—	—	—	—
U.L. general purpose current (40°C)	125	140	170	190	230	300	350	525	600	715	900
Max. 3 Ph Switching Motor Loads (Amps)	80	105	130	156	192	242	302	420	480	602	810
U.L. maximum H.P. ratings (1 Phase)	—	—	—	—	—	—	—	—	—	—	—
115 VAC	7.5	10	10	15	—	—	—	—	—	—	—
230 VAC	20	25	25	30	40	50	—	—	—	—	—
U.L. maximum H.P. ratings (3 Phase)	—	—	—	—	—	—	—	—	—	—	—
200 - 208 VAC	30	30	40	50	60	75	100	125	150	200	250
220 - 240 VAC	30	40	50	60	75	100	100	150	200	250	300
440 - 480 VAC	60	75	100	125	150	200	250	350	400	500	600
550 - 600 VAC	75	100	125	150	200	250	250	400	500	600	700
Lighting-Ballast and Incand., 600 VAC	125	—	—	150	190	200	260	400	420	500	540
Resistive Heating Applications, 600 VAC	125	—	—	150	190	200	260	400	420	500	540
U.L. definite purpose ratings, 600 VAC	—	—	—	—	—	—	—	—	—	—	—
RLA current	95	110	150	175	210	270	325	520	600	775	900
LRA current	570	660	1050	1150	1260	1800	2350	3120	4020	4560	5000
Make/break data											
Making capacity 600 VAC, (Amps)	900	900	1200	1700	1700	1700	1700	5200	5200	7000	7000
Breaking capacity, 240 VAC (Amps)	900	1000	1000	1700	1700	2500	2500	5400	5400	7600	7600
Breaking capacity, 600 VAC (Amps)	900	1000	1000	1700	1700	2500	2500	5400	5400	6900	6900
Coil operating data											
A.C. power consumption	—	—	—	—	—	—	—	—	—	—	—
Inrush 60 Hz, VA	500	500	490	900	900	1200	1200	2900	2900	4000	4000
Holding 60 Hz, VA	28	28	35	55	55	70	70	105	105	140	140
Holding 60 Hz, W	9	9	11	22	25	25	25	44	44	60	60
D.C. power consumption	—	—	—	—	—	—	—	—	—	—	—
Inrush, cold, W	310	310	310	500	500	630	630	800	800	1100	1100
Holding, warm, W	3	3	22	2.5	2.5	2.5	2.5	20	20	20	20
A.C. operating time, ms (milliseconds)	—	—	—	—	—	—	—	—	—	—	—
Closing time, ms	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	30 - 50	30 - 50	30 - 50	30 - 50
Opening time, ms	7 - 15	7 - 15	7 - 15	7 - 15	7 - 15	7 - 15	7 - 15	10 - 20	10 - 20	10 - 20	10 - 20
D.C. operating time, ms (milliseconds)	—	—	—	—	—	—	—	—	—	—	—
Closing time, ms	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	60 - 80	60 - 80	60 - 80	60 - 80
Opening time, ms	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20	10 - 20
Auxiliary contacts											
NEMA Rating, AC	A600	A600	A600	A600	A600	A600	A600	A600	A600	A600	A600
AC rated voltage, VAC	600	600	600	600	600	600	600	600	600	600	600
AC thermal rated current, (Amps)	10	10	10	10	10	10	10	10	10	10	10
AC maximum volt-ampere making, VA	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
AC maximum volt-ampere breaking, VA	720	720	720	720	720	720	720	720	720	720	720
NEMA Rating, DC	P600	P600	P600	P600	P600	P600	P600	P600	P600	P600	P600
DC rated voltage, VDC	600	600	600	600	600	600	600	600	600	600	600
DC thermal rated current, Amps	5	5	5	5	5	5	5	5	5	5	5
DC Maximum make-break, Amps	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Approximate weight, lbs.											
Contactor	3.5	5	5	9.2	9.2	13	13	27.3	27.3	37.7	37.7
Starter	6	7	7	11	11	24	24	45	47	56	60
Frequency of operations per hour											
Maximum (mechanical switching)	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600
At full load (electrical switching)	600	600	600	600	600	600	600	300	300	300	300
Plugging, inching, or jogging	300	300	300	120	120	120	120	120	120	120	120
Terminal wire range, AWG											
Number of wires per phase	6 - 2/0	6 - 2/0	8 - 3/0	8-250MCM	6-250MCM	4-500MCM	4-500MCM	6-300MCM	4-500MCM	4-500MCM	2-600MCM
	1	1	1	1	1	1	2	2	2	2	3
Maximum short circuit ratings											
MCP, Amps/kA @ 480VAC	—	—	225/35	225/35	225/35	400/42	400/42	—	—	—	—
MCCB, Amps/kA @ 480VAC	150/65	250/65	225/35	400/42	400/42	400/42	400/42	1200L/100	1200L/100	1200L/100	1200L/100
Fuse, Amps-Type/kA, 600VAC	200J/65	200J/65	400J/50	400J/65	400J/65	700L/65	700L/65	1200L/100	1200L/100	1200L/100	1200L/100

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B, BC, BE, & A contactors

a.c. operated	Type	B 9	B 12	B 16	B 25	B 30	B 40	B 50	B 63	B 75	A 95	A110
d.c. operated	Type	BC 9	–	BC 16	BC 25	BC 30	BE 40	BE 50	BE 63	BE 75	AE95	AE110
Number of main poles	3 or 4	3 or 4	3 or 4	3	3 + 4 th p	3 + 4 th p	3	3	3	3	3	3

Main poles : Characteristics and utilization data

Rated insulation voltage V_i			
acc. to IEC 947-4-1	V	690	1000
acc. to VDE 0110 (Gr. C), NFC 20-040 (Gr. C)	V	750	750
acc. to UL/CSA	V	600	600

Impuls withstand voltage V_{imp}, acc. to IEC 947-4-1	Unless otherwise stated : 6 kV	8kV
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Rated operating voltage $V_{e\ max.}$	V	690	690	690	690	690	1000	1000	1000	1000	1000	1000
---------------------------------------	---	-----	-----	-----	-----	-----	------	------	------	------	------	------

Rated thermal current, conventional I_{th}												
acc. to IEC 947-4-1, open type contactors $\theta \leq 40^{\circ}\text{C}$	A	26	28	28	45	65	100	125	125	125	145	160
with cable cross-section	mm²	4	4	4	6	10	35	50	50	50	50	70

Note : for EH, EK types with prepared cables.

Utilization category AC-1													
Rated operating current I _e /AC-1 max.	$\left\{ \begin{array}{l} \leq 40^{\circ}\text{C} \\ \leq 55^{\circ}\text{C} \\ \leq 70^{\circ}\text{C} \end{array} \right.$	A	22	24	28	45	55	70	100	115	125	145	160
at ambient temperature		A	20	22	25	40	45	60	85	95	105	135	145
measured up to the contactor :		A	17	19	23	32	36	50	70	80	85	115	130
with cross-section		mm ²	2.5	2.5	4	6	6	35	50	50	50	50	70

Utilization category AC-3

3-phase, 50/60 Hz, Ambient temperature $\leq 55^{\circ}\text{C}$

Motors		Rated operating current I _e /AC-3 max. at 220-230 V	A	9	12	16	25	33	40	53	65	75	96	110
		240 V	A	9	12	16	25	32	37	50	65	75	96	110
		380-400 V	A	9	12	16	25	30	37	50	65	75	96	110
		415 V	A	9	12	16	25	30	37	50	65	72	96	110
		440 V	A	9	12	16	20	27	37	45	65	70	90	110
		500 V	A	7	10	13	17	23	33	45	55	65	80	100
		660-690 V	A	6	8	8	13	18	25	35	43	46	65	82
		1000 V	A	—	—	—	—	—	17	23	25	28	30	30

Max. power rating at

Max. power rating at	220-230 V	kW	2.2	3	4	6.5	9	11	15	18.5	22	25	30
	240 V	kW	2.2	3	4	7.5	9	11	15	18.5	22	25	30
	380-400 V	kW	4	5.5	7.5	11	15	18.5	22	30	37	45	55
	415 V	kW	4	5.5	7.5	11	15	18.5	25	37	40	45	55
	440 V	kW	4	5.5	7.5	11	15	22	25	37	40	45	55
	500 V	kW	4	5.5	7.5	11	15	22	30	37	45	55	59
	660-690 V	kW	4	5.5	5.5	11	15	22	30	37	40	55	75
	1000 V	kW	—	—	—	—	—	22	30	33	37	40	40

Frequency limits

Hz 25 ... 400

[illegible][illegible][illegible]

Rated making capacity AC-3 acc. to IEC 947-4-1

10 x I_e/AC-3

Rated breaking capacity AC-3 acc. to IEC 947-4-1

8 x I_f/AC-3

Max. making capacity (at cos. $\varphi = 0.35$)	A	300	300	300	390	700	800	1000	1000	1100	1450	1450
Max. breaking capacity at 415 V	A	200	200	200	315	380	700	1000	1000	1000	1160	1160
(at cos. $\varphi = 0.35$) at 690 V	A	120	120	120	210	290	350	490	490	490	1000	1000

Short-circuit protection

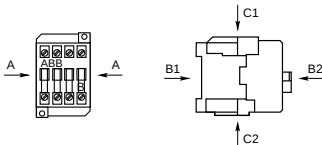
Without thermal O/L relay, Non-motor circuit

$U_e \leq 500$ V a.c., max. fuse gG (gl)

Short time current	1 s	A	200	280	280	350	400	600	1000	1000	1000	1200	1450
at 40°C ambient temperature	10 s	A	90	130	130	200	250	400	650	650	650	725	725
in free air, from cold condition	30 s	A	50	70	70	110	150	225	370	370	370	440	440
	1 min.	A	40	50	50	90	120	150	250	250	250	350	350
	15 min.	A	22	24	28	45	55	70	100	115	125	160	175

Heat dissipation per pole	I _e /AC-1	W	0.55	0.85	1.5	2.4	2.2	3	5.5	6.5	7	6.5	7.5
	I _e /AC-3	W	0.10	0.25	0.4	0.6	0.6	0.8	1.2	1.5	2	2.7	3.5

B, BC, BE contactors

a.c. operated	Type	B 9	B 12	B 16	B 25	B 30	B 40	B 50	B 63	B 75
d.c. operated	Type	BC 9	–	BC 16	BC 25	BC 30	BE 40	BE 50	BE 63	BE 75
Number of main poles		3 or 4	3 or 4	3 or 4	3 or 4	3	3+4 th p	3+4 th p	3	3
Standards		Equipment complies with the major international, European and national standards IEC 158-1, VDE 0660, NF C 63-110, BS 5424, IEC 947-4-1								
Permissible ambient temperature for operation in free air :		at 0.85 to 1.1 V _e : –25 .. +55 at 0.85 to 1.1 V _e : –25 .. +50 at V _e : –40 .. +70 : –40 .. +70								
for storage										
Climatic resistance	acc. to DIN 50017 acc. to UTE C 63-100	condensated water alternating climate KFW, 30 cycles specification II								
Mounting positions :		– BC types : see page 33 – B and BE types (see sketch page 33): Positions 1 to 5 at ambient temp. 55 °C : control voltage = 0.85 to 1.1 V _e Positions 1 to 5 at ambient temp. 70 °C : control voltage = V _e Position 6 at ambient temp. 55 °C : control voltage = 0.95 to 1.1 V _e Position 6 at ambient temp. 70 °C								
Shock resistance in standard mounting position		1/2 sinusoidal shock, 10 ms : no change in contact position Contactors in switched-on or switched-off positions Shock directions : C1, C2, A : 20 g B1 : 5 g B2 : 15 g								
Mounting	• on 35mm DIN rail	acc. to IEC 715 and EN 50 022 35 x 7.5 mm				acc. to IEC 715 35 x 15 EN 50 022 75 x 25 EN 50 023				
	• by screws (not supplied)	2 x M 4				2 x M 6				
Connection terminals (delivered in open position)	– Main poles	Cable clamps with pozidrive +, –, screw heads M 3.5, poz.1 M 4, poz. 2 M 5 All the terminals provide protection against unintentional direct touch of live parts acc. to VDE 0106				Connector (13 x 10 mm) With M8 screw slotted srew head				
	– Coil terminals	M 3.5 cable clamps with pozidrive 1 +, –, screw heads All the terminals provide protection against unintentional direct touch of live parts acc. to VDE 0106								
	– Built-in aux. terminals	As main poles		poz. 2						
Connecting capacity Main conductors (main poles)		min. – max. min. – max. min.-max. min. – max								
Rigid solid (≤ 4 mm ²) or rigid stranded (≥ 6 mm ²)	1 x mm ² 2 x mm ²	1 ... 4 1 ... 4		1.5 ... 6 1.5 ... 6		2.5..10 2.5..10		6 ... 50 6 ... 25		
Rigid stranded :										
with cable clamp connector	(Cu cables)									
with single cable clamp connector	(Al/Cu cables)									
with double cable clamp connector	(Al/Cu cables)									
Flexible without cable end	1 x mm ² 2 x mm ²	1 ... 2.5 0.75 ... 2.5		4 4		6 6		6 ... 35 6 ... 16		
With bars or lugs :	max. width hole Ø	mm ≤ mm >		8 3.7		10 4		13 5		
Auxiliary leads (built-in auxiliary poles + coil terminals)		Aux. and coil		Aux.		Coil		Coil		
Rigid solid	1 x mm ² 2 x mm ²	1 ... 4 1 ... 4		1.4 1.4		1.4 1.4		1 ... 4 1 ... 4		
Flexible without cable end	1 x mm ² 2 x mm ²	1 ... 2.5 0.75 ... 2.5		0.75..4 0.75..4		1.25 0.75..2.5		1 ... 2.5 0.75 ... 2.5		
Protection degree		IP 00 for main terminals – IP 20 for coil terminals.								
acc. to IEC 529, IEC 144, DIN 40 050, NF C 20-010										

IEC technical data for across the line contactors

EH, EK contactors

Type	A 95	A110	EH 110	EK 110	EH 145	EK 150	EH 175	EH 210	EK 175	EK 210	EH 260	EH 300	EK 370	EH 450	EH 550	EK 550	EH 700	EH 800
Type	A 95	A 110	EH 110	EK 110	EH 145	EK 150	EH 175	EH 210	EK 175	EK 210	EH 260	EH 300	EK 370	EH 450	EH 550	EK 550	EH 700	EH 800
Poles	3	3	3	4	3	4	3	3	4	4	3	3	4	3	3	4	3	3

Equipment complies with the major international, European and national standards IEC 158-1,
VDE 0660, NF C 63-110, BS 5 424, IEC 947-4-1

°C	at 0.85 to 1.1 U_e : -40 .. +70 ^①
°C	at 0.85 to 1.1 U_e : -25 .. +55
°C	: -50 .. +70
	Condensated water alternating climate KFW, 30 cycles Specification I
	Position 1 : ± 30° from vertical position Positions 3, 4 and 5 : acceptable Position 6 : acceptable but coil supply within 0.90 ... 1.1 V_e
	1/2 sinusoidal shock 15 ms : no change in contact position Contactors in switched-on or switched-off positions Shock directions : C1, C2, A : 10 g B1 : 10 g B2 : 10 g

	2xM 5		4xM 6	2xM 5	4xM 6			4xM 6 ^②	
	Flat type with screws, nuts and washers								
	M8 ^③	M 6		M 10					
	M 3.5 screw, cable clamp with pozidrive +, –, screw heads								
	All the terminals provide protection against unintentional direct touch of live parts acc. to VDE 0106								

1 x mm ²	min–max. —	min–max. 25 ... 120	min–max. 25 ... 185		min–max. 70...300	min–max. 70 ... 300	min–max. —	—
1 x mm ²	6 ... 70	10 ... 70	35 ... 120		70...300	70 ... 300	95...300	—
2 x mm ²	—	—	—		—	35 ... 185	95...300	—
mm ≤	—	30	30	33	50	55	65	75
mm ≥	—	6	10	10	10	10	10	10 x 2
Coil								
1 x mm ²	0.5 ... 2.5							
2 x mm ²	0.5 ... 2.5							
1 x mm ²	0.5 ... 2.5							
2 x mm ²	0.5 ... 2.5							
	IP 00 for main poles – IP 20 for auxiliary terminals							

① For larger coil voltage range; please consult us.

② Screws and damping elements are included.

③ Cable clamps M8 socket head screw.

IEC technical data for across the line contactors

B, BC, BE contactors

Magnet system

a.c. operated	Type	B9	B12	B16	B18	B26	B25	B30	B40	B50	B63	B75
d.c. operated	Type	BC9	–	BC16	BC18	–	BC25	BC30	BE40	BE50	BE63	BE75
Number of main poles		3 or 4			3		3 or 4	3	3+4 th p	3+4 th p	3	
Coil operating limits : 0.85 ... 1.10 × V _c		θ ≤ 55 °C										
Drop-out voltage	types B, EH, EK (a.c.) BC, BE, EH, EK (d.c.)	approx. 40 ... 60 % of V _c approx. 15 ... 40 % of V _c										
Coil consumption (average value) for a.c. operated contactors	- 50 Hz pull-in VA - 60 Hz pull-in VA B, A, EH, EK	65 75 9/2.2 9/2.2					85 97 9/3 10/3		175 195 17/5 19/5.7			
for d.c. operated contactors	- pull-in, cold W BC, BE, AE, EH, EK	7 7					7 7		200 4			
Rated operating voltage V _c for a.c. operated contactors												
	at 50 Hz V						24 ... 600					
B, A, EH, EK	at 60 Hz V						24 ... 550					
for d.c. operated contactors BC, BE, EH, EK		V					12 ... 240		12 ... 240		12 ... 240	
Operating times for a.c. oper. contactors	From coil energization to - closing of the N.O contact B, A, EH, EK	ms	9 ... 17 6 ... 14					10 ... 20 7 ... 17		10 ... 27 7 ... 23		
	From coil de-energization to - opening of the N.O contact - closing of the N.C contact	ms ms	5 ... 13 7 ... 15					5 ... 15 7 ... 17		5 ... 15 8 ... 18		
Operating times for d.c. oper. contactors	From coil energization to - closing of the N.O contact BC, BE, AE, EH, EK,	ms ms	50 ... 75 45 ... 70							13 ... 30 10 ... 27		
	From coil de-energization to - opening of the N.O contact - closing of the N.C contact	ms ms	15 ... 30 ^① 17 ... 32 ^①							5 ... 15 ^① 8 ... 18 ^①		

Built-in auxiliary contacts (tech. data for add-on aux. contacts)

a.c. operated	Type	B 9	B 12	B 16		B 25	
d.c. operated	Type	BC 9	–	BC 16		BC 25	
Rated insulation voltage V _i							
acc. to IEC 947-4-1	V	660/690					
acc. to VDE 0110 (Gr C), NF C 20-040 (Gr C)	V	750					
acc. to UL/CSA	V	600					
Impulse withstand voltage V _{imp}	acc. to IEC 947-4-1	unless otherwise stated : 6 kV					
Rated operational voltage V _e max.	V	690					
Conventional free air thermal current I _{th}		10					
Rated operational current ^②	240 V 50/60 Hz	4					
I _e AC-15 acc. to IEC 947-5-1	415 V 50/60 Hz	3					
	500 V 50/60 Hz	2					
	660/690 V 50/60 Hz	2					
I _e DC-13 acc. to IEC 947-5-1	48 V d.c.	4/192					
	60 V d.c.	2.5/150					
	110 V d.c.	0.7/77					
	220 V d.c.	0.3/66					
Frequency limits	Hz	25 to 400					
Max. switching frequency	ops./h	3000					
Rated making capacity		11 x I _e /AC-15 or AC 11					
Rated breaking capacity		11 x I _e /AC-15 or AC 11					
Fuse protection gG (gl)	A	10					
Short time current	for 1.0 s for 0.1 s	50 A 100 A					
Insulation resistance at 500 V d.c.		after endurance test : 5 MΩ					
Switching capacity, min. values		24 V/ 5mA					
Failure rate < 1 per 1 million ops., for terminals voltage drop ≤ 500 mV, in clean environment.							
Non overlap. time of the cont. betw. N.O. and N.C.	ms	2					
Heat dissipation per pole at I _{th} 10 A	W	0.4					

① By using surge suppressors, the increase factor of opening time can be rated at 1.1 to 1.5 with varistor types and 4 to 8 with diode types.

② Ratings also valid for AC 11 respectively DC 11 acc. to IEC 337-1

IEC technical data for across the line contactors A, EH, EK contactors

Magnet system

Type	A95	A110	EH110	EK110	EH145	EK150	EH175	EH210	EK175	EK210	EH260	EH300	EK370	EH450	EH550	EK550	EH700	EH800	
Type	A95	A110	EH110	EK110	EH145	EK150	EH175	EH210	EK175	EK210	EH260	EH300	EK370	EH450	EH550	EK550	EH700	EH800	
	3	3	3	4	3	4	3	3	4	4	3	3	4	3	3	4	3	3	
	θ ≤ 70 °C																		
(a.c.)	approx. 45 ... 65 %																		
(d.c.)	approx. 15 ... 50 %																		
VA	450	450	430	800	430	800			1100				3500	2600	2600	3500			
VA	500	500	490	900	490	900			1200				4000	2900	2900	4000			
VA/W	28/8	28/8	30/10	44/15	30/10	44/15			52/18				125/50	90/36	90/36	125/50			
VA/W	28/9	28/9	35/11	52/18	35/11	52/18			65/22				140/60	105/44	105/44	140/60			
W	300	300	330	450	330	1)	1)	1)	1)	1)	1)	1)	1100	800	800	1100			
W	3	3	22	3.6	22	500			630				20	20	20	20			
V	24 ... 500								24 ... 500				48 ... 500						
V	24 ... 600								48 ... 600				110 ... 600						
V	12 ... 220												24 ... 220						
ms	20 ... 40												30 ... 60						
ms	15 ... 35												25 ... 55						
ms	7 ... 15												10 ... 20						
ms	10 ... 18												13 ... 23						
ms	20 ... 30			30 ... 40		20 ... 30		30 ... 40						60 ... 80					
ms	17 ... 27			27 ... 37		17 ... 27		27 ... 37						55 ... 75					
ms																			
ms	10 ... 20																		
	13 ... 23																		

1) 40–400 Hz coils with built-in rectifier.

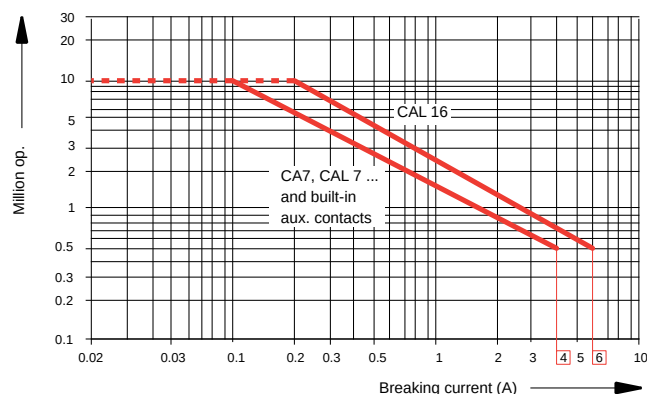
Electrical endurance

AC-15 acc. to IEC 947-5-1 (and AC 11 acc. to IEC 337-1)

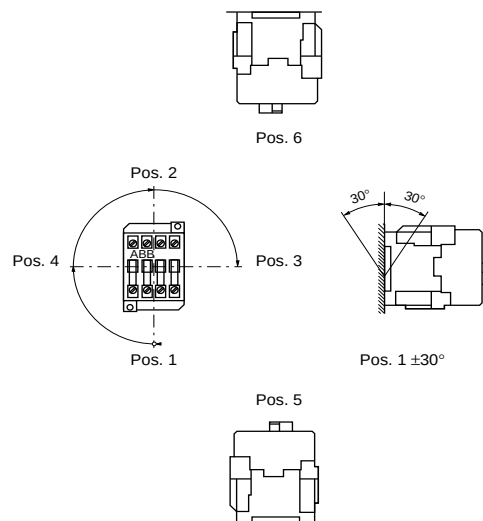
switched on current : $10 \times I_e$ at $\cos \phi = 0.7$ and V_e
switched off current : I_e at $\cos \phi = 0.4$ and V_e

The following curves show the electrical endurance of add-on and built-in auxiliary contacts, depending on the breaking current I_c .

The curves are suitable for resistive and inductive loads up to 690 V, 40 ... 60 Hz under the condition the contactor is switched randomly in relation to the phase angle of the network.



Mounting positions



NOTE: BC contactors cannot be mounted in position 5.

IEC technical data for across the line contactors

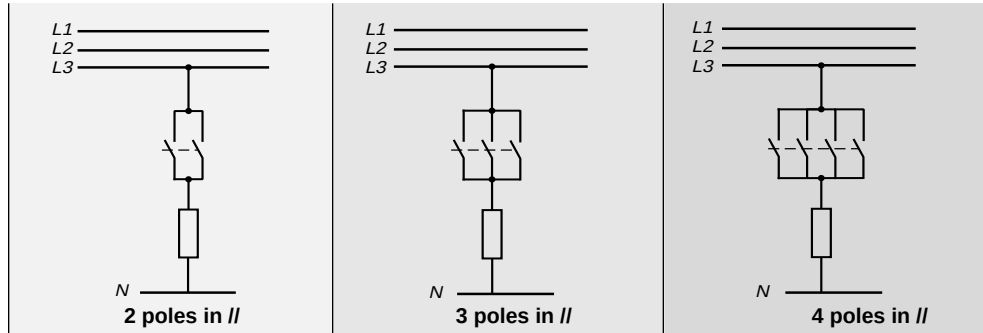
Paralleling of poles

Intermittent duty and temporary duty

Purpose : increasing the permissible a.c. resistive load controlled.
Paralleling of poles for increasing of a d.c. resistive load is not acceptable.

In the table below are quoted the I_e AC-1 max. uprating factors applicable, depending on the number of poles in parallel and for the max. permissible switching frequency :

- 600 ops./h. for B9 ... EH300 and EK110 ... EK210
- 300 ops./h. for EH450 ... EH800 and EK370 ... EK550



Contactor types

a.c. operated	d.c. operated	Uprating factor applicable to rated current I_e /AC-1 max. to obtain I_e /AC-1 current permissible with "n" poles in parallel.		
B9, B12, B16 B25	BC9, BC16 BC25	1.6	2.2	2.6
B30 B40, B50, B63, B75	BC30, BE40 BE50, BE63, BE75	1.6	2.2	–
B40-40, B50-40	BE40-40, BE50-40	1.6	2.2	2.6
EH145 EH175, EH210 EH260, EH300 EH450, EH550 EH700, EH800	a.c. and d.c. operated	1.6	2.2	–
EK110, EK150 EK175, EK210 EK370, EK550	a.c. and d.c. operated	1.6	2.2	2.8

Utilization of contactors B9 to EH800, EK110 to EK550 for intermittent duty and temporary duty

In the table below are quoted the I_e /AC-1 max. uprating factors depending on the switching frequency and the current flow duration per cycle, for obtaining the permissible operating current I_e /AC-1 on intermittent duty.

Operations per hour	120	60	20	6	2	1
Current flow duration per cycle, in secs.	Uprating factor applicable to I_e /AC-1 max. to obtain the rated current I_e /AC-1 permissible on intermittent duty.					
5	2.8	3.4	4	4.7	5	5.2
10	2.2	2.6	3	3.4	3.7	3.8
20	1.6	2	2.4	2.6	2.7	2.8
30	–	1.7	2.1	2.2	2.3	2.4
40	–	1.5	1.9	2.0	2.1	2.2
60	–	–	1.7	1.8	1.8	1.9

Example :

Contactor B 9 (intermittent duty, resistive load)
 Rated current I_e /AC-1 max. at 55°C (page 2/ 24) 20 A
 Switching frequency 2 ops./h
 Current flow duration per cycle 20 s
 Factor applicable on current I_e /AC-1 max. 2.7
 Permissible current : $2.7 \times 20 =$ 54 A

IEC technical data for across the line contactors

DC circuit switching

General :

- The arc switching on d.c. is more difficult than on a.c.
- For selecting a contactor it is essential to determine the current and voltage to be switched on and off and the time constant L/R of the controlled load.
- For information, typical time constant values are quoted hereafter :
 - non inductive loads such as : resistance furnaces L/R ≈ 1 ms
 - inductive loads such as : shunt motors L/R ≈ 2 ms
 - series motors L/R ≈ 7.5 ms
- The addition of a resistor in parallel with the inductive winding helps in the elimination of the arcs.
- In case of earthed source, all the poles required for breaking must be connected in series between the load and the source polarity not linked to earth (or chassis). This is the solution we recommend for all connection modes.

– a.c. operated contactors	Type	B 9	B 12	B 16	B 25	B 30	B 40	B 50	B 63	B 75	GB 75
– d.c. operated contactors	Type	BC 9	–	BC 16	BC 25	BC 30	BE 40	BE 50	BE 63	BE 75	GBE 75

Utilization category DC-1

L/R ≤ 1 ms

	≤ 72 V	A	9	11	12	20	25	35	50	63	75	–
	110 V	A	8	10	11	12	14	15	16	16	16	–
	220 V	A	9	12	16	25	30	40	50	63	75	–
	220 V	A	9	10	12	13	15	15	16	16	16	–
	≤ 72 V	A	9	12	16	25	30	40	50	63	75	100
	110 V	A	9	12	16	25	30	40	50	63	75	100
	220 V	A	9	12	14	20	25	35	50	63	75	100
	440 V	A	5	5	5	5	5	5	5	5	5	100
	≤ 72 V	A	9	12	16	25	30	40	50	63	75	100
	110 V	A	9	12	16	25	30	40	50	63	75	100
	220 V	A	9	12	14	20	25	35	50	63	75	100
	440 V	A	5	5	5	5	5	5	5	5	5	100

Utilization category DC - 3

L/R ≤ 2 ms

	≤ 72 V	A	8	10	11	15	20	35	50	63	75	–
	110 V	A	2	2	2	2	2	8	10	10	10	–
	220 V	A	9	12	16	25	30	40	50	63	75	–
	220 V	A	6	8	10	10	10	10	12	12	12	–
	≤ 72 V	A	9	12	16	25	30	40	50	63	75	85
	110 V	A	9	12	16	25	30	40	50	63	75	85
	220 V	A	9	12	14	20	25	35	50	63	75	85
	440 V	A	–	–	–	–	–	–	–	–	–	85
	≤ 72 V	A	9	12	16	25	30	40	50	63	75	85
	110 V	A	9	12	16	25	30	40	50	63	75	85
	220 V	A	9	12	14	20	25	35	50	63	75	85
	440 V	A	–	–	–	–	–	–	–	–	–	85

Utilization category DC-5

L/R ≤ 7.5 ms

	≤ 72 V	A	7	8	9	10	15	35	50	63	75	–
	110 V	A	9	12	14	20	25	35	50	63	75	–
	220 V	A	8	10	12	14	20	30	50	63	75	–
	220 V	A	2	2	2	2	5	7	8	9	10	–
	≤ 72 V	A	9	12	16	25	30	35	50	63	75	85
	110 V	A	9	12	16	20	25	35	50	63	75	85
	220 V	A	9	11	12	15	20	30	50	63	75	85
	440 V	A	–	–	–	–	–	–	–	–	–	50

IEC technical data for across the line contactors

DC circuit switching

Technical data :

- The tables indicate for the standard contactors the max. operating currents I_o depending on :
 - the utilization category (i.e. L/R) DC-1, DC-3, DC-5 (as defined in the publication IEC 947-4-1 (see section 7 for more details)
 - the operating voltage U_o .
 - the pole coupling details.
- Max. switching frequency : 300 ops/h.
- For series connection of the poles, use connecting strips LP and LH described in section 4.
- For switching higher d.c. ratings, we recommend the use of bar mounted contactors, R series (63... 2000 A).
- Standard accessories can be fitted.

A.C. & D.C. operated contactors

Type	A95	A110	EK 110	EH 145	EK 150	EH 175	EH 210	EK 175	EK 210	EH 260	EH 300	EH 450	EH 550	EH 700	EH 800
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Utilization category DC-1

L/R ≤ 1 ms

≤ 110 V A			120	145	145	175	210	210	210	260	305	370	550	700	750
≤ 220 V A	Consult factory	Consult factory	200	200	200	260	300	300	300	400	445	550	800	1000	1000
≤ 220 V A	Consult factory	Consult factory	200	200	200	260	300	300	300	400	445	550	800	1000	1000
440 V A			–	–	–	170	210	210	210	270	300	450	650	800	800
600 V A			–	–	–	–	–	–	–	–	–	450	650	800	800
440 V A			200	–	200	–	–	260	300	–	–	–	–	–	–
600 V A			–	–	–	–	–	260	300	–	–	–	–	–	–

Utilization category DC-3

L/R ≤ 2 ms

≤ 72 V A			120	145	145	175	210	210	210	260	305	370	550	700	700
≤ 220 V A	Consult factory	Consult factory	135	135	135	170	210	210	210	260	300	450	650	800	800
≤ 220 V A	Consult factory	Consult factory	135	135	135	170	210	210	210	260	300	450	650	800	800
440 V A			–	–	–	170	210	210	210	260	300	450	650	800	800
600 V A			–	–	–	–	–	–	–	–	–	450	650	800	800
440 V A			135	–	135	–	–	170	210	–	–	–	–	–	–
600 V A			–	–	–	–	–	170	210	–	–	–	–	–	–

Utilization category DC-5

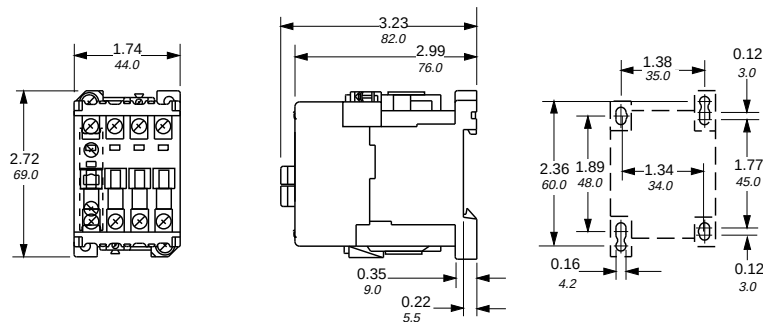
L/R ≤ 7.5 ms

≤ 220 V A			135	135	135	170	210	210	210	260	300	450	650	800	800
≤ 220 V A	Consult factory	Consult factory	135	135	135	170	210	210	210	260	300	450	650	800	800
440 V A			–	–	–	170	210	210	210	260	300	450	650	800	800
600 V A			–	–	–	–	–	–	–	–	–	450	650	800	800
440 V A			135	–	135	–	–	170	210	–	–	–	–	–	–

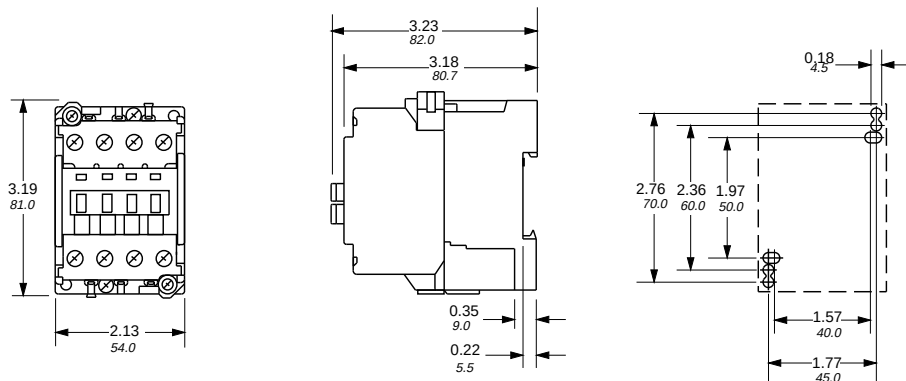
Approximate dimensions for across the line contactors B9 - B75, non-reversing

00.00 → Inches
00.00 → Millimeters

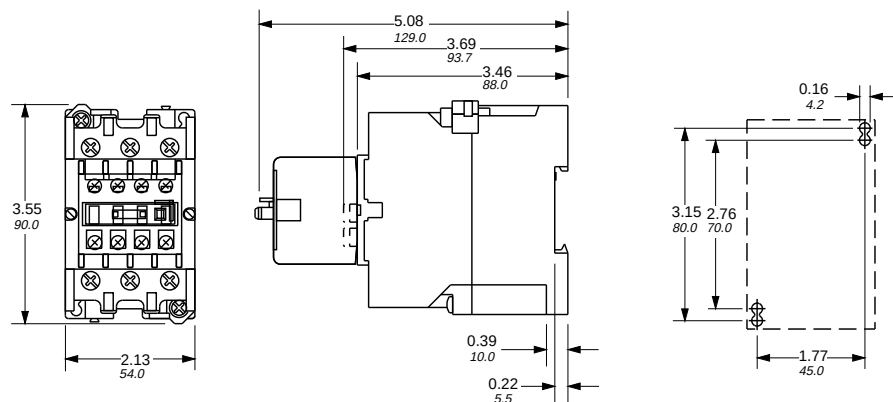
B9 - B16



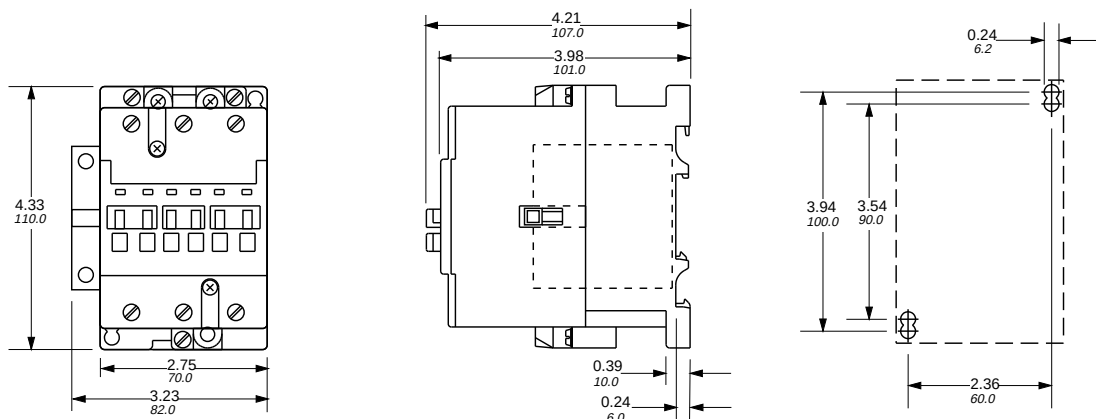
B25



B30



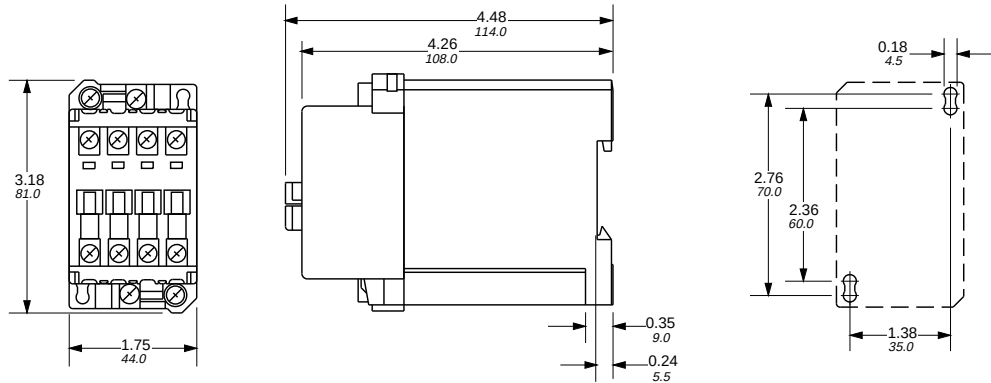
B40 - B75



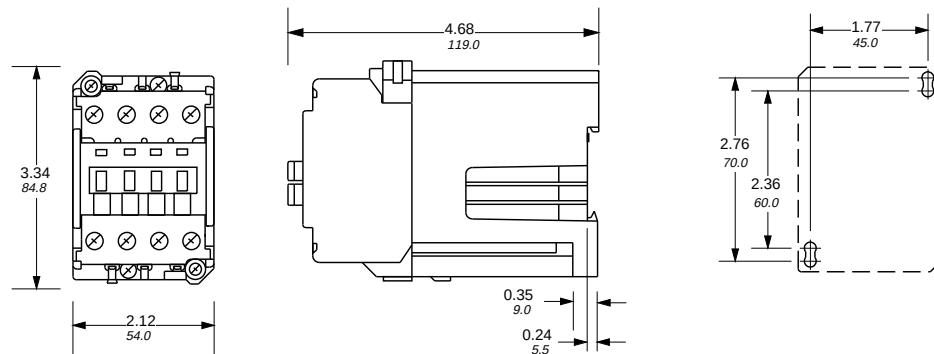
Approximate dimensions for across the line contactors BC9 - BE75, DC operated

$\longleftrightarrow$ 00.00 Inches
 00.00 $\longleftrightarrow$ Millimeters

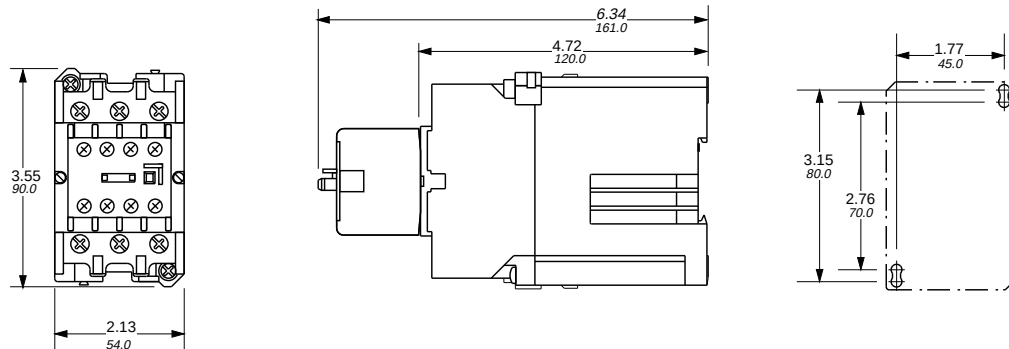
BC9 - BC16



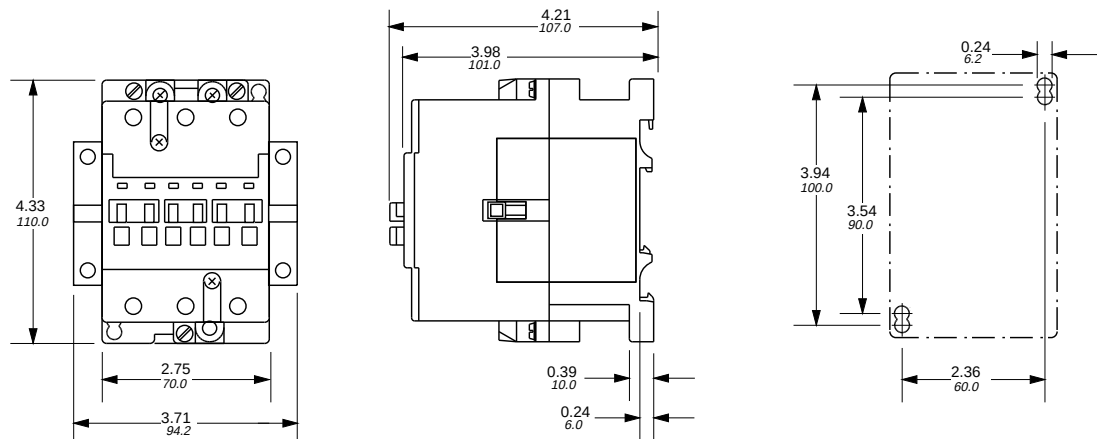
BC25



BC30



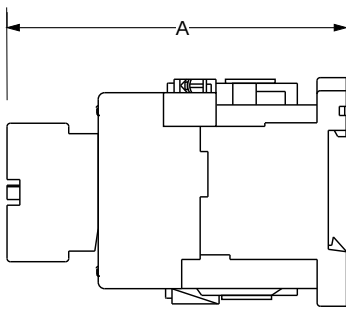
BE40 - BE75



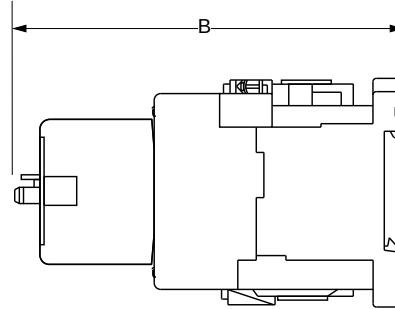
Approximate dimensions for across the line contactors Accessories, B contactors

00.00 Inches
 00.00 Millimeters

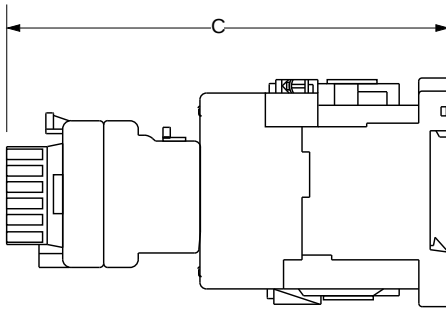
Single pole auxiliary contact block



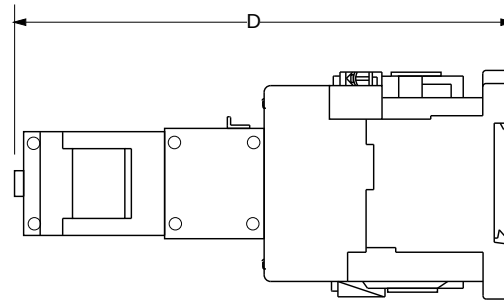
Four pole auxiliary contact block



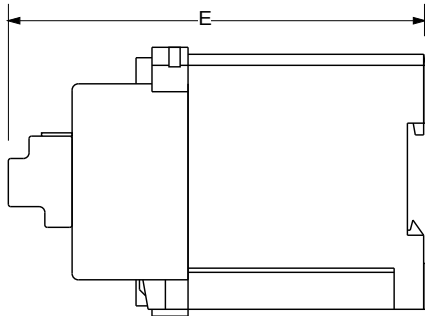
Pneumatic timer block



On-position latch



Mechanical interlock, D.C. operated

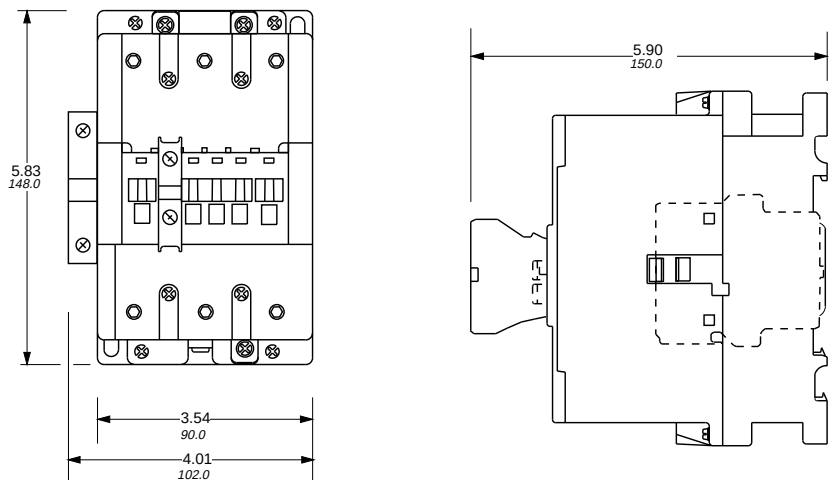


TYPES		A	B	C	D	E
K, B9, B12, B16	IN. MM	4.09 104.0	4.61 117.0	5.31 135.0	6.02 153.0	-
B25	IN. MM	4.29 109.0	4.80 122.0	5.51 140.0	6.22 158.0	-
B30	IN. MM	4.57 116.0	5.08 129.0	5.79 147.0	6.50 165.0	-
B40, B50, B63, B75	IN. MM	5.10 129.5	5.61 142.5	6.32 160.5	7.03 178.5	-
KC, BC9, BC16	IN. MM	5.35 136.0	5.87 149.0	6.57 167.0	7.28 185.0	5.04 128.0
BC25	IN. MM	5.59 142.0	6.10 155.0	6.81 173.0	7.52 191.0	5.28 134.0
BC30	IN. MM	5.83 148.0	6.34 161.0	7.05 179.0	7.76 197.0	5.51 140.0
BE40, BE50, BE63, BE75	IN. MM	5.10 129.5	5.61 142.5	6.32 160.5	7.03 178.5	-

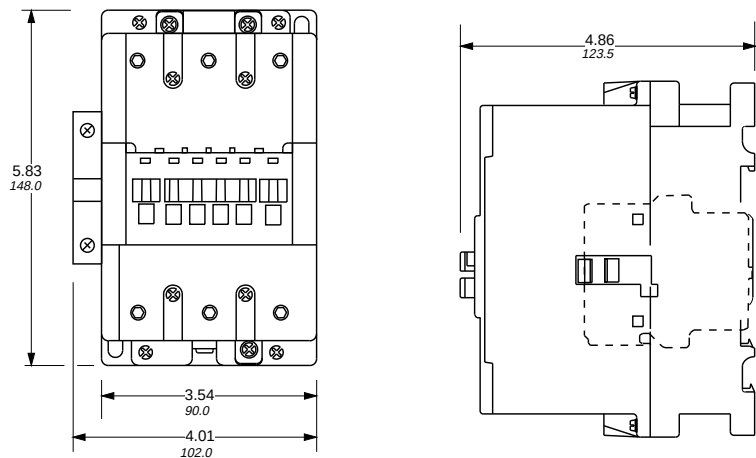
Approximate dimensions for across the line contactors
A95 – A110

00.00 Inches
00.00 Millimeters

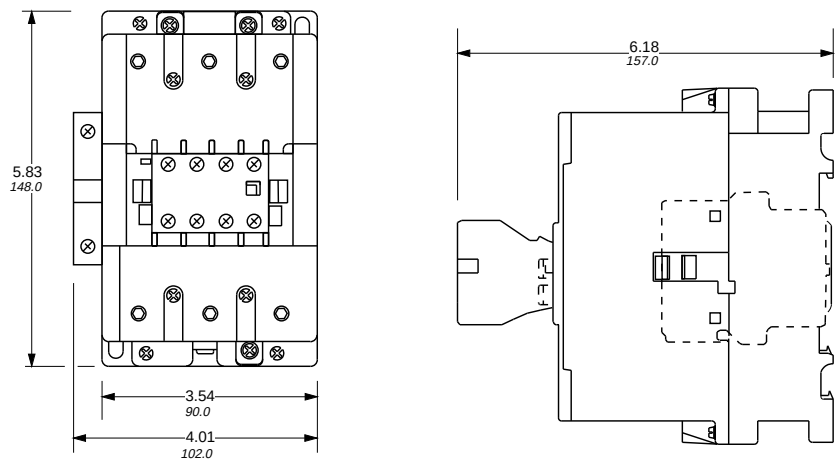
A95 – A110 with additional CA5-10 or CA5-01 1 pole auxiliary contact block



A95 – A110 with additional 2 pole CAL5-11auxiliary contact block



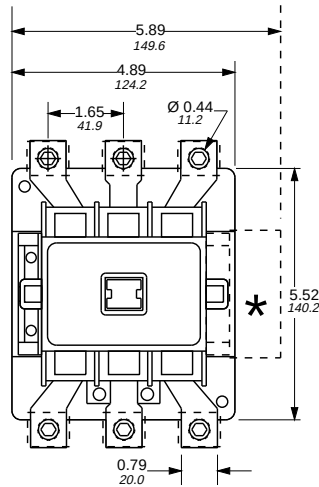
A95 – A110 with additional 4 pole CA5-40E or CA5-22E auxiliary contact block



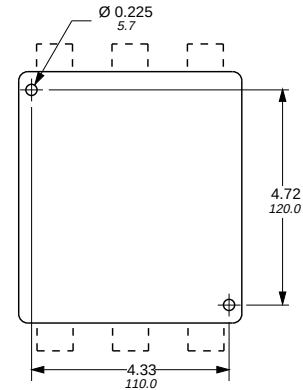
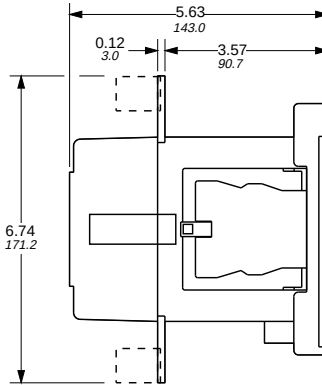
Approximate dimensions for across the line contactors EH145 – EH260

00.00 → Inches
00.00 → Millimeters

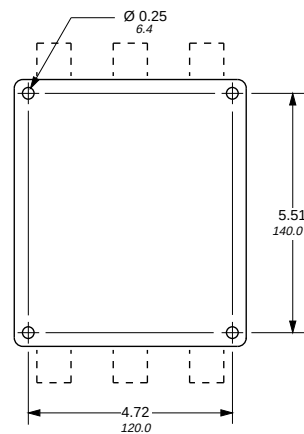
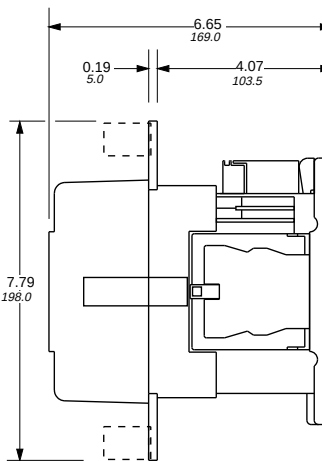
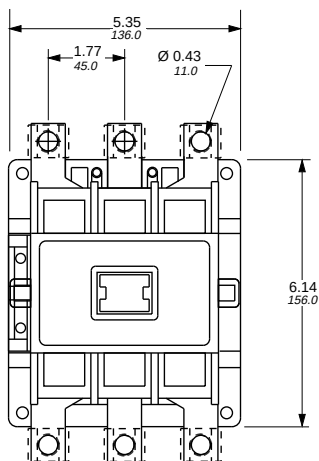
EH145



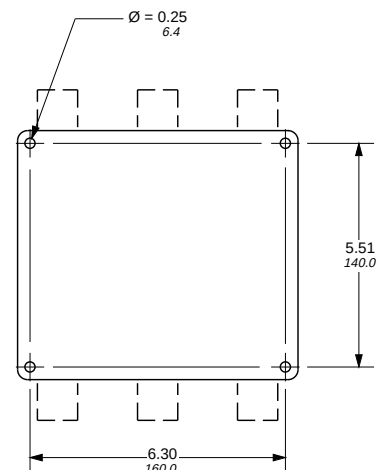
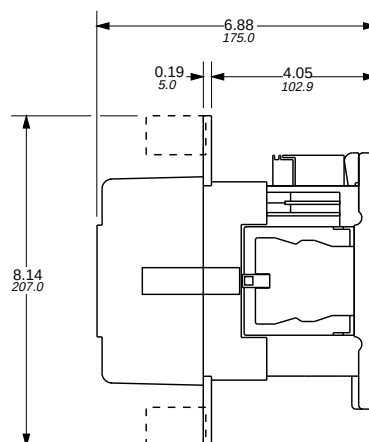
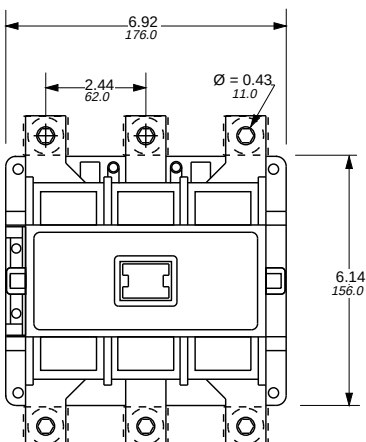
* NOTE: FOR DC-OPERATED CONTACTORS, THE DC AUXILIARY BLOCK AND ECONOMISING RESISTOR ADD 1.00" TO THE WIDTH OF THE EH CONTACTORS.



EH175 & EH210



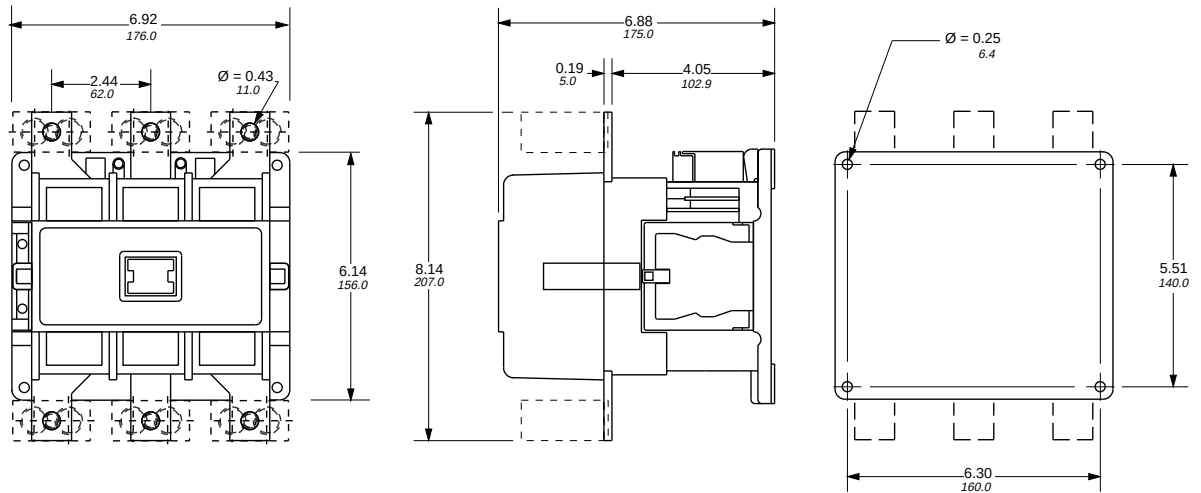
EH260



Approximate dimensions for across the line contactors EH300 – EH550

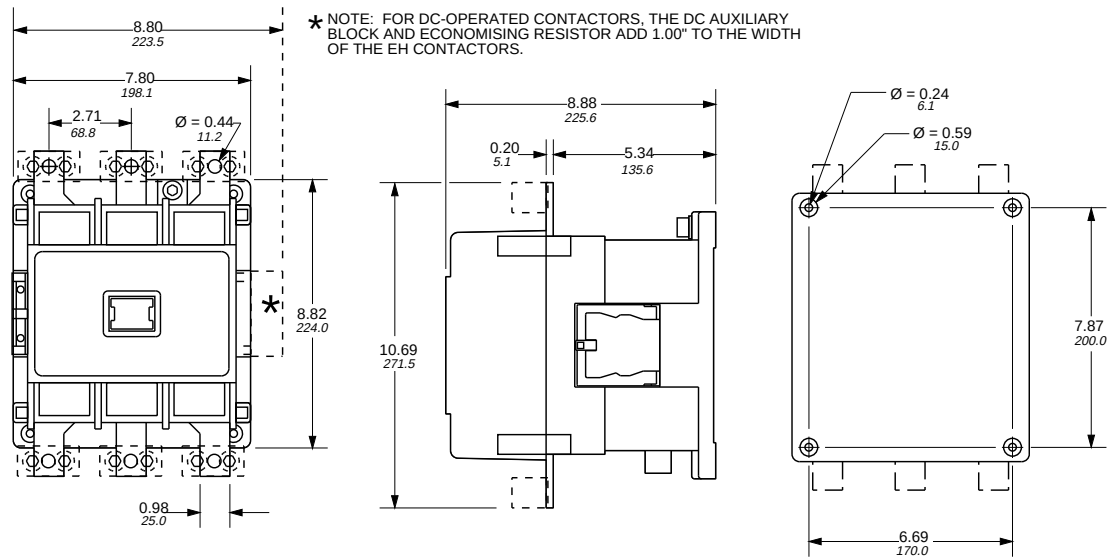
00.00 Inches
00.00 Millimeters

EH300

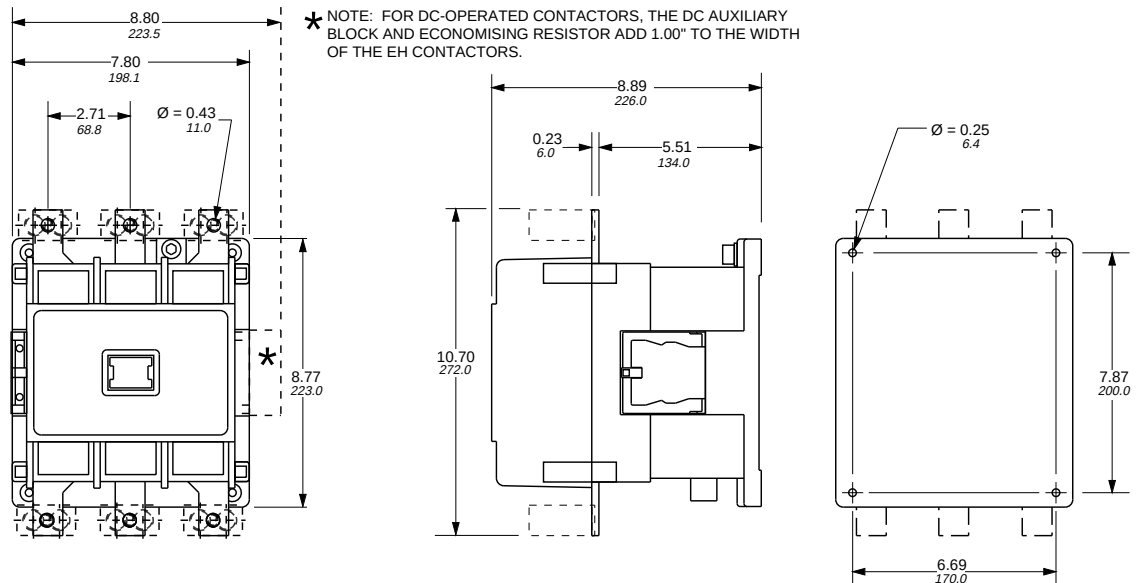


1

EH450



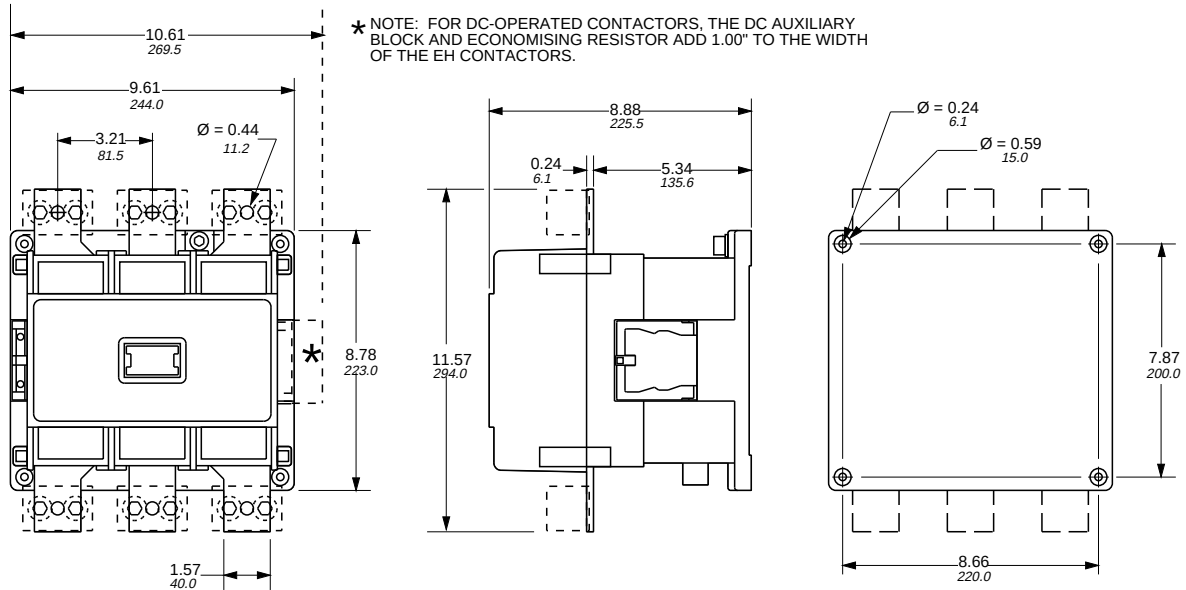
EH550



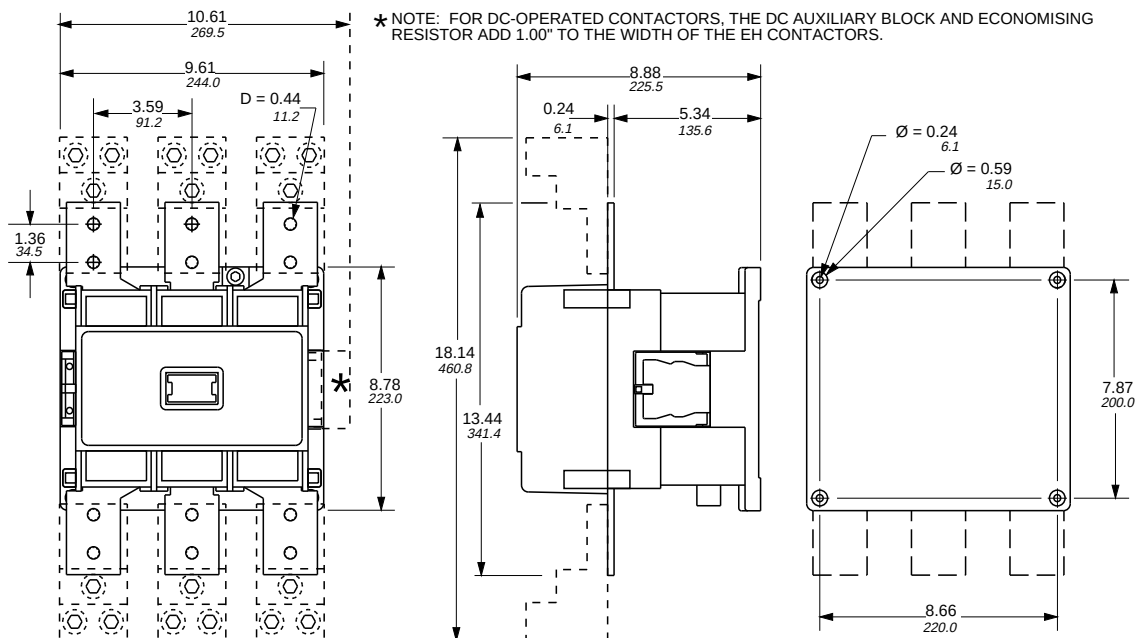
Approximate dimensions for across the line contactors EH700 – EH800

00.00 → Inches
00.00 → Millimeters

EH700



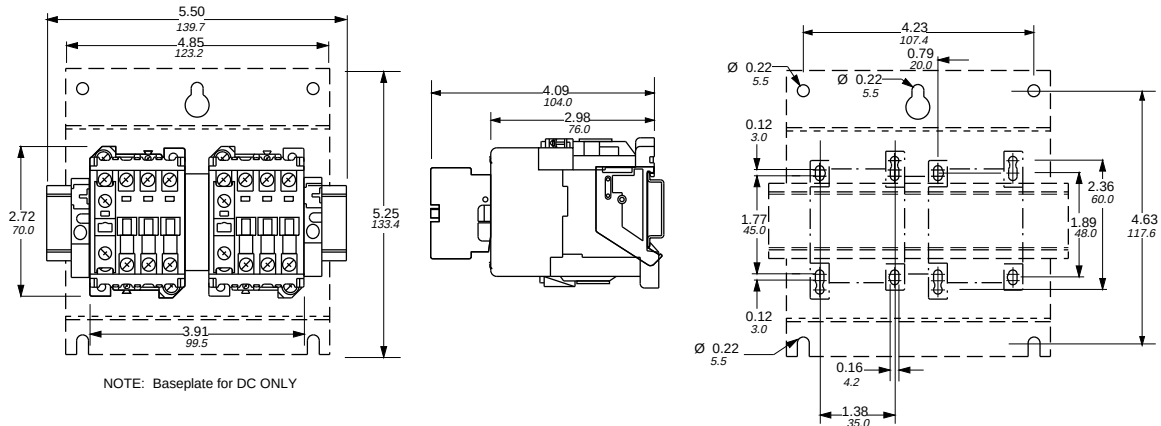
EH800



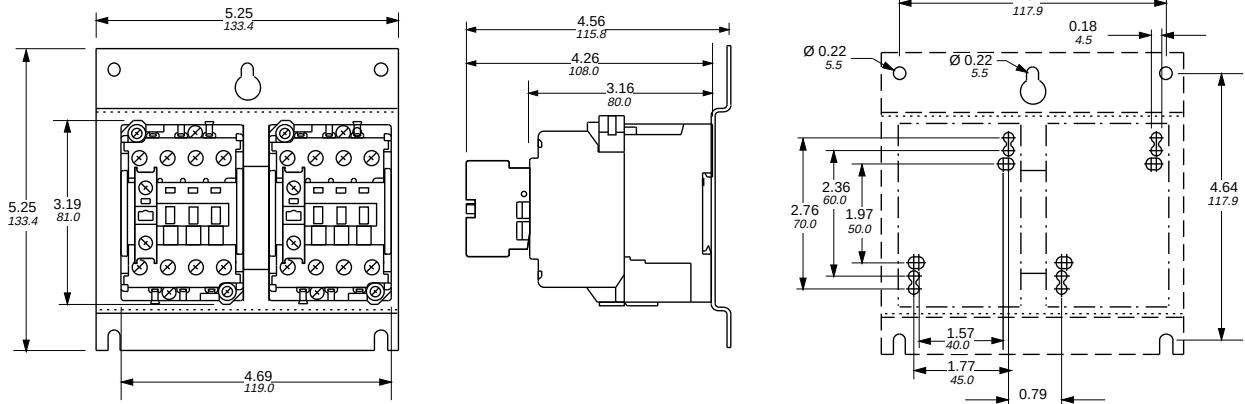
Approximate dimensions for across the line contactors B9 – B75, mechanically interlocked & reversing

00.00 Inches
00.00 Millimeters

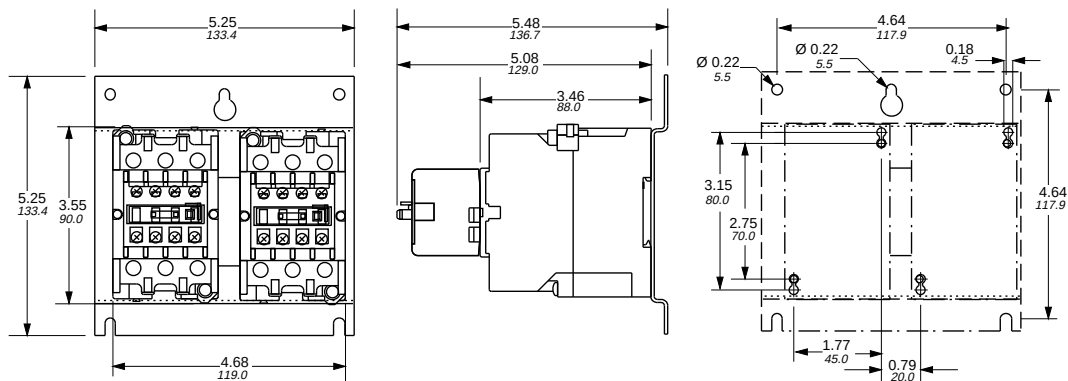
B9 - B16



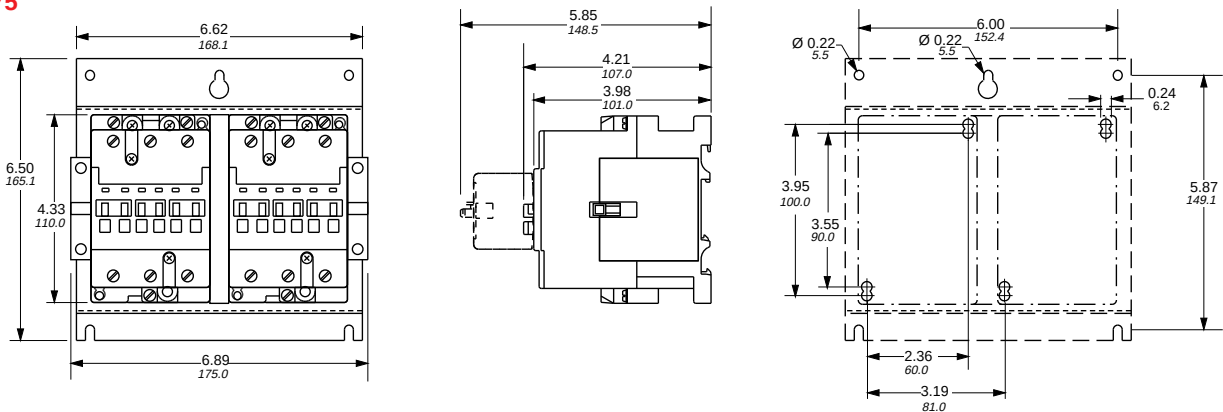
B25



B30



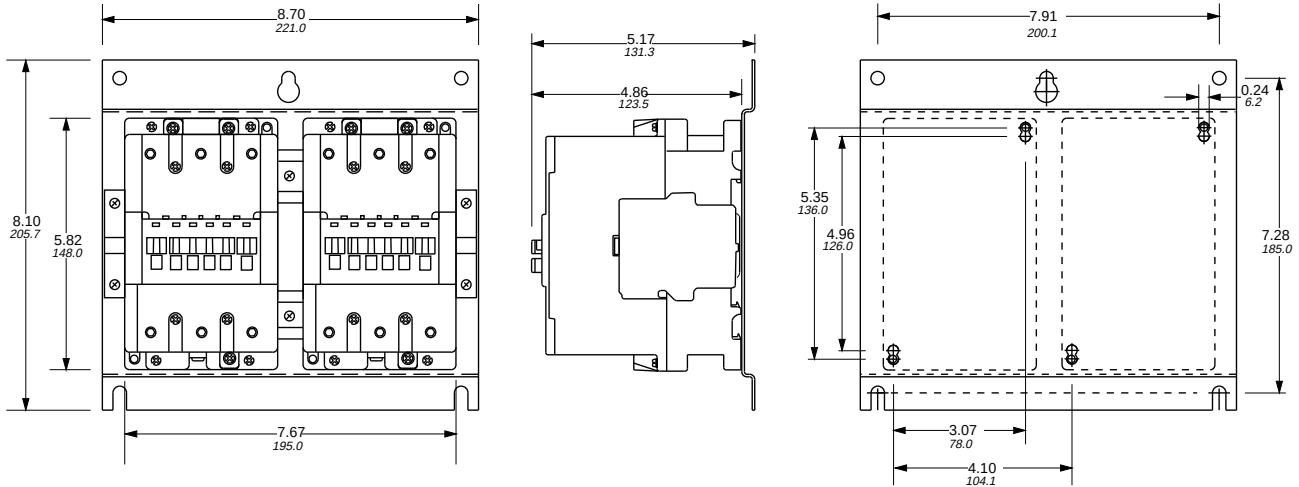
B40 - B75



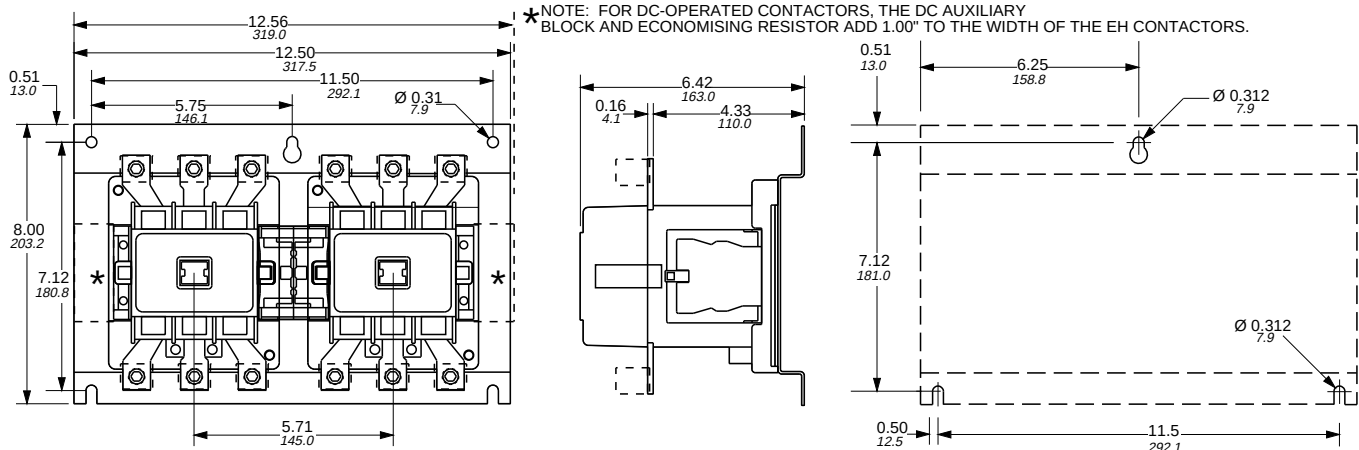
Approximate dimensions for across the line contactors A95 – EH210, mechanically interlocked & reversing

00.00 → Inches
00.00 → Millimeters

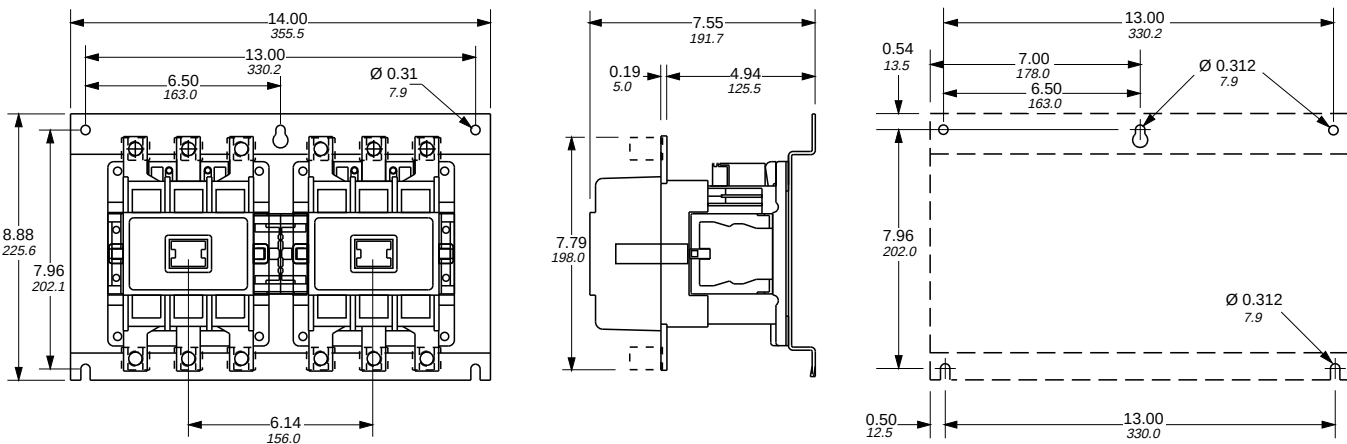
A95 & A110



EH145



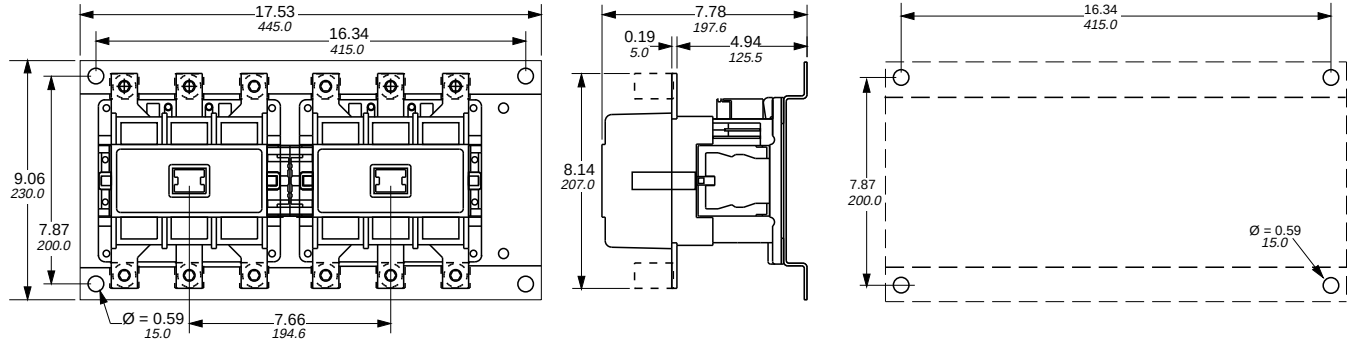
EH175 & EH210



Approximate dimensions for across the line contactors EH260 – EH450 mechanically interlocked & reversing

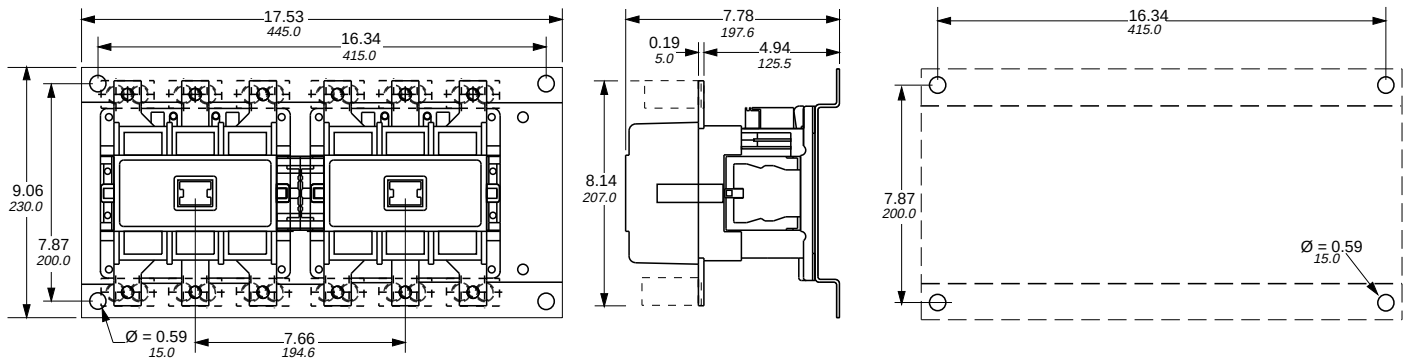
00.00 Inches
00.00 Millimeters

EH260

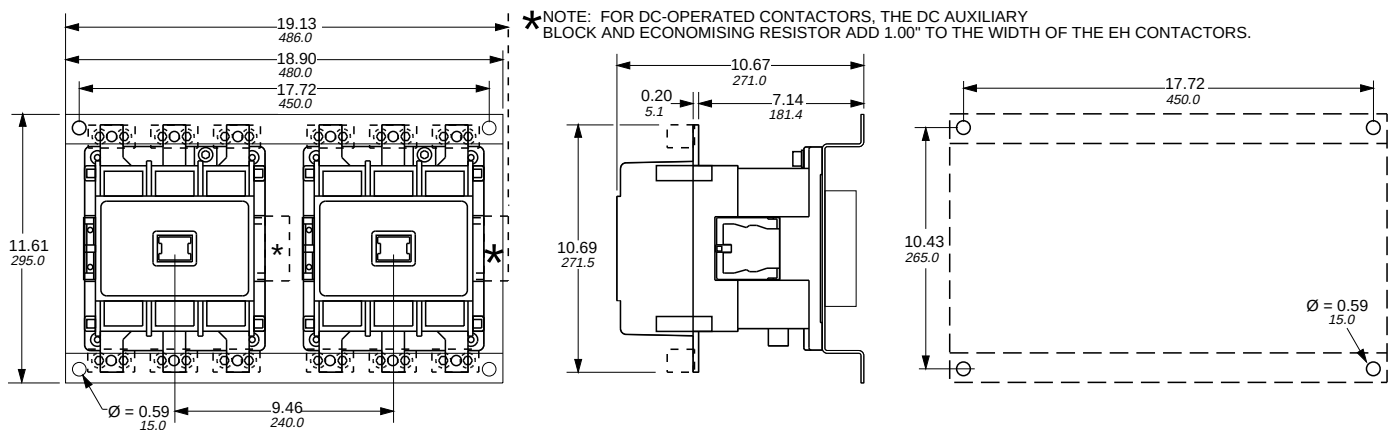


1

EH300



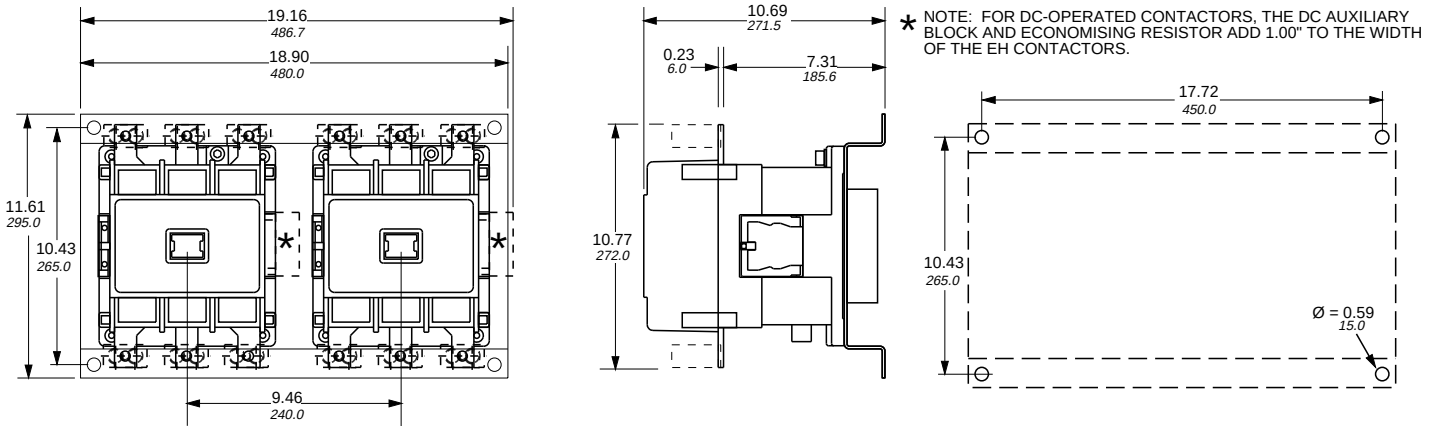
EH450



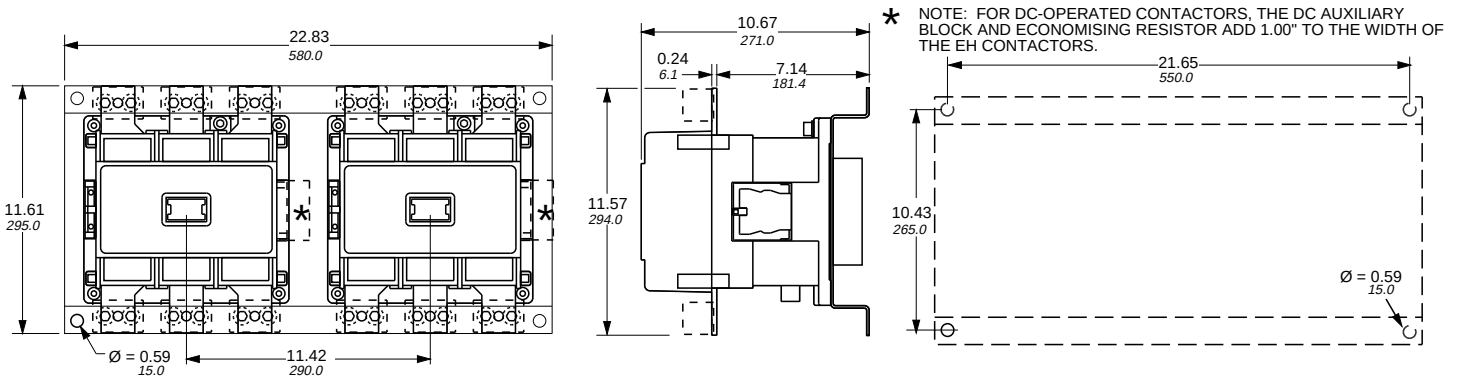
Approximate dimensions for across the line contactors EH550 – EH800, mechanically interlocked & reversing

00.00 00.00 Inches
Millimeters

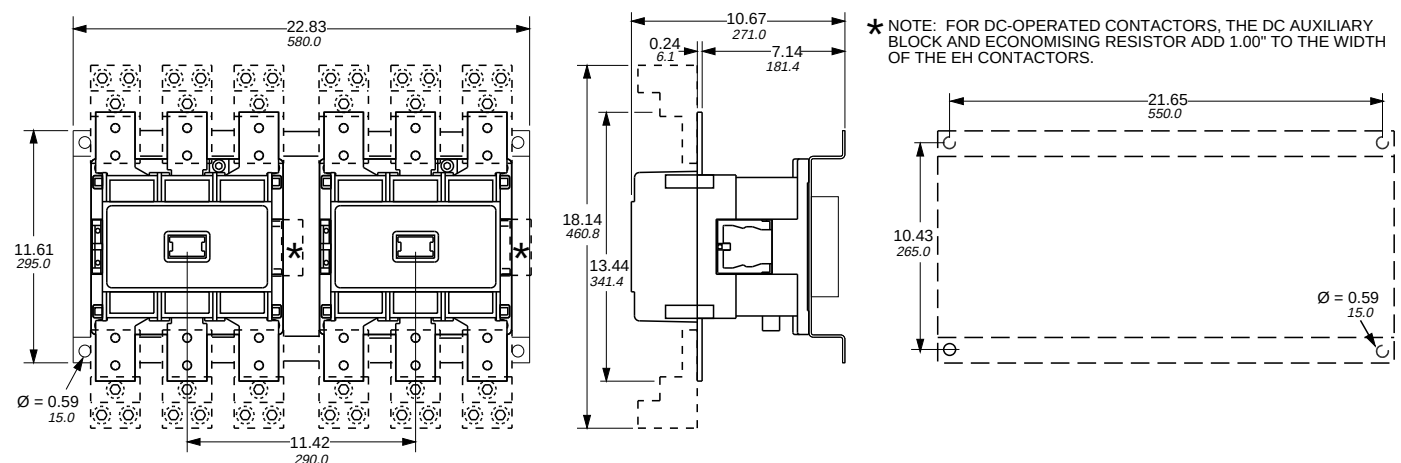
EH550



EH700



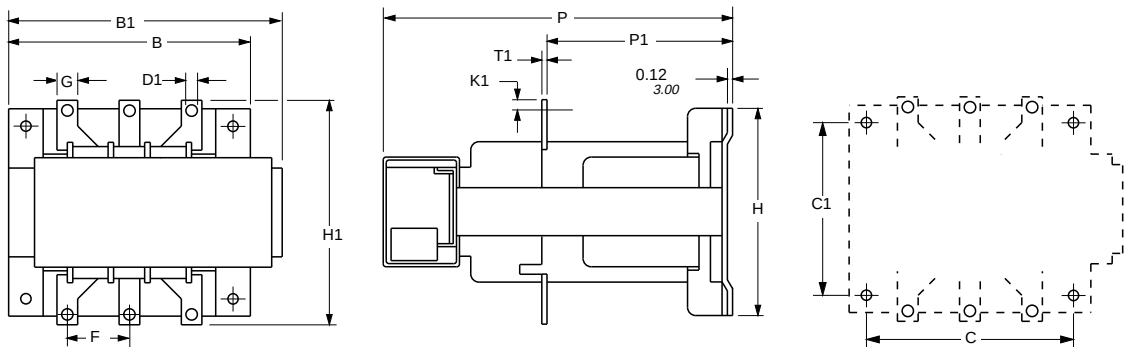
EH800



Approximate dimensions for across the line contactors
EH145 – EH800, mechanically latched

00.00 Inches
00.00 Millimeters

EH145 – EH800

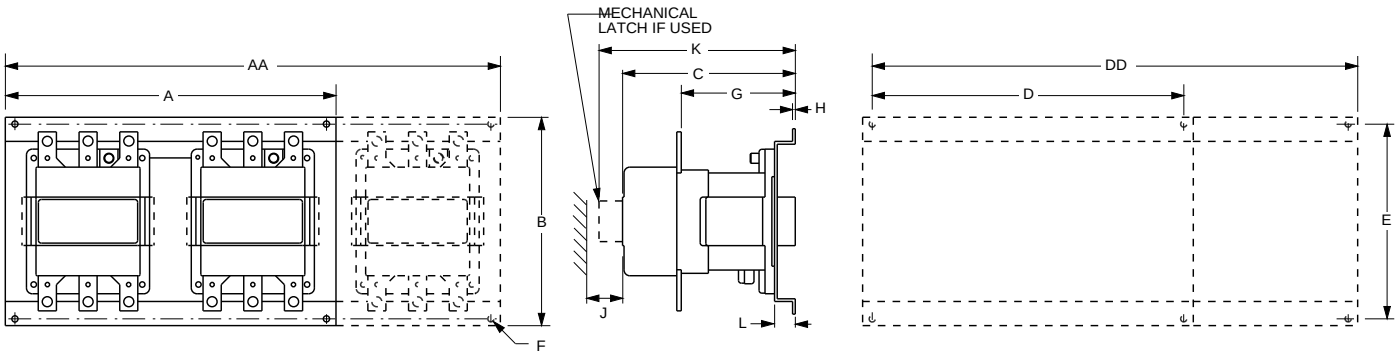


DIM.	B	B1	C	C1	D1	F	G	H	H1	K1	P	P1	T1
EH 145	in 6.29 160	6.57 167	5.51 140	4.72 120	0.26 6.6	1.61 41	0.59 15	5.51 140	6.14 156	0.30 7.5	7.88 202	3.58 97	0.16 4
EH 175	in 7.09 180	7.01 178	6.38 162	5.59 142	0.43 11	1.77 45	0.79 20	6.30 160	7.80 198	0.39 10	8.86 225	4.29 109	0.20 5
EH 210	in 7.09 180	7.01 178	6.38 162	5.59 142	0.43 11	1.77 45	0.79 20	6.30 160	7.80 198	0.39 10	8.86 225	4.29 109	0.20 5
EH 260	in 9.61 244	9.13 232	8.58 218	5.32 135	0.43 11	2.44 62	0.98 25	6.50 165	8.15 207	0.49 12.5	9.49 241	4.69 119	0.20 5
EH 300	in 9.61 244	9.13 232	8.58 218	5.32 135	0.43 11	2.44 62	0.98 25	6.50 165	8.15 207	0.49 12.5	9.49 241	4.69 119	0.20 5
EH 450	in 9.45 240	9.45 240	8.27 210	10.04 255	0.43 11	2.64 67	0.98 25	11.22 285	10.71 272	0.49 12.5	11.65 296	5.77 146.5	0.24 6
EH 550	in 9.45 240	9.45 240	8.27 210	10.04 255	0.43 11	2.64 67	0.98 25	11.22 285	10.71 272	0.49 12.5	11.65 296	5.77 146.5	0.24 6
EH 700	in 11.42 290	11.42 290	10.24 260	10.04 255	0.43 11	3.23 82	1.58 40	11.22 285	11.58 294	0.79 20	11.65 296	5.77 146.5	0.24 6
EH 800	in 11.42 290	11.42 290	10.24 260	10.04 255	0.43 11	3.62 92	1.97 50	11.22 285	13.54 344	0.79 20	11.65 296	5.77 146.5	0.24 6

Approximate dimensions for across the line contactors EH145 – EH800, mechanically interlocked, mechanically latched

00.00 Inches
00.00 Millimeters

EH145 – EH800

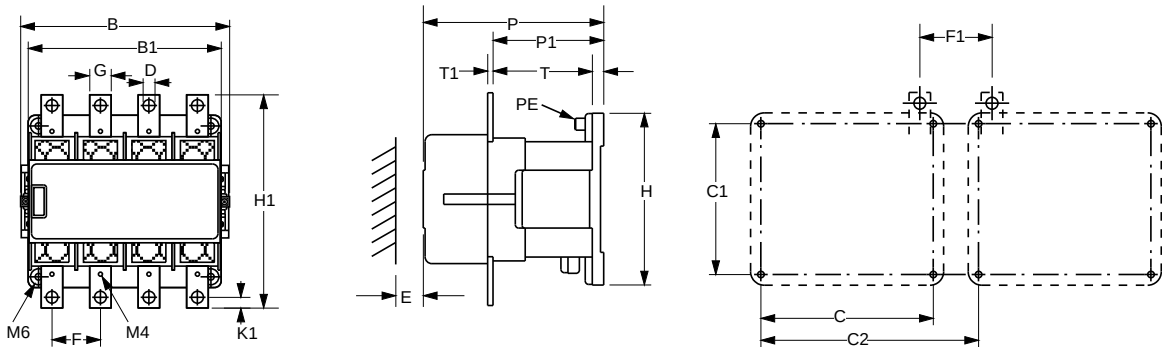


DIM.		A	AA	B	C	D	DD	E	F	G	H	J	K	L
EH 145	in	12.50	18.00	8.00	6.49	11.50	17.00	7.12	0.31	4.44	0.08	1.58	9.18	0.86
	mm	317.5	457.2	203.2	164.8	292.1	431.8	180.8	7.9	112.8	2	40	233.2	21.8
EH 175	in	14.00	18.50	8.88	7.51	13.00	17.50	7.97	0.31	4.93	0.11	0.59	10.07	0.86
	mm	355.6	469.9	225.5	190.8	330.2	444.5	202.4	7.9	125.4	2.7	15	255.8	21.8
EH 210	in	14.00	18.50	8.88	7.51	13.00	17.50	7.97	0.31	4.93	0.11	0.59	10.07	0.86
	mm	355.6	469.9	225.5	190.8	330.2	444.5	202.4	7.9	125.4	2.7	15	255.8	21.8
EH 260	in	17.53	24.73	9.06	7.75	16.34	23.60	7.88	0.59	4.94	0.11	1.18	10.63	0.86
	mm	445.3	628.1	230.1	196.8	415	599.4	200.2	15	125.5	2.7	30	270	21.8
EH 300	in	17.53	24.73	9.06	7.75	16.34	23.60	7.88	0.59	4.94	0.11	1.18	10.63	0.86
	mm	445.3	628.1	230.1	196.8	415	599.4	200.2	15	125.5	2.7	30	270	21.8
EH 450	in	19.13	30.00	11.61	10.87	17.72	29.00	10.43	0.59	7.48	0.12	1.58	12.93	1.96
	mm	486	762	294.8	276	450	736.6	264.9	15	190	3	40	328.4	50
EH 550	in	19.13	30.00	11.61	10.87	17.72	29.00	10.43	0.59	7.48	0.12	1.58	12.93	1.96
	mm	486	762	294.8	276	450	736.6	264.9	15	190	3	40	328.4	50
EH 700	in	22.83	30.00	11.61	10.87	21.65	29.00	10.43	0.59	7.48	0.12	1.58	12.93	1.96
	mm	580	762	294.8	276	550	736.6	264.9	15	190	3	40	328.4	50
EH 800	in	22.83	30.00	11.61	10.87	21.65	29.00	10.43	0.59	7.48	0.12	1.58	12.93	1.96
	mm	580	762	294.8	276	550	736.6	264.9	15	190	3	40	328.4	50

Approximate dimensions for across the line contactors
EK110 – EK550, 4 pole, non-reversing

00.00 Inches
00.00 Millimeters

EK110 – EK550



		B	B1	C	C1	D	E	F	F1	G	H	H1	K1	P	P1	T	T1
EK 110	in	6.50	5.35	4.72	5.51	0.26	1.57	1.61	1.69	0.59	6.14	6.14	0.30	6.08	4.03	0.39	0.16
	mm	165	136	120	140	6.6	40	41	43	15	156	156	7.5	154.5	102.3	10	4
EK 150	in	6.50	5.35	4.72	5.51	0.43	1.57	1.65	1.65	0.79	6.14	6.77	0.39	6.08	4.03	0.39	0.16
	mm	165	136	120	140	11	40	42	42	20	156	172	10	154.5	102.3	10	4
EK 175	in	7.91	6.93	6.30	5.51	0.43	0.59	1.77	2.64	0.79	6.14	7.80	0.39	6.77	4.20	0.39	0.20
	mm	201	176	160	140	11	15	45	67	20	156	198	10	172	106.7	10	5
EK 210	in	7.91	6.93	6.30	5.51	0.43	0.59	1.77	2.64	0.79	6.14	7.80	0.39	6.77	4.20	0.39	0.20
	mm	201	176	160	140	11	15	45	67	20	156	198	10	172	106.7	10	5
EK 370	in	10.51	9.61	8.66	7.87	0.43	1.57	2.64	2.76	0.98	8.78	10.71	0.49	8.88	5.49	0.91	0.24
	mm	267	244	220	200	11	40	67	70	25	223	272	12.5	225.5	139.5	23	6
EK 550	in	10.51	9.61	8.66	7.87	0.43	1.57	2.64	2.76	0.98	8.78	10.71	0.49	8.88	5.49	0.91	0.24
	mm	267	244	220	200	11	40	67	70	25	223	272	12.5	225.5	139.5	23	6