

Hubbell Contactor Range

SECTION 2 HUBBELL CONTACTOR RANGE

HI-TECH UCA CONTACTORS & HUBBELL SPECIAL PURPOSE CONTACTORS



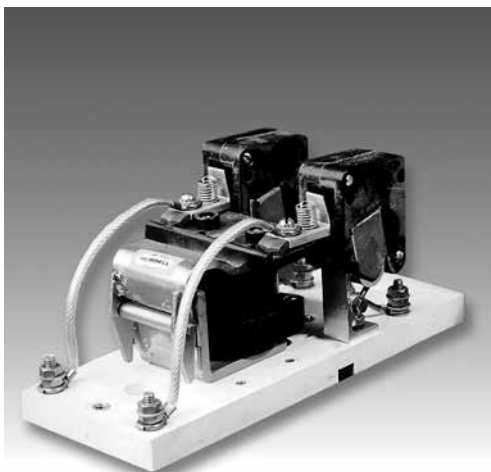
Hi-Tech Contactors up to 110kW

- Fully comply with BS EN 60947-4-1
- 5 sizes up to 110kW
- Designed for long trouble free service and ease of maintenance
- Range of accessories which can be 'add-on' or factory fitted
- Type 2 co-ordination



Hi-Tech Contactors from 255kW to 700kW

- Fully comply with BS EN 60947-4-1
- 6 sizes between 265kW and 700kW
- Designed for long trouble free service and ease of maintenance
- Range of accessories which can be 'add-on' or factory fitted
- 4th pole available
- Type 2 co-ordination



Special Purpose Contactors

- Designed for arduous crane and steel mill applications
- Sizes up to 1800amps
- Type series 700 special purpose contactors
- Type 700 DC motor operated switches

Contactors Index / Ordering Guide

UCA Contactors for DC Systems see page 34.
Alternative Contactors for DC applications, see pages 41-45.



Select contactor rating required from page 27 and determine UCA number.

Select required closing coil voltage. For order codes, accessories and technical details, use the UCA reference code throughout the catalogue.

Below example would represent a 3 pole 23A, 11KW, AC3 at 415V contactor, fitted with 240VAC 50Hz closing coil.

Providing four 2-circuit auxiliary blocks (8 circuits), contacts arranged CCOO-COCO; mechanical flag indicator suitable for mounting on right hand side of contactor with flag facing inboard.

Page Number	Switch Selector	Order Codes	Qty	Example	Qty
27	UCA No.	UCA		UCA1	
27 & 32	Rating			AC3 415V	
27	Coil Voltage			63001-2	1
27	Add-on Auxiliary - Inner Blocks 2NO			60939-1	1
27	- Inner Blocks 2NC			-	
27	- Inner Blocks 1NC 1NO			60939-3	1
27	- Inner Blocks 1NO 1NC			-	
27	- Outer Blocks 2NO			-	
27	- Outer Blocks 2NC			60940-2	1
27	- Outer Blocks 1NC 1NO			60940-3	1
27	- Outer Blocks 1NO 1NC			-	
28	Accessories - Fourth Poles			-	
28	- Flag Indicators			60666-3	1
28	- Spare Contacts			-	
29	- Latches			-	
29	- Mechanical interlock, Centres Close			-	
29	- Mechanical interlock, Centres Wide			-	
29	- Reclosure Preventers Horizontal			-	
29	- Reclosure Preventers Vertical			-	
30-34	Technical Data				
35-39	Dimensions				
40-45	Special Purpose Contactors				

NOTE 1

To use this page for a quotation request: Photocopy/print the page and write in your order codes. Fax or email into the sales office for a quote. **+44 (0)1283 500 400** or **sales@hubbell.co.uk**

ORDERING GUIDE

Hi-Tech UCA Contactors

For shockproof UCA refer to sales office.

Contactors



Add-on Auxiliary Contact



UCA N°	AC3 415 v		
	Ith	Ie	kW
1	32	23	11
3	45	30	15
7	85	70	37
10	125	98	55
20	250	200	110
45	700	450	250
55	800	550	315
70	1000	700	400
85	1100	860	500
100	1250	1000	580
130	1350	1200	710

COIL VOLTAGE Add suffix ② from next column	Coil voltage suffix? COIL VOLTAGE	Aux Included		Inner Blocks				Outer Blocks				
		NO	NC	2NO	2NC	1NC 1NO Note 1	1NO 1NC Note 2	2NO	2NC	1NC 1NO Note 1	1NO 1NC Note 2	
63001-②		-	-									
63003-②	110/115V 50HZ ②=1	-	-									
63007-②	240V 50HZ ②=2	-	-	60939-1	60939-2	60939-3	60939-4	60940-1	60940-2	60940-3	60940-4	
63010-②	415V 50HZ ②=4	-	-									
63020-②		-	-									
	DUAL COIL VOLTAGE			2NO 2NC inner	2NO 2NC RH	4NO 4NC RH	2NO 2NC LH	4NO 4NC LH				
63045-② LLNN	110/120V 50/60HZ 100/110V DC ②=1	2	2			62227-1	62227-2	62227-3	62227-4			
63055-② LLNN		2	2									If flag is fitted additional auxiliaries cannot be used on the same side
63070-② LLNN	220/240V 50/60HZ 200/220V DC ②=2	2	2	5312010								
63085-② LLNN	380/415V 50/60HZ 345/380V DC ②=4	2	2		62139-1	62139-2	62139-3	62139-4				
				1NO 1NC inner	1NO 1NC outer	2NO 2NC outer	3NO 3NC outer	4NO 4NC outer				
63100-② NLLN		1	2									
63130-② NLLN	Note 3	1	2	5311011 2 can be fitted	61982-1	61982-2	61982-3	61982-4				

NOTES

1. Break-Before-Make.
2. Make-Before-Break.
3. Consult sales office for UCA 100-130 and confirm control voltage supply. Contactors close using DC operation.
4. These ratings are for AC3 415V. For other duties or ratings, see page 30-32
5. For DC or alternative AC coils, contact the sales office.

Fourth Poles



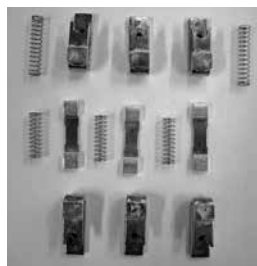
Non load breaking early-make late-break switched unit. Prohibits fitting Auxiliaries when the 4th pole fitted.

Flag Indicators



For viewing through the cubicle door.

Spare Contacts



Contacts set - fixed and moving contacts and springs for 3 poles or 1 pole.
(3) = three supplied per kit,
(1) = one supplied per kit.
3 required per 3 pole contactor.

Coils set - coils and fixings for one contactor
Does not include feeder groups UCA45-UCA130.

Mounted on Right or Left	Outboard mounted on		Inboard mounted on		AC coils. Vac. 50Hz			Contacts
	Right	Left	Right	Left	110/115	230/240	415	
-	60680-3	60680-6	60666-3	60666-6	SC3100-1	SC3101-1	SC3103-1	60343-1 (3)
-	60681-3	60681-6	60667-3	60667-6	SC572-1	SC574-1	SC578-1	60344-1 (3) 60345-1-UK (3)
-	60682-2	60682-4	60668-2	60668-4	SC615-1	SC618-1	SC623-1	60346-1 (3)
NP800-5	62228-1	62228-2	62228-5	-	5312027	5312028	5312029	5312030 (1) 5312031 (1)
NP800-6	62140-1	62140-2	-	-	5312015	5312016	5312017	5312014 (1) 5312032 (1)
NP800-7	-	-	61175-1	61175-2	5311060	5311061	5311062	5311092 (1) 5311098 (1)

UCA N°
1
3
7
10
20
45
55
70
85
100
130

NOTES

Line drawing on page 38 shows position of inboard flag.
Outboard flag position would be outside the contactor overall width.

Hi-Tech UCA Contactors - Accessories

Latches



The contactor will remain mechanically latched in the closed position after the contactor coil supply is removed until the latch coil is energised from a remote device.

For UCA1-20 62239-1*

It is recommended that the contactor closing coil is DC operated (either from a DC supply or from an AC supply through the contactor-mounted rectifier kit). If an AC operated contactor closing coil is essential then the control scheme must ensure that a minimum delay of 25 msec. occurs between initiation and cut off of the contactor coil supply. Refer to sales office for quote, stating control voltage supply.

Mechanical Interlocks

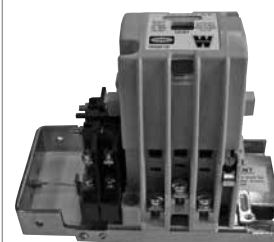


Base assembly only. Interlocks a pair of contactors.

Contactor Centres

Close	Wide
60332-1	60046-1
60333-1	60048-1
60358-1	60361-1
60334-1	60050-1
AM5*	
5312025	
AM6*	
5312011	
-	
5311014	

Reclosure Preventers



Base assembly only. Interlocks the contactor with any UFS fuse switch.

Base mounted

Horizontal	Vertical
60064-4	60064-5
60065-4	60065-5
61594-4	61594-5
60066-4	60066-5
AM5*	
5312025	
AM6*	
-	61171-5
-	
61171-2	

UCA N°

1

3

7

10

20

45

55

70

85

100

130

NOTES

*Ordering ref covers latch only. Specify coil voltage when ordering.

Mechanical Interlocks UCA45 - 130 are horizontal mounting.

Maximum Aux ratings - AC (BS duty AC 11)				Maximum Aux ratings - DC (BS duty DC1)			
Voltage	Make	Break	Thermal	Voltage	Make	Break	Thermal
550V	80A	10A	6A	Up to 250V	-	100W	6A
220V	70A	7A	25A	24V	13A	18A	25A
380V	50A	5A	25A	48V	15A	15A	25A
500V	30A	3A	25A	110V	7A	7A	25A
660V	20A	2A	25A	220V	4A	4A	25A
220V	120A	12A	30A	24V	20A	20A	30A
380V	80A	8A	30A	48V	18A	18A	30A
500V	60A	6A	30A	110V	9A	9A	30A
660V	40A	4A	30A	220V	5A	5A	30A

UCA N°
1
3
7
10
20
45
55
70
85
100
130

Technical Data - Electrical & Mechanical Details

Electrical performances												Mechanical details					
Rated thermal current, 8-hour duty, Ith	Rated uninterrupted current	Rated operational voltage, ac, Ue	Making capacity (Both at 0.35 p.f. 456V [Ue x 1.1])		Operating coil for standard Note 1. contactors				Maximum peak (cut-off) current	Maximum series fuse at 50kA rms symmetrical prospective fault. Note 3.	Average operating time				Contact life. AC3. Class 0.3 Millions of op's.	Weight of basic contactor	
A	A	V	A	A	pull in VA	hold in VA	pull in W	hold in W			kApk	A	pick up m.sec	drop off m.sec			pick up m.sec
32	28	660	280	224	156	23	235	24	7	60	14.8	8.6	12.5	32.0	0.5	1.02	
45	40	660	300	240	156	23	235	24	8	60	14.8	8.6	12.5	32.0	0.5	1.25	
7	85	80	660	700	560	240	38	200	24	15	160	10.6	9.0	19.1	55.0	0.5	1.98
10	125	110	660	980	784	240	38	200	24	15	160	10.6	9.0	19.1	55.0	0.5	2.27
20	250	230	660	1600	1200	580	65	240	24	32	350	14.3	13.0	31.3	250.0	0.5	5.60
45	700	600 Note 4	1000	4500	3600	950	11	850	10	45	500	50 to 100	150 to 200	50 to 100	150 to 200	0.5	13.0
55	800	760 Note 4	1000	5500	4500	950	11	850	10	50	630					0.5	13.5
70	1000	900 Note 4	1000	7000	5600	1600	25	1550	22	70	800	55 to 105	150 to 200	55 to 105	150 to 200	0.5	26.0
85	1100	1100 Note 4	1000	8600	6900	1600	25	1550	22	80	1000					0.5	28.0
100	1250	1200 Note 4	660	10000	8000	2450	75	2100	60	80	1000	35 to 70	35 to 70	35 to 70	35 to 70	0.5	49.3
130	1350	1350 Note 4	660	12500	10000	2450	75	2100	60	80	1000					0.5	53.5

NOTES

1. UCA45 to 130 contactors. Because of the high inrush current on pull in, it may be considered desirable to use a pilot relay to switch the contactor coil when the coil supply is below 200V. The control circuit interlocks should be connected in the relay coil circuit, energised by the specified low voltage supply. The contactor coil can then be energised from the higher mains voltage via the relay contacts. This system is particularly recommended where long control circuit lines are involved.

2. For 60Hz - increase the VA by 15%

3. The permitted maximum fuse rating varies inversely with the fault level. Ensure that the fuse cut-off's do not exceed the maximum peak current (quoted above).

4. When contactors are operated continuously at these currents, excessive terminal temperature rises can occur due to contamination and oxidation of contacts. It is recommended that plated or oxidation-protected external connections be used.

Technical Data - AC Ratings

AC1 (Light Duty)

Resistive or slightly inductive loads. Making, breaking and continuous current substantially equal.

AC2 (Light Duty)

Inductive loads, e.g. starting assisted start motors. Making and breaking currents not more than 2.5 times the rated motor current. (Suitable for plugging slip ring motors with the rotor resistance in circuit.)

AC3 (Normal Duty)

Inductive loads, e.g. starting direct-on-line motors having a starting current up to six times the full-load current. (Not suitable for plugging and inching.)

AC4 (Heavy Duty)

Inductive loads, e.g. starting direct-on-line motors having a starting current six times the fullload current. (Suitable for plugging and inching.)

A.C. current ratings in amperes

Maximum ops/hour	AC1 Light Duty					AC2 Light Duty					AC3 Normal Duty					AC4 Heavy Duty			
	380V	400/440V	500/550V	690V	1000V	380V	400/440V	500/550V	690V	1000V	380V	400/440V	500/550V	690V	1000V	380V	400/440V	500/550	690V
	300	30	30	30	30	-	30	28	28	26	-	25	23	16	12	-	18	18	12
600	30	30	30	-	-	28	28	28	-	-	25	23	16	-	-	18	18	12	-
1200	28	28	28	-	-	19	17	11	-	-	13.5	12	8	-	-	10	10	6	-
120	45	45	45	45	-	45	40	30	26	-	32	30	23	12	-	30	30	17	10
300	45	45	45	45	-	45	40	30	26	-	32	30	23	12	-	28	25	12	10
600	45	45	45	-	-	45	40	30	-	-	32	30	16	-	-	28	25	12	-
1200	36	36	36	-	-	23	21	16	-	-	15	15	9.5	-	-	15	12	9.5	-
120	85	85	85	85	-	80	80	72	72	-	70	70	50	36	-	63	50	42	28
300	85	85	85	85	-	80	80	72	72	-	66	66	48	36	-	63	50	35	28
600	85	85	85	-	-	80	80	72	-	-	63	63	48	-	-	50	50	35	-
1200	70	70	70	-	-	40	40	36	-	-	40	40	23	-	-	37	37	17	-
30	125	125	125	125	-	120	120	94	72	-	98	98	74	36	-	85	85	64	28
120	125	125	125	125	-	120	120	94	72	-	85	85	64	36	-	85	85	56	28
300	125	125	125	125	-	120	120	94	72	-	85	85	64	36	-	79	64	48	28
600	125	125	125	-	-	120	120	94	-	-	85	85	64	-	-	79	64	48	-
1200	100	100	100	-	-	66	66	48	-	-	48	44	28	-	-	41	37	23	-
30	250	250	250	250	-	230	230	230	160	-	200	200	200	80	-	163	163	163	64
120	250	250	250	250	-	230	230	230	160	-	200	200	200	80	-	163	163	163	64
300	250	250	250	250	-	230	230	230	160	-	185	185	170	80	-	150	150	127	64
600	250	250	250	-	-	230	230	230	-	-	170	170	170	-	-	150	150	127	-
1200	200	200	200	-	-	170	170	170	-	-	123	123	105	-	-	97	97	83	-
30	700	700	700	700	400	450	450	450	400	200	450	450	450	400	200	150	150	140	100
120	700	700	700	700	400	380	380	380	335	170	380	380	380	335	170	125	125	115	40
300	700	700	700	700	400	290	290	290	258	130	290	290	290	258	130	64	64	58	-
600	700	700	700	700	400	205	205	205	178	90	205	205	205	178	90	-	-	-	-
30	800	800	800	800	500	550	550	550	500	250	550	550	550	500	250	180	180	158	120
120	800	800	800	800	500	440	440	440	400	160	440	440	440	400	160	145	145	130	80
300	800	800	800	800	500	355	355	355	335	130	355	355	355	335	130	74	74	65	-
600	800	800	800	800	500	245	245	245	245	90	245	245	245	245	90	-	-	-	-
30	1000	1000	1000	1000	-	700	700	630	630	-	700	700	630	630	-	230	230	230	125
120	1000	1000	1000	1000	-	560	560	500	500	-	560	560	500	500	-	190	190	120	100
300	1000	1000	1000	1000	-	455	455	400	400	-	455	455	400	400	-	95	95	61	-
30	1100	1100	1100	1100	-	860	860	825	700	-	860	860	750	700	-	280	280	225	170
120	1100	1100	1100	1100	-	690	690	630	550	-	690	690	630	550	-	235	200	165	125
300	1100	1100	1100	1100	-	560	560	490	435	-	560	560	490	435	-	115	100	85	-
30	1250	1250	1250	1250	-	1000	1000	1000	860	-	1000	1000	1000	860	-	340	340	310	250
120	1250	1250	1250	1250	-	790	790	790	680	-	790	790	790	680	-	340	340	310	250
30	1350	1350	1350	1350	-	1200	1200	1200	1000	-	1200	1200	1200	1000	-	400	400	350	285
120	1350	1350	1350	1350	-	950	950	950	790	-	950	950	950	790	-	400	400	350	285

UCA N°

1

3

7

10

20

45 - Note 1

55 - Note 1

70 - Note 1

85 - Note 1

100

130

NOTES

1. When UCA45 to 85 contactors are operated continuously at the AC1 (light duty) maximum rating, excessive terminal temperature rises can occur due to contamination and oxidation of contacts. It is recommended that plated or oxidation protected external connections be used.

Miscellaneous Duties

A.C. current rating in amperes

UCA N°	Star-delta starters (currents - line FLC)	(a) Line and delta contactors	b) Star contactor	Auto transformer starters (currents - line FLC)	(c) Line (full voltage) contactor	(d) Tapping contactor (85% max. tap)	(e) Star point contactor	Rotor switching (currents - rotor FLC)	(f) Final contactor delta connected. Note 1.	(g) Accelerating contactor delta conn. (short-time rated. 20 sec.) Note 2.	Transformer switching. Notes 3 & 4.	Capacitor switching. Note 4.	Lamps, 240Vac (h) Tungsten	(i) Gas discharge. Note 5.		
1		35	95			43	95		50	50	180	180	20	12	15	30
3		47	120			55	120		65	65	200	200	25	18	20	45
7		115	260		Select from direct on-line (AC3 normal duty) ratings, page 32.	120	260		130	130	540	540	60	50	45	85
10		135	380			170	380		200	200	750	750	90	65	60	125
20		320	600			350	600		400	400	1600	1600	170	120	100	250
45		630	1100			530	1350		840	550	1890	1380	203	300	260	360
55		800	1300			600	1500		1060	650	2300	1740	248	370	315	450
70		1100	1600		750	-		1400	750	2940	2300	315	440	440	570	
85		1300	-		1000	-		1540	1000	3600	2530	390	520	500	700	
100		1600	-		1200	-		1680	1200	4200	2750	450	680	560	850	
130		-	-		-	-		1850	-	4700	3100	540	760	630	1000	
Maximum ops/hr		30	150			150	150		30	150	30	150	300	150	150	150

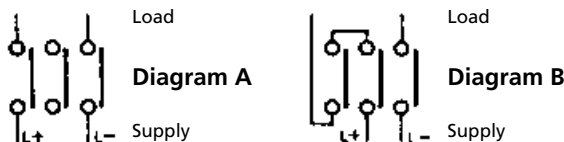
NOTES

- Maximum O.C. rotor voltage:
UCA1 to 20 - 800V
UCA45 to 130 - 3000V
- Maximum O.C. rotor voltage:
UCA1 to 20 - 1100V
UCA45 to 130 - 3000V
- Inrush current limited to 20 x FLC rms.
- Maximum voltage:
UCA1 to 20 - 690V
UCA45 and 55 - 690V
UCA 70 to 130 - 690V
- The quoted current ratings with or without PF capacitors and where the length of cable from the supply transformer is 15m or more. For shorter cables, derate by 10% per 3m reduction.

Miscellaneous Duties

Using the contactors on DC systems

A standard AC contactor (fitted with a 110, 240 or a 415V operating coil) can be used to switch DC loads when connected as directed in the following table.



		Duty (BS5424 or IEC 158-1)											UCA N°
Maximum number of operations per hour	DC1					DC2 & 3				DC4 & 5			
	For non-inductive and slightly inductive loads. Time constant not greater than 1.0 milli-second.					For mixed resistive and inductive loads, e.g. starting and stopping shunt motors. Making and breaking 400% of the rated current. Time constant not greater than 2.5 milli-seconds. (DC3 includes plugging and/or inching).				For inductive loads, e.g. starting and stopping series motors. Making and breaking 400% of the rated current. Time constant not greater than 15 milli-seconds. (DC5 includes plugging and/or inching).			
600	30	30	10	30	8	20	25	25	2	15	20	10	1
	45	45	15	45	8	25	30	25	-	20	25	10	3
	85	85	10	85	10	65	65	65	-	60	60	50	7
	125	125	10	125	10	70	70	70	-	60	60	60	10
	250	250	15	250	10	200	200	200	-	150	190	150	20
600	-	450	-	450	-	-	-	-	-	-	-	-	45
	-	550	-	550	-	-	-	-	-	-	-	-	55
	-	700	-	700	-	-	-	-	-	-	-	-	70
	-	860	-	860	-	-	-	-	-	-	-	-	85
120	-	1000	-	1000	-	-	-	-	-	-	-	-	100
	-	1200	-	1200	-	-	-	-	-	-	-	-	130
	110	110	250	250	400	110	110	250	400	110	110	250	System voltage (maximum)
	A	B	A	B	B	A	B	B	B	A	B	B	Connection Diagram

ORDERING GUIDE

Dimensions

Contactors

➔

GENERAL NOTES ON AUXILIARIES

UCA1-20

- Max 4 block (2 inner + 2 outer)
- Not more than 2 block on one side
- Not more than 4NO or 4NC with no more than 2NC on one side
- With 2NC on one side a max of 3NO may be fitted on the other

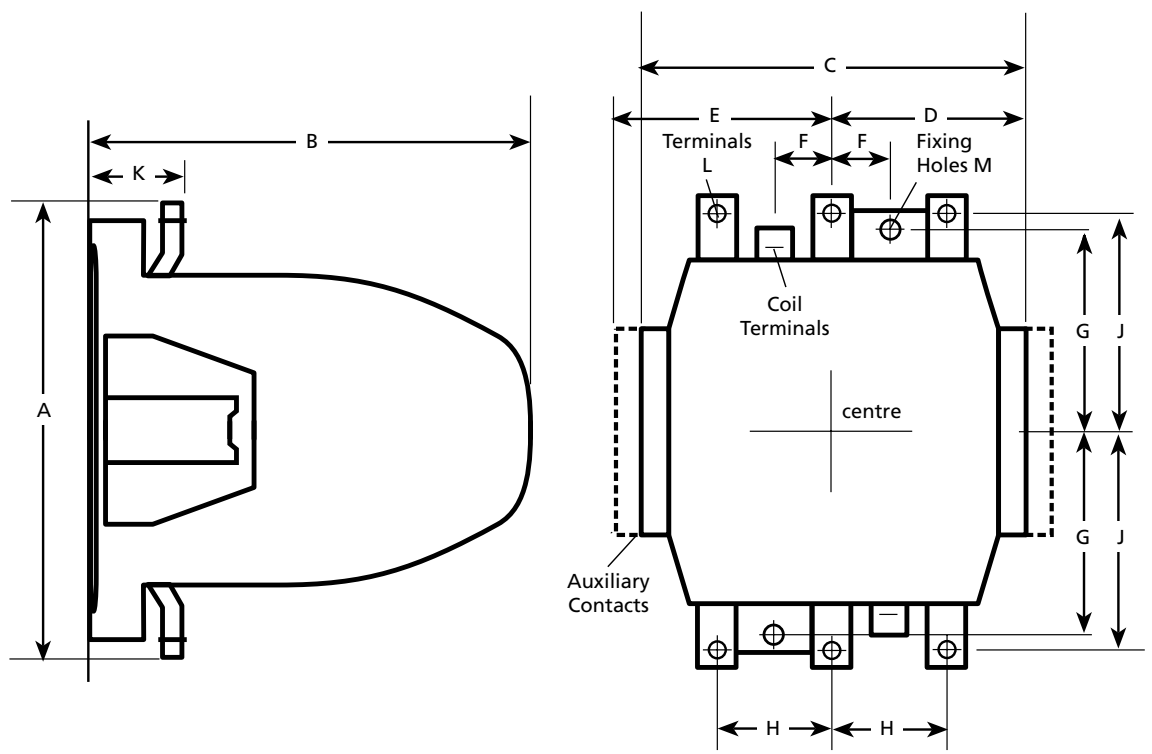
UCA45-85

- NOT adjustable to provide Make-Before-Break or Make after main pole

UCA1 – UCA20

UCA N°
1
3
7
10
20

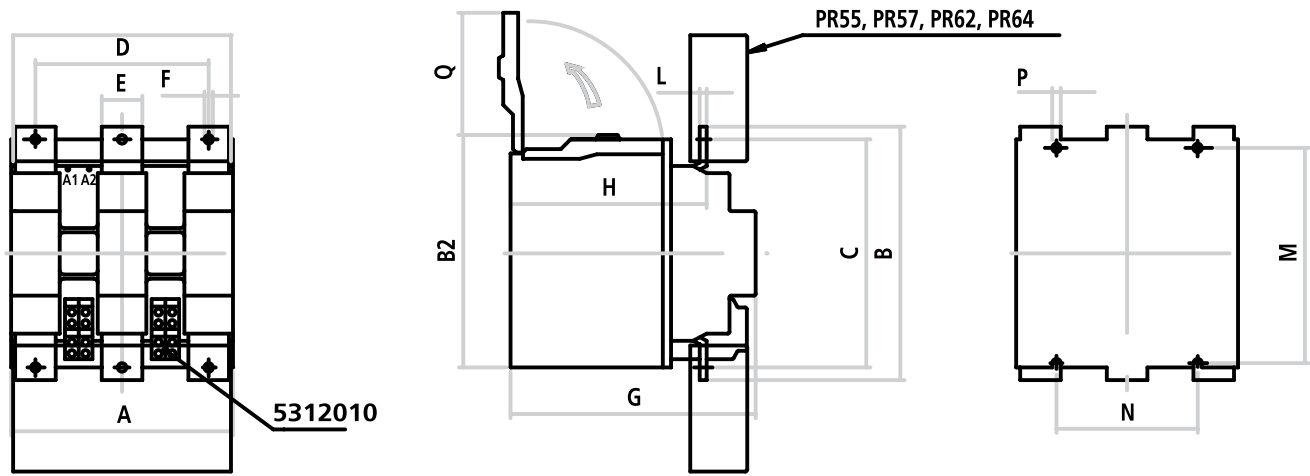
All dimensions in millimetres											
A	B	C	D	E	F	G	H	J	K	L	M
98	116	107	53.5	66.5	30.2	36.5	15.0	36.5	*	M5x12	5.5
122	116	107	53.5	66.5	30.2	36.5	16.7	46.0	25.4	M5x12	5.5
136	146	123	61.5	74.0	15.1	55.6	30.2	61.5	38.0	M6x16	5.5
166	153	123	61.5	74.0	15.1	55.6	38.1	70.6	26.0	M8x16	5.5
186	183	167	83.5	96.5	22.6	74.6	45.2	82.6	33.0	M8x40	8.7



Dimensions

Contactors

UCA45, UCA55, UCA70, UCA85

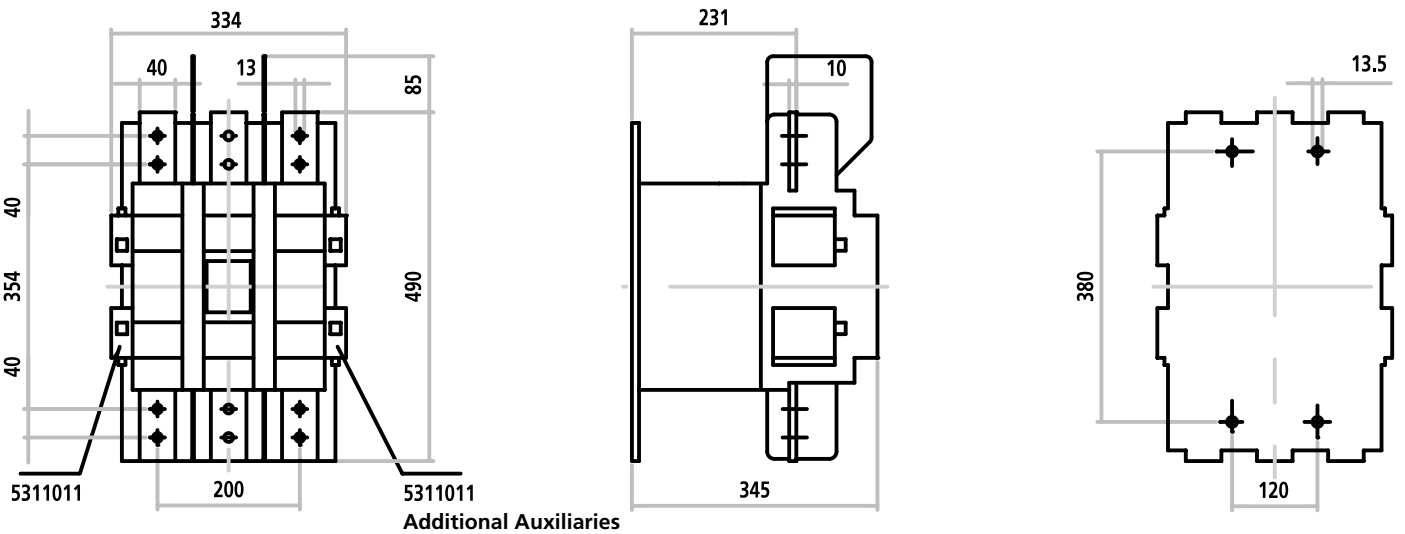


	A	B	B2	C	D	E	F	G	H	L	M	N	P	Q
UCA45 Note 1	220	235	250	206	158	40	10.5	225	164	4	220	110	9	100
UCA55 Note 1	220	258	250	228	158	40	12.5	225	164	6	220	110	9	100
UCA70 Note 1	280	307	303	277	202	50	13	291	203	8	280	175	11	140
UCA85 Note 1	280	361	303	325	202	50	15	291	203	8	280	175	11	140

NOTES

1. Contactors with feeder group for AC and DC coil supply.
Q: This room is necessary to remove coils and/or feeder group.

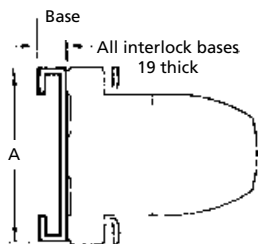
UCA100, UCA130



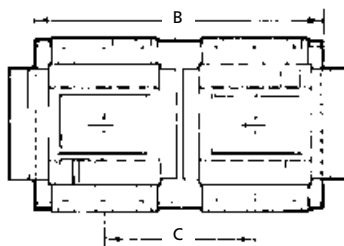
Dimensions

MECHANICAL INTERLOCKS

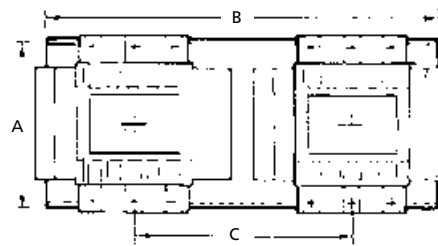
UCA1 to UCA20



Contactors on close centres



Contactors on wide centres

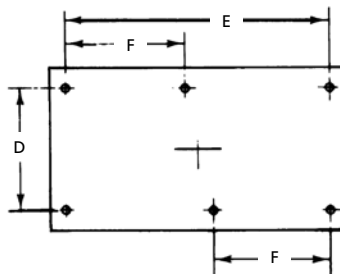


Dimensions are given for the interlock bases only. Note that auxiliary contact blocks extend beyond the bases. Close spacing allows for only two adjacent contact blocks (i.e. one on each contactor or two on one contactor).

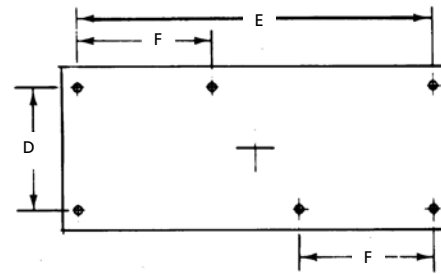
	A	B	C
UCA 1	92	203	108
UCA 3	92	203	108
UCA 7	133	222	121
UCA 10	133	222	121
UCA 20	176	311	168

	A	B	C
UCA 1	92	267	133
UCA 3	92	267	133
UCA 7	133	302	168
UCA 10	133	302	168
UCA 20	176	365	197

Panel Drilling



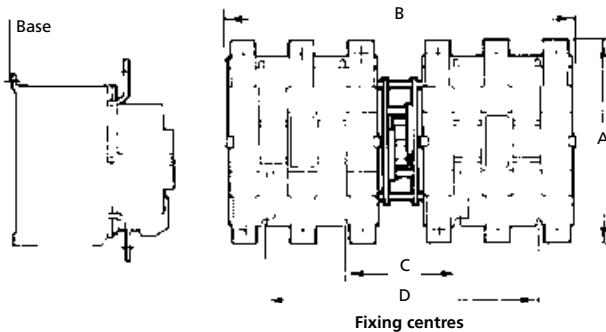
	D	E	F
UCA 1	65	191	-
UCA 3	65	191	-
UCA 7	103	209	-
UCA 10	103	209	-
UCA 20	143	294	125



	D	E	F
UCA 1	65	254	-
UCA 3	65	254	-
UCA 7	103	284	-
UCA 10	103	284	-
UCA 20	143	332	135

All fixing holes, clearance for M5 screws

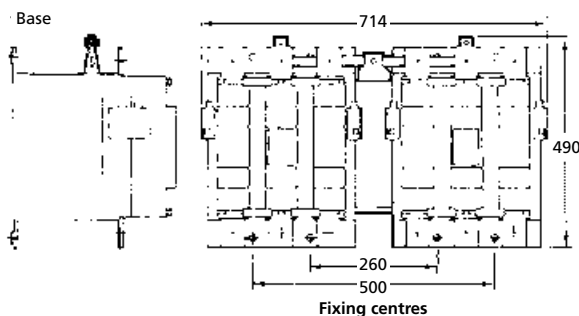
UCA45 UCA55 UCA70 UCA85



	A	B	C	D
UCA 45	250	482	152	352
UCA 55	258	482	152	372
UCA 70	307	592	137	487
UCA 85	361	592	137	487

For contactor fixings see page 36.

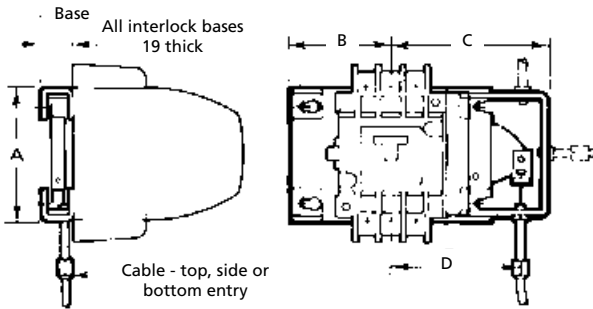
UCA100 UCA130



For contactor fixings see page 36.

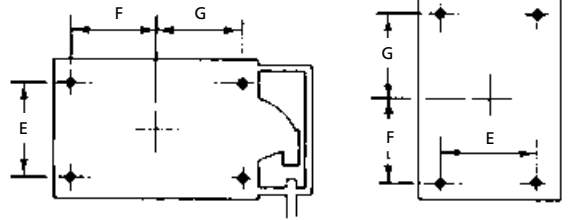
RECLOSURE PREVENTERS UCA1 TO UCA130

UCA1 to UCA20



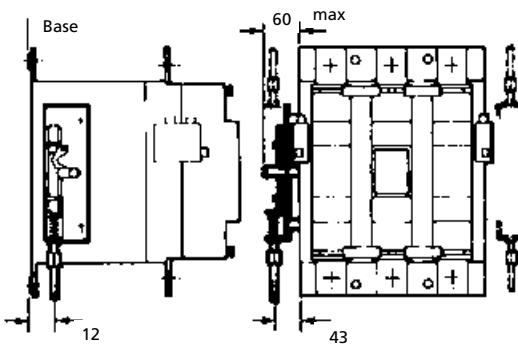
	A	B	C	D
UCA1 & UCA3	92	67	104	89
UCA7 & UCA 10	133	67	102	83
UCA20	176	84	123	106

All fixing holes, clearance for M5 screws

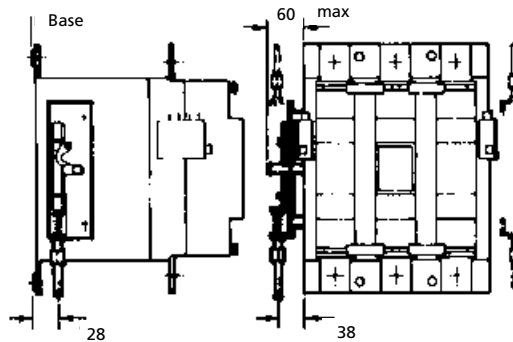


	E	F	G
UCA1 & UCA3	65	60.3	60.3
UCA7 & UCA 10	103	57	57
UCA20	143	73	62

UCA45 to UCA85



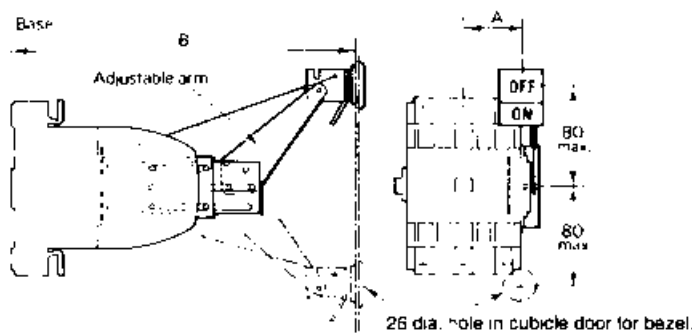
UCA100 to UCA130



Note that the reclosure preventer may be mounted on the left or right hand side of the contactor, and arranged for cable entry at the top or bottom.

FLAG INDICATORS UCA1 TO UCA130

UCA1 to UCA20

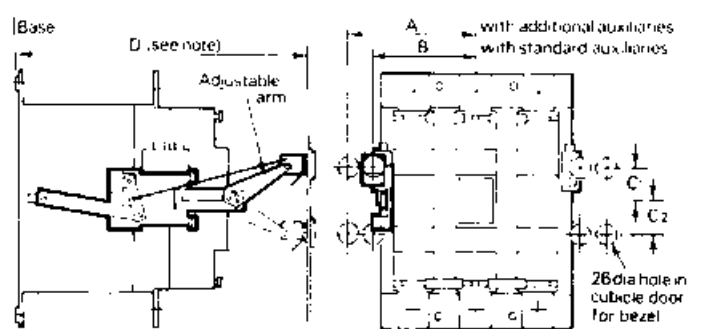


The indicator may be mounted on the right hand (as shown) or left hand side.

This diagram shows the flag as inboard. Outboard flag position would be outside the contactor overall width.

	A	B	
		Minimum Range	With latch
UCA1 & UCA3	32	210 to 295	215
UCA7	42	225 to 300	240
UCA10	42	230 to 300	245
UCA20	64	235 to 315	235

UCA45 to UCA130



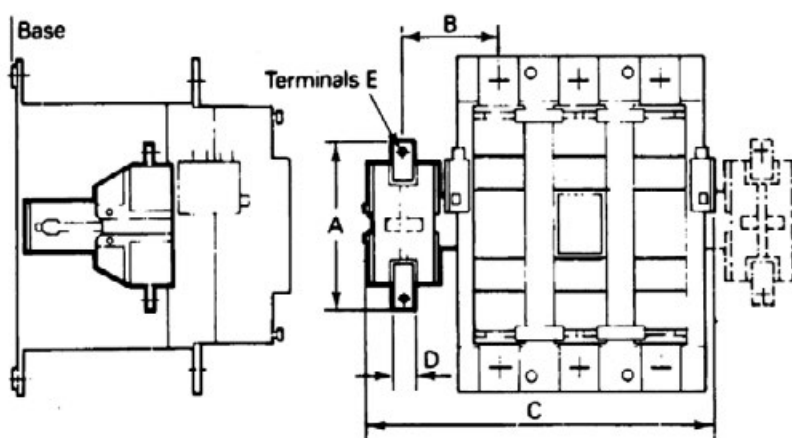
	A	B	C ¹	C ²	D
UCA45 to UCA85	162.5	130	39.5 to 89.5	N/A	300 to 369
UCA100 & UCA130	196.5	164	0 to 50	0 to 50	360 to 495

NOTES

The maximum dimension D of 495mm applies when C1 or C2 equals 0 (i.e. with the indicator set horizontally). Dimension D is reduced by 15mm when C1 or C2 equals 50mm.

Dimensions

FOURTH POLES UCA45 TO UCA130



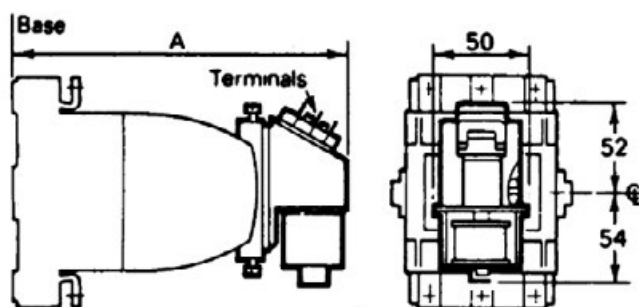
	Rating	A	B	C	D	E
UCA45 & UCA55	800A	220	72	294	53	M12
UCA70 & UCA85	1000A	220	73	348	53	M12
UCA100 & UCA130	1000A	220	110	410	53	M12

The fourth pole may be mounted on the left or right hand side.

Auxiliary blocks can not be fitted to the same side as the fourth pole.

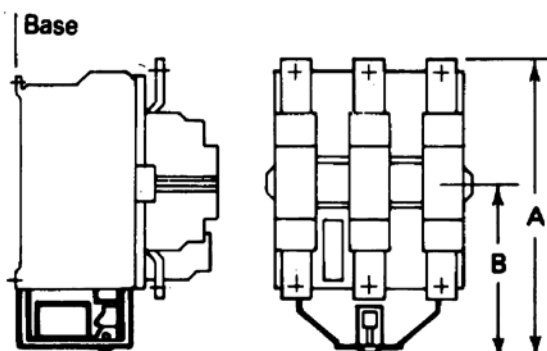
LATCHES UCA1 TO UCA85

UCA1 to UCA20



	A
UCA1	168
UCA3	168
UCA7	196
UCA10	203
UCA20	235

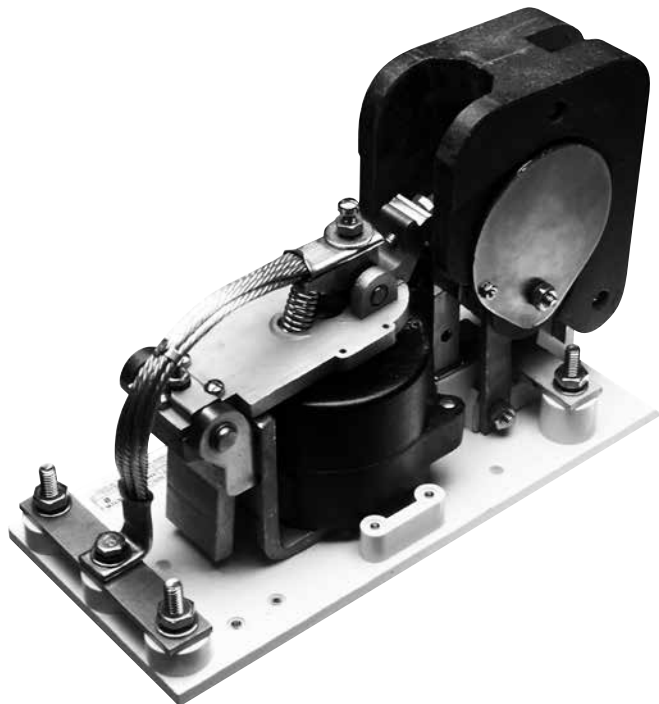
UCA45 to UCA85



	A	B
UCA45	305	188
UCA55	317	188
UCA70	371	217
UCA85	398	217

NEMA RATED AC CLAPPER STYLE MAGNETIC CONTACTORS TYPE 5110

(SEE TYPE 5210 FOR DC CONTACTORS)



Description

Rugged Euclid™ contactors feature many unique design and engineering advancements that greatly simplify applications, installations and servicing... Over 65 years of experience in design as well as manufacturing has been incorporated into these highly reliable units.

The Contactor line uses the latest technology in molded plastic materials for those parts requiring insulating qualities and strength.

Completely front-connected, front removable "deadback" base design eliminates all nuts and bolts as well as live parts on the back making these contactors suitable for steel panel mounting. There is easy front access to every part of the contactor for ease of inspection and maintenance.

Available in NEMA sizes 1 through 8, Single, Two, and Three Pole configurations.

Convenient DIRECT-WIRING for Right or Left Hand Power Connections. Rugged Terminals on both sides of the Power Poles for all power connections (NEMA sizes 3 through 8).

Features

- Encapsulated 115 or 230 V.DC operating coils (standard), for long contactor life.
- Corrosion resistant, durable, welded steel construction armature assembly incorporates stainless steel spring as well as stainless steel hinge pin providing long mechanical life.
- Auxiliary Electrical Contact block can be mounted on either the right or left hand side of the Power Pole. Contacts are bridge-type, double-breaking, silver-cadmium oxide. Units can be "stacked" two deep, for multi-circuit arrangements. Auxiliary Electrical Contacts are supplied in kit form consisting of one or two contact blocks each housing one(1) normally open and one (1) normally closed set of contacts, one knocker, plus the necessary mounting hardware.
- Hinged Arc-Shield for easy inspection and replacement of contactor tips.
- Efficient dynamic blow-out coils on the power poles affords unusually high arc rupturing capacity.
- Selection of main contact tip materials, hard-drawn copper (standard), silver-cadmium oxide, or silver-tungsten-carbide.
- All bearings consist of stainless steel pins working in oversize self-lubricating powered metal bronze bushings.
- Long life results from the low-inertia design and DC power-plant which provide fast-action without destructive hammering.
- Rugged welded, pressed steel construction coupled with an efficient DC power plant and arc rupturing assembly has given these mill-duty contactors an enviable service life.
- Most parts are interchangeable with Type 5210, DC contactors.

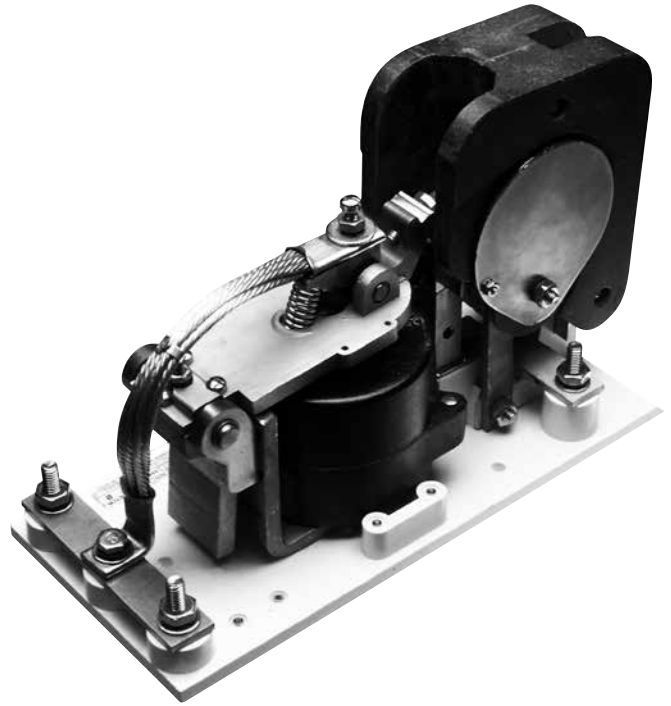
Special Purpose Contactors

NEMA RATED DC MAGNETIC CONTACTORS - TYPE 5210

(SEE TYPE 5110 FOR AC CONTACTORS)

Features

- Convenient DIRECT-WIRING for Right or Left Hand Power Connections. Rugged Terminals on both sides for all power connections.
- Completely front-connected, front removable "deadback" base design eliminates all nuts and bolts as well as live parts on the back of the base. There is easy access to every part of the contactor.
- Encapsulated Magnet Coil. 115 or 230 VDC standard.
- Corrosion resistant, durable, welded steel construction armature assembly incorporates stainless steel spring as well as stainless steel hinge pin providing long mechanical life.
- Auxiliary Electrical Contact block can be mounted on either the right or left hand side of the main contactor. Contacts are bridge-type, double-breaking, silver-cadmium oxide. Units can be "stacked" two deep, for multi-circuit arrangements. Auxiliary Electrical Contacts can be supplied in a kit form consisting of one contact block housing one(1) normally open and one (1) normally closed set of contacts in a common assembly, one knocker, plus the necessary mounting hardware.
- Hinged Arc-Shield for easy inspection and replacement of contactor tips.



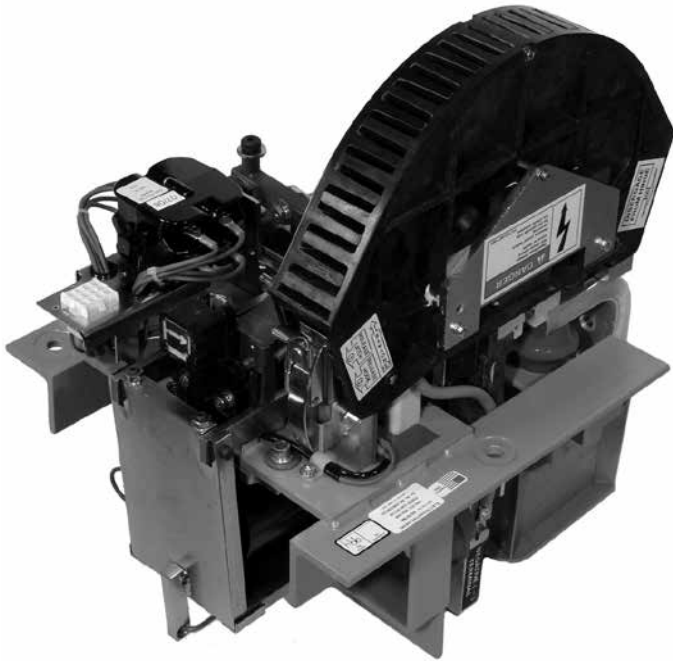
Description

Rugged Euclid™ contactors feature many unique design and engineering advancements that greatly simplify applications, installations and servicing... Over 65 years of experience in design as well as manufacturing has been incorporated into these highly reliable units.

The Contactor line uses the latest technology in molded plastic materials for those parts requiring insulating qualities and strength.

Available in NEMA Sizes 0-8, Normally Open and Normally Closed. (Size 3 Normally Open shown in photo.)

TYPE 703 5000 AMPERE 1000 VOLT DC CONTACTOR



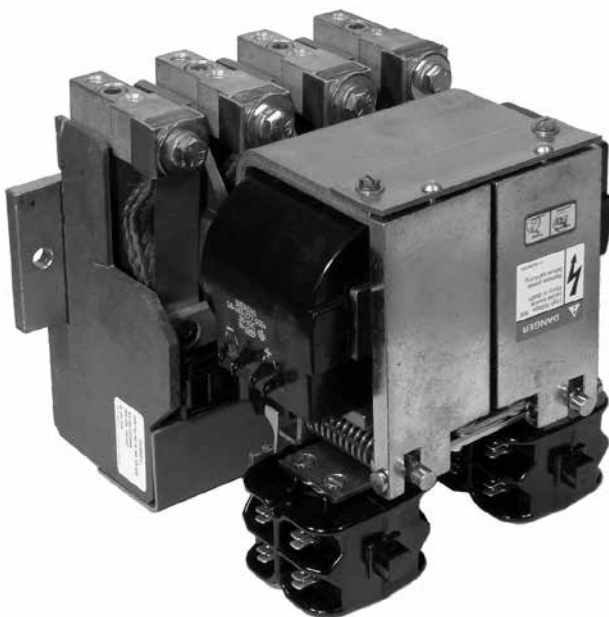
Description

Ideal for use in systems requiring limited interrupting capacity, such as adjustable speed drives, transit and rail, gas and oil well drilling equipment, fuel cells, and crane controls. When used to replace a circuit breaker in a high-current DC application better suited to a contactor, the Type 703 is valued for its smaller size, lower cost, and longer life. This single pole, single throw normally open power contactor is rated at 5000 Ampere continuous duty at 1000 VDC in still air, with a maximum interrupting capacity of 4000 kW (within the limits of 5000 Ampere maximum and 1000 V maximum) and utilizing a polarized arc interruption system.

Features

- Multiple-path silver alloy main contacts
- Arc chute safety interlock
- Silver-plated current-carrying connections
- Dual coil operation
- High dielectric and mechanical strength
- Permanent magnet (polarized) arc chute

TYPE 710 700 AMPERE 1500 VOLT DUAL TWO POLE SWITCH



Description

Compact in size, the Type 710 is ideally suited for DC systems in such applications as gas and oil well drilling equipment, transit and rail, adjustable speed drives, electric haul trucks, mining machinery, fuel cells, and crane controls. Typically, it is used in conjunction with compatibility sized power contactors (such as Hubbell Type 700 1250 Ampere 1000 VDC SPNO power contactor) for power circuit reversal. The Type 710 device is two double pole, single throw mechanically interlocked, non-interrupting switches in a single housing. Each switch is rated at 700 Ampere (special ratings available-consult factory) continuous per pole in dead air and carries a 1500 VDC rating.

Features

- Mechanically interlocked
- Silver alloy main contacts
- Molded coils
- Silver-plated current-carrying connections
- High dielectric and mechanical strength
- Special ratings available-consult factory

Special Purpose Contactors

Description

Part of a family of rugged, industrial-quality, definite-purpose units, the Type 264 is ideal for use with solid-state adjustable speed drives, uninterruptible power supplies, fuel cells, crane controls, and mining machinery.

Features

- Permanent magnet (polarized) arc chute
- Main contact options: SPNO, SPDT, Series Field Reverser
- Silver alloy main contact tips
- Two-million-cycle mechanical life
- Front access for serviceability
- UL recognized/CSA certified

TYPE 264 400 AMPERE 600 VOLT DC CONTACTOR



Description

Ideal for regenerative and non-regenerative systems requiring limited interrupting capacity, such as gas and oil well drilling equipment, transit and rail systems, adjustable speed drives, electric haul trucks, mining machinery, fuel cells, uninterruptible power supplies, and crane controls.

Features

- UL recognized/CSA certified
- Non-polarized arc chute design
- Optional Over Current Hold-In
- Bifurcated main contacts
- Silver-plated current carrying-parts
- High dielectric and mechanical strength
- Special ratings available-consult Hubbell Industrial Controls

TYPE 700 1250 AMPERE 1000 VOLT DC CONTACTOR



TYPE 716 1600 AMPERE 1500 VOLT DC CONTACTOR



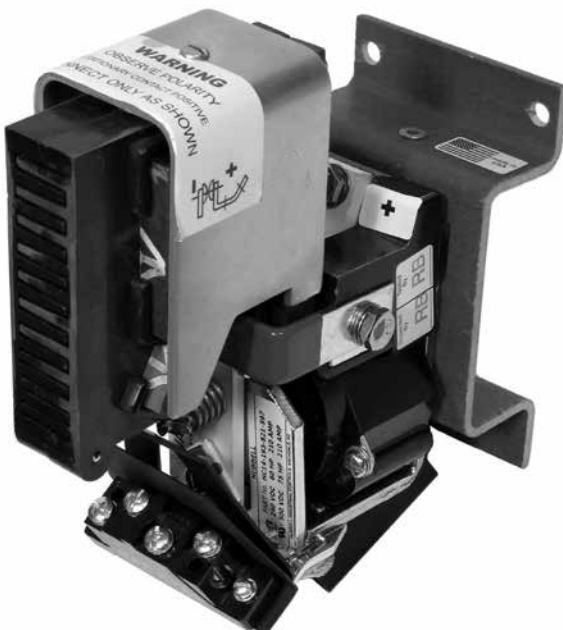
Description

For regenerative and non-regenerative systems requiring limited interrupting capacity, the Type 716 is ideal. Applications include gas and oil well drilling equipment, transit and rail systems, adjustable speed drives, electric haul trucks, mining machinery, fuel cells, uninterruptible power supplies, and crane controls. A single pole, single throw normally open power contactor, it is rated at 1600 Ampere continuous duty at 1500 VDC in still air.

Features

- Non-polarized arc chute (series blowout coil) design as standard
- Optional polarized arc chute (permanent magnet type) design available-consult factory
- Silver alloy main contacts
- Arc chute safety interlock
- Trifurcated main contacts
- Silver-plated current-carrying parts
- High dielectric and mechanical strength

TYPE 720 200 AMPERE 600 VOLT DC CONTACTOR



Description

Rugged and reliable, this industrial quality device is used in applications such as gas/oil drilling and solid-state adjustable speed drives, uninterruptible power supplies, fuel cells, crane controls, transit and rail, and mining machinery. It is rated at 200 Ampere, continuous at 600 VDC in still air (special voltages available-consult factory) and can achieve a maximum interrupting rating of 600 kW.

Features

- NEMA Size 4 ½
- UL recognized/CSA certified
- Polarized arc chutes—standard capacity or high capacity
- Main contact options: SPNO, SPDT, Series Field Reverser
- Five million mechanical operations
- Silver alloy main contacts
- Front access for serviceability
- AC or DC operation
- High dielectric and mechanical strength
- Special ratings available-consult factory

Special Purpose Contactors

TYPE 711 / 712 1600 AMPERE 1500 VOLT DC MOTOR OPERATED SWITCH

Features

TYPE 711 MOTOR MODULE

- Controls up to six Switch Modules at once
- Two second travel time
- Three N.O. and three N.C. auxiliary contacts
- 24, 74 or 125 VDC control voltage

TYPE 712 SWITCH MODULE

- Two-Pole Double-Throw Non-interrupting Switch
- Motor Cut-Out (MCO) option
- Trifurcated main contacts
- Silver alloy main contacts
- Silver-plated current-carrying connections
- High dielectric and mechanical strength

Description

The 1600 Amp, 1500 Volt DC Motor Operated Switch is created by coupling up to six Type 712 Switch Modules to one Type 711 Motor Module. This combination is suitable for mounting on a common 3 inch channel. This Motor Operated Switch is designed for use in DC systems such as those found in oil well drilling, crane control, uninterruptable power supplies, transportation and mining equipment and adjustable speed DC drives.

