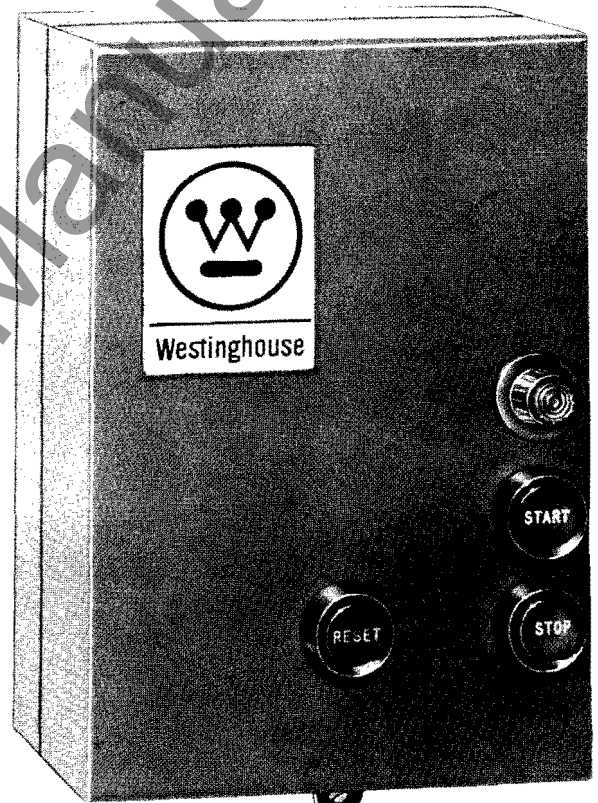
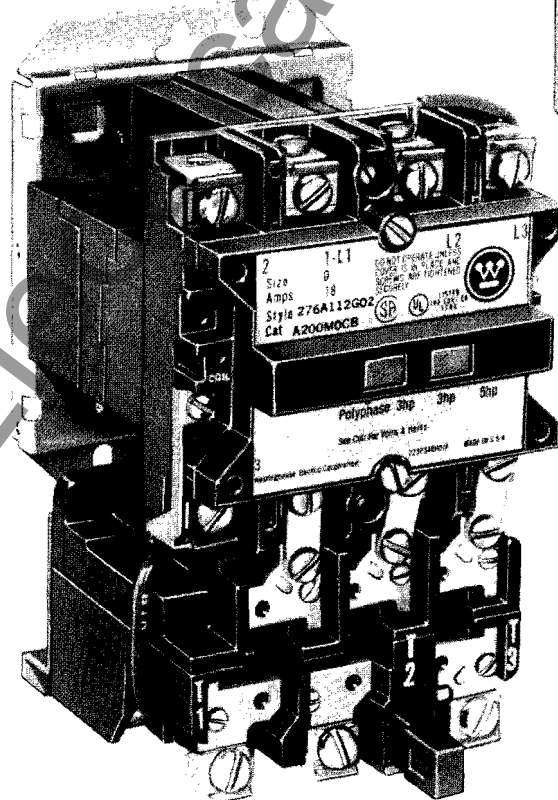
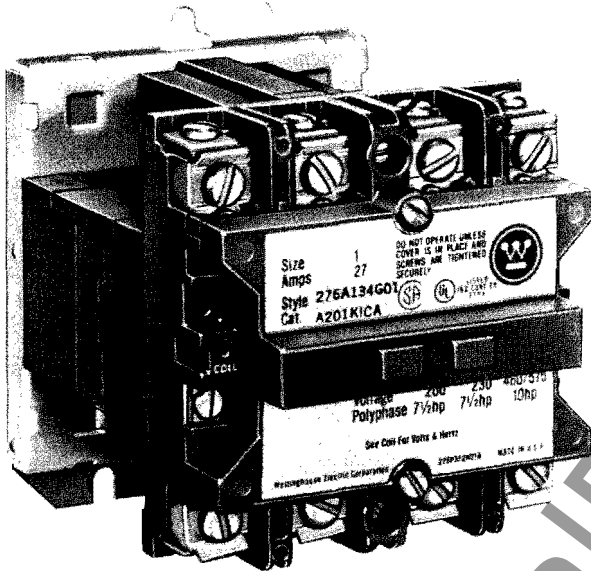




A200 Magnetic Motor Control



A900 Multi-speed, 2 Speed Starters^④

Two-speed starters are used for across-the-line starting of 2-speed squirrel-cage motors and may be used with constant horsepower, constant torque or variable torque motors with one or two windings. Starter is basically an assembly of two Class A200 starters, one for each motor speed, mechanically and electrically inter-locked and wired for manual speed selection by means of a push-button control station. Auxiliary relays may be added to provide automatic acceleration or deceleration.

Available as open devices in a horizontal design employing block type overload relays or in NEMA 1, 4 and 12 enclosures.

2-Speed, 2-Winding

Consists of two 3-pole Class A200 starters electrically and mechanically interlocked and is used on motors having two independent windings.

2-Speed, Single-Winding

Consists of a 3-pole and a 5-pole starter mechanically and electrically interlocked. Used with single reconnectable winding motors.

Maximum Horsepower Ratings

3 Phase^②

NEMA Size	Constant or Variable Torque			Constant Horsepower	
	208 Volt	240 Volt	480/600 Volt	208/240 Volt	480/600 Volt
0	3	5	5	2	3
1	7½	10	10	5	7½
2	10	15	25	10	20
3	25	30	50	25	40
4	40	50	100	40	75

② For inching service, where operation exceeds 5 times per minute, decreased horsepower ratings in accordance with NEMA standards IC 1-21B.21 are recommended. See table on page 22.

Ordering Information

Order by catalog number: complete catalog number consists of catalog number at top of column plus suffix in column:

Example: A900 + M0AAC = Catalog Number A900M0AAC.

Enter heaters as separate item by listing catalog number from page 16. Selling price \$3 list each.

Factory Modifications

Add catalog number suffix letter from listings on page 7 or page 23, at end of starter catalog number.

Field Modification Kits^④

Select from listing on page 7 or pages 21, 22 and order by catalog number.

Other Available Coil Voltages

For voltages other than those listed in price table, substitute suffix letters listed below for eighth digit (A) in catalog number listed and omit last digit (C) when separate control is not desired.

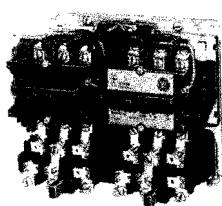
Examples:

A900M0AAC—as listed 120/60 with separate control.

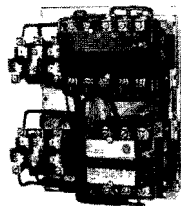
A900M0AW—240/60 without separate control.

Suffix Letters	Volts	Hertz
Standard Voltages		
B	208/220	60
D	550	60
E	500/550	60/50
H	440/380	60/50
I	24	60
V	110	60
K	600	50
W	240/220	60/50
X	480/440	60/50
Y	200	60
Z3	277	60
Dual Voltages^④		
C	240/480	60
J	208/220/440	60
R	120/240	60

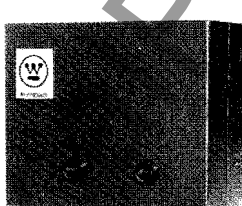
④ List price addition: \$4.



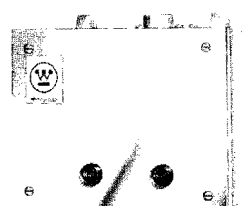
Open Horizontal



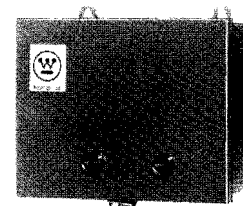
Open Vertical



NEMA 1



NEMA 4



NEMA 12

List Prices, Non-reversing, 3 Phase, Price Does Not Include Heaters (Block Type Overloads Require 3 Heaters) Discount C10-S1

Coil Voltage ^⑥	NEMA Size	Open Type (Without Enclosure)			Enclosed (Horizontal with Block Type Overloads)			
		Horizontal Design Block Type Overload Relays	Vertical Design Block Type Overload Relays	List Price	NEMA 1 General Purpose	NEMA 4 Stainless Steel Water-tight	NEMA 12 Dust-tight Industrial Use	
		Cat. No. A900	Cat. No. A900		Cat. No. A900	List Price	Cat. No. A900	List Price
For Separate (2) Winding Type Motors (Star Connected)^③								
120/60	0	M0AAC	.....	\$ 212	SOAAC	\$ 220	WOAAC	\$ 412
110/50	1	M1AAC	.....	236	S1AAC	248	J1AAC	310
(Separate Control)	2	M2AAC	.....	412	S2AAC	444	J2AAC	532
	3	M3AAC	.....	640	S3AAC	696	J3AAC	896
	4	M4AAC	.....	1604	S4AAC	1708	J4AAC	2104
For Single Winding Type Motors (Consequent Pole) (Constant or Variable Torque)								
120/60	0	M0DAC	M0HAC	300	S0DAC	308	W0DAC	500
110/50	1	M1DAC	M1HAC	320	S1DAC	332	J0DAC	370
(Separate Control)	2	M2DAC	M2HAC	568	S2DAC	604	J1DAC	394
	3	M3DAC	M3HAC	856	S3DAC	912	J2DAC	692
	4	M4DAC	M4HAC	2216	S4DAC	2436	J3DAC	1112
For Single Winding Type Motors (Constant Horsepower)								
120/60	0	M0BAC	M0FAC	300	S0BAC	308	W0BAC	500
110/50	1	M1BAC	M1FAC	320	S1BAC	332	J0BAC	370
(Separate Control)	2	M2BAC	M2FAC	568	S2BAC	604	J1BAC	394
	3	M3BAC	M3FAC	856	S3BAC	912	J2BAC	692
	4	M4BAC	M4FAC	2216	S4BAC	2436	J3BAC	1112
							J4BAC	2832

③ Prices apply to starters for YY, star connected motors only, and ΔΔ, delta-connected motors, where only three lines to motor must be opened.

For ΔΔ or ΔY, open-delta motors where all lines to motor must be opened, use prices for consequent pole starters.

④ Power terminals accept Cu wire only. If Cu/Al terminals are required, see page 22.

⑤ For multi-speed combination starters, refer to page 23.

⑥ For Dc coils, refer to page 9.



A900 Multi-speed, 2 Speed Starters

Factory Modifications Discount C10-S5

Cat. No. Suffix Letter	Modification	Enclosure Type	List Price
A	Fast-Slow-Stop Push-button in Cover	1 4, 12	\$ 80 100
L	Red Pilot Light in Cover	1 4, 12	30 54
M	Ambient Comp. Overload	All	4

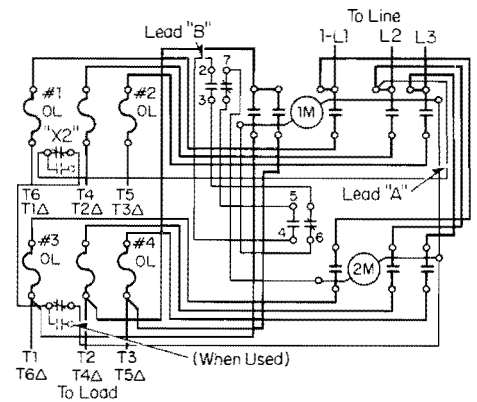
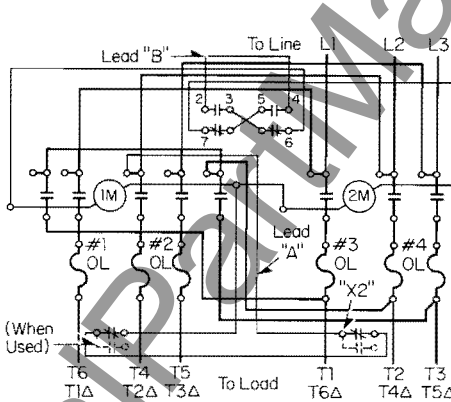
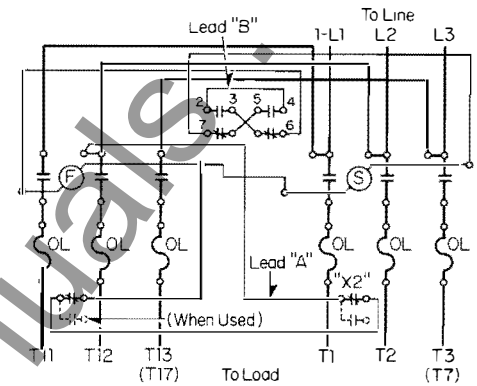
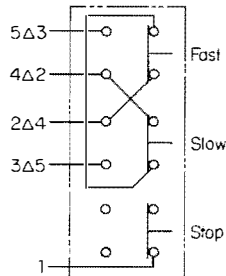
Additional Factory Mods.: Page 23.

Field Modification Kits Discount C10-S5

Kit	Kit Cat. No.	Enclosure Used With	List Price
Fast-Slow-Stop PB Selector Switch	PBK-13	1	\$50
Elect. Interlock (1 No. Inc.)	SSK-11	1, 1B, 12	10
Red Pilot Light (120 Volt)	L-56	All	12
Solid State Timer	PLK-11	1, 1B, 12	22
On Delay	TON-56	All	72
Off Delay	TOF-56	All	72
Brown Out Prot. (Size 2 Max.)	BOP-2A	All	7
Surge Suppressor	SS-56	All	18
Power Pole			
NO, Size 0	PNO-0	All	22
NO, Size 1	PNO-1	All	30
NC, Size 0	PNC-0	All	22
NC, Size 1	PNC-1	All	30
Isolator Switch, 120 Volt, 1 No Contact	R 56-A	All	22

Renewal Parts: Page 24.

Wiring Diagrams

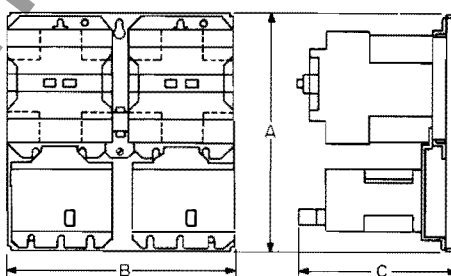


Δ = Constant Hp. connections.

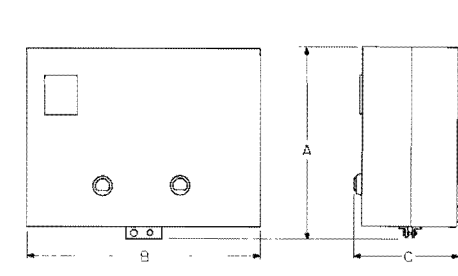
Dimensions, Inches

Not to be used for construction purposes unless approved. For complete dimensions, see Dimension Sheet 8240.

Open Horizontal with Block Type Overload



Enclosures



NEMA Size	Open Type (Without Enclosure)			Enclosures			Enclosures			Enclosures		
	Horizontal With Block Type Overload Relays			Vertical With Block Type Overload Relays②			NEMA 1 General Purpose			NEMA 4 Water-Tight Stainless Steel		
	A	B	C	A	B	C	A	B	C	A	B	C
		3 x 3	5 x 3									
Two Speed, Two Winding (3 x 3); Two Speed, One Winding (5 x 3)												
0, 1	6 1/4	7 1/4	8 1/4	5 1/4	9 1/4	7 1/4	5 1/4	9 1/4	10 1/4	6 1/4	10 1/4	11 1/4
2	7 1/4	7 1/4	8 1/4	5 1/4	9 1/4	8 1/4	5 1/4	11 1/4	12 1/4	6 1/4	12 1/4	13 1/4
3	10 1/4	9 1/4	12 1/4	7 1/4	16 1/4	12 1/4	7 1/4	18 1/4	17	8 1/4	20 1/4	18 1/4
4	10 1/4	9 1/4	12 1/4	7 1/4	16 1/4	12 1/4	7 1/4	18 1/4	17	8 1/4	20 1/4	18 1/4

② This starter available only as two speed, single winding (5 x 3).

A201 Non-Reversing Contactors

A201 contactors are used to control electrical power circuits such as heating, lighting, and motors with built-in overload protection. They can be operated remotely by manual or automatic pilot devices. They are supplied without control wiring, terminal marking or overload protection. All contactors are supplied with a normally open holding interlock. Available as open device or in NEMA 1, 1B, 3R, 4 and 12 enclosure.

Maximum Horsepower Ratings

Size	Single Phase		3 Phase			
	120 Volt	240 Volt	120 Volt	200 Volt	230 Volt	460/575 Volt
00	1/2	1	3/4	1 1/2	1 1/2	2
0	1	2	2	3	3	5
1	2	3	3	7 1/2	7 1/2	10
2	3	7 1/2	...	10	15	25
3	...	...	...	25	30	50
4	...	...	...	40	50	100

Ordering Information

Order by catalog number; complete catalog number consists of catalog number at top of column plus suffix in column:

Example: A201 + K1CA = Catalog Number A201K1CA.

Factory Modifications^③

Add catalog number suffix letter from listings on page 9 or page 23, at end of contactor catalog number.

Field Modifications and Kits

Select from listings on page 9 or pages 21, 22, and order by catalog number.

Overload Relays

Select from page 15 and order by catalog number.

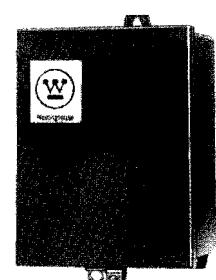
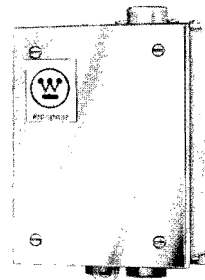
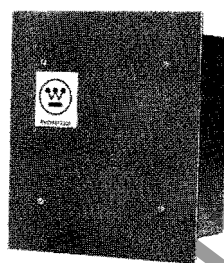
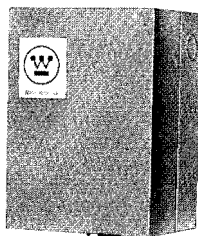
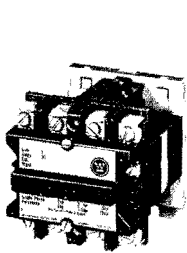
Technical Data See Also Page 22

Dc Operated 120 and 240 Volt Coils

Con-tactor Size	Dc Contact Amp Rating 2 Poles in Series ^①		Ac Contact Amp Rating 120 or 240 Volts
	120 Volts	240 Volts	
0	..	..	20
1	20	4	30
2	45	30	50
3	75	40	100
4	90	70	150

Con- tactor Size	Dc Magnet Coil Data, 120 or 240 Volts		
	Watts	Operating Time in Milliseconds	
		Pick-up	Drop-out
0	17	25 to 75	16 to 25
1	17	25 to 75	16 to 25
2	17	25 to 75	16 to 25
3	35	25 to 75	16 to 25
4	35	25 to 75	16 to 25

③ Non-inductive load



Open

NEMA 1

NEMA 1B

NEMA 3R

NEMA 4

NEMA 12

List Prices, Without Overload Protection Discount C10-S1

Coil ^② Voltage	Ampere Rating 8 Hour Continuous		NEMA Size	Open Type		Enclosures		NEMA 1B		NEMA 3R		NEMA 4		NEMA 12	
				(Without Enclosure)		NEMA 1 General Purpose		Flush Mounting		Rain-tight		Stainless Steel Water-tight		Dust-tight	
	Enclosed	Open		Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price
1 Pole															
120/60	9	10	00	KAAA	\$ 34	SAAA	\$ 38	FOAA	\$ 62	ROAA	\$ 74	W0AA	\$ 120	J0AA	\$ 74
	18	20	0	K0AA	46	S0AA	50	F1AA	72	R1AA	84	W1AA	132	J1AA	84
110/50	27	30	1	K1AA	56	S1AA	60								
2 Pole															
120/60	9	10	00	KABA	40	SABA	44	FOBA	70	ROBA	80	W0BA	126	J0BA	80
	18	20	0	K0BA	52	S0BA	56	F1BA	80	R1BA	90	W1BA	138	J1BA	90
110/50	27	30	1	K1BA	62	S1BA	66	F2BA	156	R2BA	180	W2BA	240	J2BA	180
	45	50	2	K2BA	116	S2BA	136			R3BA	276	W3BA	428	J3BA	276
	90	100	3	K3BA	184	S3BA	224			R4BA	700	W4BA	876	J4BA	700
	135	150	4	K4BA	444	S4BA	528								
3 Pole															
120/60	9	10	00	KACA	46	SACA	50	FOCA	76	ROCA	86	W0CA	132	J0CA	86
	18	20	0	K0CA	58	S0CA	62	F1CA	86	R1CA	96	W1CA	144	J1CA	96
110/50	27	30	1	K1CA	68	S1CA	72	F2CA	164	R2CA	188	W2CA	288	J2CA	188
	45	50	2	K2CA	124	S2CA	144			R3CA	292	W3CA	444	J3CA	292
	90	100	3	K3CA	200	S3CA	240			R4CA	736	W4CA	912	J4CA	736
	135	150	4	K4CA	480	S4CA	564								
4 Pole															
120/60	9	10	00	KADA	62	SADA	66	F0DA	92	R0DA	102	W0DA	150	J0DA	102
	18	20	0	K0DA	74	S0DA	78	F1DA	102	R1DA	112	W1DA	160	J1DA	112
110/50	27	30	1	K1DA	84	S1DA	88	F2DA	200	R2DA	224	W2DA	380	J2DA	224
	45	50	2	K2DA	160	S2DA	180			R3DA	348	W3DA	556	J3DA	348
	90	100	3	K3DA	256	S3DA	296			R4DA	984	W4DA	1244	J4DA	984
	135	150	4	K4DA	668	S4DA	752								
5 Pole															
120/60	9	10	00	KAEA	84	SAEA	88								
	18	20	0	K0EA	96	S0EA	100								
110/50	27	30	1	K1EA	106	S1EA	110								
	45	50	2	K2EA	240	S2EA	260								
	90	100	3	K3EA	384	S3EA	424								
	135	150	4	K4EA	924	S4EA	1008								

② For other available coil voltages see page 9.

③ Power terminals accept Cu wire only. If Cu/Al terminals required, see Page 22.



A201 Non-Reversing Contactors Field Modifications

Mechanical Interlocks Discount C10-S5

Catalog Number	Use With Contactors	Starter Size	List Price Each
M-33-1A	3 Pole and 3 Pole Horizontal	00, 0, 1	\$12
	4 Pole and 4 Pole Horizontal	00, 0, 1	12
	5 Pole and 3 Pole Horizontal	00, 0, 1	12
M-34-1	All Pole Combinations - Vertical	00, 0, 1	12
M-33-2A	3 Pole and 3 Pole Horizontal Reversing	2	12
M-34-2	3 Pole and 3 Pole Vertical Reversing	2	12
M-35-2	5 Pole and 3 Pole Horizontal	2	12
M-36-2	4 Pole and 4 Pole Horizontal	2	12
M-33-3A	All Pole Combinations - Horizontal	3, 4	20
M-34-3	All Pole Combinations - Vertical	3, 4	20

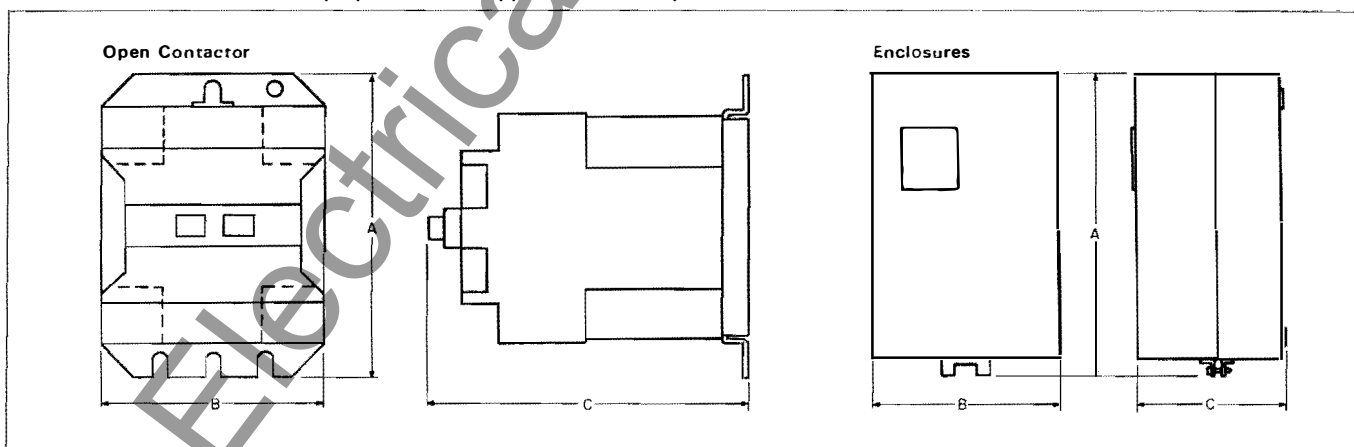
Factory Modifications Discount C10-S5

Cat. No. Suffix Letter	Modification	NEMA Enclosure	List Price Addition
A	Start-Stop Pushbutton in Cover	1, 1B, 3R, 4, 12	\$16
B	Hand-Off-Auto Sel. Switch in Cover	1, 1B, 3R, 4, 12	16
L	Red Pilot Light in Cover	1, 1B, 3R, 4, 12	30
			54

Additional Factory Mods.: Page 23.

Dimensions, Inches

Not to be used for construction purposes unless approved. For complete dimensions, see Dimension Sheet 8240.



NEMA Size	Number of Poles	Open			NEMA 1			NEMA 1B			NEMA 3R			NEMA 4			NEMA 12		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
00, 0, 1	1-2-3-4	4 $\frac{3}{4}$	3 $\frac{3}{4}$	4 $\frac{13}{32}$	9 $\frac{25}{32}$	6 $\frac{1}{4}$	5 $\frac{1}{16}$	10 $\frac{3}{4}$	8 $\frac{1}{2}$	5 $\frac{1}{4}$	10 $\frac{23}{32}$	7 $\frac{1}{2}$	5 $\frac{21}{64}$	10 $\frac{41}{64}$	7	5 $\frac{1}{8}$	10 $\frac{19}{64}$	7	5 $\frac{1}{8}$
00, 0, 1	5	4 $\frac{3}{4}$	4 $\frac{3}{4}$	4 $\frac{19}{32}$	11 $\frac{25}{32}$	6 $\frac{21}{32}$	5 $\frac{1}{8}$	12 $\frac{19}{16}$	9 $\frac{25}{32}$	5 $\frac{1}{8}$	12 $\frac{3}{4}$	7 $\frac{25}{32}$	5 $\frac{25}{32}$	12 $\frac{1}{2}$	7 $\frac{11}{16}$	5 $\frac{1}{8}$	12 $\frac{3}{4}$	7 $\frac{11}{16}$	5 $\frac{1}{8}$
2	2-3	4 $\frac{3}{4}$	3 $\frac{3}{4}$	4 $\frac{15}{16}$	11 $\frac{25}{32}$	6 $\frac{21}{32}$	5 $\frac{1}{8}$	12 $\frac{19}{16}$	9 $\frac{25}{32}$	5 $\frac{1}{8}$	12 $\frac{3}{4}$	7 $\frac{25}{32}$	5 $\frac{25}{32}$	12 $\frac{1}{2}$	7 $\frac{11}{16}$	5 $\frac{1}{8}$	12 $\frac{3}{4}$	7 $\frac{11}{16}$	5 $\frac{1}{8}$
2	4-5	4 $\frac{3}{4}$	5 $\frac{1}{4}$	4 $\frac{15}{16}$	11 $\frac{25}{32}$	6 $\frac{21}{32}$	5 $\frac{1}{8}$	12 $\frac{19}{16}$	9 $\frac{25}{32}$	5 $\frac{1}{8}$	12 $\frac{3}{4}$	7 $\frac{25}{32}$	5 $\frac{25}{32}$	12 $\frac{1}{2}$	7 $\frac{11}{16}$	5 $\frac{1}{8}$	12 $\frac{3}{4}$	7 $\frac{11}{16}$	5 $\frac{1}{8}$
3	2-3	6 $\frac{1}{4}$	4 $\frac{3}{4}$	6 $\frac{1}{4}$	16 $\frac{13}{32}$	8 $\frac{1}{4}$	7 $\frac{1}{16}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$
3	4-5	6 $\frac{1}{4}$	7 $\frac{1}{4}$	6 $\frac{1}{4}$	18 $\frac{11}{16}$	9 $\frac{1}{4}$	7 $\frac{1}{16}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$
4	2-3	6 $\frac{1}{4}$	4 $\frac{3}{4}$	6 $\frac{1}{4}$	18 $\frac{11}{16}$	9 $\frac{1}{4}$	7 $\frac{1}{16}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$
4	4-5	6 $\frac{1}{4}$	7 $\frac{1}{4}$	6 $\frac{1}{4}$	18 $\frac{11}{16}$	9 $\frac{1}{4}$	7 $\frac{1}{16}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	19 $\frac{13}{32}$	10 $\frac{19}{32}$	7 $\frac{21}{32}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$	20 $\frac{1}{4}$	10 $\frac{3}{4}$	7 $\frac{1}{4}$

Field Modification Kits Discount C10-S5

Kit	Kit Cat. No.	Enclosure Used With	List Price
Start-Stop PB Selector Switch	PBK-11	1, 1B, 12	\$10
Elect. Interlock (1 No, INC)	SSK-11	1, 1B, 12	10
Red Pilot Light (120 Volt)	L-56	All	12
Solid State Timer On Delay	PLK-11	1, 1B, 12	22
Off Delay	TON-56	All	72
Brown Out Prot. (Size 2 Max.)	TOF-56	All	72
Surge Suppressor Power Pole	BOP-2A	All	7
NO, Size 0	SS-56	All	18
NO, Size 1	PNO-0	All	22
NC, Size 0	NPO-1	All	30
NC, Size 1	PNC-0	All	22
Isolator Switch, 120 Volt, 1 NO Contact	PNC-1	All	30
	R 56-A	All	22

④ Not for use with mechanically held contactors.

Overload Relays: Pages 14, 15, 17, 18.

Renewal Parts: Page 24.

Other Available Coil Voltages

Suffix Letters ^②	Volts	Hertz
Standard Voltages		
B	208/220	60
D	550	60
E	600/500	60/50
H	440/380	60/50
I	24	60
V ^⑤	110	60
K ^⑤	600	50
W	240/220	60/50
X	480/440	60/50
Y	200	60
Z ^③	277	60
Dual Voltages^{③⑤}		
C	240/480	60
J	208/220/440	60
R	120/240	60
Dc Voltages^{④⑤}		
L	24	..
M	48	..
S	120	..
T	240	..
U	120/240	..

② Substitute these suffix letters for the last digit (A) in the catalog number listed.

EXAMPLES:

A201K0CA - as listed with 120/60 coil

A201K0CW - similar to listing with 240/60 coil.

③ List price addition: \$4. (C10-S1)

④ List price addition: Size 0, 1: \$34 (C10-S1)

Size 2: 38 (C10-S1)

Size 3: 66 (C10-S1)

Size 4: 88 (C10-S1)

Size 0 and 1 not available in 5 pole.

Size 2, 3 and 4 not available in 4 or 5 pole.

On Dc reversing and multi-speed double list price addition

⑤ These coil voltages not available with mechanical latch.

A211 Mechanically Interlocked Contactors

A211 contactors consist of two standard contactors on a common base with an interconnecting mechanical interlock which prevents both being operated simultaneously. For applications such as reversing and two speed motor control. These contactors are supplied without control wiring or terminal markings

Available as an open device in either a horizontal or vertical design or in NEMA 1, 4 and 12 enclosures

Maximum Horsepower Ratings

Size	Single Phase		3 Phase			
	120 Volt	240 Volt	120 Volt	200 Volt	230 Volt	460/575 Volt
00	1/2	1	1/2	1 1/2	1 1/2	2
0	1	2	2	3	3	5
1	2	3	3	7 1/2	7 1/2	10
2	3	7 1/2	...	10	15	25
3	...	...	...	25	30	50
4	...	...	...	40	50	100

For additional technical data, see page 22.

Ordering Information

Order by catalog number; complete catalog number consists of catalog number at top of column, plus suffix in column:

Example: A211 + K1CA = Catalog Number A211K1CA.

Factory Modifications^②

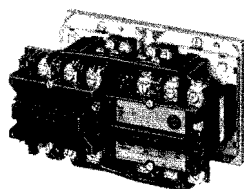
Add catalog number suffix letter from listings on page 11 or page 23, at end of contactor catalog number.

Field Modification Kits

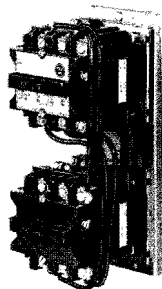
Select from listings on page 11 or pages 21, 22 and order by catalog number.

Overload Relays

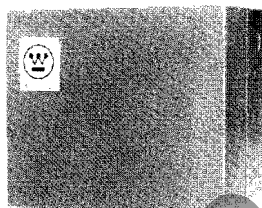
Select from page 15 and order by catalog number.



Open Horizontal



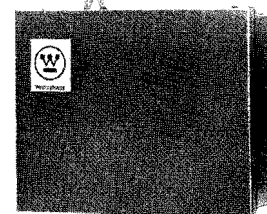
Open Vertical



NEMA 1



NEMA 4



NEMA 12

List Prices, Without Overload Protection Discount C10-S1

Coil Voltage ②③	Ampere Rating 8 Hour Continuous		NEMA Size	Open Type (Without Enclosure)			Enclosed Units (Horizontal Only)					
	Enclosed	Open		Horizontal Design	Vertical Design	NEMA 1 General Purpose		NEMA 4 Stainless Steel Water-tight		NEMA 12 Dust-tight Industrial Use		
				Cat. No. A211	Cat. No. A211	List Price	Cat. No. A211	List Price	Cat. No. A211	List Price	Cat. No. A211	List Price
2 Pole x 2 Pole												
120/60	9	10	00	KABA	KAHA	\$ 116	SABA	\$ 124	W0BA	\$ 240	J0BA	\$ 184
110/50	18	20	0	K0BA	K0HA	140	S0BA	148	W0BA	240	J0BA	184
	27	30	1	K1BA	K1HA	160	S1BA	172	W1BA	300	J1BA	208
3 Pole x 3 Pole												
120/60	9	10	00	KACA	KAJA	120	SACA	128	W0CA	244	J0CA	188
110/50	18	20	0	K0CA	K0JA	144	S0CA	152	W0CA	244	J0CA	188
	27	30	1	K1CA	K1JA	164	S1CA	176	W1CA	304	J1CA	212
	45	50	2	K2CA	K2JA	312	S2CA	344	W2CA	552	J2CA	404
	90	100	3	K3CA	K3JA	518	S3CA	574	W3CA	882	J3CA	706
	135	150	4	K4CA	K4JA	1292	S4CA	1396	W4CA	1940	J4CA	1600
4 Pole x 4 Pole												
120/60	18	20	0	K0DA	K0KA	184	S0DA	192	W0DA	284	J0DA	228
110/50	27	30	1	K1DA	K1KA	210	S1DA	218	W1DA	346	J1DA	254
	45	50	2	K2DA	K2KA	396	S2DA	428	W2DA	648	J2DA	488
	90	100	3	K3DA	K3KA	656	S3DA	716	W3DA	1020	J3DA	844
	135	150	4	K4DA	K4KA	1668	S4DA	1776	W4DA	2324	J4DA	1984
5 Pole x 3 Pole												
120/60	18	20	0	K0FA	K0MA	232	.....	.....	.....	.....	.....	.....
110/50	27	30	1	K1FA	K1MA	248	.....	.....	.....	.....	.....	.....
	45	50	2	K2FA	K2MA	468	.....	.....	.....	.....	.....	.....
	90	100	3	K3FA	K3MA	756	.....	.....	.....	.....	.....	.....
	135	150	4	K4FA	K4MA	1764	.....	.....	.....	.....	.....	.....

② For other available coil voltages, see page 11.

③ For Dc coil, refer to page 9

④ Power terminals accept Cu wire only. If Cu/Al terminals required, see page 22.



A211 Mechanically Interlocked Contactors

Factory Modifications Discount C10-S5

Cat. No. Suffix Letter	Modification	Enclosure Type	List Price
A	Forward-Reverse-Stop Pushbutton in Cover	1	\$ 80
L	Red Pilot Light in Cover	4, 12	100
		1	30
		4, 12	54

Additional Factory Mods.: Page 23.

Field Modification Kits Discount C10-S5

Kit	Kit Cat. No.	Enclosure Used With	List Price
Fwd-Rev-Stop Selector Switch	PBK-12	1, 12	\$50
Elect. Interlock (1 No, INC)	SSK-11	1, 12	10
Red Pilot Light (120 Volt)	L-56	All	12
Solid State Timer On Delay	PLK-11	1, 12	22
Off Delay	TON-56	All	72
Brown Out Prot. (Size 2 Max.)	TOF-56	All	72
Surge Suppressor Power Pole	BOP-2A	All	7
NO, Size 0	SS-56	All	18
NO, Size 1	PNO-0	All	22
NC, Size 0	PNO-1	All	30
NC, Size 1	PNC-0	All	22
NC, Size 1	PNC-1	All	30
Isolator Switch 120 Volt 1 No Contact	R 56-A	All	22

Other Available Coil Voltages

Suffix Letters ^②	Volts	Hertz
-----------------------------	-------	-------

Standard Voltages		
B	208/220	60
D	550	60
E	600/550	60/50
H	440/380	60/50
W	240/220	60/50
X	480/440	60/50
Y	200	60
Z3	277	60

Dual Voltages ^③		
C	240/480	60
J	208/220/440	60
R	120/240	60

- Substitute these suffix letters for the last digit (A) in the catalog number listed.
EXAMPLES:
A211 K0CA-as listed with 120/60 coil
A211 K0CW-similar to listing except with 240/60 coil.

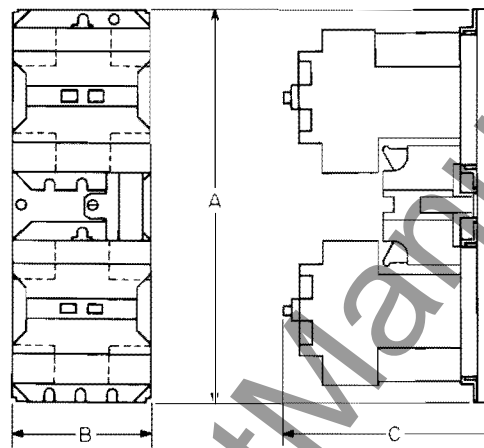
- List price addition: \$4. (C10-S1)

Renewal Parts: Page 24

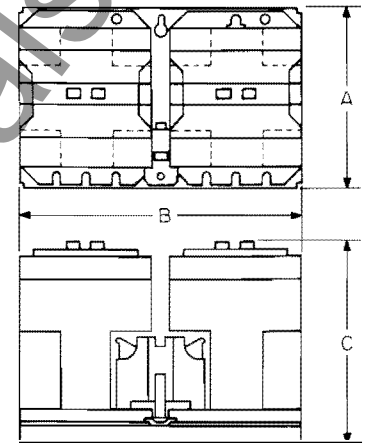
Dimensions, Inches

Not to be used for construction purposes unless approved. For complete dimensions, see Dimension Sheet 8240

Open Vertical Contactor

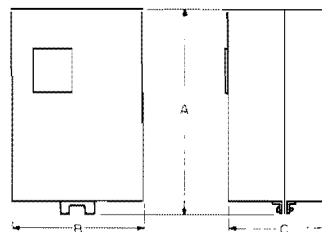


Open Horizontal Contactor



NEMA Size	Number of Poles	Open Type					
		Horizontal			Vertical		
		A	B	C	A	B	C
00-0-1	2 x 2 and	4 ⁷ / ₁₆	7 ⁷ / ₁₆	5 ¹ / ₁₆	9 ⁹ / ₁₆	3 ³ / ₁₆	5 ¹ / ₁₆
2		4 ⁷ / ₁₆	7 ⁷ / ₁₆	5 ¹ / ₁₆	9 ⁹ / ₁₆	3 ³ / ₁₆	5 ¹ / ₁₆
3	3 x 3	6 ¹ / ₁₆	9 ¹ / ₁₆	7 ¹ / ₁₆	16 ¹ / ₁₆	4 ¹ / ₁₆	7 ¹ / ₁₆
4		6 ¹ / ₁₆	9 ¹ / ₁₆	7 ¹ / ₁₆	16 ¹ / ₁₆	4 ¹ / ₁₆	7 ¹ / ₁₆
00-0-1	4 x 4	4 ⁷ / ₁₆	7 ⁷ / ₁₆	5 ¹ / ₁₆	9 ⁹ / ₁₆	3 ³ / ₁₆	5 ¹ / ₁₆
2		4 ⁷ / ₁₆	10 ¹ / ₁₆	5 ¹ / ₁₆	9 ⁹ / ₁₆	5 ¹ / ₁₆	5 ¹ / ₁₆
3		6 ¹ / ₁₆	15	7 ¹ / ₁₆	16 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆
4		6 ¹ / ₁₆	15	7 ¹ / ₁₆	16 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆
00-0-1	5 x 3	4 ⁷ / ₁₆	8	5 ¹ / ₁₆	9 ⁹ / ₁₆	4 ¹ / ₁₆	5 ¹ / ₁₆
2		4 ⁷ / ₁₆	8 ¹ / ₁₆	5 ¹ / ₁₆	9 ⁹ / ₁₆	5 ¹ / ₁₆	5 ¹ / ₁₆
3		6 ¹ / ₁₆	12 ¹ / ₁₆	7 ¹ / ₁₆	16 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆
4		6 ¹ / ₁₆	12 ¹ / ₁₆	7 ¹ / ₁₆	16 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆

Enclosures



NEMA Size	Number of Poles	Enclosures								
		NEMA 1			NEMA 4			NEMA 12		
		A	B	C	A	B	C	A	B	C
00-0-1	2 x 2 and	9 ¹ / ₁₆	10 ¹ / ₁₆	5 ¹ / ₁₆	10 ¹ / ₁₆	11 ¹ / ₁₆	5 ¹ / ₁₆	10 ¹ / ₁₆	11 ¹ / ₁₆	5 ¹ / ₁₆
2		11 ¹ / ₁₆	12 ¹ / ₁₆	5 ¹ / ₁₆	12 ¹ / ₁₆	13 ¹ / ₁₆	6 ¹ / ₁₆	12 ¹ / ₁₆	13 ¹ / ₁₆	6 ¹ / ₁₆
3	3 x 3	18 ¹ / ₁₆	17	7 ¹ / ₁₆	20 ¹ / ₁₆	18 ¹ / ₁₆	8 ¹ / ₁₆	20 ¹ / ₁₆	18 ¹ / ₁₆	8 ¹ / ₁₆
4		18 ¹ / ₁₆	17	7 ¹ / ₁₆	20 ¹ / ₁₆	18 ¹ / ₁₆	8 ¹ / ₁₆	20 ¹ / ₁₆	18 ¹ / ₁₆	8 ¹ / ₁₆
00-0-1	4 x 4	9 ¹ / ₁₆	10 ¹ / ₁₆	5 ¹ / ₁₆	10 ¹ / ₁₆	11 ¹ / ₁₆	5 ¹ / ₁₆	10 ¹ / ₁₆	11 ¹ / ₁₆	5 ¹ / ₁₆

A202 Lighting Contactors

A202 Ac lighting contactors provide a safe convenient means of local or remote switching of relatively large tungsten, fluorescent or mercury arc lamp loads.

Westinghouse A202 Ac lighting contactors are designed to withstand the large initial inrush currents of tungsten lamp loads without contacts welding. They are full rated contactors and do not require any de-rating as do standard motor control contactors.

Cu/Al terminals are standard on A202 lighting contactors.

Ballast Load: 600 Volts Ac, breaking all lines.
Tungsten Lamp Loads, Max. Volts:
Line-to-Line, 480 Ac
Line-to-Load, 277 Ac

Ordering Information

Order by catalog number; complete catalog numbers are listed in the price table columns.

Factory Modifications

Add catalog number suffix letter from listing below at end of contactor catalog number.

Field Modification Kits

Select from listing below or pages 21, 22, and order by catalog number.

Renewal Parts: Page 24

Dimensions, Inches

Not to be used for construction purposes unless dimensions are approved. For complete dimensions, see Dimension Sheet 8240.

Fig. 1: Open Contactor Without Mechanical Latch

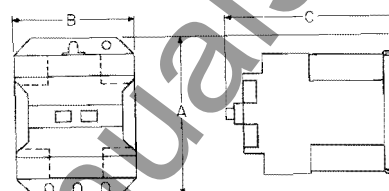


Fig. 2: Open Contactor With Mechanical Latch

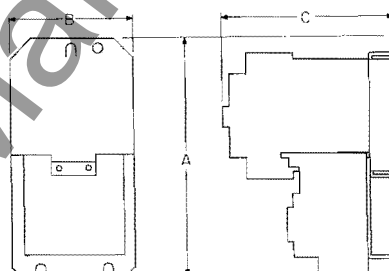
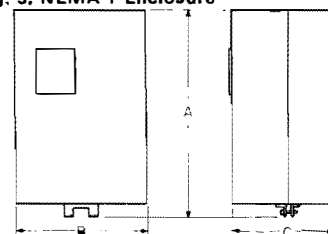


Fig. 3: NEMA 1 Enclosure



Type Cont. Ampere Rating Fig. No. Dimension, Inches A B C

2 and 3-Pole		Fig. No.	Dimension, Inches		
Type Cont.	Ampere Rating		A	B	C
Open	30	1	4%	3%	4 ¹ / ₂ %
	60	1	4%	3%	4 ¹ / ₂ %
	100	1	6%	4%	6%
	200	1	6%	4%	6%
Open	30	2	6 ⁷ / ₁₆ %	3%	4 ¹ / ₂ %
	60	2	7 ¹ / ₁₆ %	3%	4 ¹ / ₂ %
	100	2	8 ¹ / ₁₆ %	4%	6%
	200	2	8 ¹ / ₁₆ %	4%	6%
NEMA 1 Encl.	30	3	9 ³ / ₃₂ %	6%	5%
	60	3	11 ³ / ₃₂ %	6 ¹ / ₂ %	5%
	100	3	16 ¹ / ₃₂ %	8%	7%
	200	3	18 ¹ / ₁₆ %	9%	7 ¹ / ₁₆ %

4-Pole		Fig. No.	Dimension, Inches		
Type Cont.	Ampere Rating		A	B	C
Open	30	1	4%	3%	4 ¹ / ₂ %
	60	1	4%	5%	4 ¹ / ₂ %
	100	1	6%	7%	6%
	200	1	6%	7%	6%
Open	30	2	6 ⁷ / ₁₆ %	3%	4 ¹ / ₂ %
	60	2	7 ¹ / ₁₆ %	5%	4 ¹ / ₂ %
NEMA 1 Encl.	30	3	9 ³ / ₃₂ %	6%	5%

List Prices, 60 Hertz, 2, 3 and 4-Pole Devices Discount C10-S1 Holding Interlock or Pushbutton Station Not Included

No. of N.O. Poles	Amp. Rating	Electrically Held Contactors				Mechanically Held Contactors			
		Open		NEMA 1 Enclosure		Open		NEMA 1 Enclosure	
		Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price
		120/60-110/50		120/60-110/50		120/60-110/50		120/60-110/50	
2	30	A202K1BAZ	\$ 62	A202S1BAZ	\$ 66	A202K1BAMZ	\$ 84	A202S1BAMZ	\$ 88
	60	A202K2BAZ	116	A202S2BAZ	136	A202K2BAMZ	192	A202S2BAMZ	208
	100	A202K3BAZ	184	A202S3BAZ	224	A202K3BAMZ	256	A202S3BAMZ	292
	200	A202K4BAZ	444	A202S4BAZ	528	A202K4BAMZ	632	A202S4BAMZ	748
3	30	A202K1CAZ	68	A202S1CAZ	72	A202K1CAMZ	90	A202S1CAMZ	94
	60	A202K2CAZ	124	A202S2CAZ	144	A202K2CAMZ	200	A202S2CAMZ	216
	100	A202K3CAZ	200	A202S3CAZ	240	A202K3CAMZ	272	A202S3CAMZ	308
	200	A202K4CAZ	480	A202S4CAZ	564	A202K4CAMZ	684	A202S4CAMZ	844
4	30	A202K1DAZ	84	A202S1DAZ	88	A202K1DAMZ	96	A202S1DAMZ	100
	60	A202K2DAZ	160	A202S2DAZ	180	A202K2DAMZ	240	A202S2DAMZ	256
	100	A202K3DAZ	256	A202S3DAZ	296	.....	.....	.....	.....
	200	A202K4DAZ	668	A202S4DAZ	752	.....	.....	.....	.....

Other Available Coil Voltages^②

Standard Voltages		Dual Voltages ^{①④}	
Suffix Letter	Volts Hertz	Suffix Letter	Volts Hertz
B	208/220 60	C	240/480 60
H	440/380 60/50	J	208/220/440 60
I	24 60	R	120/240 60
V	110 60	..	.....
W	240/220 60/50	..	.....
X	480/440 60/50	..	.....
Y	200 60	..	.....
Z3	277 60	..	.....

② Substitute these suffix letters, for the 8th digit (A) in contactor catalog number listed.
Example: A202K1COW similar to listing except with 240/60 coil.

③ List price addition: \$4 each. (C10-S1)

④ Mechanically held contactors not available with dual voltage coils.

⑤ Not for use with mechanically held contactors.

⑥ For additional pilot light kits, refer to page 21.

⑦ Contact block has 2 normally open contacts for use with mechanically held contactor.

⑧ For Dc coils, refer to page 9.

Factory Modifications

Catalog Number	Modification	NEMA Enclosure	List Price Addition (C10-S5)
A	Start-Stop pushbutton in cover	1	\$16
B	Selector switch in cover	1 ^⑤	16
L	Red pilot light in cover	1	30
P	Coil Clearing Contacts	All	22

Field Modification Kits

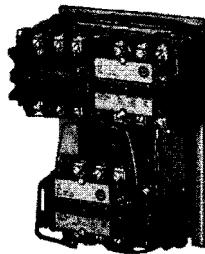
Kit	Kit Catalog Number	NEMA Enclosure	List Price (C10-S5)
Start-Stop pushbutton	PBK-11 ^⑤	1, 12	\$ 10
On-Off pushbutton	PBK-07 ^⑦	1, 12	10
Selector switch	SSK-11 ^⑤	1, 12	10
Coil Clearing Kit	LC-56	All	20



A231, 3 Way Interlocked Starter

The A231 3 way interlocked linestarter is designed for those applications requiring a 3 unit starter-contactor combination that is completely electrically and mechanically interlocked. This unit is available in almost any combination of starters and contactors to meet those applications for multi-speed, reversing; multi-speed, dynamic braking; forward-reverse, dynamic braking; and many other applications requiring a 3 way electrically and mechanically interlocked starter-contactor combination.

List Prices, 60 Hertz C10-S1
Price Does Not Include Heaters



60 Hertz Coil Voltage	NEMA Size	Open Type Without Enclosure	
		Catalog Number	List Price ②③
120/60	0		\$ 324
110/50	1		354
(Separate	2	Order	566
Control)	3	by	876
	4	Description	1946

- ② Includes three 3-pole starters, 6 electrical interlocks, 3 mechanical interlocks, 2 single pole overload relays, and control wiring only.
- ③ Price for baseplate and mechanical interlocks only (no contactors or overload relays): Sizes 0, 1, 2: \$40 List; Sizes 3, 4: \$60 List.
- ④ Power terminals accept Cu wire only. If Cu/Al terminals are required, see page 22.
- ⑤ To meet NEC requirements, third overload relay must be added.

Ordering Information

Order by description.

Enter heaters as separate item by listing catalog number from page 16. Omission or separate selling price \$3 list each.

Factory Modifications④⑤

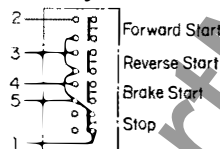
For factory modifications, refer to Westinghouse.

Renewal Parts: Page 24.

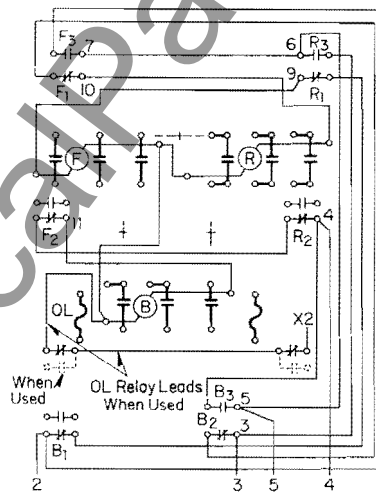
Wiring Diagrams

Pushbutton

Low Voltage Protection

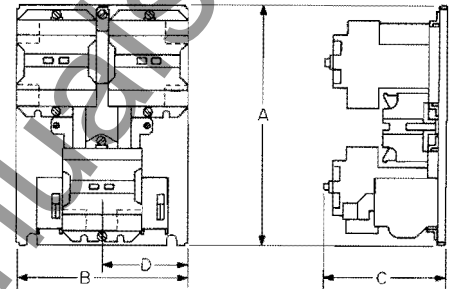


Starter



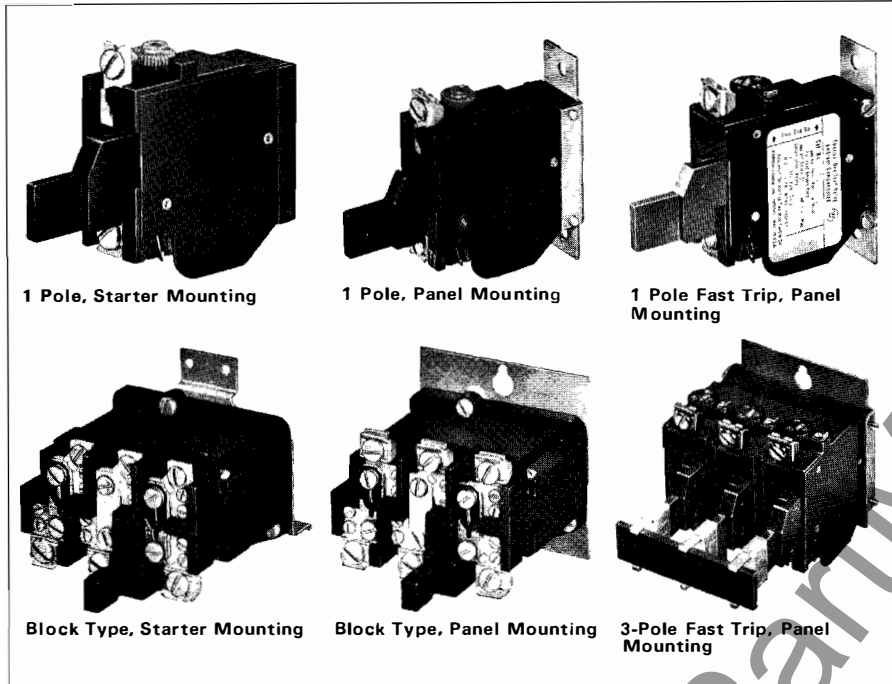
Dimensions, Inches⑤

Not to be used for construction purposes unless approved. For complete dimensions, see Dimension Sheet 8240.



NEMA Size	Dimension			
	A	B	C	D
0	9 $\frac{3}{8}$	7 $\frac{1}{8}$	5	3 $\frac{3}{8}$
1	9 $\frac{3}{8}$	7 $\frac{1}{8}$	5	3 $\frac{3}{8}$
2	9 $\frac{3}{8}$	7 $\frac{1}{8}$	5 $\frac{1}{8}$	3 $\frac{3}{8}$
3	16 $\frac{1}{8}$	13 $\frac{1}{4}$	7 $\frac{1}{4}$	3 $\frac{1}{8}$
4	16 $\frac{1}{8}$	13 $\frac{1}{4}$	7 $\frac{1}{4}$	3 $\frac{1}{8}$

Type A Overload Relays, Single Pole and Block Type



Description

A200 thermal overload relays will protect the motor against abnormal load conditions and single phasing. Bimetallic actuated, they are available as standard non-compensated or ambient compensated in either single pole or block type 2 or 3 pole design.

Single pole relays are also available as fast trip, ambient compensated type which provide approximately 125% motor protection with a tripping time of less than 10 seconds, at 500% motor full load current.

Fast trip relays can be identified by the green reset rods. They are available for panel or starter mounting. The three-pole fast trip design is composed of three single pole relays on a common baseplate, with a common reset bar.

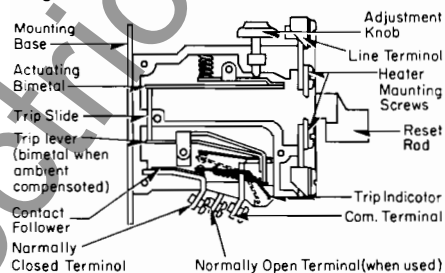
The bimetal element is actuated by precisely calibrated heater elements which are connected directly in the circuit to be protected. Thermal actuation of this device opens the contacts in the coil circuit of a contactor or relay which results in the disconnection of power to the overloaded circuit.

Interchangeable thermal heater elements for single pole standard trip and block type overload relays are available to cover motor full load currents from .29 to 135 amperes in approximately 10% steps (see Heater Application Table, page 60. Fast trip over-

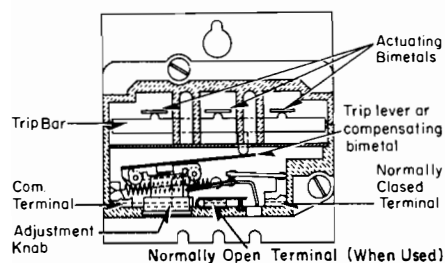
load relays do not have interchangeable heater elements but are available in a series of ratings to cover motor full load currents from 1.6 to 150 amps in approximately 10% steps.

Design Features

Single Pole



Block Type



Manual or Automatic Reset

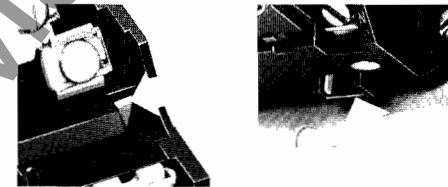


Single Pole

Block Type

The overload relay is normally furnished set for "HAND" reset operation and may be quickly adjusted for automatic reset when required. "Automatic" reset should not be used with 2-wire master switch or where automatic restarting would endanger either personnel or equipment.

Trip Indication

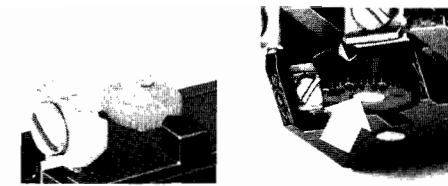


Single Pole

Block Type

An immediate visible indication of trip is standard on the Type A overload relay. When an overload occurs, which causes the relay to operate, a trip indicator projects out through a small opening at the bottom of the relay and thus shows positive visual indication of trip.

Adjustable Trip

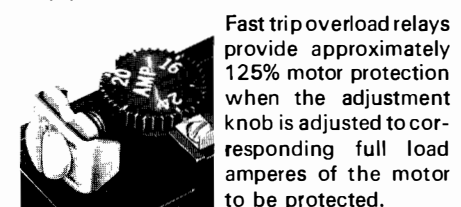


Single Pole

Block Type

The trip rating of a specific heater element can be adjusted over a range of approximately 85% to 115% of its respective rating to permit the desired close protection.

This is accomplished by turning the adjusting knob on the relay to the respective stop position.



Fast trip overload relays provide approximately 125% motor protection when the adjustment knob is adjusted to corresponding full load amperes of the motor to be protected.

**Type A Overload Relays, Single Pole and Block Type****Positive Contact Break**

A follow-thru contact, provided on the stationary terminal of the snap action control switch, provides reliable electrical continuity during toggling of the snap switch, thus eliminating "false" trips sometimes prevalent with thermally operated switches. This contact also allows contact wipe for further reliability.

Ambient Compensation

Ambient compensated overload relays should be used wherever the control is located in a varying ambient temperature area and the motor which it protects is in a constant ambient temperature.

Motor overload protection can be provided with substantially the same trip characteristics in ambient temperature from -40°C to 75°C (-40°F to 167°F). A compensating bi-metal, responsive only to heat generated by motor over-current passing through the heater element, maintains a constant "travel to trip" distance independent of ambient conditions. The compensating feature is fully automatic and no adjustments are required over wide fluctuations in ambient temperatures. Compensated relays are identified by black reset rods, non-compensated relays by red.

Control Switch

Single pole and block type relays are supplied as standard with a SPST NC control switch. A SPDT NO-NC with common is available.

Block Type 3 Pole Protection

Block type overload relays are suitable for either two or three pole protection. When the overload relay is converted to two pole protection, heaters must be applied according to the heater application table for two pole overload relays.

3rd Overload Relay Kits

For open horizontal starters with single pole, non-compensated relays.

Starter Size	Kit Cat. No.	List Price ^①
00, 0, 1	AN11AK	\$ 9
2	AN21AK	13
3	AN31AK	17
4	AN41AK	27

② These relays supplied with a N.C. control contact. A N.O./N.C. contact can be supplied at \$8 list addition. Add suffix B to catalog number listed.

③ Prices do not include heaters. Order as separate item from heater table page 16.

④ AA11P, AN11P, etc.: single pole type; AA13P, AN13P, etc.: block type.

List Prices Type AA (ambient compensated) and AN (non-compensated) ② Dis. C10-S1**Panel Mounting Relays^④**

Starter and Contactor Mounting Relays ^④									
Motor Full Load Amps	Ambient Comp.		Non-Comp.		Starter Size	Ambient Comp.		Non-Comp.	
	Catalog Number	List Price ^③	Catalog Number	List Price ^③		Catalog Number	List ^③ Price	Catalog Number	List ^③ Price
Single Pole									
.29-27	AA11P	\$13	AN11P	\$ 9	00, 0, 1	AA11A	\$13	AN11A	\$ 9
.29-45	AA21P	17	AN21P	13	2	AA21A	17	AN21A	13
19 -90	AA31P	21	AN31P	17	3	AA31A	21	AN31A	17
19 -135	AA41P	31	AN41P	27	4	AA41A	31	AN41A	27

Three Pole

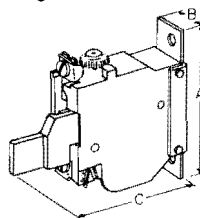
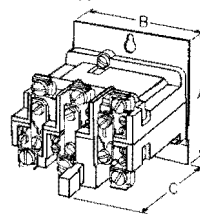
.29-27	AA13P	22	AN13P	18	00, 0, 1	AA13A	22	AN13A	18
.29-45	AA23P	30	AN23P	26	2	AA23A	30	AN23A	26
19 -90	AA33P	38	AN33P	34	3	AA33A	38	AN33A	34
19 -135	AA43P	58	AN43P	54	4	AA43A	58	AN43A	54

**Fast Trip Relays^②
For Panel Mounting**

Motor Full Load Amperes	Single Pole		Three Poles		For Starter and Contactor Mounting		
	Catalog Number	List Price	Catalog Number	List Price	NEMA Size	Single Pole Catalog Number	List Price
.76 thru 1.1	FT11P-1.1	\$16	FT13P-1.1	\$ 48	...	FT11A-1.1	\$16
1.1 thru 1.6	FT11P-1.6	16	FT13P-1.6	48	...	FT11A-1.6	16
1.6 thru 2.4	FT11P-2.4	16	FT13P-2.4	48	0, 1	FT11A-2.4	16
2.4 thru 3.6	FT11P-3.6	16	FT13P-3.6	48	0, 1	FT11A-3.6	16
3.6 thru 5.4	FT11P-5.4	16	FT13P-5.4	48	0, 1	FT11A-5.4	16
5.4 thru 8.0	FT11P-8	16	FT13P-8	48	0, 1	FT11A-8	16
8.0 thru 12	FT11P-12	16	FT13P-12	48	0, 1	FT11A-12	16
12 thru 18	FT11P-18	16	FT13P-18	48	0, 1	FT11A-18	16
16 thru 24	FT11P-24	16	FT13P-24	48	0, 1	FT11A-24	16
22 thru 32	FT11P-32	16	FT13P-32	48	0, 1	FT11A-32	16
24 thru 36	FT21P-36	20	FT23P-36	60	2	FT21A-36	20
36 thru 54	FT21P-54	20	FT23P-54	60	2	FT21A-54	20
22 thru 32	FT31P-32	24	FT33P-32	72	3	FT31A-32	24
32 thru 48	FT31P-48	24	FT33P-48	72	3	FT31A-48	24
48 thru 72	FT31P-72	24	FT33P-72	72	3	FT31A-72	24
72 thru 110	FT41P-110	34	FT43P-110	102	4	FT41A-110	34
100 thru 150	FT41P-150	34	FT43P-150	102	4	FT41A-150	34

Dimensions, Inches Panel Mounting Units Only

Not to be used for construction purposes unless approved. For complete dimensions, see Dimension Sheet 8240.

Single Pole**Block Type****Single Pole Relays**

Cat. No.	Dim., Inches		
	A	B	C
FT11P, AA11P, AN11P	3 3/4	1 7/8	3 5/8
FT21P, AA21P, AN21P	3 3/4	1 7/8	3 5/8
FT31P, AA31P, AN31P	4 1/4	1 7/8	5 1/8
FT41P, AA41P, AN41P	4 1/4	1 7/8	5 1/8

Block Type Relays

Cat. No.	Dim., Inches			Cat. No.	Dim., Inches		
	A	B	C		A	B	C
AA13P, AN13P	3 3/4	3 3/4	3 5/8	FT13P	3 3/4	3 1/8	4 3/8
AA23P, AN23P	3 3/4	3 3/4	3 5/8	FT23P	3 3/4	3 1/8	4 3/8
AA33P, AN33P	3 3/4	4 1/8	5 1/8	FT33P	3 3/4	4 1/8	5 1/8
AA43P, AN43P	3 3/4	4 1/8	5 1/8	FT43P	3 3/4	4 1/8	5 1/8

Heater Selection

Each heater is identified by a catalog number stamped on one terminal. The heater application table indicates the range of full load motor current to which a given heater may be applied.

Heater Tables

For A200 Starters, Sizes 00, 0, 1 and 2

Non-Compressed Open Starters and Ambient Compensated Open or Enclosed Starters		Non-Compensated Enclosed Starters		Heater Code Mark
Block Type Overload Using 3 Heaters	Single Pole and Two Pole Block Type Overload	Block Type Overload Using 3 Heaters	Single Pole and Two Pole Block Type Overload	
Full Load Current of Motor (Amps.)	Full Load Current of Motor (Amps.)	Full Load Current of Motor (Amps.)	Full Load Current of Motor (Amps.)	
For Size 00				
.25 - .27	.29 - .31	.24 - .25	.28 - .30	FH03
.28 - .31	.32 - .35	.26 - .28	.31 - .33	FH04
.32 - .34	.36 - .39	.29 - .31	.34 - .36	FH05
.35 - .38	.40 - .43	.32 - .35	.37 - .41	FH06
.39 - .42	.44 - .48	.36 - .39	.42 - .45	FH07
.43 - .46	.49 - .53	.40 - .43	.46 - .50	FH08
.47 - .50	.54 - .58	.44 - .47	.51 - .55	FH09
.51 - .55	.59 - .64	.48 - .51	.56 - .60	FH10
.56 - .62	.65 - .71	.52 - .57	.61 - .67	FH11
.63 - .68	.72 - .79	.58 - .63	.68 - .75	FH12
.69 - .75	.80 - .87	.64 - .70	.76 - .82	FH13
.76 - .83	.88 - .96	.71 - .77	.83 - .91	FH14
.84 - .91	.97 - 1.06	.78 - .85	.92 - .99	FH15
.92 - 1.00	1.07 - 1.16	.86 - .93	1.00 - 1.09	FH16
1.01 - 1.11	1.17 - 1.28	.94 - 1.03	1.10 - 1.20	FH17
1.12 - 1.22	1.29 - 1.41	1.04 - 1.13	1.21 - 1.32	FH18
1.23 - 1.34	1.42 - 1.55	1.14 - 1.25	1.33 - 1.46	FH19
1.35 - 1.47	1.56 - 1.71	1.26 - 1.37	1.47 - 1.60	FH20
1.48 - 1.62	1.72 - 1.87	1.38 - 1.51	1.61 - 1.76	FH21
1.63 - 1.78	1.88 - 2.06	1.52 - 1.65	1.77 - 1.93	FH22
1.79 - 1.95	2.07 - 2.26	1.66 - 1.81	1.94 - 2.12	FH23
1.96 - 2.15	2.27 - 2.48	1.82 - 1.99	2.13 - 2.33	FH24
2.16 - 2.35	2.49 - 2.72	2.00 - 2.19	2.34 - 2.55	FH25
2.36 - 2.58	2.73 - 2.99	2.20 - 2.39	2.56 - 2.80	FH26
2.59 - 2.83	3.00 - 3.28	2.40 - 2.63	2.81 - 3.08	FH27
2.84 - 3.11	3.29 - 3.60	2.64 - 2.89	3.09 - 3.39	FH28
3.12 - 3.42	3.61 - 3.95	2.90 - 3.17	3.40 - 3.71	FH29
3.43 - 3.73	3.96 - 4.31	3.18 - 3.47	3.72 - 4.07	FH30
3.74 - 4.07	4.32 - 4.71	3.48 - 3.79	4.08 - 4.39	FH31
4.08 - 4.39	4.72 - 5.14	3.80 - 4.11	4.40 - 4.79	FH32
4.40 - 4.87	5.15 - 5.6	4.12 - 4.55	4.80 - 5.3	FH33
4.88 - 5.3	5.7 - 6.2	4.56 - 5.0	5.4 - 5.8	FH34
5.4 - 5.9	6.3 - 6.8	5.1 - 5.5	5.9 - 6.4	FH35
6.0 - 6.4	6.9 - 7.5	5.6 - 5.9	6.5 - 7.0	FH36
6.5 - 7.1	7.6 - 8.2	6.0 - 6.6	7.1 - 7.7	FH37
7.2 - 7.8	8.3 - 9.0	6.7 - 7.2	7.8 - 8.4	FH38
For Size 0				
7.9 - 8.5	9.1 - 9.9	7.3 - 7.9	8.5 - 9.3	FH39
8.6 - 9.4	10.0 - 10.8	8.0 - 8.7	9.4 - 10.2	FH40
9.5 - 10.3	10.9 - 11.9	8.8 - 9.5	10.3 - 11.2	FH41
10.4 - 11.3	12.0 - 13.1	9.6 - 10.5	11.3 - 12.3	FH42
11.4 - 12.4	13.2 - 14.3	10.6 - 11.5	12.4 - 13.5	FH43
12.5 - 13.5	14.4 - 15.7	11.6 - 12.6	13.6 - 14.7	FH44
13.6 - 14.9	15.8 - 17.2	12.7 - 13.8	14.8 - 16.2	FH45
15.0 - 16.3	17.3 - 18.9	13.9 - 15.1	16.3 - 17.8	FH46
16.4 - 18.0	19.0 - 20.8	15.2 - 16.7	17.9 - 19.5	FH47
18.1 - 19.8	20.9 - 22.9	16.8 - 18.3	19.6 - 21.5	FH48
19.9 - 21.7	23.0 - 25.2	18.4 - 20.2	21.6 - 23.6	FH49
21.8 - 23.9	25.3 - 27.6	20.3 - 22.2	23.7 - 25.9	FH50
24.0 - 26.2	27.7 - 30.3	22.3 - 24.3	26.0 - 28.5	FH51
26.3 - 28.7	30.4 - 33.3	24.4 - 26.6	28.6 - 31.1	FH52
28.8 - 31.4	33.4 - 36.4	26.7 - 29.1	31.2 - 34.2	FH53
31.5 - 34.5	36.5 - 39.9	29.2 - 32.0	34.3 - 37.5	FH54
34.6 - 37.9	40.0 - 43.9	32.1 - 35.2	37.6 - 41.3	FH55
38.0 - 41.5		35.3 - 38.5	41.4 - 45.0	FH56
41.6 - 45.0		38.6 - 42.3		FH57
For Size 1				
For Size 2				

Heaters should be selected on the basis of the actual full load current and service factor as shown on the motor nameplate or in the manufacturer's published literature

When motor and overload relay are in the same ambient and the service factor of the

motor is 1.15 to 1.25, select heaters from the heater application table. If the service factor of the motor is 1.0, or there is no service factor shown, or a maximum of 115% protection is desired, select one size smaller heater than indicated.

When motor and overload relay are in different ambients and when using non-compensated overload relays, select heaters from the table using adjusted motor currents as follows: decrease rated motor current 1% for each °C motor ambient exceeds controller ambient. Increase rated motor current 1% for each °C controller ambient exceeds motor ambient.

For temperature compensated overload relays, select heaters according to the table and selection information above regardless of ambient.

Protect the heater and starter against short circuits by providing branch circuit protection per National Electric Code.

For Starter Sizes 3 and 4

Starter Used With	Non- Compensated Open Starters and Ambient Compensated Open or En- closed Starters	Non- Compensating Enclosed Starters	Heater Code Mark
All Applications			
Full Load Current of Motor Amps			
For Size 3	10.7 – 11.6	9.9 – 10.7	FH66
	11.7 – 12.7	10.8 – 11.8	FH67
	12.8 – 14.1	11.9 – 13.0	FH68
	14.2 – 15.5	13.1 – 14.2	FH69
	15.6 – 17.1	14.4 – 15.9	FH70
	17.2 – 18.9	16.0 – 17.4	FH71
	19.0 – 20.8	17.5 – 19.1	FH72
	20.9 – 22.9	19.2 – 21.1	FH73
	23.0 – 25.2	21.2 – 23.2	FH74
	25.3 – 27.8	23.3 – 25.6	FH75
	27.9 – 30.6	25.7 – 28.1	FH76
	30.7 – 33.5	28.2 – 30.8	FH77
	33.6 – 37.5	30.9 – 34.5	FH78
	37.6 – 41.5	34.6 – 38.2	FH79
	41.6 – 46.3	38.3 – 42.6	FH80
	46.4 – 50	42.7 – 46	FH81
	51 – 55	47 – 51	FH82
	For Size 4	56 – 61	52 – 56	FH83
62 – 66		57 – 61	FH84
67 – 73		62 – 67	FH85
74 – 79		68 – 73	FH86
80 – 87		74 – 80	FH87
88 – 95		81 – 87	FH88
96 – 105		88 – 95	FH89
106 – 116		96 – 105	FH90
117 – 128		106 – 116	FH91
129 – 144		117 – 127	FH92

List Price: \$3 List Each. (Dis. C10-S5)

Heaters are packaged in strips of six. If ordering for stock, it is recommended to order in multiples of six.



Type MOR Modular Overload Relay

The Westinghouse Modular Overload Relay (MOR) is a three-pole overload relay with discrete solid state components. The MOR consists of three small current transformers, an output circuit and overload logic. The CT's monitor all three phases and provide basic input to the overload. This same input is used to communicate to the special function modules. The overload and/or special function modules then send a trip signal to the isolated NC contact. A plug-in heater module protects all three phases and a L E D provides positive trip indication. The MOR will operate in ambient temperatures ranging from -30°C to +80°C.

Plug-in modules are available for such special functions as Phase Unbalance, Long Acceleration, Underload and Jam.

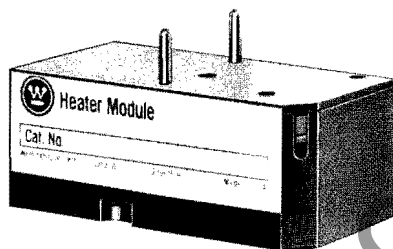
List Prices, Panel Mounted (Dis. C10-S19)

Full load Amps	Max Hp, 480 Volts	Catalog Number	List Price
3.8-25	10	MOR-1	\$100
6.5-43	15	MOR-2	100
20.5-135	100	MOR-4	100

HTM Heater Modules

HTM plug-in heater modules maintain a closer trip tolerance than do thermal overload relays. Only one module is needed to protect all three phases of the motor in ambients ranging from -30°C to +80°C.

Heater List Price: \$9 each. Discount C10-S19

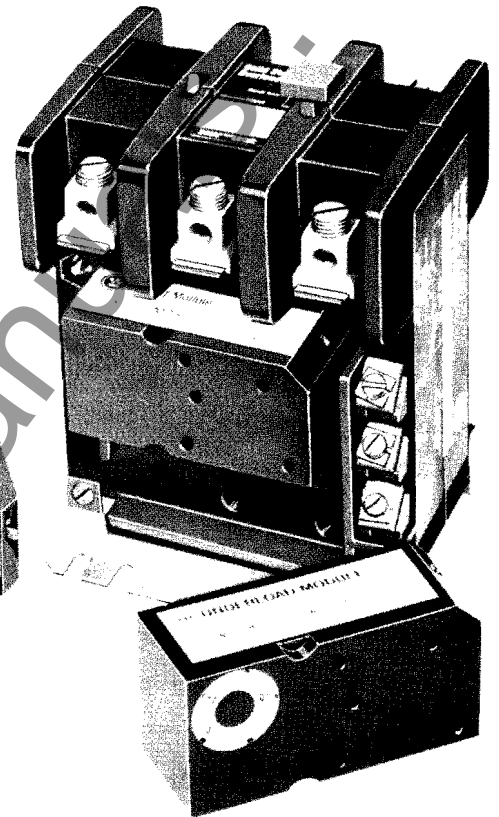


Heater Selection

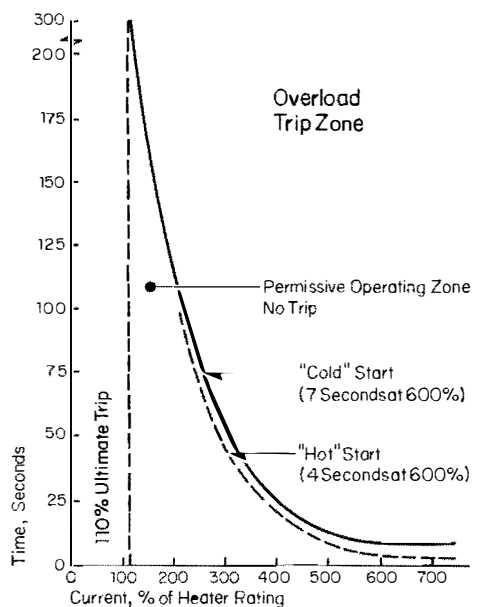
Each heater module is identified by a catalog number. The application table at right indicates the range of full load motor current to which a given heater may be applied. Heaters should be selected on the basis of the actual full load current and service factor as shown on the motor nameplate or in the manufacturers published literature.

Heater Module Application Table

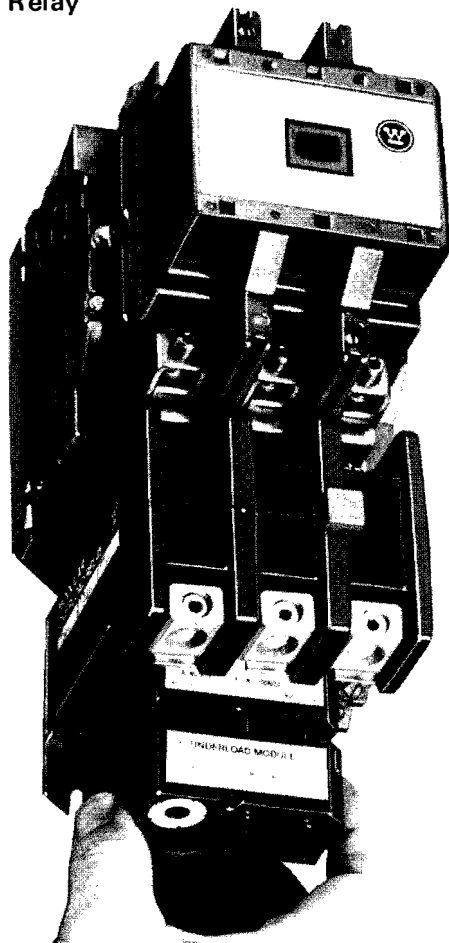
Heater Cat. No.	Motor Full Load Amperes		
	MOR-1	MOR-2	MOR-4
HTM03	2.6 - 2.8	4.4 - 4.7	14.4 - 15.2
HTM04	2.8 - 3.05	4.7 - 5.1	15.2 - 16.7
HTM05	3.05 - 3.3	5.1 - 5.6	16.7 - 18.2
HTM06	3.3 - 3.5	5.6 - 5.9	18.2 - 19.1
HTM07	3.5 - 3.7	5.9 - 6.2	19.1 - 20.0
HTM08	3.7 - 3.9	6.2 - 6.5	20.0 - 21.1
HTM09	3.9 - 4.1	6.5 - 6.8	21.1 - 22.1
HTM10	4.1 - 4.3	6.8 - 7.2	22.1 - 23.5
HTM11	4.3 - 4.6	7.2 - 7.7	23.5 - 24.6
HTM12	4.6 - 4.9	7.7 - 8.2	24.6 - 26.5
HTM13	4.9 - 5.3	8.2 - 8.9	26.5 - 28.2
HTM14	5.3 - 5.7	8.9 - 9.4	28.2 - 29.9
HTM15	5.7 - 6.2	9.4 - 10.1	29.9 - 32.2
HTM16	6.2 - 6.6	10.1 - 11.1	32.2 - 34.5
HTM17	6.6 - 7.2	11.1 - 12.0	34.5 - 37.5
HTM18	7.2 - 7.7	12.0 - 13.1	37.5 - 40.8
HTM19	7.7 - 8.2	13.1 - 13.8	40.8 - 42.6
HTM20	8.2 - 8.7	13.8 - 14.4	42.6 - 44.6
HTM21	8.7 - 9.0	14.4 - 15.0	44.6 - 45.1
HTM22	9.0 - 9.5	15.0 - 15.8	45.1 - 48.2
HTM23	9.5 - 10.2	15.8 - 17.0	48.2 - 51.2
HTM24	10.2 - 11.0	17.0 - 18.1	51.2 - 55.0
HTM25	11.0 - 11.7	18.1 - 19.5	55.0 - 59.0
HTM26	11.7 - 12.6	19.5 - 21.2	59.0 - 63.3
HTM27	12.6 - 13.8	21.2 - 23.2	63.3 - 68.9
HTM28	13.8 - 15.1	23.2 - 25.0	68.9 - 75.7
HTM29	15.1 - 16.7	25.0 - 28.2	75.7 - 84.0
HTM30	16.7 - 18.6	28.2 - 31.8	84 - 95
HTM31	18.6 - 21.5	31.8 - 37.1	95 - 107.5
HTM32	21.5 - 25.4	37.1 - 42.5	107.5 - 130



Overload Relay Curve



Type MOR Modular Overload Relay



Underload Module being added to MOR Relay

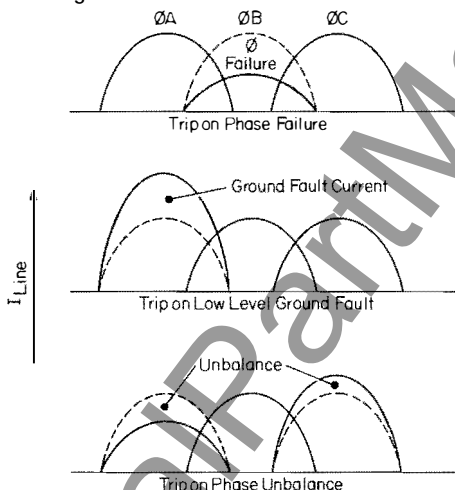
Special Function Plug-in Modules

Phase Unbalance Module (PUM)

The Phase Unbalance Module is a plug-in module providing complete protection against phase failure, phase unbalance and low level ground fault protection. The PUM senses phase-to-phase relationship and sends an instantaneous trip signal if the phases are unbalanced by 10%.

List Price: \$140 each. Discount C10-S19
Catalog Number: PUM

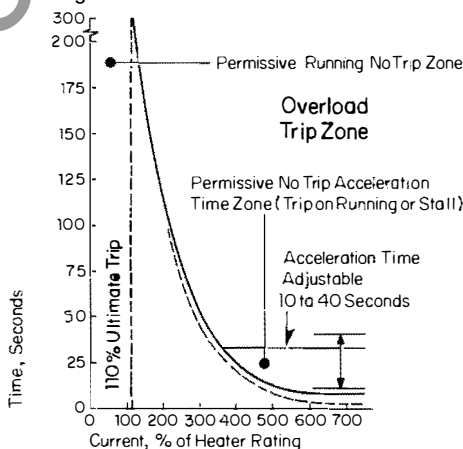
List Price Addition for LED: \$10 C10-S19
Catalog Number: PUM-L



Long Acceleration Module (LAM)

The LAM module provides longer starting times, yet maintains safe running protection after the motor has reached full speed. Acceleration time may be adjusted between 10-40 seconds.

List Price: \$68 each. Discount C10-S19
Catalog Number: LAM

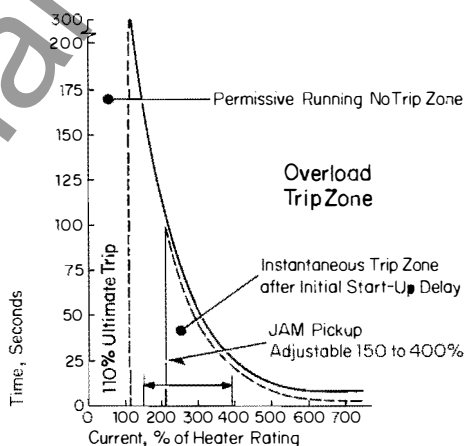


JAM Module

This module provides for instantaneous trip of the overload relay should the current exceed a preset value at any time after the motor has accelerated. The JAM module operates only when the running current exceeds its' set point, which is adjustable to any value between 150% and 400% of the motor full load current.

List Price \$70 each. Discount C10-S19
Catalog Number: JAM

List Price Addition for LED: \$10 C10-S19
Catalog Number: JAM-L

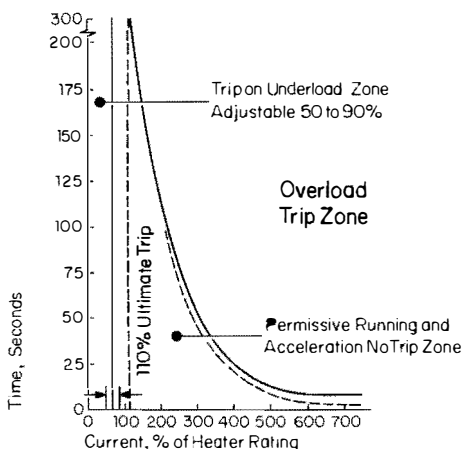


Underload Module (ULM)

The Underload Module protects against damage due to underload. A screwdriver adjustment permits the ULM to pick up between 50-90% of motor full load current. Whenever current falls below the set value (i.e., to no load value), an instantaneous trip signal is sent to the overload relay.

List Price: \$60 each. Discount C10-S19
Catalog Number: ULM

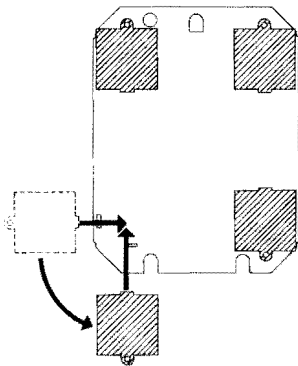
List Price Addition for LED: \$10 C10-S19
Catalog Number: ULM-L





Accessories

L-56 Electrical Interlock



Description

L-56 electrical interlocks are designed to be used as auxiliary control contacts for Westinghouse A/200 contactors. One interlock fits all sizes from 00-4. Because the L-56 mounts within the outside dimension of the contactor, four interlocks per contactor can be added without any increase in panel area. The L-56 is held in position by two attached spring clips so no mounting hardware or tools are required. For easy wiring, interlocks are designed to mount in either of two 90° positions, whichever is more convenient to the user. See illustration.

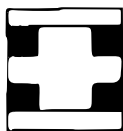
Mounting Positions and Number

Interlocks may be mounted as indicated by black squares.

Non-reversing Starters and Contactors

Sizes 00, 0 and 1
1, 2, 3 Pole

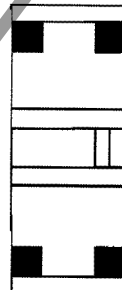
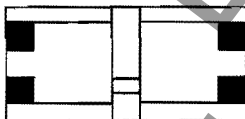
Sizes 00, 0 and 1
4, 5 Pole
Sizes 2, 2 and 4
2, 3, 4, 5 Pole



Reversing, Two-Speed and Mechanically Interlocked Contactors

All Sizes
Horizontal

All Sizes
Vertical



List Prices Discount C10-S5

Catalog Number	Type Contacts	List Price
L-56	1 NO, 1NC	\$12.00
L-56B	2NO	16.00
L-56C	2NC	16.00
L-56D	1NO	12.00
L-56E	1NC	12.00
L-56F	1NO Early Make, 1NO	16.00
L-56G	1NC Delayed Break, 1NO	16.00
L-56M	1NC Delayed Break, plus 1NC	16.00

Switching Ratings

Load	Voltage	Current (Amperes)	
		Inrush	Normal
Inductive, Ac	110-125	30	3
	220-250	15	1.5
	440-480	7.5	.75
	550-600	6	.6
Dc	115-125	...	1.1
	230-250	...	.55
	...	...	...
	550-600	...	.2

Continuous current carrying capacity 10 amperes maximum.

Mechanical Interlocks



Description

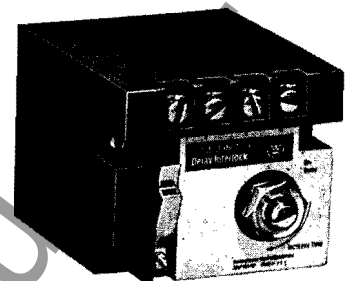
The mechanical interlock for A/200 devices is a self contained unit either factory assembled on complete reversing or multi-speed devices or is available in kit form for field mounting. The mechanical interlock is a lever type mechanism which prevents any closing motion of one member of a reversing or multi-speed contactor or motor controller, until the opposing member is essentially completely open.

List Prices Discount C10-S5

Contactors Arrangement (No. of Poles, Horiz. or Vertical)	Interlock Cat. No.	Cont. Size	List Price
3X3 Horizontal	M-33-1A	0, 1	\$12
4X4 Horizontal	M-33-1A	0, 1	12
5X3 Horizontal	M-33-1A	0, 1	12
All Pole Comb., Vert.	M-34-1	0, 1	12
3X3 Vert. Rev.	M-33-2A	2	12
3X3 Vert. Rev.	M-34-2	2	12
5X3 Horizontal	M-35-2	2	12
4X4 Horizontal	M-36-2	2	12
All Pole Comb. Horiz.	M-33-3A	3, 4	20
All Pole Comb. Vert.	M-34-3	3, 4	20

③ Cannot be mounted in this position on Size 2 contactors and starters.

Time Delay Interlock



The Westinghouse solid state time delay interlock provides accurate, reliable timing in a minimum of panel space. Field mountable in the interlock cavity of A/200 starters and contactors, it has one NO contact. Designed to switch a 120 volt Ac coil, it may be wired in series with the starter or contactor coil. It is also available with a mounting plate for panel use.

List Prices Discount C10-S5

Type Timer	Catalog Number	List Price
Starter or Contactor Mounting		
On Delay	TON-56	\$72
Off Delay	TOF-56	72
Panel Mounting		
On Delay	TON-56P	78
Off Delay	TOF-56P	78

Ratings

Time Delay Range: 0.2 to 30 seconds.

Power Requirement: 2 VA

Power Rating: Sufficient to drive sizes 00-4 contactors (ex. 4, 5 pole, sizes 3, 4).

Voltage Rating: 120 Ac, +10% @ 50-60 Hz.

Solid State Contacts: 0.5 amps inductive load (5.8 amps max. inrush)

Recycling Speed: 150 operations per minute, max.

Ambient Temp. Range: -20°C to 60°C.

Repeat.: ±2% with voltage variation ±10%.

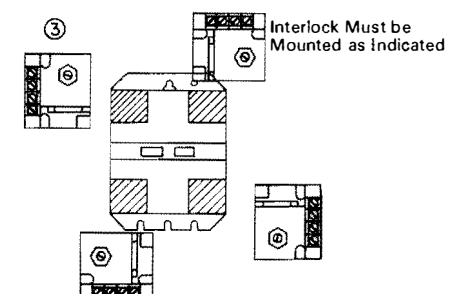
Reset Time On Delay: 8 ms. after time out, 2 seconds before time out.

Min. Energ. Time Off Delay: 0.1 seconds.

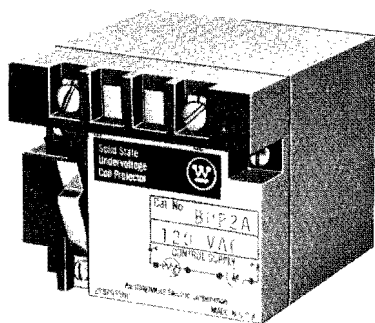
Mounting Positions (see drawing).

Starters: Two top positions only.

Contactors: All positions



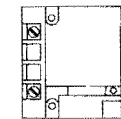
Undervoltage Coil Protector (BOP)



All solid-state, sealed construction of the BOP assures that its operation will not be affected by environmental conditions. It mounts in the interlock cavity (see illustration below) or is available for panel mounting.

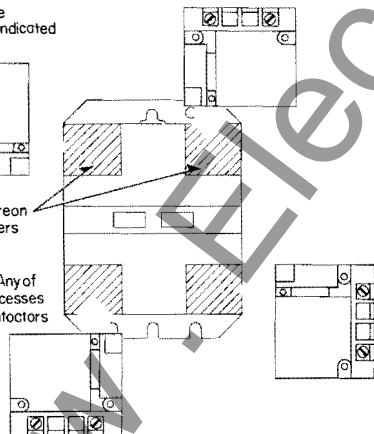
Starter/ Cont. Size	Type Mounting		List Price Dis. C10-S5
	Starter/ Cont.	Panel	
	Catalog Numbers		

BOP Must be
Mounted as Indicated



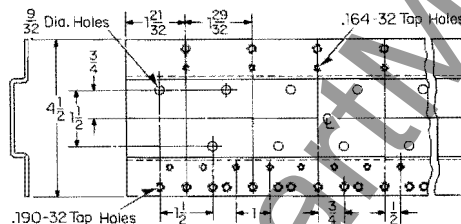
BOP May be
Mounted Hereon
A200 Starters

BOP May be Mounted in Any of The Four Recesses on A201 Contactors



② Combination of strips will be shipped to build up strips for more than seven 3-pole contactors.

The A200 mounting strip can be welded or screwed to enclosure back pan for extra fast installation. It is designed to accommodate sizes 00, 0, 1 and 2, 3 pole contactors and horizontal starters. This strip eliminates the need for individual layout and drilling for components. Provision is made for mounting mechanical interlocks between contactors. In addition, mounting holes are drilled and tapped to accept panel mounting block type overload relays and BF relays.



Catalog Number ②	No. of Mtg. Spaces	Length of Strip	Number of Stand- Units Per Strip (Sizes 0, 1 and 2)②			List Price Dis. C10- S5
			3 Pole Con- tac- tor	Hor- izon- tal Start- ers	Hor- izon- tal Rev. Start ers	
AMS-4	12	26 ¹ / ₁₆	7	5	3	\$4.20
AMS-6	10	22 ³ / ₈	6	..	..	3.80
AMS-8	8	18 ⁵ / ₁₆	5	..	..	3.60
AMS-10	6	14 ¹ / ₄	4	3	..	3.40

For use at distances up to 10,000 ft. between the control station and the controller. Switch has a NO contact that will close with a minimum of 60 volts. A separate 120 volt source can be wired through this contact to pick up the controller coil.

Starter Mtg.: Cat. No. R56A, List Price: \$27
Panel Mtg.: Cat. No. R56AP, List Price: \$33
Discount C10-S5

Type RSK-12

The RSK-12 reset operator kit consists of an operator button with a 6-inch plunger rod, O-ring, and a metal housing. It is adjustable for most any cabinet depth from one inch to six inches by cutting the plunger rod to the desired length. This eliminates having to space the starter a set distance from the enclosure cover.

The operator is suitable for use with either NEMA 1 or NEMA 12 enclosures. When used in conjunction with a NEMA 1 enclosure, the O-ring can be discarded. With a NEMA 12 enclosure, position the O-ring between the operator and the cover.

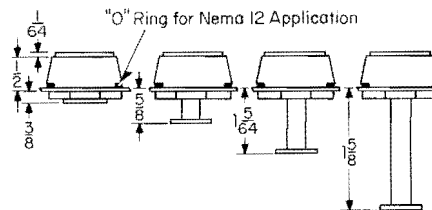
Catalog Number: RSK-12
List Price: \$5.00 Discount C10-\$5

The RSK-B12 is similar to the RSK-12 except it makes available four fixed length plunger rods. This kit can also be used for NEMA 1 or NEMA 12 applications.

Using the plunger rods supplied in the kit, eight different lengths are possible: $\frac{3}{8}"$, $\frac{5}{8}"$, $1\frac{1}{4}"$, $1\frac{1}{2}"$, $1\frac{3}{4}"$, $2\frac{1}{4}"$ and $2\frac{1}{2}"$. Total travel of the reset is $\frac{7}{16}"$. For lengths other than those shown below, user must supply own screw.

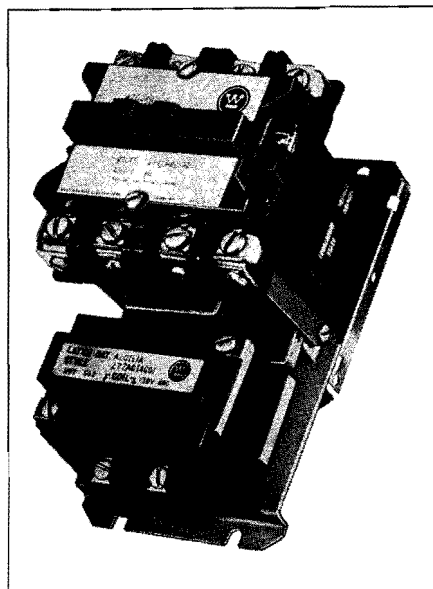
Catalog Number: RSK-B12
List Price: \$5.00 Discount C10-S5

RSK-B12 Dimensions





Field Modification Kits Mechanical Latch Kit^②



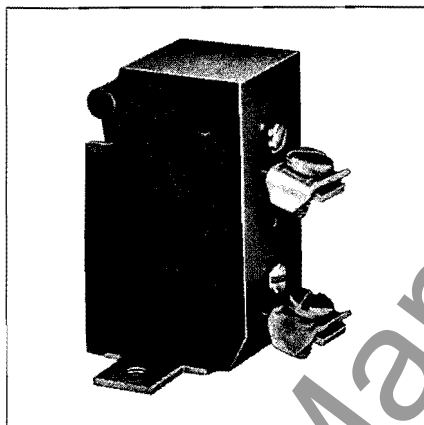
The A201L mechanical latch is designed for field mounting on 2 or 3 pole A201 and A202 contactors. In addition to providing a mechanically held contactor for applications requiring silent operation, it also provides circuit continuity during a low voltage condition. Latching and unlatching may be accomplished either manually or electrically. Like the contactor coil, the latch coil is continuous duty rated at 11 VA close and 95 VA open. The unlatching time is less than two cycles.

On applications of a mechanical latch with a maintained contact pilot device scheme, an LC-56 coil clearing kit is required. This kit contains a delayed break normally closed contact block and an early make normally open contact block, each of which require one interlock cavity. The LC-56 coil clearing kit is designed to de-energize both the main contactor coil and the latch trip coil after these coils have performed their intended function.

Contactor Size	Kit Cat. No. ②	List Price C10-S5
Mechanical Latch Kit		
00, 0, 1	A201L1A	\$ 20
2	A201L2A	60
Coil Clearing Kit		
All	LC-56	20

- ② For coil voltages other than 120/60, see page 11.
③ Mechanical latch for sizes 3 and 4 must be factory installed.

Normally Open, Normally Closed Power Pole Kits



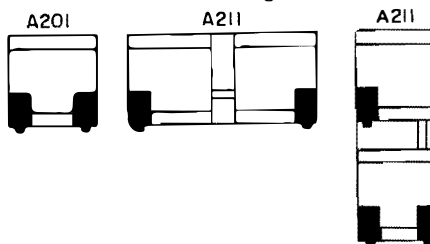
Each kit adds one normally open or one normally closed power pole to size 00 through 2, A201 and A211, 2 or 3-pole contactors and A210 reversing starters with overload relays. These power poles are rated 600 volts Ac maximum with a continuous current rating of 18 amperes for the size 0 unit and 27 amperes for the size 1 unit.

Kits may be field mounted or factory installed in the lower interlock cavities, as illustrated below.

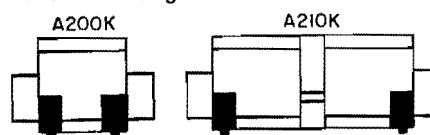
List Prices Discount C10-S5

Continuous Current Rating	Kit Size	Kit Catalog Number	Kit List Price	Factory Installed List Price Addition
Normally Open				
18	0	PNO-0	\$22	\$32
27	1	PNO-1	30	40
Normally Closed				
18	0	PNC-0	22	32
27	1	PNC-1	30	40

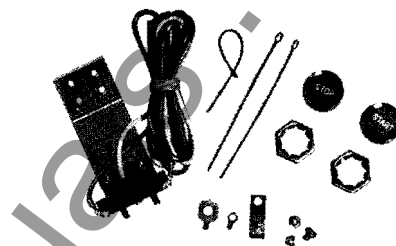
3 Pole Contactor Mounting



Starter Mounting

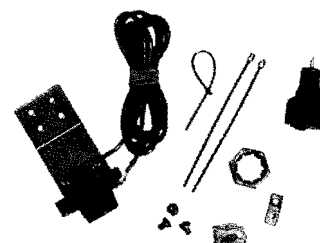


Start-Stop Pushbutton Kit



Marking	Catalog Number	List Price C10-S5
NEMA 1, 1B, 12 Enclosures		
Start-Stop	PBK-11	\$10
Forward-Reverse-Stop	PBK-12	50
Fast-Slow-Stop	PBK-13	50

Selector Switch Kits



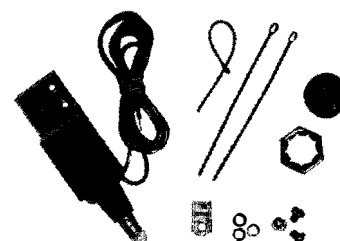
Can be field converted from three to two positions. Kit includes three adhesive-backed vinyl nameplates marked "Hand-Off-Auto", "On-Off" and "Start-Stop."

NEMA 1, 1B, 12 Enclosures

Catalog Number: SSK-11

List Price: \$10. Discount C10-S5

Pilot Light Kits



Lights are transformer type 120, 240, 480 or 600 Volts, 50 or 60 Hz. Red, amber and green lights are available for NEMA 1, 1B and 12 enclosures. Lamp is #51 incandescent type.

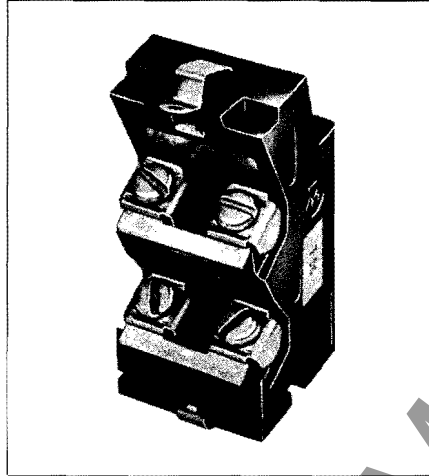
Volts/ Hertz	Catalog Number			List Price C10-S5
	Red	Amber	Green	
For NEMA 1, 1B, 12 Enclosures				
120/60	PLK-11	PLK-11A	PLK-11G	\$22
240/60	PLK-12	PLK-12A	PLK-12G	22
480/60	PLK-14	PLK-14A	PLK-14G	22
600/60	PLK-16	PLK-16A	PLK-16G	22

Field Modification Kits, Continued**Copper/Alum Terminal Kits for A200 Starters and A201 Contactors**

Each kit contains three Cu/Al terminals and hardware. If line and load terminals are required on a contactor, order two TK-2C for size 2, or two TK-4C for size 3 or 4. If line and load terminals are required on a starter, order one each TK-2C and TK-2R for size 2, or one each TK-4C and TK-4R for sizes 3 or 4.

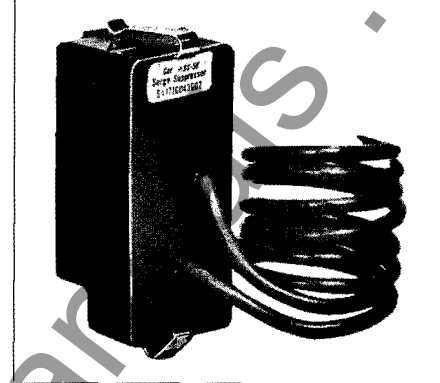
If Cu/Al line and load terminals are ordered with contactors or starters, there is no charge. Add suffix "Z" to complete catalog number. For line or load Cu/Al terminals only, order by description.

Starter or Contactor Size	Catalog Number	List Price C10-S5	Max Wire Size
2	TK-2C	\$4.50 Kit	#4
3, 4	TK-4C	7.50 Kit	#4/0
2	TK-2R	4.50 Kit	#4
3, 4	TK-4R	7.50 Kit	#4/0

T-56 Terminal Block

The T-56 terminal block provides one or two isolated terminal points for wiring auxiliary control devices. It mounts in an A/200 interlock cavity.

Cat. No.	No. of Circuits	List Price C10-S5
T-56A	One	\$7
T-56B	Two	8

SS-56 Surge Suppressor

The SS-56 surge suppressor is used with A200 motor control to provide a shunt discharge path for transient overvoltages to prevent spurious operation of sensitive electronic devices in the control circuit. The SS-56 is field-mountable in the interlock cavities of the A200 starter or the SS-56P may be ordered for panel use.

List Prices Discount C10-S5

Kit Cat. No.	Kit List Price	Factory Installed List Price Addition
SS-56	\$18	\$24
SS-56P	19	.....

A/200 Motor Control Technical Data

Volts	Size	Maximum Horsepower		Ampere Rating 8 Hour Continuous	Rating Amps. Tung-sten Lamp Load ²	Maximum Horsepower for Plugging or Inching Service		Resistive Heating Load in Kw		Coil Volt Amp. Data – 60 Hertz				Approximate Operating Time in Cycles at Rated Voltage Based on 60 Hertz Per Second		
		Poly-phase	Single Phase			Single Phase	Poly-phase	Single Phase	Poly-phase	Sizes 00, 0, 1 2, 3, 4-Pole Sizes 2, 3, 4 2, 3-Pole		Sizes 00, 0, 1 5-Pole Sizes 2, 3, 4 4, 5-Pole		Pick Up Cycles	Drop Out Cycles	
										Open Va	Closed Va	Open Va	Closed Va			
120	00	¾	¾	9	10	5	...	...	...	...	160	25	200	30	1 -1½	¾-1
	0	2	1	18	20	10	½	1	...	...	160	25	200	30	1 -1½	¾-1
	1	3	2	27	30	15	1	2	3	5	160	25	200	30	1 -1½	¾-1
	2	...	3	45	50	30	2	...	5	8.5	160	25	200	30	1½-2	¾-1
	3	...	...	90	100	60	...	...	10	17	625	50	825	70	2 -2½	¾-1
4	...	...	135	150	120	...	...	15	26	625	50	825	70	2 -2½	¾-1	
200	00	1½	1	9	10	5	...	...	...	...	160	25	200	30	1 -1½	¾-1
	0	3	2	18	20	10	1	1½	...	...	160	25	200	30	1 -1½	¾-1
	1	7½	3	27	30	15	2	3	6	10	160	25	200	30	1 -1½	¾-1
	2	10	7½	45	50	30	5	10	10	17	160	25	200	30	1½-2	¾-1
	3	25	...	90	100	60	...	20	20	34	625	50	825	70	2 -2½	¾-1
4	40	...	135	150	120	...	30	30	52	625	50	825	70	2 -2½	¾-1	
230	00	1½	1	9	10	5	...	...	...	...	160	25	200	30	1 -1½	¾-1
	0	3	2	18	20	10	1	1½	...	...	160	25	200	30	1 -1½	¾-1
	1	7½	3	27	30	15	2	3	6	10	160	25	200	30	1 -1½	¾-1
	2	15	7½	45	50	30	5	10	10	17	160	25	200	30	1½-2	¾-1
	3	30	...	90	100	60	...	20	20	34	625	50	825	70	2 -2½	¾-1
4	50	...	135	150	120	...	30	30	52	625	50	825	70	2 -2½	¾-1	
460	00	2	...	9	10	5	...	...	...	...	160	25	200	30	1 -1½	¾-1
	0	5	...	18	20	10	...	2	...	...	160	25	200	30	1 -1½	¾-1
	1	10	...	27	30	15	...	5	12	20	160	25	200	30	1 -1½	¾-1
	2	25	...	45	50	30	...	15	20	34	160	25	200	30	1½-2	¾-1
	3	50	...	90	100	60	...	30	40	68	625	50	825	70	2 -2½	¾-1
4	100	...	135	150	120	...	60	60	105	625	50	825	70	2 -2½	¾-1	
575	00	2	...	9	10	5	...	...	...	...	160	25	200	30	1 -1½	¾-1
	0	5	...	18	20	10	...	2	...	...	160	25	200	30	1 -1½	¾-1
	1	10	...	27	30	15	...	5	15	25	160	25	200	30	1 -1½	¾-1
	2	25	...	45	50	30	...	15	25	43	160	25	200	30	1½-2	¾-1
	3	50	...	90	100	60	...	30	50	86	625	50	825	70	2 -2½	¾-1
4	100	...	135	150	120	...	60	75	130	625	50	825	70	2 -2½	¾-1	

² For fluorescent lamp loads 300 volts and less, it is not necessary to derate contactors.



Factory Modifications

To indicate a maximum of two modifications to standard starters or contactors, add the proper suffix letter or letters to the catalog number listed. When the modification carries no suffix letter, give complete description. **EXAMPLE:** To add a start-stop pushbutton and red pilot light to a standard non-

reversing unit, add letters for modifications (A, L) to the catalog number of the starter, (A200S1CW). The new catalog number then becomes A200 S1CWAL.

When three or more modifications are required, order similar to standard catalog number and describe modifications desired.

List Prices

Catalog Number Suffix Letter	Modification	NEMA Enclosures	NEMA Size	List Price	Addition ^①	Discount C10-S5		
			00	0	1	2	3	4
Pushbuttons and Indicating Lights								
A	START-STOP pushbuttons.....	1, 1B	\$16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16
	(Momentary contact) in cover.....	3R, 4, 12		44	44	44	44	44
B	HAND-OFF-AUTO selector switch.....	1, 1B	16	16	16	16	16	16
	(Maintained contact) in cover.....	3R, 4, 12		44	44	44	44	44
A	FORWARD-REVERSE-STOP pushbuttons or FAST-SLOW-STOP....	1		80	80	80	80	80
	(Momentary contact) in cover.....	4, 12		100	100	100	100	100
..	Pilot light in cover, add suffix: L(Red), L2 (Green), L3(Amber).....	1, 1B		30	30	30	30	30
		3R, 4, 12		54	54	54	54	54
Overload Relays								
D	Three single pole overload protection without heater (each speed)...	Any	5	5	5	5	5	5
E	Control contacts, 1 NO and 1 NC with common.....	Any	8	8	8	8	8	8
M	Substitute ambient compensated overload relay for standard overload relays (per relay).....	Any	4	4	4	4	4	4
..	Mount and wire Guardistor® motor control unit in starter with overload relays (add to complete starter price).....	Any	..	②12	②12	②12	②12	②12
..	Mount and wire Guardistor motor control unit in contactor without overload relays (add to price of contactor).....	Any	..	②12	②12	②12	②12	②12
Extra Interlocks								
I	1 extra interlock per contactor							
	A200 and A201.....	Any	..	22	22	22	22	22
	A210, A211, and A900.....	Any	..	44	44	44	44	44
J	2 extra interlocks per contactor							
	A200 and A201.....	Any	..	44	44	44	44	44
	A210, A211, and A900.....	Any	..	88	88	88	88	88
K	3 extra interlocks per contactor							
	A200 and A201 only.....	Any	..	66	66	66	66	66
N	4 extra interlocks per contactor							
	A200 and A201 size 0 and 1 to 3 pole only.....	Any	..	88	88	88	88	88
Auxiliary Relays								
..	Control relay, max. of 4 poles.....	1, 12	..	102	102	102	102	160
		3R, 4	..	156	156	156	156	212
..	Reverse phase and phase failure relays minimum of 1.5 amps motor full load current.....	1, 12	..	352	352	352	352	352
..	Timelimit relay (Type AM—single- step-timing range 0.2 to 200 seconds)	1, 12	..	168	168	168	168	168
		3R, 4	..	220	220	220	220	220
Coils								
C	Wired for separate control circuit.....	Any						
..	Dual voltage coil.....	.....						
			No Charge, Any Size Starter	4	4	4	4	4
Transformers								
T	Transformer, dual voltage primary 240/480 volts, 60 cycle (with 120 volt secondary) — with fused secondary.....	1, 4, 12	..	54	54	76	112	136
..	Transformer, 50 cycle with fused secondary.....	1, 4, 12	..	54	54	76	112	136
T2	Transformer, with additional capacity up to 100 watts work lamp 60 cycle—with fused secondary.....	1, 4, 12	..	96	96	124	156	176
T3	Transformer, with additional capacity up to 200 watts work lamp 60 cycle—with fused secondary.....	1, 4, 12	..	130	130	162	194	214
T4	Transformer, with additional capacity up to 300 watts work lamp 60 cycle—with fused secondary.....	1, 4, 12	..	164	164	200	232	252
A900 Multi-speed Starters Only—Auxiliary Relays								
..	Compelling relay.....	Any	..	132	132	132	132	132
..	Accelerating relay — 2 speed.....	Any	..	308	308	308	308	308
..	Time decelerating relay — 2 speed.....	Any	..	308	308	308	308	308

① Changed since previous issue.

② Prices do not include the Guardistor unit which is included in the motor price.

A/200 Starter and Contactor Renewal Parts

List Prices

Ac Operating Coils Discount E-1

Voltage	Hertz	Style Numbers	List Price		
		1, 2, 3-Pole	4-Pole	5-Pole	
Sizes 00, 0 and 1					
120/110	60/50	505C806G01	505C806G01	505C808G01	\$17.30
208/220	60	505C806G02	505C806G02	505C808G02	17.30
550	60	505C806G04	505C806G04	505C808G04	17.30
600/550	60/50	505C806G05	505C806G05	505C808G05	17.30
440/380	60/50	505C806G07	505C806G07	505C808G07	17.30
600	50	505C806G09	505C806G09	505C808G09	17.30
110	60	505C806G11	505C806G11	505C808G11	17.30
240/220	60/50	505C806G12	505C806G12	505C808G12	17.30
480/440	60/50	505C806G13	505C806G13	505C808G13	17.30
24	60	505C806G16	505C806G16	505C808G16	17.30
277/240	60/50	505C806G18	505C806G18	505C808G18	17.30
②240/480	60/60	505C806G03	505C806G03	505C808G03	23.00
②120/240	60/60	505C806G10	505C806G10	505C808G10	23.00
②208/220/440	60/60/60	505C806G15	505C806G15	505C808G15	23.00

Size 2					
120/110	60/50	505C818G01	505C818G01	505C818G01	17.30
208/220	60	505C818G02	505C818G02	505C818G02	17.30
550	60	505C818G04	505C818G04	505C818G04	17.30
600/550	60/50	505C818G05	505C818G05	505C818G05	17.30
440/380	60/50	505C818G07	505C818G07	505C818G07	17.30
600	50	505C818G09	505C818G09	505C818G09	17.30
110	60	505C818G11	505C818G11	505C818G11	17.30
240/220	60/50	505C818G12	505C818G12	505C818G12	17.30
480/440	60/50	505C818G13	505C818G13	505C818G13	17.30
24	60	505C818G15	505C818G15	505C818G15	17.30
277/240	60/50	505C818G18	505C818G18	505C818G18	17.30
②240/480	60/60	505C818G03	505C818G03	505C818G03	23.00
②120/240	60/60	505C818G10	505C818G10	505C818G10	23.00
②208/220/440	60/60/60	505C818G15	505C818G15	505C818G15	23.00

Sizes 3 and 4					
120/110	60/50	505C633G01	505C635G01	505C635G01	38.40
208/220	60	505C633G02	505C635G02	505C635G02	38.40
550	60	505C633G04	505C635G04	505C635G04	38.40
600/550	60/50	505C633G05	505C635G05	505C635G05	38.40
440/380	60/50	505C633G07	505C635G07	505C635G07	38.40
600	50	505C633G09	505C635G09	505C635G09	38.40
110	60	505C633G11	505C635G11	505C635G11	38.40
240/220	60/50	505C633G12	505C635G12	505C635G12	38.40
480/440	60/50	505C633G13	505C635G13	505C635G13	38.40
277	60	505C633G14	505C635G14	505C635G14	38.40
24	60	505C633G34	505C635G34	505C635G34	38.40
②240/480	60/60	505C633G03	505C635G03	505C635G03	48.00
②120/240	60/60	505C633G10	505C635G10	505C635G10	48.00
②208/220/440	60/60/60	505C633G08	505C635G08	505C635G08	48.00

Dc Operating Coils^④ Discount E-1

Voltage	Style Numbers, 1, 2, 3 and 4 Pole Contactors	List Price	
	Sizes 00, 0, 1	Size 2 (2 and 3 Pole Only)	Sizes 3, 4 (2 and 3 Pole Only)
24	1254C22G04	506C143G04	1255C68G04
48	1254C22G05	506C143G05	1255C68G05
125	1254C22G02	506C143G02	1255C68G01
250	1254C22G01	506C143G01	1255C68G02
②125/250	1254C22G03	506C143G03	1255C68G03

Renewal Contact Kits Discount E-1

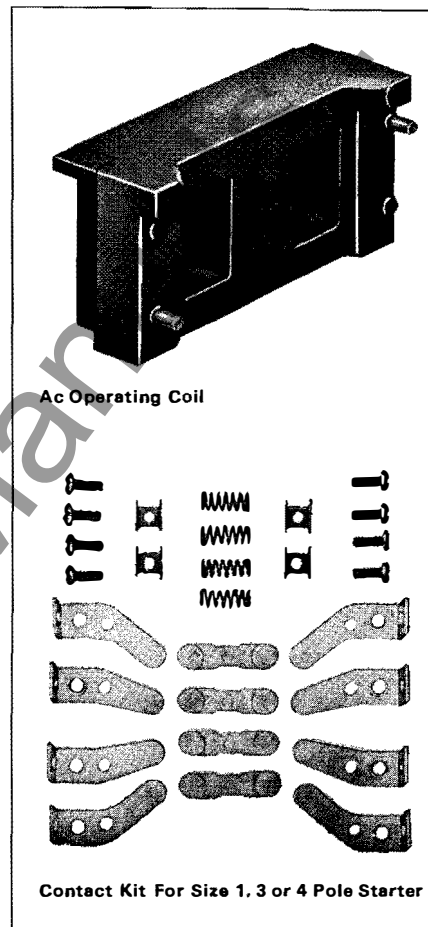
Device Size	2-Pole	3-Pole	4-Pole	5-Pole	3-Pole Reversing
	Style Number	Style Number	Style Number	Style Number	Style Number
00	373B331G17	373B331G18	373B331G18	373B331G19	373B331G03
0	373B331G02	373B331G04	373B331G04	373B331G05	373B331G08
1	373B331G07	373B331G09	373B331G09	373B331G10	373B331G15
2	373B331G11	373B331G12	373B331G13	373B331G14	373B331G13
3	626B187G12	626B187G13	626B187G14	626B187G15	626B187G17
4⑤	626B187G16	626B187G17	626B187G18	626B187G19	

② Dual voltages, use only on contactors or starters originally supplied with a dual voltage coil.

③ Two 3 pole kits required.

④ Dc coils can be used only with contactors originally supplied with Dc coils.

⑤ For 200 amp lighting contactor, order kit style 672B788G07, List Price, \$97.



Mechanical Latch Coils Discount E-1

Sizes 00, 0, 1, 2, 3 and 4				
Voltage	Hertz	Style Number	List Price	
120/110	60/50	506C555G01	\$13.40	
208/220	60	506C555G02	13.40	
240/220	60/50	506C555G03	13.40	
480/440	60/50	506C555G04	13.40	
600/550	60/50	506C555G05	13.40	
24	60	506C555G06	13.40	
277	60	506C555G07	13.40	

Westinghouse Electric Corporation

Control Products Division
Beaver, Pennsylvania 15009



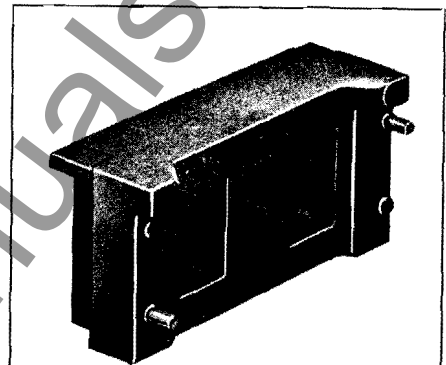
Low Voltage Ac Control A/200 Magnetic Control Renewal Parts

Prices on this page supersede prices on supplement page 24.1, Catalog Section 8220, dated May 8, 1972.

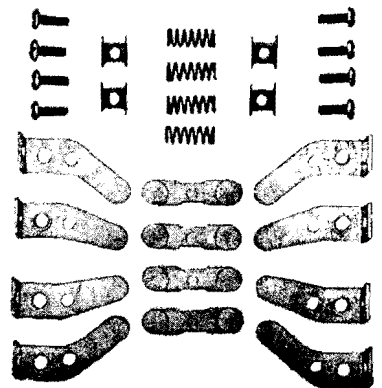
A/200 Starter and Contactor Renewal Parts

List Prices Ac Operating Coils

Voltage	Hertz	Style Numbers			List Price
		1, 2, 3-Pole	4-Pole	5-Pole	
Sizes 00, 0 and 1					
120/110	60/50	505C806G01	505C806G01	505C808G01	\$17.30
208/220	60	505C806G02	505C806G02	505C808G02	17.30
550	60	505C806G04	505C806G04	505C808G04	17.30
600/550	60/50	505C806G05	505C806G05	505C808G05	17.30
440/380	60/50	505C806G07	505C806G07	505C808G07	17.30
600	50	505C806G09	505C806G09	505C808G09	17.30
110	60	505C806G11	505C806G11	505C808G11	17.30
240/220	60/50	505C806G12	505C806G12	505C808G12	17.30
480/440	60/50	505C806G13	505C806G13	505C808G13	17.30
24	60	505C806G16	505C806G16	.....	17.30
②240/480	60/60	505C806G03	505C806G03	505C808G03	23.00
②120/240	60/60	505C806G10	505C806G10	505C808G10	23.00
②208/220/440	60/60/60	505C806G15	505C806G15	505C808G14	23.00
Size 2					
120/110	60/50	505C806G01	505C818G01	505C818G01	17.30
208/220	60	505C806G02	505C818G02	505C818G02	17.30
550	60	505C806G04	505C818G04	505C818G04	17.30
800/550	60/50	505C806G05	505C818G05	505C818G05	17.30
440/380	60/50	505C806G07	505C818G07	505C818G07	17.30
600	50	505C806G09	505C818G09	505C818G09	17.30
110	60	505C806G11	505C818G11	505C818G11	17.30
240/220	60/50	505C806G12	505C818G12	505C818G12	17.30
480/440	60/50	505C806G13	505C818G13	505C818G13	17.30
24	60	505C806G16	505C818G15	.....	17.30
②240/480	60/60	505C806G03	505C818G03	505C818G03	23.00
②120/240	60/60	505C806G10	505C818G10	505C818G10	23.00
②208/220/440	60/60/60	505C806G15	505C818G08	505C818G08	23.00
Sizes 3 and 4					
120/110	60/50	505C633G01	505C635G01	505C635G01	38.40
208/220	60	505C633G02	505C635G02	505C635G02	38.40
550	60	505C633G04	505C635G04	505C635G04	38.40
800/550	60/50	505C633G05	505C635G05	505C635G05	38.40
440/380	60/50	505C633G07	505C635G07	505C635G07	38.40
600	50	505C633G09	505C635G09	505C635G09	38.40
110	60	505C633G11	505C635G11	505C635G11	38.40
240/220	60/50	505C633G12	505C635G12	505C635G12	38.40
480/440	60/50	505C633G13	505C635G13	505C635G13	38.40
②240/480	60/60	506C633G03	505C635G03	505C635G03	48.00
②120/240	60/60	506C633G10	505C635G10	505C635G10	48.00
②208/220/440	60/60/60	506C633G08	505C635G08	505C635G08	48.00



Ac Operating Coil



Contact Kit For Size 1, 3 or 4 Pole Starter

Dc Operating Coils④

Voltage	Style Numbers, 1, 2, 3 and 4 Pole Contactors			
	Sizes 00, 0, 1	Size 2 (2 and 3 Pole Only)	List Price	Sizes 3, 4 (2 and 3 Pole Only)
24	506C136G04	506C143G04	\$25.90	506C428G04
48	506C136G05	506C143G05	25.90	506C428G05
120	506C136G02	506C143G02	25.90	506C428G02
240	506C136G01	506C143G01	25.90	506C428G01
②120/240	506C136G03	506C143G03	34.60	506C428G03

Mechanical Latch Coils Sizes 00, 0, 1, 2, 3 and 4

Voltage	Hertz	Style Number	List Price
120/110	60/50	506C555G01	\$13.40
208/220	60	506C555G02	13.40
240/220	60/50	506C555G03	13.40
480/440	60/50	506C555G04	13.40
600/550	60/50	506C555G05	13.40
24	60	506C555G06	13.40
277	60	506C555G07	13.40

Renewal Contact Kits

Device Size	2-Pole		3-Pole		4-Pole		5-Pole		3-Pole Reversing	
	Style Number	List Price	Style Number	List Price	Style Number	List Price	Style Number	List Price	Style Number	List Price
00	373B331G17	\$ 7.70	373B331G18	\$11.50	373B331G18	\$11.50	373B331G19	\$ 15.40	.....	.....
0	373B331G02	11.50	373B331G04	15.40	373B331G04	15.40	373B331G05	19.20	373B331G03	\$23.60
1	373B331G07	14.40	373B331G09	19.20	373B331G09	19.20	373B331G10	24.00	373B331G08	28.80
2	373B331G11	19.20	373B331G12	28.80	373B331G13	38.40	373B331G14	48.00	373B331G15	57.60
3	626B187G12	34.60	626B187G13	51.80	626B187G14	69.10	626B187G15	86.40	626B187G13	51.80③
4	626B187G16	49.90	626B187G17	74.90	626B187G18	99.80	626B187G19	124.80	626B187G17	74.90③

② Dual voltages; use only on contactors or starters originally supplied with a dual voltage coil.

③ Two 3-pole kits required.

④ Dc coils can be used only with contactors originally supplied with Dc coils.

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Low Voltage Ac Control A/200 Magnetic Control Renewal Parts

A/200 Starter and Contactor Renewal Parts

List Prices

Ac Operating Coils

Voltage	Hertz	Style Numbers			List Price
		1, 2, 3-Pole	4-Pole	5-Pole	
Sizes 00, 0 and 1					
120/110	60/50	505C806G01	505C806G01	505C808G01	\$17.30
208/220	60	505C806G02	505C806G02	505C808G02	17.30
550	60	505C806G04	505C806G04	505C808G04	17.30
600/550	60/50	505C806G05	505C806G05	505C808G05	17.30
440/380	60/50	505C806G07	505C806G07	505C808G07	17.30
600	50	505C806G09	505C806G09	505C808G09	17.30
110	60	505C806G11	505C806G11	505C808G11	17.30
240/220	60/60	505C806G12	505C806G12	505C808G12	17.30
480/440	60/50	505C806G13	505C806G13	505C808G13	17.30
24	60	505C806G16	505C806G16	505C808G16	17.30
277/240	60/50	505C806G18	505C806G18	505C808G18	17.30
②240/480	60/60	505C806G03	505C806G03	505C808G03	23.00
②120/240	60/60	505C806G10	505C806G10	505C808G10	23.00
②208/220/440	60/60/60	505C806G15	505C806G15	505C808G14	23.00
Size 2					
120/110	60/50	505C806G01	505C818G01	505C818G01	17.30
208/220	60	505C806G02	505C818G02	505C818G02	17.30
550	60	505C806G04	505C818G04	505C818G04	17.30
600/550	60/60	505C806G05	505C818G05	505C818G05	17.30
440/380	60/50	505C806G07	505C818G07	505C818G07	17.30
600	50	505C806G09	505C818G09	505C818G09	17.30
110	60	505C806G11	505C818G11	505C818G11	17.30
240/220	60/50	505C806G12	505C818G12	505C818G12	17.30
480/440	60/50	505C806G13	505C818G13	505C818G13	17.30
24	60	505C806G16	505C818G15	505C818G15	17.30
277/240	60/50	505C806G18	505C806G18	505C818G16	17.30
②240/480	60/60	505C806G03	505C818G03	505C818G03	23.00
②120/240	60/60	505C806G10	505C818G10	505C818G10	23.00
②208/220/440	60/60/60	505C806G15	505C818G08	505C818G08	23.00
Sizes 3 and 4					
120/110	60/50	505C633G01	505C635G01	505C635G01	38.40
208/220	60	505C633G02	505C635G02	505C635G02	38.40
550	60	505C633G04	505C635G04	505C635G04	38.40
600/550	60/50	505C633G05	505C635G05	505C635G05	38.40
440/380	60/50	505C633G07	505C635G07	505C635G07	38.40
600	50	505C633G09	505C635G09	505C635G09	38.40
110	60	505C633G11	505C635G11	505C635G11	38.40
240/220	60/50	505C633G12	505C635G12	505C635G12	38.40
480/440	60/50	505C633G13	505C635G13	505C635G13	38.40
277	60	505C633G14	505C635G14	505C635G14	38.40
②240/480	60/60	505C633G03	505C635G03	505C635G03	48.00
②120/240	60/60	505C633G10	505C635G10	505C635G10	48.00
②208/220/440	60/60/60	505C633G08	505C635G08	505C635G08	48.00

Dc Operating Coils④

Voltage	Style Numbers, 1, 2, 3 and 4 Pole Contactors				
	Sizes 00, 0, 1	Size 2	List Price	Sizes 3, 4	List Price
		(2 and 3 Pole Only)		(2 and 3 Pole Only)	
24	1254C22G04	506C143G04	\$25.90	1255C68G04	\$57.60
48	1254C22G05	506C143G05	25.90	1255C68G05	57.60
125	1254C22G02	506C143G02	25.90	1255C68G01	57.60
250	1254C22G01	506C143G01	25.90	1255C68G02	57.60
125/250	1254C22G03	506C143G03	34.60	1255C68G03	72.00

Renewal Contact Kits

Device Size	2-Pole		3-Pole		4-Pole		5-Pole		3-Pole Reversing	
	Style Number	List Price	Style Number	List Price	Style Number	List Price	Style Number	List Price	Style Number	List Price
00	373B331G17	\$ 7.70	373B331G18	\$11.50	373B331G18	\$11.50	373B331G19	\$ 15.40	373B331G03	\$23.00
0	373B331G02	11.50	373B331G04	15.40	373B331G04	15.40	373B331G05	19.20	373B331G08	28.80
1	373B331G07	14.40	373B331G09	19.20	373B331G09	19.20	373B331G10	24.00	373B331G15	57.60
2	373B331G11	19.20	373B331G12	28.80	373B331G13	38.40	373B331G14	48.00	626B187G13	51.80③
3	626B187G12	34.60	626B187G13	51.80	626B187G14	69.10	626B187G15	86.40	626B187G17	74.90③
4	626B187G16	49.90	626B187G17	74.90	626B187G18	99.80	626B187G19	124.80		

② Dual voltages, use only on contactors or starters originally supplied with a dual voltage coil.

③ Two 3 pole kits required.

④ Dc coils can be used only with contactors originally supplied with Dc coils.

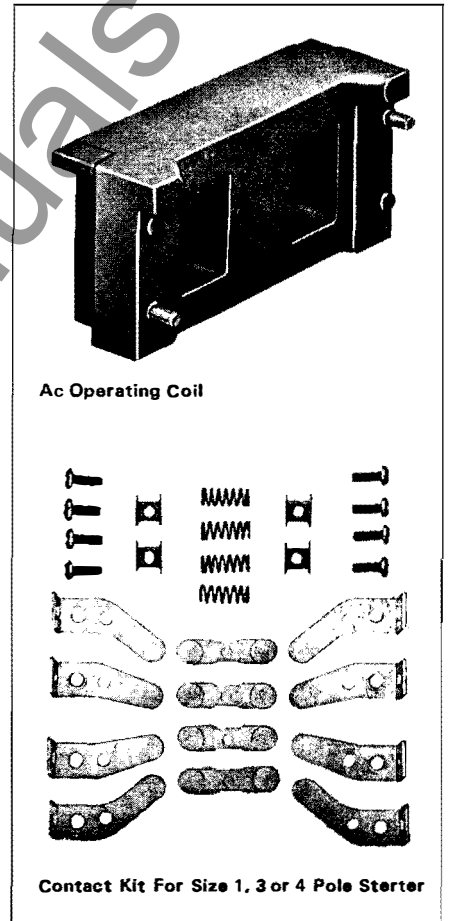
⑤ Changed since previous issue.

Westinghouse Electric Corporation
Control Products Division, Beaver, Pa. 15009
Prices subject to change without notice

Prices effective May 8, 1972; subject to change
without notice.
Discount Symbol E-1
Selling policy 7000

August 5, 1974

Supersedes supplement CS 8220, page 24.1,
dated May 11, 1972
E.D.C/1787/PL



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Westinghouse Electric Corporation
Control Products Division
Beaver, Pennsylvania 15009

Supp. to Catalog Section
8220 C WE A

Page .01

September 28, 1976
New Information
Mailed to: E,D,C/1787/PL

A 200 Magnetic
Motor Control

Refer to Catalog Section 8220 C WE A dated June 7, 1976, and see page 17, MOR Overload Relay

Information shown in the heater table is superseded by the data shown in the heater table below.

Heater Cat. No.	Motor Full Load Amperes		
	MOR-1	MOR-2	MOR-4
HTM01	2.25 - 2.50	 -	 -
HTM02	2.57 - 2.80	 -	 -
HTM03	2.80 - 3.07	4.36 - 4.78	13.8 - 15.1
HTM04	2.96 - 3.24	5.05 - 5.53	14.7 - 16.1
HTM05	3.23 - 3.54	5.45 - 5.96	15.9 - 17.4
HTM06	3.50 - 3.83	5.90 - 6.46	17.4 - 19.1
HTM07	3.70 - 4.06	6.05 - 6.63	18.2 - 19.9
HTM08	3.90 - 4.27	6.30 - 6.90	19.1 - 20.9
HTM09	4.10 - 4.50	6.80 - 7.44	20.4 - 22.3
HTM10	4.30 - 4.70	7.20 - 7.89	21.6 - 23.6
HTM11	4.60 - 5.04	7.70 - 8.43	22.7 - 24.8
HTM12	4.90 - 5.37	8.30 - 9.09	24.4 - 26.7
HTM13	5.30 - 5.81	8.85 - 9.69	26.6 - 29.1
HTM14	5.70 - 6.25	9.45 - 10.35	28.2 - 30.9
HTM15	6.20 - 6.79	10.07 - 11.03	29.8 - 32.6
HTM16	6.60 - 7.23	10.92 - 11.95	32.4 - 35.5
HTM17	7.20 - 7.89	11.75 - 12.86	35.7 - 39.1
HTM18	7.70 - 8.44	12.95 - 14.18	38.4 - 42.1
HTM19	8.20 - 8.98	13.60 - 14.89	40.7 - 44.6
HTM20	8.70 - 9.52	14.37 - 15.73	43.3 - 47.4
HTM21	9.00 - 9.86	15.00 - 16.4	45.0 - 49.3
HTM22	9.50 - 10.4	16.04 - 17.56	48.0 - 52.6
HTM23	10.20 - 11.17	17.25 - 18.89	51.7 - 56.6
HTM24	11.00 - 12.05	18.20 - 19.93	54.6 - 59.8
HTM25	11.70 - 12.81	19.65 - 21.52	58.8 - 64.4
HTM26	12.48 - 13.67	20.75 - 22.72	60.5 - 66.3
HTM27	13.67 - 14.35	22.20 - 24.31	66.2 - 72.5
HTM28	14.05 - 15.40	23.30 - 25.51	70.4 - 77.1
HTM29	15.10 - 16.53	25.5 - 27.92	75.2 - 82.3
HTM30	16.20 - 17.75	26.6 - 29.13	79.6 - 87.2
HTM31	17.58 - 19.26	29.2 - 31.98	87.3 - 95.3
HTM32	18.60 - 20.37	31.5 - 34.49	95.0 - 104.0
HTM33	20.30 - 22.23	33.6 - 36.79	101.5 - 111.2
HTM34	21.50 - 23.55	36.3 - 39.75	109.0 - 119.4
HTM35	23.40 - 25.63	38.7 - 42.38	116.0 - 127.0
HTM36	25.40 - 27.82	42.0 - 46.00	125.0 - 136.9

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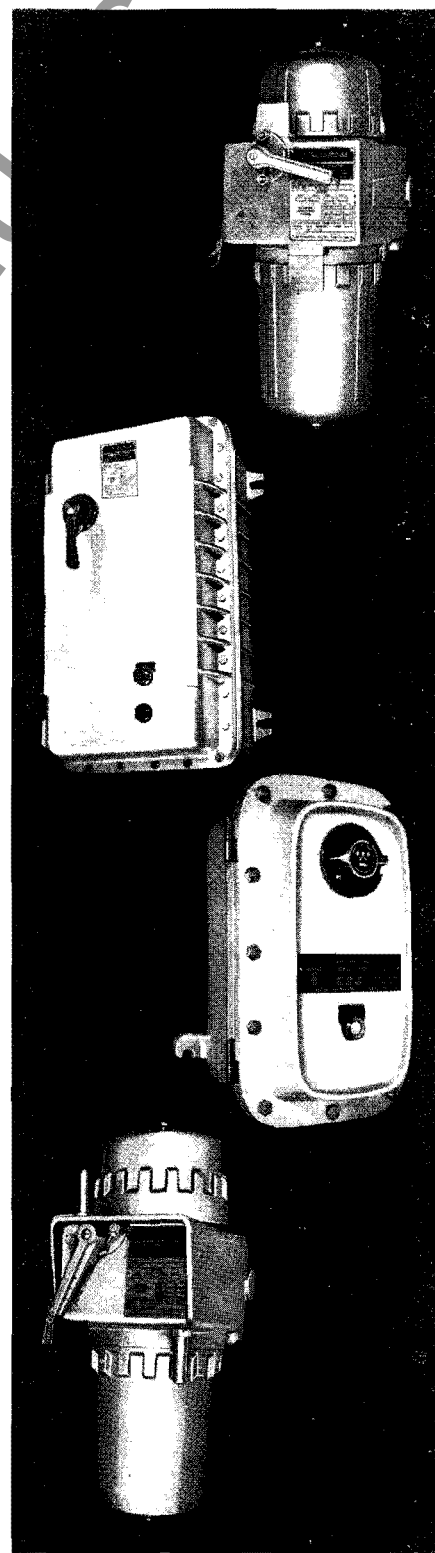
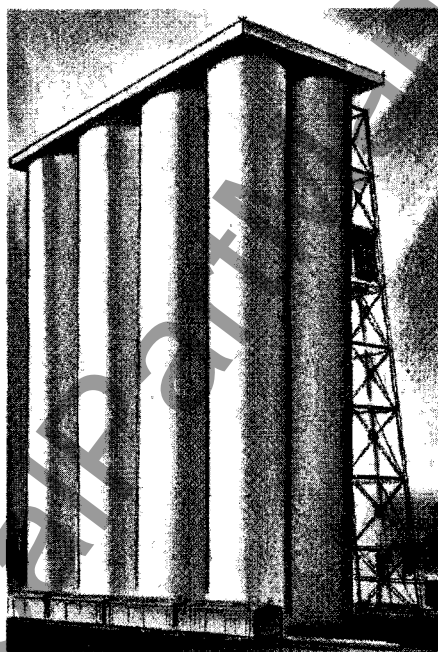
Low Voltage Ac Control
**A/200 Magnetic Control
 Starters for Hazardous
 Locations**

Starters for Hazardous Locations

Type A/200 across-the-line and combination across-the-line motor starters listed in this section are furnished in the widest selection of enclosures available from any manufacturer for watertight and hazardous locations. Enclosures are cast aluminum in threaded or bolted-flange design as built by Crouse-

Hinds, Killark Electric, Nelson Electric and Pyle National for NEMA 4, NEMA 7 and NEMA 9 applications.

Starters can be furnished for non-reversing or reversing service. The combination starters combine a starter unit with a MCP motor circuit protector or a disconnect switch.



November 1, 1971
 Supersedes Catalog Section 8220, pages 37-48,
 dated November 14, 1970
 E, D, C/1787/PL

Westinghouse



Starters for Hazardous Locations Crouse-Hinds EPC Condulet Enclosure

NEMA 7 for Class I, Groups C, D Hazardous Locations.
NEMA 9 for Class II, Groups E, F, G Hazardous Locations.

Corrosion Resistance

Enclosure cast from copper-free aluminum.
Exterior hardware is aluminum or stainless steel.

Construction Features

Sectional construction permits top and bottom covers to be removed from center body.

Cover notches and "pry brackets" on center body facilitate cover "starting."

Drain and breather holes are provided.

Mounting

Three-point suspension, keyhole slot simplify mounting and plumbing of enclosure.

Wiring and Maintenance

Apparatus and mounting frame are removable as one assembly by loosening two screws.

Ample space provided in center body and cover sections for looping wires.

Starter is fully accessible with lower cover removed.

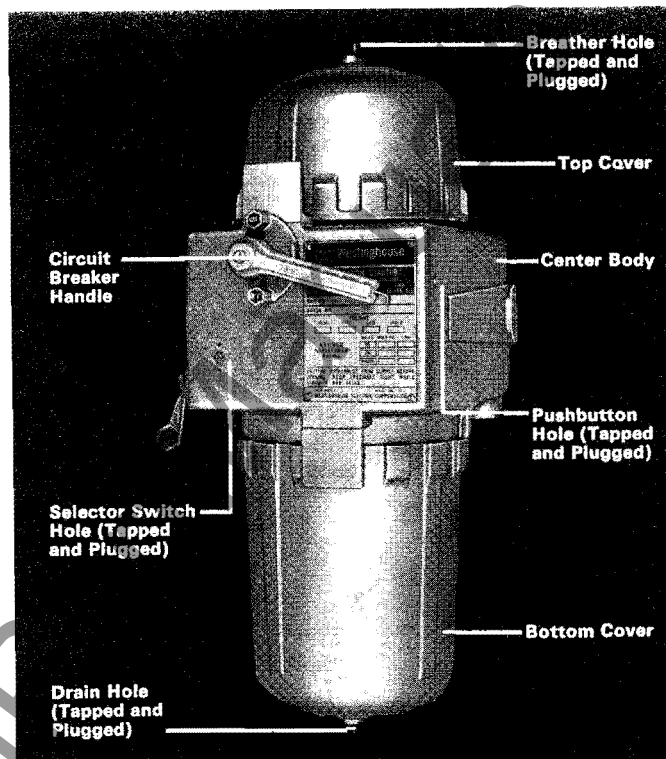
Circuit Breaker Operator

Positive action mechanism, handle will accept three padlocks.

Accessories

Enclosure has provision for field mounting a start-stop pushbutton and a Hand-Off-Auto selector switch.

Pilot light and control transformer can be factory installed.



Killark Electrolet Flange Enclosures

NEMA 4 for Watertight Applications.

NEMA 7 for Class I, Group D Hazardous Locations. (Illustrated)

NEMA 9 for Class II, Groups E, F, G, Hazardous Locations.

Corrosion Resistance

Enclosure is cast from copper-free aluminum.

Construction Features

NEMA 7 enclosure utilize split-box design and ground flange construction.

NEMA 4, 9 enclosures are of gasketed, flange joint construction with gasket mechanically attached. Enclosures for size 0, 1 and 2 starters are of split-box design; those for sizes 3 and 4 starters are conventional design.

Cover is hinged to box.

Conduit openings are drilled and tapped.

Drain and breather can be added.

Reset button is spring loaded, operates directly with reset on starter.

Wiring and Maintenance

Back mounting pan for combination starter apparatus is easily removed and installed.

Hinges hold cover in place when it is open.

Mounting

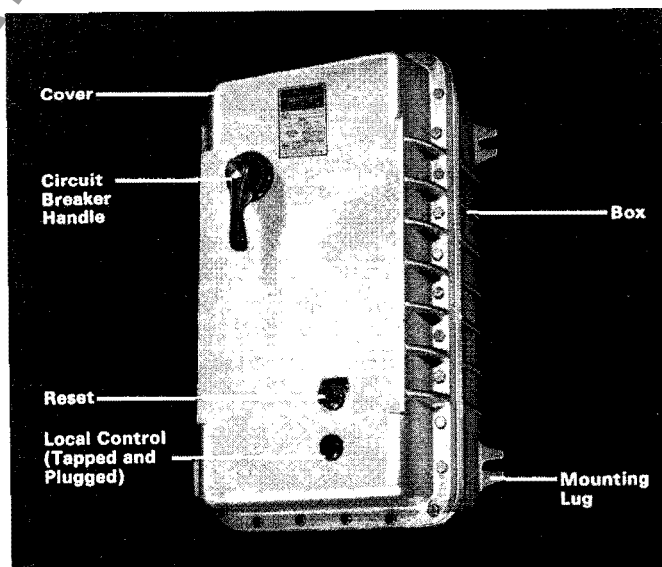
Mounting lugs are included on all enclosures.

Front-opening design permits enclosures to be mounted one above the other with minimum spacing between.

Circuit Breaker Operator

Handle is die cast of copper-free aluminum.

Interlock prevents opening of cover with breaker in ON position



Handle is vertically mounted for positive position indication, will accept three padlocks.

Accessories

Enclosures for non-reversing starters have opening for one field modification (pushbutton, selector switch, pilot light); reversing starters have provisions for up to three field modifications.

Control transformer can be factory installed.

Low Voltage Ac Control A/200 Magnetic Control Starters for Hazardous Locations

Starters for Hazardous Locations

Nelson White Line Enclosures

NEMA 4 for Watertight and Dust-tight applications.
NEMA 7 for Class I, Group D Hazardous Locations. (Illustrated)
NEMA 9 for Class II, Groups E, F, G Hazardous Locations.

Corrosion Resistance

Enclosure cast from copper-free aluminum.
Cover bolts and hinges are stainless steel.
Nameplate is etched stainless steel.

Construction Features

Cover bolts are captive, can be removed in $1\frac{1}{2}$ turns.
Life-off hinges permit cover to be removed.
Four conduit openings (2 top, 2 bottom) are standard; one additional opening can be provided on each side.
Drain and breather can be added on NEMA 7 enclosure.
White acrylic paint on exterior reduces operating temperature.
Interior hardware galvanized.

Mounting

Three-point, Hook-on mounting.
Mounting feet are cast as part of enclosure.
Compact size takes less space, permits double decking.

Wiring and Maintenance

Ample working and wiring space.
Cover can be completely removed, if desirable.

Circuit Breaker Operator

Handle is easily read, position quickly identified.
Cover cannot be closed unless handle is in proper position.

Accessories

Pushbuttons, selector switches, pilot lights and control transformers can be supplied.

Pyle National ECS Pylet Enclosure

NEMA 7 for Class I, Groups C and D Hazardous Locations.
NEMA 9 for Class II, Groups E, F, G Hazardous Locations.

Corrosion Resistance

Enclosure cast from copper-free aluminum.
Shafts and external hardware are 316 stainless steel.

Construction

Three-part construction includes top and bottom domed covers, and center body.
Protection against weather is inherent in design: top cover threads onto center body, lower cover threads into center body.
Mechanical interlocking of covers prevents their removal while breaker handle is in ON position.
Four conduit tapings (2 top, 2 bottom) are provided. Additional tapings can be provided on each side and center rear.
Drain and breather holes are provided.

Mounting

Three-point suspension with keyhole slots facilitate mounting.

Maintenance

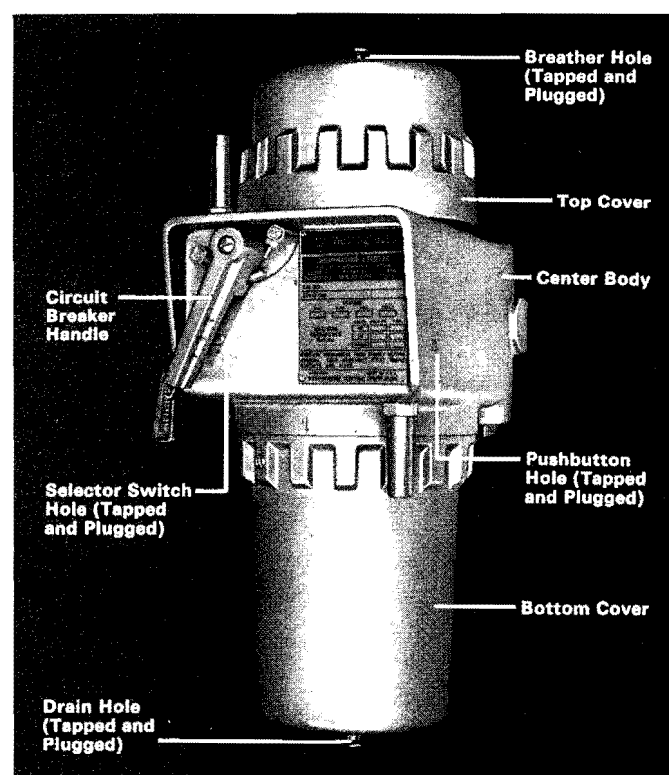
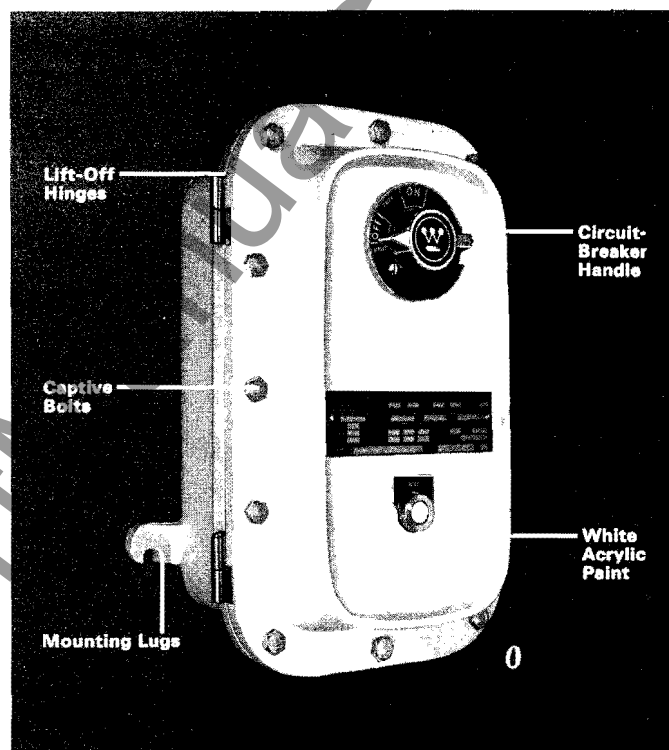
Acme screw threads on covers and center body permit quick, easy access to enclosure interior.

Circuit Breaker Operator

Circuit breaker handle has built-in three lock arrangement that permits padlocking in either ON or OFF position.

Accessories

Enclosure has provision for field mounting one Start-Stop pushbutton and one Hand-Off-Auto selector switch.
Pilot light and control transformer can be factory installed.



Westinghouse



Starters for Hazardous Locations

® List Prices Prices Do Not Include Heaters Overload Relay Requires 3 Heaters (For modifications, see page 49)

Type A200 Non-Combination, 60 Cycle, 3-Phase Starters

60 Cycle Coil Voltage ③	Max. Hp.	NEMA Size	Bolted Flange Enclosures				Hazardous Locations NEMA 7, Cl. I, Grp. D			Hazardous Locations NEMA 9, Cl. II, Grps. E, F, or G		Threaded Enclosures		
			Watertight, NEMA 4 Hazardous Locations NEMA 9, Cl. II, Grps. E, F, or G		Watertight NEMA 4							Hazardous Locations NEMA 7, Cl. I, Grps. C or D NEMA 9, Cl. II, Grps. E, F, or G		
			Killark		Nelson		Killark	Nelson	Nelson	Crouse Hinds	Pyle National			
			Cat. No. A200②	List Price⑤	Cat. No. A200②	List Price⑤	Cat. No. A200②	Cat. No. A200②	List Price⑤	Cat. No. A200②	List Price⑤	Cat. No. A200②	Cat. No. A200②	List⑥ Price
120 (Separate Control) (110/50)	See Ratings	0	Y0CAC	\$ 156	Z0CAC	\$ 156	U0CAC	N0CAC	\$ 308	T0CAC	\$ 156	C0CAC	P0CAC	\$ 308
	Below	1	Y1CAC	169	Z1CAC	169	U1CAC	N1CAC	314	T1CAC	169	C1CAC	P1CAC	314
		2	Y2CAC	411	Z2CAC	411	U2CAC	N2CAC	508	T2CAC	411	C2CAC	P2CAC	508
		3	Y3CAC	618	Z3CAC	618	U3CAC	N3CAC	763	T3CAC	618	C3CAC	P3CAC	763
		4	Y4CAC	1216	Z4CAC	1216	U4CAC	N4CAC	1232	T4CAC	1216	C4CAC	P4CAC	1232
208/220	3	0	Y0CB	156	Z0CB	156	U0CB	N0CB	308	T0CB	156	C0CB	P0CB	308
	7½	1	Y1CB	169	Z1CB	169	U1CB	N1CB	314	T1CB	169	C1CB	P1CB	314
	15	2	Y2CB	411	Z2CB	411	U2CB	N2CB	508	T2CB	411	C2CB	P2CB	508
	30	3	Y3CB	618	Z3CB	618	U3CB	N3CB	763	T3CB	618	C3CB	P3CB	763
	50	4	Y4CB	1216	Z4CB	1216	U4CB	N4CB	1232	T4CB	1216	C4CB	P4CB	1232
240 (220/50)	3	0	Y0CW	156	Z0CW	156	U0CW	N0CW	308	T0CW	156	C0CW	P0CW	308
	7½	1	Y1CW	169	Z1CW	169	U1CW	N1CW	314	T1CW	169	C1CW	P1CW	314
	15	2	Y2CW	411	Z2CW	411	U2CW	N2CW	508	T2CW	411	C2CW	P2CW	508
	30	3	Y3CW	618	Z3CW	618	U3CW	N3CW	763	T3CW	618	C3CW	P3CW	763
	50	4	Y4CW	1216	Z4CW	1216	U4CW	N4CW	1232	T4CW	1216	C4CW	P4CW	1232
480 (440/50)	5	0	Y0CX	156	Z0CX	156	U0CX	N0CX	308	T0CX	156	C0CX	P0CX	308
	10	1	Y1CX	169	Z1CX	169	U1CX	N1CX	314	T1CX	169	C1CX	P1CX	314
	25	2	Y2CX	411	Z2CX	411	U2CX	N2CX	508	T2CX	411	C2CX	P2CX	508
	50	3	Y3CX	618	Z3CX	618	U3CX	N3CX	763	T3CX	618	C3CX	P3CX	763
	100	4	Y4CX	1216	Z4CX	1216	U4CX	N4CX	1232	T4CX	1216	C4CX	P4CX	1232

Type A203 Combination, 60 Cycle, 3-Phase Starters With Non-Fusible Disconnect Switch

60 Cycle Coil Voltage ③	Max. Hp.	NEMA Size	Bolted Flange Enclosures									Threaded Enclosures				
			Watertight, NEMA 4 Hazardous Locations NEMA 9, Cl. II, Grps. E, F, or G			Watertight NEMA 4		Hazardous Locations NEMA 7, Cl. I, Grp. D			Hazardous Locations NEMA 9, Cl. II, Grps. E, F, or G		Hazardous Locations NEMA 7, Cl. I, Grps. C or D NEMA 9, Cl. II, Grps. E, F, or G			
			Killark		Nelson		Killark		Nelson	Nelson		Crouse Hinds	Pyle National			
			Cat. No. A203②	List Price®	Cat. No. A203②	List Price®	Cat. No. A203②	Cat. No. A203②	List Price®	Cat. No. A203②	List Price®	Cat. No. A203②	Cat. No. A203②	List® Price		
120 (Separate Control) (110/50)	See Ratings	0	Y0AC	\$ 420	Z0AC	\$ 429	U0AC	N0AC	\$ 530	T0AC	\$ 420	C0AC	P0AC	\$ 530		
	Below	1	Y1AC	433	Z1AC	440	U1AC	N1AC	548	T1AC	433	C1AC	P1AC	548		
		2	Y2AC	768	Z2AC	696	U2AC	N2AC	792	T2AC	768	C2AC	P2AC	792		
		3	Y3AC	1232	Z3AC	1179	U3AC	N3AC	1287	T3AC	1232	C3AC	P3AC	1287		
		4	Y4AC	1967	Z4AC	1872	U4AC	N4AC	2013	T4AC	1967	C4AC	P4AC	2013		
208/220	3	0	Y0B	420	Z0B	429	U0B	N0B	530	T0B	420	C0B	P0B	530		
	7½	1	Y1B	433	Z1B	440	U1B	N1B	548	T1B	433	C1B	P1B	548		
	15	2	Y2B	768	Z2B	696	U2B	N2B	792	T2B	768	C2B	P2B	792		
	30	3	Y3B	1232	Z3B	1179	U3B	N3B	1287	T3B	1232	C3B	P3B	1287		
	50	4	Y4B	1967	Z4B	1872	U4B	N4B	2013	T4B	1967	C4B	P4B	2013		
240 (220/50)	3	0	Y0W	420	Z0W	429	U0W	N0W	530	T0W	420	C0W	P0W	530		
	7½	1	Y1W	433	Z1W	440	U1W	N1W	548	T1W	433	C1W	P1W	548		
	15	2	Y2W	768	Z2W	696	U2W	N2W	792	T2W	768	C2W	P2W	792		
	30	3	Y3W	1232	Z3W	1179	U3W	N3W	1287	T3W	1232	C3W	P3W	1287		
	50	4	Y4W	1967	Z4W	1872	U4W	N4W	2013	T4W	1967	C4W	P4W	2013		
480 (440/50)	5	0	Y0X	420	Z0X	429	U0X	N0X	530	T0X	420	C0X	P0X	530		
	10	1	Y1X	433	Z1X	440	U1X	N1X	548	T1X	433	C1X	P1X	548		
	25	2	Y2X	768	Z2X	696	U2X	N2X	792	T2X	768	C2X	P2X	792		
	50	3	Y3X	1232	Z3X	1179	U3X	N3X	1287	T3X	1232	C3X	P3X	1287		
	100	4	Y4X	1967	Z4X	1872	U4X	N4X	2013	T4X	1967	C4X	P4X	2013		

® Prices changed since previous issue.

● Changed since previous issue.

● Complete catalog number consists of **A200, A203** in column heading, plus suffix letters in column below. **Example: A200 + U0CAC = A200U0CAC.**

③ For other voltages, see page 49. For A200 starters, substitute suffix letter of desired coil for eighth digit in catalog number listed above. For A203 starters, substitute suffix letter for seventh digit.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S4
Selling Policy 7000

Low Voltage Ac Control
A/200 Magnetic Control
Starters for Hazardous
Locations

Starters for Hazardous Locations

① List Prices, Continued Prices Do Not Include Heaters

Overload Relay Requires 3 Heaters (For modifications, see page 49)

Type A204 Combination, 60 Cycle, 3-Phase Starters With Fusible Disconnect Switch

60 Cycle Coil Voltage ③	Maximum Horsepower		NEMA Size	Fuse Clip Ratings		Bolted Flange Enclosure	
	Dual Element Fuses	N.E.C.		Volts	Amps	Watertight NEMA 4 Killark Cat. No. A204②	List Price ④
①120/60 (110/50 Separate Control)	See Ratings Below		0	250	30	X0BAAC	\$ 437
			1	250	30	X1BAAC	447
			1	250	60	X1BBAC	451
			2	250	60	X2BBAC	695
			2	250	100	X2BCAC	724
			2	250	200	X2BDAC	750
			3	250	100	X3BCAC	1190
			3	250	200	X3BDAC	1243
			4	250	200	X4BDAC	1874
			4	250	400	X4BEAC	2022
208/220	3	0	250	30	X0BAB	437	
	7½	3	250	30	X1BAB	447	
	7½	1	250	60	X1BBB	451	
	15	7½	2	250	60	X2BBB	695
	15④	2	250	100	X2BCB	724	
	15	2	250	200	X2BDB	750	
	30	15④	3	250	100	X3BCB	1190
	30	3	250	200	X3BDB	1243	
	50	30	4	250	200	X4BDB	1874
	50	50	4	250	400	X4BEB	2022
240 (220/50)	3	0	250	30	X0BAW	437	
	7½	3	250	30	X1BAW	447	
	7½	1	250	60	X1BBW	451	
	15	7½	2	250	60	X2BBW	695
	15④	2	250	100	X2BCW	724	
	15	2	250	200	X2BDW	750	
	30	15④	3	250	100	X3BCW	1190
	30	3	250	200	X3BDW	1243	
	50	30	4	250	200	X4BDW	1874
	50	50	4	250	400	X4BEW	2022
480 (440/50)	5	0	600	30	X0AAX	440	
	10	5	600	30	X1AAX	451	
	10	1	600	60	X1ABX	455	
	25	15	600	60	X2ABX	702	
	25	2	600	100	X2ACX	728	
	50	30④	3	600	100	X3ACX	1203
	50	3	600	200	X3ADX	1252	
	100	60	4	600	200	X4ADX	1921
	100	100	4	600	400	X4AEX	2042
	100	4	600	400	X4AEX	2042	

④ Prices changed since previous issue.

① Changed or added since previous issue.

② Complete catalog number consists of A204 in column heading, plus suffix letters in column below. Example: A204 + X0BAW = Catalog Number A204X0BAW.

③ For other voltages, see page 49, and substitute suffix letter for desired coil for 9th digit in catalog number listed above.

● Suitable for this horsepower on light starting duty. For heavy starting duty, use starter with next size larger fuse clips.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S4
 Selling Policy 7000

Westinghouse



Starters for Hazardous Locations

① List Prices, Continued Prices Do Not Include Heaters Overload Relay Requires 3 Heaters (For modifications, see page 49)
Type A206 Combination, 60 Cycle, 3-Phase Starters With AB De-ion® Circuit Breaker or Motor Circuit Protector

60 Cycle Coil Voltage ③	Max. Hp.	NEMA Size	Circuit Breaker or MCP Amps & Frame Size	Bolted Flange Enclosures						Threaded Enclosures					
				Watertight, NEMA 4 4 Hazardous Loca- tions, NEMA 9, Cl. II, Grps. E, F, or G		Watertight, NEMA 4		Hazardous Locations NEMA 7, Cl. I, Grp. D		Hazardous Loca- tions, NEMA 9, Cl. II, Grps. E, F, or G		Hazardous Locations NEMA 7, Cl. I, Grps. C or D NEMA 9, Cl. II, Grps. E, F, or G		Hazardous Locations NEMA 7, Cl. I, Grps. C or D NEMA 9, Cl. II, Grps. E, F, or G	
				Killark	Nelson	Killark	Nelson	Killark	Nelson	Nelson	Crouse Hinds	Pyle National	Crouse Hinds	Pyle National	
				Cat. No. A206②	List® Price	Cat. No. A206②	List® Price	Cat. No. A206②	Cat. No. A206②	List® Price	Cat. No. A206②	List® Price	Cat. No. A206②	Cat. No. A206②	List® Price
120/60 (Separate Control 110/50)	See	0	15 EB	Y0BAAC	\$ 444	Z0BAAC	\$ 427	U0BAAC	N0BAAC	\$ 486	T0BAAC	\$ 444	C0BAAC	P0BAAC	\$ 486
	0	0	7MCP	Y0MUAC	508	Z0MUAC	491	U0MUAC	N0MUAC	539	T0MUAC	508	C0MUAC	P0MUAC	539
	0	0	15EB	Y0BAAC	444	Z0BAAC	427	U0BAAC	N0BAAC	486	T0BAAC	444	C0BAAC	P0BAAC	486
	0	0	15MCP	Y0MAAC	508	Z0MAAC	491	U0MAAC	N0MAAC	539	T0MAAC	508	C0MAAC	P0MAAC	539
	0	0	20EB	Y0BBAC	444	Z0BBAC	427	U0BBAC	N0BBAC	486	T0BBAC	444	C0BBAC	P0BBAC	486
	0	0	15MCP	Y0MAAC	508	Z0MAAC	491	U0MAAC	N0MAAC	539	T0MAAC	508	C0MAAC	P0MAAC	539
	1	0	30EB	Y1BDAC	455	Z1BDAC	438	U1BDAC	N1BDAC	495	T1BDAC	455	C1BDAC	P1BDAC	495
	1	0	30MCP	Y1MDAC	519	Z1MDAC	502	U1MDAC	N1MDAC	552	T1MDAC	519	C1MDAC	P1MDAC	552
	1	0	50EB	Y1BGAC	455	Z1BGAC	438	U1BGAC	N1BGAC	495	T1BGAC	455	C1BGAC	P1BGAC	495
	1	0	30MCP	Y1MDAC	519	Z1MDAC	502	U1MDAC	N1MDAC	552	T1MDAC	519	C1MDAC	P1MDAC	552
	2	0	70EB	Y2BHAC	679	Z2BHAC	674	U2BHAC	N2BHAC	679	T2BHAC	679	C2BHAC	P2BHAC	679
	2	0	50MCP	Y2MGAC	737	Z2MGAC	738	U2MGAC	N2MGAC	737	T2MGAC	737	C2MGAC	P2MGAC	737
	2	0	100EB	Y2BJAC	679	Z2BJAC	674	U2BJAC	N2BJAC	679	T2BJAC	679	C2BJAC	P2BJAC	679
	2	0	50MCP	Y2MGAC	737	Z2MGAC	738	U2MGAC	N2MGAC	737	T2MGAC	737	C2MGAC	P2MGAC	737
	3	0	100MCP	Y3MJAC	1218	Z3MJAC	1167	U3MJAC	N3MJAC	1218	T3MJAC	1218	C3MJAC	P3MJAC	1218
	4	0	150MCP	Y4MLAC	1898	Z4MLAC	2040	U4MLAC	N4MLAC	1898	T4MLAC	1898	C4MLAC	P4MLAC	1898
208/220	2	0	15EB	Y0BAB	444	Z0BAB	427	U0BAB	N0BAB	486	T0BAB	444	C0BAB	P0BAB	486
	1	0	7MCP	Y0MUB	508	Z0MUB	491	U0MUB	N0MUB	539	T0MUB	508	C0MUB	P0MUB	539
	2	0	15EB	Y0BAB	444	Z0BAB	427	U0BAB	N0BAB	486	T0BAB	444	C0BAB	P0BAB	486
	3	0	15MCP	Y0MAB	508	Z0MAB	491	U0MAB	N0MAB	539	T0MAB	508	C0MAB	P0MAB	539
	3	0	20EB	Y0BBB	444	Z0BBB	427	U0BBB	N0BBB	486	T0BBB	444	C0BBB	P0BBB	486
	3	0	15MCP	Y0MAB	508	Z0MAB	491	U0MAB	N0MAB	539	T0MAB	508	C0MAB	P0MAB	539
	5	1	30EB	Y1BDB	455	Z1BDB	438	U1BDB	N1BDB	495	T1BDB	455	C1BDB	P1BDB	495
	7½	1	30MCP	Y1MDB	519	Z1MDB	502	U1MDB	N1MDB	552	T1MDB	519	C1MDB	P1MDB	552
	7½	1	50EB	Y1GBB	455	Z1GBB	438	U1GBB	N1GBB	495	T1GBB	455	C1GBB	P1GBB	495
	7½	1	30MCP	Y1MDB	519	Z1MDB	502	U1MDB	N1MDB	552	T1MDB	519	C1MDB	P1MDB	552
	10	2	70EB	Y2BHB	679	Z2BHB	674	U2BHB	N2BHB	679	T2BHB	679	C2BHB	P2BHB	679
	15	2	50MCP	Y2MGB	737	Z2MGB	738	U2MGB	N2MGB	737	T2MGB	737	C2MGB	P2MGB	737
	15	2	100EB	Y2BJB	679	Z2BJB	674	U2BJB	N2BJB	679	T2BJB	679	C2BJB	P2BJB	679
	15	2	50MCP	Y2MGB	737	Z2MGB	738	U2MGB	N2MGB	737	T2MGB	737	C2MGB	P2MGB	737
	30	3	100MCP	Y3MJB	1218	Z3MJB	1167	U3MJB	N3MJB	1218	T3MJB	1218	C3MJB	P3MJB	1218
	50	4	150MCP	Y4MLB	1898	Z4MLB	2040	U4MLB	N4MLB	1898	T4MLB	1898	C4MLB	P4MLB	1898
240 (220/50)	2	0	15EB	Y0BAW	444	Z0BAW	427	U0BAW	N0BAW	486	T0BAW	444	C0BAW	P0BAW	486
	1	0	7MCP	Y0MUW	508	Z0MUW	491	U0MUW	N0MUW	539	T0MUW	508	C0MUW	P0MUW	539
	2	0	15EB	Y0BAW	444	Z0BAW	427	U0BAW	N0BAW	486	T0BAW	444	C0BAW	P0BAW	486
	3	0	15MCP	Y0MAW	508	Z0MAW	491	U0MAW	N0MAW	539	T0MAW	508	C0MAW	P0MAW	539
	3	0	20EB	Y0BBW	444	Z0BBW	427	U0BBW	N0BBW	486	T0BBW	444	C0BBW	P0BBW	486
	3	0	15MCP	Y0MAW	508	Z0MAW	491	U0MAW	N0MAW	539	T0MAW	508	C0MAW	P0MAW	539
	5	1	30EB	Y1BDW	455	Z1BDW	438	U1BDW	N1BDW	495	T1BDW	455	C1BDW	P1BDW	495
	7½	1	30MCP	Y1MDW	519	Z1MDW	502	U1MDW	N1MDW	552	T1MDW	519	C1MDW	P1MDW	552
	7½	1	50EB	Y1BGW	455	Z1BGW	438	U1BGW	N1BGW	495	T1BGW	455	C1BGW	P1BGW	495
	7½	1	30MCP	Y1MDW	519	Z1MDW	502	U1MDW	N1MDW	552	T1MDW	519	C1MDW	P1MDW	552
	10	2	70EB	Y2BHW	679	Z2BHW	674	U2BHW	N2BHW	679	T2BHW	679	C2BHW	P2BHW	679
	15	2	50MCP	Y2MGW	737	Z2MGW	738	U2MGW	N2MGW	737	T2MGW	737	C2MGW	P2MGW	737
	15	2	100EB	Y2BJW	679	Z2BJW	674	U2BJW	N2BJW	679	T2BJW	679	C2BJW	P2BJW	679
	15	2	50MCP	Y2MGW	737	Z2MGW	738	U2MGW	N2MGW	737	T2MGW	737	C2MGW	P2MGW	737
	30	3	100MCP	Y3MJW	1218	Z3MJW	1167	U3MJW	N3MJW	1218	T3MJW	1218	C3MJW	P3MJW	1218
	50	4	150MCP	Y4MLW	1898	Z4MLW	2040	U4MLW	N4MLW	1898	T4MLW	1898	C4MLW	P4MLW	1898
480 (440/50)	1	0	3MCP	Y0MTX	508	Z0MTX	491	U0MTX	N0MTX	539	T0MTX	508	C0MTX	P0MTX	539
	2	0	7MCP	Y0MUX	508	Z0MUX	491	U0MUX	N0MUX	539	T0MUX	508	C0MUX	P0MUX	539
	5	0	15MCP	Y0MAX	508	Z0MAX	491	U0MAX	N0MAX	539	T0MAX	508	C0MAX	P0MAX	539
	10	1	30MCP	Y1MDX	519	Z1MDX	502	U1MDX	N1MDX	552	T1MDX	519	C1MDX	P1MDX	552
	25	2	50MCP	Y2MGX	737	Z2MGX	738	U2MGX	N2MGX	737	T2MGX	737	C2MGX	P2MGX	737
	50	3	100MCP	Y3MJX	1218	Z3MJX	1167	U3MJX	N3MJX	1218	T3MJX	1218	C3MJX	P3MJX	1218
	100	4	150MCP	Y4MLX	1898	Z4MLX	2040	U4MLX	N4MLX	1898	T4MLX	1898	C4MLX	P4MLX	1898
600	1	0	3MCP	Y0MTE	508	Z0MTE	491	U0MTE	N0MTE	539	T0MTE	508	C0MTE	P0MTE	539
	2	0	7MCP	Y0MUE	508	Z0MUE	491	U0MUE	N0MUE	539	T0MUE	508	C0MUE	P0MUE	539
	5	0	15MCP	Y0MAE	508	Z0MAE	491	U0MAE	N0MAE	539	T0MAE	508	C0MAE	P0MAE	539
	10	1	30MCP	Y1MDE	519	Z1MDE	502	U1MDE	N1MDE	552	T1MDE	519	C1MDE	P1MDE	552
	25	2	50MCP	Y2MGE	737	Z2MGE	738	U2MGE	N2MGE	737	T2MGE	737	C2MGE	P2MGE	737
	50	3	100MCP	Y3MJE	1218	Z3MJE	1167	U3MJE	N3MJE	1218	T3MJE	1218	C3MJE	P3MJE	1218
	100	4	150MCP	Y4MLE	1898	Z4MLE	2040	U4MLE	N4MLE	1898	T4MLE	1898	C4MLE	P4MLE	1898

① Prices changed since previous issue.

② Changed or added since previous issue.

③ Complete catalog number consists of A206 in column heading, plus suffix letters in column below. Example: A206 + X0BAW = Catalog Number A206X0BAW.

④ For other voltages, see page 49, and substitute suffix letter for desired coil for 9th digit in catalog number listed above.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S4

Selling Policy 7000

Low Voltage Ac Control A/200 Magnetic Control Starters for Hazardous Locations

Starters for Hazardous Locations

① List Prices, Continued Prices Do Not Include Heaters Overload Relay Requires 3 Heaters (For modifications, see page 49)

Type A210 Non-Combination, 60 Cycle, 3-Phase Starters

60 Cycle Coil Voltage ③	Max. Hp.	NEMA Size	Bolted Flange Enclosures									Threaded Enclosures									
			Watertight, NEMA 4 Hazardous Locations NEMA 9, Cl. II, Grps. E, F, or G			Watertight NEMA 4			Hazardous Locations NEMA 7, Cl. I, Grp. D			Hazardous Locations NEMA 9, Cl. II, Grps. E, F, or G			Hazardous Locations NEMA 7, Cl. I, Grps. C or D NEMA 9, Cl. II, Grps. E, F, or G						
			Killark			Nelson			Killark			Nelson			Nelson			Crouse Hinds		Pyle National	
			Cat. No. A210②	List [Ⓐ] Price		Cat. No. A210②	List [Ⓐ] Price		Cat. No. A210②	Cat. No. A210②	List [Ⓐ] Price	Cat. No. A210②	List [Ⓐ] Price		Cat. No. A210②	List [Ⓐ] Price		Cat. No. A210②	List [Ⓐ] Price		
120 Separate Control (110/50)	See	0	Y0CAC	\$ 280		Z0CAC	\$ 280		U0CAC	N0CAC	\$ 532		T0CAC	\$ 280		C0CAC	P0CAC	\$ 532			
	Below	1	Y1CAC	346		Z1CAC	346		U1CAC	N1CAC	558		T1CAC	346		C1CAC	P1CAC	558			
		2	Y2CAC	711		Z2CAC	627		U2CAC	N2CAC	932		T2CAC	711		C2CAC	P2CAC	932			
		3	Y3CAC	1100		Z3CAC	1003		U3CAC	N3CAC	1498		T3CAC	1100		C3CAC	P3CAC	1498			
		4	Y4CAC	2347		Z4CAC	2185		U4CAC	N4CAC	2574		T4CAC	2347		C4CAC	P4CAC	2574			
208/220	3	0	Y0CB	280		Z0CB	280		U0CB	N0CB	532		T0CB	280		C0CB	P0CB	532			
	7½	1	Y1CB	346		Z1CB	346		U1CB	N1CB	558		T1CB	346		C1CB	P1CB	558			
	15	2	Y2CB	711		Z2CB	627		U2CB	N2CB	932		T2CB	711		C2CB	P2CB	932			
	30	3	Y3CB	1100		Z3CB	1003		U3CB	N3CB	1498		T3CB	1100		C3CB	P3CB	1498			
	50	4	Y4CB	2347		Z4CB	2185		U4CB	N4CB	2574		T4CB	2347		C4CB	P4CB	2574			
240 (220/50)	3	0	Y0CW	280		Z0CW	280		U0CW	N0CW	532		T0CW	280		C0CW	P0CW	532			
	7½	1	Y1CW	346		Z1CW	346		U1CW	N1CW	558		T1CW	346		C1CW	P1CW	558			
	15	2	Y2CW	711		Z2CW	627		U2CW	N2CW	932		T2CW	711		C2CW	P2CW	932			
	30	3	Y3CW	1100		Z3CW	1003		U3CW	N3CW	1498		T3CW	1100		C3CW	P3CW	1498			
	50	4	Y4CW	2347		Z4CW	2185		U4CW	N4CW	2574		T4CW	2347		C4CW	P4CW	2574			
480 (440/50)	5	0	Y0CX	280		Z0CX	280		U0CX	N0CX	532		T0CX	280		C0CX	P0CX	532			
	10	1	Y1CX	346		Z1CX	346		U1CX	N1CX	558		T1CX	346		C1CX	P1CX	558			
	25	2	Y2CX	711		Z2CX	627		U2CX	N2CX	932		T2CX	711		C2CX	P2CX	932			
	50	3	Y3CX	1100		Z3CX	1003		U3CX	N3CX	1498		T3CX	1100		C3CX	P3CX	1498			
	100	4	Y4CX	2347		Z4CX	2185		U4CX	N4CX	2574		T4CX	2347		C4CX	P4CX	2574			

Type A214 Combination, 60 Cycle, 3-Phase Starters With Fusible Disconnect Switch

60 Cycle Coil Voltage ①	Maximum Horsepower		NEMA Size	Fuse Clip Ratings		Bolted Flange Enclosure	
	Dual Element Fuses	N.E.C. Fuses		Volts	Amps	Watertight NEMA 4	
						Killark Cat. No. ② A214	List Price Ⓟ
120/60 (110/50 Separate Control)	See Ratings Below		0	250	30	X0BAAC	\$ 620
			1	250	30	X1BAAC	642
			1	250	60	X1BBAC	647
			2	250	60	X2BBAC	1030
			2	250	100	X2BCAC	1058
			2	250	200	X2BDAC	1085
			3	250	100	X3BCAC	1745
			3	250	200	X3BDAC	1797
			4	250	200	X4BDAC	3014
			4	250	400	X4BEAC	3161
208/220	.....	3	0	250	30	X0BAB	620
	7½	3	1	250	30	X1BAB	642
	.....	7½	1	250	60	X1BBB	647
	15	7½	2	250	60	X2BBB	1030
	.....	15④	2	250	100	X2BCB	1058
	.....	15	2	250	200	X2DBB	1085
	30	15④	3	250	100	X3BCB	1745
	.....	30	3	250	200	X3DBB	1797
	50	30	4	250	200	X4DBB	3014
	.....	50	4	250	400	X4EBB	3161
240 (220/50)	.....	3	0	250	30	X0BAW	620
	7½	3	1	250	30	X1BAW	642
	.....	7½	1	250	60	X1BBW	647
	15	7½	2	250	60	X2BBW	1030
	.....	15④	2	250	100	X2BCW	1058
	.....	15	2	250	200	X2BDW	1085
	30	15④	3	250	100	X3BCW	1745
	.....	30	3	250	200	X3BDW	1797
	50	30	4	250	200	X4BDW	3014
	.....	50	4	250	400	X4BEW	3161
480 (440/50)	.....	5	0	600	30	X0AAX	625
	10	5	1	600	30	X1AAX	647
	.....	10	1	600	60	X1ABX	651
	25	15	2	600	60	X2ABX	1036
	.....	25	2	600	100	X2ACX	1063
	50	30④	3	600	100	X3ACX	1755
	.....	50	3	600	200	X3ADX	1806
	100	60	4	600	200	X4ADX	3060
	.....	100	4	600	400	X4AEX	3181

① Prices changed since previous issue.

② Changed or added since previous issue.

③ Complete catalog number consists of **A210, A214** from column heading, plus suffix letters from column below. **Example:** A210 + U1CAC = A210U1CAC.

④ For other voltages, see table page 49. For A210 starters, substitute suffix letter of desired coil for eighth digit in catalog number. For A214 starters, substitute for ninth digit.

⑤ Suitable for this horsepower on light starting duty. For heavy starting duty, use starter with next size larger fuse clips.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S4
Selling Policy 7000

Westinghouse



Starters for Hazardous Locations

① List Prices. Continued Prices Do Not Include Heaters Overload Relay Requires 3 Heaters (For modifications, see page 49)
Type A216 Combination, 60 Cycle, 3-Phase Starters With AB De-ion® Circuit Breaker or Motor Circuit Protector

60 Cycle Coil Voltage ③	Max. Hp.	NEMA Size	Circuit Breaker or MCP Amps & Frame Size	Bolted Flange Enclosures						Threaded Enclosures					
				Watertight, NEMA 4 Hazardous Loca- tions, NEMA 9, Cl. II, Grps. E, F, or G		Watertight, NEMA 4		Hazardous Locations NEMA 7, Cl. I, Grp. D		Hazardous Loca- tions, NEMA 9, Cl. II, Grps. E, F, or G		Hazardous Locations NEMA 7, Cl. I, Grps. C or D NEMA 9, Cl. II, Grps. E, F, or G			
				Killark		Nelson		Killark		Nelson		Nelson		Crouse Hinds		Pyle National
				Cat. No. A216②	List® Price	Cat. No. A216②	List® Price	Cat. No. A 216 ②	Cat. No. A216②	List® Price	Cat. No. A216 ②	List® Price	Cat. No. A216 ②	Cat. No. A216②	List® Price
120/60 (Separate Control 110/50)	See	0	15EB	Y0BAAC	\$ 693	Z0BAAC	\$ 612	U0BAAC	N0BAAC	\$ 693	T0BAAC	\$ 693	C0BAAC	P0BAAC	\$ 693
	Rat-	0	7MCP	Y0MUAC	743	Z0MUAC	663	U0MUAC	N0MUAC	743	T0MUAC	743	C0MUAC	P0MUAC	743
	ings	0	15EB	Y0BAAC	693	Z0BAAC	612	U0BAAC	N0BAAC	693	T0BAAC	693	C0BAAC	P0BAAC	693
	Below	0	15MCP	Y0MAAC	743	Z0MAAC	663	U0MAAC	N0MAAC	743	T0MAAC	743	C0MAAC	P0MAAC	743
		0	20EB	Y0BBAC	693	Z0BBAC	612	U0BBAC	N0BBAC	693	T0BBAC	693	C0BBAC	P0BBAC	693
		0	15MCP	Y0MAAC	743	Z0MAAC	663	U0MAAC	N0MAAC	743	T0MAAC	743	C0MAAC	P0MAAC	743
		1	30EB	Y1BDAC	719	Z1BDAC	639	U1BDAC	N1BDAC	719	T1BDAC	719	C1BDAC	P1BDAC	719
		1	30MCP	Y1MDAC	770	Z1MDAC	688	U1MDAC	N1MDAC	770	T1MDAC	770	C1MDAC	P1MDAC	770
		1	50EB	Y1BGAC	719	Z1BGAC	639	U1BGAC	N1BGAC	719	T1BGAC	719	C1BGAC	P1BGAC	719
		1	30MCP	Y1MDAC	770	Z1MDAC	688	U1MDAC	N1MDAC	770	T1MDAC	770	C1MDAC	P1MDAC	770
		2	50MCP	Y2MGAC	1140	Z2MGAC	1080	U2MGAC	N2MGAC	1140	T2MGAC	1140	C2MGAC	P2MGAC	1140
		3	100MCP	Y3MJAC	1909	Z3MJAC	1721	U3MJAC	N3MJAC	1909	T3MJAC	1909	C3MJAC	P3MJAC	1909
		4	150MCP	Y4MLAC	3669	Z4MLAC	3180	U4MLAC	N4MLAC	3669	T4MLAC	3669	C4MLAC	P4MLAC	3669
208/220	1	0	15EB	Y0BAB	693	Z0BAB	612	U0BAB	N0BAB	693	T0BAB	693	C0BAB	P0BAB	693
	1	0	7MCP	Y0MUB	743	Z0MUB	663	U0MUB	N0MUB	743	T0MUB	743	C0MUB	P0MUB	743
	2	0	15EB	Y0BAB	693	Z0BAB	612	U0BAB	N0BAB	693	T0BAB	693	C0BAB	P0BAB	693
	3	0	15MCP	Y0MAB	743	Z0MAB	663	U0MAB	N0MAB	743	T0MAB	743	C0MAB	P0MAB	743
	3	0	20EB	Y0BBB	693	Z0BBB	612	U0BBB	N0BBB	693	T0BBB	693	C0BBB	P0BBB	693
	3	0	15MCP	Y0MAB	743	Z0MAB	663	U0MAB	N0MAB	743	T0MAB	743	C0MAB	P0MAB	743
	5	1	30EB	Y1BDB	719	Z1BDB	639	U1BDB	N1BDB	719	T1BDB	719	C1BDB	P1BDB	719
	7½	1	30MCP	Y1MDB	770	Z1MDB	688	U1MDB	N1MDB	770	T1MDB	770	C1MDB	P1MDB	770
	7½	1	50EB	Y1BGB	719	Z1BGB	639	U1BGB	N1BGB	719	T1BGB	719	C1BGB	P1BGB	719
	7½	1	30MCP	Y1MDB	770	Z1MDB	688	U1MDB	N1MDB	770	T1MDB	770	C1MDB	P1MDB	770
	15	2	50MCP	Y2MGB	1140	Z2MGB	1080	U2MGB	N2MGB	1140	T2MGB	1140	C2MGB	P2MGB	1140
	30	3	100MCP	Y3MJB	1909	Z3MJB	1721	U3MJB	N3MJB	1909	T3MJB	1909	C3MJB	P3MJB	1909
	50	4	150MCP	Y4MLB	3669	Z4MLB	3180	U4MLB	N4MLB	3669	T4MLB	3669	C4MLB	P4MLB	3669
240	1	0	15EB	Y0BAW	693	Z0BAW	612	U0BAW	N0BAW	693	T0BAW	693	C0BAW	P0BAW	693
	1	0	7MCP	Y0MUW	743	Z0MUW	663	U0MUW	N0MUW	743	T0MUW	743	C0MUW	P0MUW	743
	2	0	15EB	Y0BAW	693	Z0BAW	612	U0BAW	N0BAW	693	T0BAW	693	C0BAW	P0BAW	693
	3	0	15MCP	Y0MAW	743	Z0MAW	663	U0MAW	N0MAW	743	T0MAW	743	C0MAW	P0MAW	743
	3	0	20EB	Y0BBW	693	Z0BBW	612	U0BBW	N0BBW	693	T0BBW	693	C0BBW	P0BBW	693
	3	0	15MCP	Y0MAW	743	Z0MAW	663	U0MAW	N0MAW	743	T0MAW	743	C0MAW	P0MAW	743
	5	1	30EB	Y1BDW	719	Z1BDW	639	U1BDW	N1BDW	719	T1BDW	719	C1BDW	P1BDW	719
	7½	1	30MCP	Y1MDW	770	Z1MDW	688	U1MDW	N1MDW	770	T1MDW	770	C1MDW	P1MDW	770
	7½	1	50EB	Y1BGW	719	Z1BGW	639	U1BGW	N1BGW	719	T1BGW	719	C1BGW	P1BGW	719
	7½	1	30MCP	Y1MDW	770	Z1MDW	688	U1MDW	N1MDW	770	T1MDW	770	C1MDW	P1MDW	770
	15	2	50MCP	Y2MGW	1140	Z2MGW	1080	U2MGW	N2MGW	1140	T2MGW	1140	C2MGW	P2MGW	1140
	30	3	100MCP	Y3MJW	1909	Z3MJW	1721	U3MJW	N3MJW	1909	T3MJW	1909	C3MJW	P3MJW	1909
	50	4	150MCP	Y4MLW	3669	Z4MLW	3180	U4MLW	N4MLW	3669	T4MLW	3669	C4MLW	P4MLW	3669
480 (440/50)	1	0	3MCP	Y0MTX	743	Z0MTX	663	U0MTX	N0MTX	743	T0MTX	743	C0MTX	P0MTX	743
	2	0	7MCP	Y0MUX	743	Z0MUX	663	U0MUX	N0MUX	743	T0MUX	743	C0MUX	P0MUX	743
	5	0	15MCP	Y0MAX	743	Z0MAX	663	U0MAX	N0MAX	743	T0MAX	743	C0MAX	P0MAX	743
	10	1	30MCP	Y1MDX	770	Z1MDX	688	U1MDX	N1MDX	770	T1MDX	770	C1MDX	P1MDX	770
	25	2	50MCP	Y2MGX	1140	Z2MGX	1080	U2MGX	N2MGX	1140	T2MGX	1140	C2MGX	P2MGX	1140
	50	3	100MCP	Y3MJX	1909	Z3MJX	1721	U3MJX	N3MJX	1909	T3MJX	1909	C3MJX	P3MJX	1909
	100	4	150MCP	Y4MLX	3669	Z4MLX	3180	U4MLX	N4MLX	3669	T4MLX	3669	C4MLX	P4MLX	3669
600	1	0	3MCP	Y0MTE	743	Z0MTE	663	U0MTE	N0MTE	743	T0MTE	743	C0MTE	P0MTE	743
	2	0	7MCP	Y0MUE	743	Z0MUE	663	U0MUE	N0MUE	743	T0MUE	743	C0MUE	P0MUE	743
	5	0	15MCP	Y0MAE	743	Z0MAE	663	U0MAE	N0MAE	743	T0MAE	743	C0MAE	P0MAE	743
	10	1	30MCP	Y1MDE	770	Z1MDE	688	U1MDE	N1MDE	770	T1MDE	770	C1MDE	P1MDE	770
	25	2	50MCP	Y2MGE	1140	Z2MGE	1080	U2MGE	N2MGE	1140	T2MGE	1140	C2MGE	P2MGE	1140
	50	3	100MCP	Y3MJE	1909	Z3MJE	1721	U3MJE	N3MJE	1909	T3MJE	1909	C3MJE	P3MJE	1909
	100	4	150MCP	Y4MLE	3669	Z4MLE	3180	U4MLE	N4MLE	3669	T4MLE	3669	C4MLE	P4MLE	3669

② Prices changed since previous issue.

① Changed or added since previous issue.

③ Complete catalog number consists of A216 in column heading, plus suffix letters in column below. Example: A216 + U0BAW = Catalog Number A216U0BAW.

④ For other voltages, see table page 49, and substitute suffix letter of desired coil for 9th digit in catalog number listed

Prices effective July 6, 1971; subject to change
without notice.

Discount Symbol C10-S4
Selling Policy 7000

Low Voltage Ac Control

A/200 Magnetic Control Starters for Hazardous Locations

Starters for Hazardous Locations

List Prices, Continued

Factory Modifications for Bolted Flange, Threaded Enclosures

Cat. No. Suffix Letter	Modification	List Price Addition C10-S5
A	Start-Stop Pushbutton in Cover.....	\$ 44
A	Forward-Reverse-Stop Pushbutton in Cover.....	100
B	Hand-Off-Auto Selector Switch in Cover.....	44
D①	3 Single Pole Overload Relays without Heater.....	5
L	Red Pilot Light in Cover.....	54
M	Ambient Compensating Overload Relay.....	4
Q	Drain and Breather.....	12
T	Control Transformer: Starter Size Enclosure	
	0-1 NEMA 4, 9.....	54
	2 NEMA 4, 9.....	76
	3 NEMA 4, 9.....	112
	4 NEMA 4, 9.....	136
	0-1 NEMA 7.....	62
	2 NEMA 7.....	104
	3 NEMA 7.....	146
	4 NEMA 7.....	186
..	Extra L-56 Universal Interlock.....	22

Field Modification Kits (C10-S5)

Kit	Kit Catalog Number	Flange Enclosure	Threaded Enclosures	List Price C10-S5
		Killark	Crouse Hinds Pyle National	
Start-Stop Pushbutton	PBK-1K	PBK-1CS	PBK-1P	\$30
Forward-Reverse-Stop Pushbutton	PBK-2K			50
Hand-Off-Auto Selector Switch	SSK-1K	SSK-1CS	SSK-1P	26
Red Pilot Light: 120 Volt	PLK-1K			34
240 Volt	PLK-2K			34
480 Volt	PLK-4K			34
L-56 Universal Interlock	L-56	L-56	L-56	12

Kit	Kit Cat. No.	Enclosure	List Price
2 Pole Overload Sizes 00-2	2-OLK-1	All	\$3
Sizes 3, 4	2-OLK-3	All	3

Data From Tables 430—147 Through 150 of 1968 N.E.C. Motor Terminal Amperes at Full Load②

Hp	Single Phase Ac		Squirrel Cage Ac				Dc	
	115 Volts	230 Volts	230 Volts		460 Volts		120 Volts	240 Volts
			3 Phase	2 Phase 4 Wire③	3 Phase	2 Phase 4 Wire③		
1/8	4.4	2.2	.....	.....	.....	.....	2.9	1.5
1/4	5.8	2.9	.....	.....	.....	.....	3.6	1.8
1/2	7.2	3.6	.....	.....	.....	.....	5.2	2.6
3/4	9.8	4.9	2	2	1	.8	7.4	3.7
1	13.8	6.9	2.8	2.4	1.4	1.2	9.4	4.7
1 1/2	16	8	3.6	3.2	1.8	1.6	13.2	6.6
2	20	10	5.2	4.5	2.6	2.3	17	8.5
3	24	12	6.8	5.9	3.4	3	25	12.2
5	34	17	9.6	8.3	4.8	4.2	40	20
7 1/2	56	28	15.2	13.2	7.6	6.6	58	29
10	80	40	22	19	11	9	76	38
15	100	50	28	24	14	12	.....	55
20	.....	.....	42	36	21	18	.....	72
25	.....	.....	54	47	27	23	.....	89
30	.....	.....	68	59	34	29	.....	106
40	.....	.....	80	69	40	35	.....	140
50	.....	.....	107	90	52	45	.....	173
60	.....	.....	130	113	65	56	.....	206
75	.....	.....	154	133	77	67	.....	255
100	.....	.....	192	166	96	83	.....	341
125	.....	.....	248	218	124	109	.....	425
150	.....	.....	312	270	156	135	.....	506
200	.....	.....	360	312	180	156	.....	675
	.....	.....	480	416	240	208	.....	

Ordering Information

Order by catalog number; a complete catalog number consists of A200, A203, etc. at top of column, plus suffix in column.

Example: A200+U0CAC=A200U0CAC

Enter heaters as separate item by listing catalog number from table, page 50. Selling price, \$3.00⑤ list each.

Factory Modifications

Add catalog number suffix letter from table at end of starter catalog number.

Field Modification Kits

List catalog number and list price.

Outline Dimensions: See page 52.

Other Available Coil Voltages

Suffix Letters	Volts	Cycles
A	120/110	60/50
D	550	60
H	440/380	60/50
E	600/550	60/50
I	24	60
V	110	60
K	600	50
Dual Voltages⑤		
C	240/480	60
J	208/220/440	60
R	120/240	60

① Prices changed since previous issue.

② Changed or added since previous issue.

③ These current values are for motors running at usual speeds and with normal torque characteristics. Motors for special low speed or high torque may require higher current. In all cases, heaters should be selected on basis of information on motor nameplate or motor card data.

④ The current in the common line of a 2-phase, 3-wire system is approximately 1.4 times these values.

⑤ List price addition: \$4.00⑤ each.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S4

Selling Policy 7000

Westinghouse



Heater Selection

Each heater is identified by a catalog number stamped on one terminal. The heater application table indicates the range of full load motor current to which a given heater may be applied.

Heater Tables

For A200 Starters, Sizes 00, 0, 1 and 2

Size Starter	Ambient Enclosed Starters	Compensating Enclosed Starters	Non-Compensating Enclosed Starters	Heater Cat-alog Num-ber	MCP Cat. No. ②
	Block Type Overload Using 3 Heaters	Single Pole and Two Pole Block Type Overload	Block Type Overload Using 3 Heaters	Single Pole and Two Pole Block Type Overload	
	Full Load Current of Motor (Amps.)	Full Load Current of Motor (Amps.)	Full Load Current of Motor (Amps.)	Full Load Current of Motor (Amps.)	
For Size 2 Starters	.25 - .27	.29 - .31	.24 - .25	.28 - .30	H03
	.28 - .31	.32 - .35	.26 - .28	.31 - .33	H04
	.32 - .34	.36 - .39	.29 - .31	.34 - .36	H05
	.35 - .38	.40 - .43	.32 - .35	.37 - .41	H06
	.39 - .42	.44 - .48	.36 - .39	.42 - .45	H07
	.43 - .46	.49 - .53	.40 - .43	.46 - .50	H08
	.47 - .50	.54 - .58	.44 - .47	.51 - .55	H09
	.51 - .55	.59 - .64	.48 - .51	.56 - .60	H10
	.56 - .62	.65 - .71	.52 - .57	.61 - .67	H11
	.63 - .68	.72 - .79	.58 - .63	.68 - .75	H12
	.69 - .75	.80 - .87	.64 - .70	.76 - .82	H13
	.76 - .83	.88 - .96	.71 - .77	.83 - .91	H14
	.84 - .91	.97 - 1.06	.78 - .85	.92 - .99	H15
	.92 - 1.00	1.07 - 1.16	.86 - .93	1.00 - 1.09	H16
	1.01 - 1.11	1.17 - 1.28	.94 - 1.03	1.10 - 1.20	H17
	1.12 - 1.22	1.29 - 1.41	1.04 - 1.13	1.21 - 1.32	H18
	1.23 - 1.34	1.42 - 1.55	1.14 - 1.25	1.33 - 1.46	H19
	1.35 - 1.47	1.56 - 1.71	1.26 - 1.37	1.47 - 1.60	H20
	1.48 - 1.62	1.72 - 1.87	1.38 - 1.51	1.61 - 1.76	H21
	1.63 - 1.78	1.88 - 2.06	1.52 - 1.65	1.77 - 1.93	H22
	1.79 - 1.95	2.07 - 2.26	1.66 - 1.81	1.94 - 2.12	H23
	1.96 - 2.15	2.27 - 2.48	1.82 - 1.99	2.13 - 2.33	H24
	2.16 - 2.35	2.49 - 2.72	2.00 - 2.19	2.34 - 2.55	H25
	2.36 - 2.58	2.73 - 2.99	2.20 - 2.39	2.56 - 2.80	H26
	2.59 - 2.83	3.00 - 3.28	2.40 - 2.63	2.81 - 3.08	H27
	2.84 - 3.11	3.29 - 3.60	2.64 - 2.89	3.09 - 3.39	H28
	3.12 - 3.42	3.61 - 3.95	2.90 - 3.17	3.40 - 3.71	H29
	3.43 - 3.73	3.96 - 4.31	3.18 - 3.47	3.72 - 4.07	H30
	3.74 - 4.07	4.32 - 4.71	3.48 - 3.79	4.08 - 4.39	H31
	4.08 - 4.39	4.72 - 5.14	3.80 - 4.11	4.40 - 4.79	H32
	4.40 - 4.87	5.15 - 5.6	4.12 - 4.55	4.80 - 5.3	H33
	4.88 - 5.3	5.7 - 6.2	4.56 - 5.0	5.4 - 5.8	H34
	5.4 - 5.9	6.3 - 6.8	5.1 - 5.5	5.9 - 6.4	H35
	6.0 - 6.4	6.9 - 7.5	5.6 - 5.9	6.5 - 7.0	H36
	6.5 - 7.1	7.6 - 8.2	6.0 - 6.6	7.1 - 7.7	H37
	7.2 - 7.8	8.3 - 9.0	6.7 - 7.2	7.8 - 8.4	H38
	7.9 - 8.5	9.1 - 9.9	7.3 - 7.9	8.5 - 9.3	H39
	8.6 - 9.4	10.0 - 10.8	8.0 - 8.7	9.4 - 10.2	H40
	9.5 - 10.3	10.9 - 11.9	8.8 - 9.5	10.3 - 11.2	H41
	10.4 - 11.3	12.0 - 13.1	9.6 - 10.5	11.3 - 12.3	H42
	11.4 - 12.4	13.2 - 14.3	10.6 - 11.5	12.4 - 13.5	H43
	12.5 - 13.5	14.4 - 15.7	11.6 - 12.6	13.6 - 14.7	H44
	13.6 - 14.9	15.8 - 17.2	12.7 - 13.8	14.8 - 16.2	H45
	15.0 - 16.3	17.3 - 18.9	13.9 - 15.1	16.3 - 17.8	H46
	16.4 - 18.0	19.0 - 20.8	15.2 - 16.7	17.9 - 19.5	H47
	18.1 - 19.8	20.9 - 22.9	16.8 - 18.3	19.6 - 21.5	H48
	19.9 - 21.7	23.0 - 25.2	18.4 - 20.2	21.6 - 23.6	H49
	21.8 - 23.9	25.3 - 27.6	20.3 - 22.2	23.7 - 25.9	H50
	24.0 - 26.2	27.7 - 30.3	22.3 - 24.3	26.0 - 28.5	H51
	26.3 - 28.7	30.4 - 33.3	24.4 - 26.6	28.6 - 31.1	H52
	28.8 - 31.4	33.4 - 36.4	26.7 - 29.1	31.2 - 34.2	H53
	31.5 - 34.5	36.5 - 39.9	29.2 - 32.0	34.3 - 37.5	H54
	34.6 - 37.9	40.0 - 43.9	32.1 - 35.2	37.6 - 41.3	H55
	38.0 - 41.5		35.3 - 38.5	41.4 - 45.0	H56
	41.6 - 45.0		38.6 - 42.3		H57

② MCP is coordinated to starter size. When using oversize starter, order by description giving motor full load current.

Heaters should be selected on the basis of the actual full load current and service factor as shown on the motor nameplate or in the manufacturer's published literature.

When motor and overload relay are in the same ambient and the service factor of the

motor is 1.15 to 1.25, select heaters from the heater application table. **If the service factor of the motor is 1.0, or there is no service factor shown, or a maximum of 115% protection is desired, select one size smaller heater than indicated.**

When motor and overload relay are in different ambients and when using non-compensated overload relays, select heaters from the table using adjusted motor currents as follows: decrease rated motor current 1% for each °C motor ambient exceeds controller ambient. Increase rated motor current 1% for each °C controller ambient exceeds motor ambient.

For temperature compensated overload relays, select heaters according to the table and selection information above regardless of ambient.

Protect the heater and starter against short circuits by providing branch circuit protection per National Electric Code.

For Starter Sizes 3 and 4

Stator Used With ②	Ambient Compensated Enclosed Starters	Non-Compensating Enclosed Starters	Cat. No.	MCP Cat. No.
--------------------	---------------------------------------	------------------------------------	----------	--------------

All Applications

Full Load Current of Motor Amps.				
For Size 4 Starters	For Size 3 Starters			For Size 2 Starters
19.0 - 20.8	17.5 - 19.1	H72		
20.9 - 22.9	19.2 - 21.1	H73		
23.0 - 25.2	21.2 - 23.2	H74		
25.3 - 27.8	23.3 - 25.6	H75		
27.9 - 30.6	25.7 - 28.1	H76		
30.7 - 33.5	28.2 - 30.8	H77		
33.6 - 37.5	30.9 - 34.5	H78		
37.6 - 41.5	34.6 - 38.2	H79		
41.6 - 46.3	38.3 - 42.6	H80		
46.4 - 50	42.7 - 46	H81		
51 - 55	47 - 51	H82		
56 - 61	52 - 56	H83		
62 - 66	57 - 61	H84		
67 - 73	62 - 67	H85		
74 - 79	68 - 73	H86		
80 - 87	74 - 80	H87		
.. - ..	81 - 87	H88		
88 - 95	.. - ..	H88		
96 - 105	88 - 95	H89		
106 - 116	96 - 105	H90		
117 - 128	106 - 116	H91		
... - ...	117 - 127	H92		

Heater Selling Price, \$3.00[®] List Each.

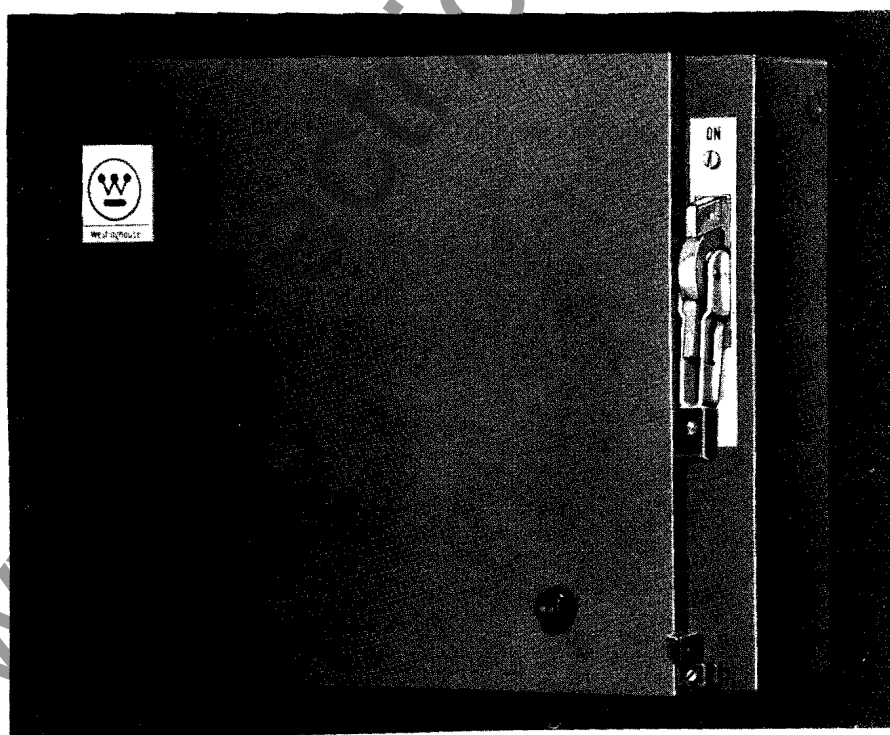
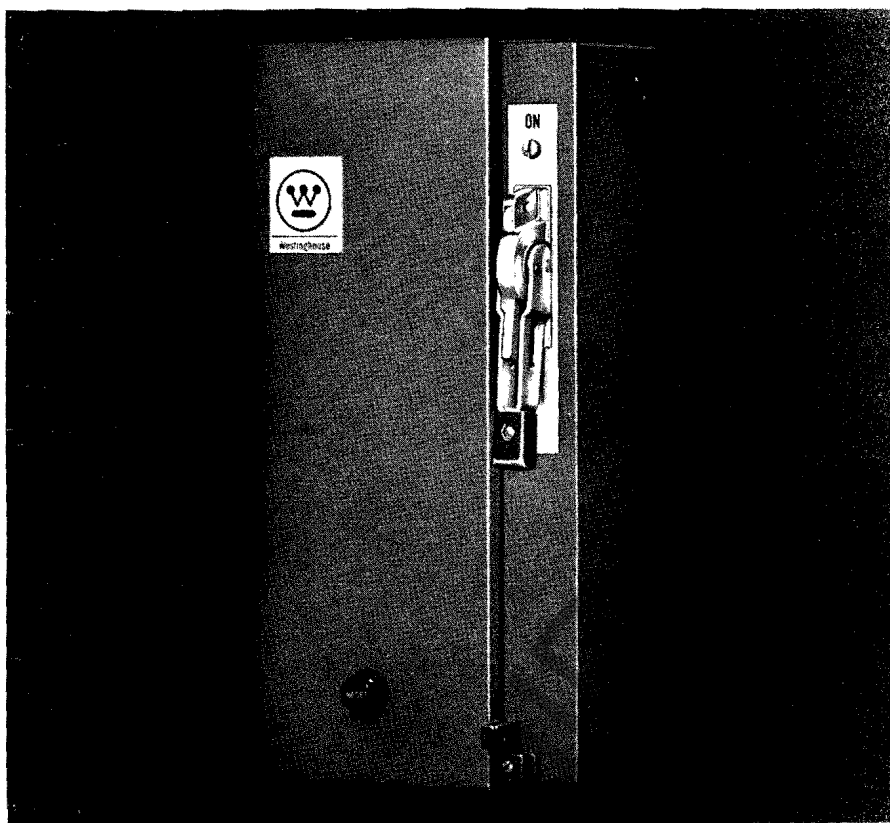
Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S5
Selling Policy 7000

Westinghouse



Low Voltage Ac Control A/200 Magnetic Control Enclosed Combination Starters



Application

Westinghouse A200 magnetic combination starters are designed for across-the-line control of squirrel cage motors or as primary control for wound rotor motors. Because they also provide a means of line disconnect (non-fused, fused, circuit breaker), and short circuit protection, they are suitable for all applications where enclosed starters are used in conjunction with a safety switch or circuit breaker. They can be furnished for non-reversing or reversing service.

Combination starters combine all the requirements of N. E. C. Article 430 for proper motor circuit protection.

Description

A/200 combination starters combine a disconnect device (with or without circuit protection) and a starter in a single enclosure. This arrangement provides the most efficient utilization of space and a neater, more compact installation.

There are five basic starter designs:

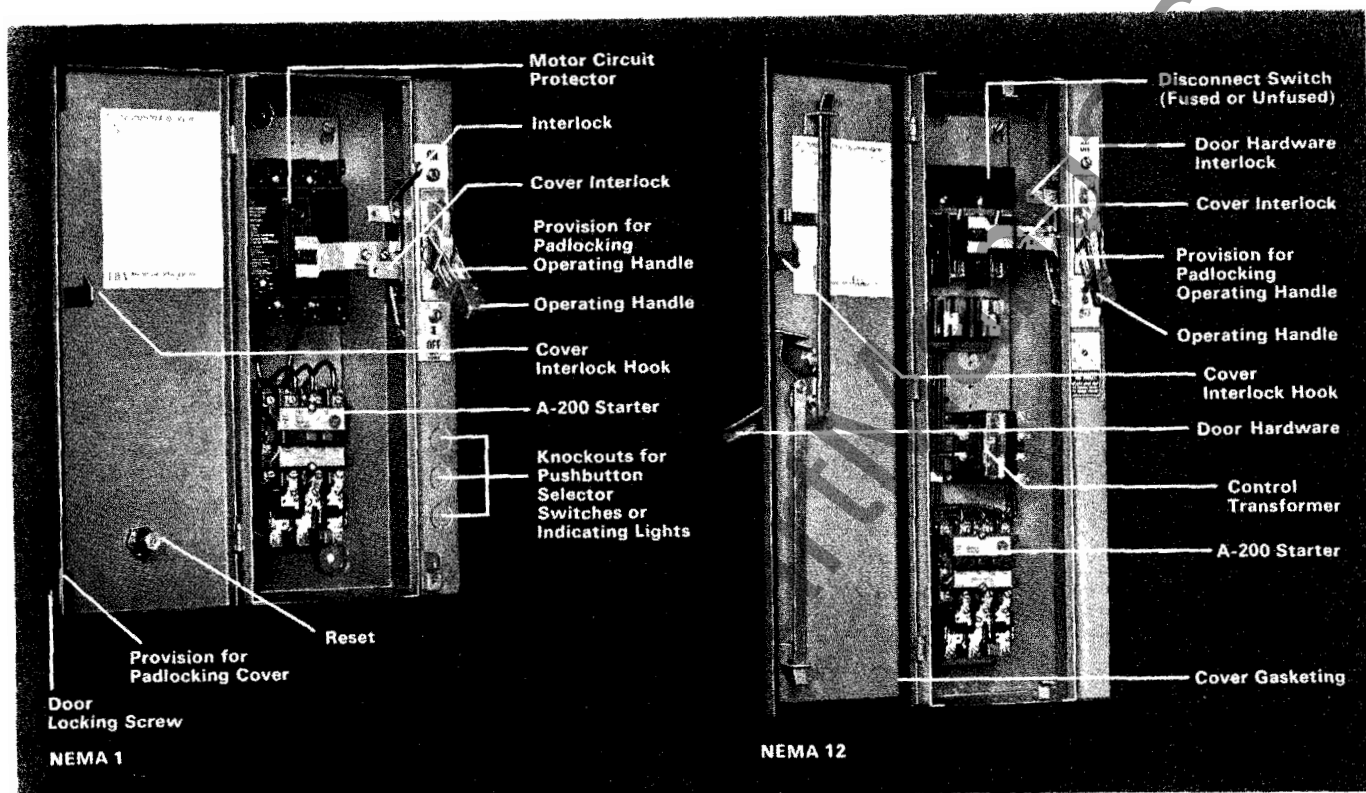
- With non-fusible Type DS disconnect switch
- With fusible Type DS disconnect switch
- With AB circuit breaker (240 volt max.)
- With MCP motor circuit protector
- With MCP motor circuit protector and current limiter.

Features of the various designs are discussed on page 26.

In This Section

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A203 Non-Reversing Starters	27
A204 Non-Reversing Starters	28, 29
A206 Non-Reversing Starters	30
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A214 Reversing Starters	33
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Westinghouse



Design Features

Type DS Disconnect Switch: This is a modern, compact visible blade loadbreak device. Features blade and jaw design and is available as fusible or non-fusible device.

AB De-ion® Circuit Breaker: Circuit breakers are available in 208/220 volt and 240 volt starters through size 2. Operates on thermal magnetic principle.

MCP Motor Circuit Protector: This breaker provides optimum protection with maximum convenience. The MCP is specifically designed for the protection of motor circuits. Operating on the magnetic principle, the breaker incorporates three current sensors with a single trip point adjustment. This adjustment allows the user to custom design protection for any individual motor.

To comply with National Electric Code and provide additional safety, a stop pin is provided to prevent trip setting from being raised. This breaker design permits the fastest tripping time possible on low level faults while offering circuit breaker convenience, quick-make, quick-break action, dead front safety, and protection against single phasing.

Current Limiter: The current limiter, specifically designed for motor circuits, permits combination starter application to 100,000

amperes fault capacity systems when combined with the MCP. Coordination with the MCP provides minimum down time by allowing the MCP to clear the more frequent low level faults with the current limiter operating only at the higher levels. This coordination also prevents single phasing should the current limiter operate. Each phase of the limiter has a built-in trip indicator to immediately show when a fault has blown the current limiter.

Enclosures Available

Combination starters are available in NEMA 1 General Purpose, NEMA 4 Watertight Stainless Steel, and NEMA 12 Dust-tight Enclosures.

NEMA 1 enclosures for non-reversing starters can be furnished as standard, oversize, or universal type. NEMA 4 can be standard or oversize.

Standard enclosures are the smallest type starter. In most cases, they do not permit field mounting of control transformers, as does the oversize, or starter type conversion. Universal enclosures permit starter type conversion from A203 through A207. Fuse kits, MCP's, current limiter and control transformers can be field mounted.

Enclosure Features

Flange Mounted External Operating Handle: Interlocked with cover to prevent opening of cover while handle is in the ON position. Handle is moved to OPEN COVER position for door opening.

Operator: Operator and operating arm are permanently attached to handle of disconnect or breaker, provide positive indication and control of position with door open or closed.

Double Safety Interlocking: Operator and door are interlocked to prevent opening door with disconnect or breaker in the ON position. An interlock by-pass is provided to give access to authorized personnel. When door is open, disconnect or breaker cannot be thrown to ON position unless bypass interlock is actuated.

Provisions for Padlocking: Operator has provision for three padlocks to lock disconnect or breaker in the OFF position; door can also be padlocked.

Additional Features for NEMA 12 Enclosures

Tamper-proof Door Latch: Coin-proof slot in door handle latch requires use of a screwdriver to open door.

Positive Door Seal: Door must be fully sealed before disconnect can be closed. No tools or hold-down bolts required.

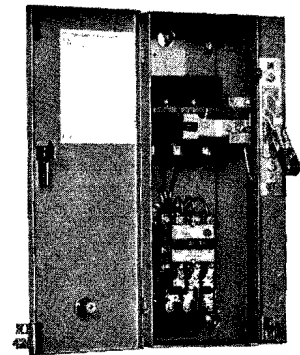
Low Voltage Ac Control A/200 Magnetic Control Enclosed Combination Starters

Non-Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A203 60 Cycle, 3-Phase Starters With Non-Fusible Disconnect Switch

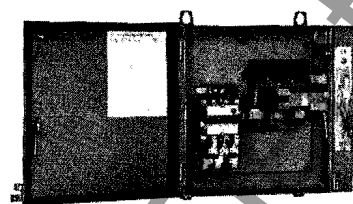
60 Cycle Coil Voltage ②	Max. Horse- power	NEMA Size	NEMA 1 General Purpose Enclosure				NEMA 4 Water-tight Stainless Steel Enclosure			NEMA 12④⑤ Dust-tight Encl.	
			Standard Cat. No. A203	OverSize③ Cat. No. A203	Universal④ Cat. No. A203	List Price ⑥	Standard Cat. No. A203	OverSize③ Cat. No.④	List Price ⑥	Standard Cat. No. A203	List Price ⑥
120 (Separate Control 110/50)	See Ratings Below	0	S0AC	S0ACU	S0ACY	\$ 190	W0AC	W0ACU	\$ 390	J0AC	\$ 240
		1	S1AC	S1ACU	S1ACY	200	W1AC	W1ACU	400	J1AC	250
		2	S2AC	S2ACU	S2ACY	316	W2AC	W2ACU	624	J2AC	388
		3	S3AC	S3ACU	S3ACY	526	W3AC	W3ACU	1072	J3AC	626
		4	S4AC	S4ACU	S4ACY	1016	W4AC	W4ACU	1702	J4AC	1270
208/220	3 7½ 15 30 50	0	S0B	S0BU	S0BY	190	W0B	W0BU	390	J0B	240
		1	S1B	S1BU	S1BY	200	W1B	W1BU	400	J1B	250
		2	S2B	S2BU	S2BY	316	W2B	W2BU	624	J2B	388
		3	S3B	S3BU	S3BY	526	W3B	W3BU	1072	J3B	626
		4	S4B	S4BU	S4BY	1016	W4B	W4BU	1702	J4B	1270
240 (220/50)	3 7½ 15 30 50	0	S0W	S0WU	S0WY	190	W0W	W0WU	390	J0W	240
		1	S1W	S1WU	S1WY	200	W1W	W1WU	400	J1W	250
		2	S2W	S2WU	S2WY	316	W2W	W2WU	624	J2W	388
		3	S3W	S3WU	S3WY	526	W3W	W3WU	1072	J3W	626
		4	S4W	S4WU	S4WY	1016	W4W	W4WU	1702	J4W	1270
480 (440/50)	5 10 25 50 100	0	S0X	S0XU	S0XY	190	W0X	W0XU	390	J0X	240
		1	S1X	S1XU	S1XY	200	W1X	W1XU	400	J1X	250
		2	S2X	S2XU	S2XY	316	W2X	W2XU	624	J2X	388
		3	S3X	S3XU	S3XY	526	W3X	W3XU	1072	J3X	626
		4	S4X	S4XU	S4XY	1016	W4X	W4XU	1702	J4X	1270
600	5 10 25 50 100	0	S0E	S0EU	S0EY	190	W0E	W0EU	390	J0E	240
		1	S1E	S1EU	S1EY	200	W1E	W1EU	400	J1E	250
		2	S2E	S2EU	S2EY	316	W2E	W2EU	624	J2E	388
		3	S3E	S3EU	S3EY	526	W3E	W3EU	1072	J3E	626
		4	S4E	S4EU	S4EY	1016	W4E	W4EU	1702	J4E	1270



A203 Size 1, NEMA 1 Enclosure

Type A203 60 Cycle, 3-Phase Horizontal Starters With Non-Fusible Disconnect Switch

60 Cycle Coil Voltage②	Max. Horse- power	NEMA Size	NEMA 1 General Purpose		NEMA 12④⑤ Dust-tight	
			Catalog Number	List Price ●	Catalog Number A203	List Price ⑥
120 (110/50) Separate Control	See Ratings Below	1	(Order by description)	\$200.00	H1AC H2AC	\$250.00
		2		316.00		388.00
208/220	7½ 15	1	(Order by description)	200.00	H1B H2B	250.00
		2		316.00		388.00
240 (220/50)	7½ 15	1	(Order by description)	200.00	H1W H2W	250.00
		2		316.00		388.00
480 (440/50)	10 25	1	(Order by description)	200.00	H1X H2X	250.00
		2		316.00		388.00



① Prices changed since previous issue.

② For other voltages, see coil table on page 36.

③ Provides space for field mounting a control transformer.

④ Prices do not include control circuit transformers. If required to meet JIC specifications, add prices from modification table.

⑤ NEMA 12 normally supplied without external reset pushbutton. specify if required. No extra charge.

⑥ Provides space for field mounting fuse kits, MCP, current limiter, and control transformer.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S3

Selling Policy 7000

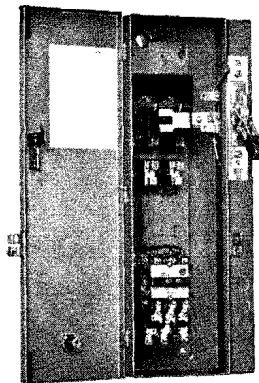
Westinghouse



Non-Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A204 60 Cycle, 3-Phase Starters With Fusible Disconnect Switch

A204 Size 2,
NEMA 12 Enclosure

60 Cycle Coil Volt- age②	Max. Hp.		NEMA Size	Fuse Clip Ratings③		NEMA 1 General Purpose Enclosure				NEMA 4 Water-tight Stainless Steel Enclosure				NEMA 12 Dust-tight Enclosure④⑤	
	Dual Ele- ment Fuses	N.E.C. Fuses		Volts	Amps	Standard	Over	Universal	List	Standard	Over	List	Standard	List	
						Cat. No.	Size Cat. No.	Size Cat. No.	Price ⑥	Cat. No.	Size Cat. No.	Price ⑥	Cat. No.	Price ⑥	
						A204	A204	A204		A204	A204		A204		
120 (Sep- arate Control 110 /50)	See Ratings Below⑦		0	250	30	S0BAAC	S0BAACU	S0BAACU	\$ 196	W0BAAC	W0BAACU	\$ 396	J0BAAC	\$ 246	
		1	250	30	S1BAAC	S1BAACU	S1BAACU	206	W1BAAC	W1BAACU	406	J1BAAC	256		
		1	250	60	S1BBAC	S1BBACU	S1BBACU	210	W1BBAC	W1BBACU	410	J1BBAC	260		
		2	250	60	S2BBAC	S2BBACU	S2BBACU	324	W2BBAC	W2BBACU	632	J2BBAC	396		
		2	250	100	S2BCAC	S2BCACU	S2BCACU	350	W2BCAC	W2BCACU	658	J2BCAC	420		
		2	250	200	S2BDAC	S2BDACU	S2BDACU	374	W2BDAC	W2BDACU	682	J2BDAC	446		
		3	250	100	S3BCAC	S3BCACU	S3BCACU	546	W3BCAC	W3BCACU	1082	J3BCAC	636		
		3	250	200	S3BDAC	S3BDACU	S3BDACU	594	W3BDAC	W3BDACU	1130	J3BDAC	684		
		4	250	200	S4BDAC	S4BDACU	S4BDACU	1018	W4BDAC	W4BDACU	1704	J4BDAC	1272		
		4	250	400	S4BEAC	S4BEACU	S4BEACU	1152	W4BEAC	W4BEACU	1838	J4BEAC	1406		
208 /220	...	3	0	250	30	S0BAB	S0BABU	S0BABU	196	W0BAB	W0BABU	396	J0BAB	246	
	7½	3	1	250	30	S1BAB	S1BABU	S1BABU	206	W1BAB	W1BABU	406	J1BAB	256	
	...	7½	1	250	60	S1BBB	S1BBBU	S1BBBU	210	W1BBB	W1BBBU	410	J1BBB	260	
	15	7½	2	250	60	S2BBB	S2BBBU	S2BBBU	324	W2BBB	W2BBBU	632	J2BBB	396	
	...	15⑥	2	250	100	S2BCB	S2BCBU	S2BCBU	350	W2BCB	W2BCBU	658	J2BCB	420	
	...	15	2	250	200	S2BDB	S2BDBU	S2BDBU	374	W2BDB	W2BDBU	682	J2BDB	446	
	30	15⑥	3	250	100	S3BCB	S3BCBU	S3BCBU	546	W3BCB	W3BCBU	1082	J3BCB	636	
	...	30	3	250	200	S3BDB	S3BDBU	S3BDBU	594	W3BDB	W3BDBU	1130	J3BDB	684	
	50	30	4	250	200	S4BDB	S4BDBU	S4BDBU	1018	W4BDB	W4BDBU	1704	J4BDB	1272	
	...	50	4	250	400	S4BEB	S4BEBU	S4BEBU	1152	W4BEB	W4BEBU	1838	J4BEB	1406	
240 (220 /50)	...	3	0	250	30	S0BAW	S0BAWU	S0BAWU	196	W0BAW	W0BAWU	396	J0BAW	246	
	7½	3	1	250	30	S1BAW	S1BAWU	S1BAWU	206	W1BAW	W1BAWU	406	J1BAW	256	
	...	7½	1	250	60	S1BBW	S1BBWU	S1BBWU	210	W1BBW	W1BBWU	410	J1BBW	260	
	15	7½	2	250	60	S2BBW	S2BBWU	S2BBWU	324	W2BBW	W2BBWU	632	J2BBW	396	
	...	15⑥	2	250	100	S2BCW	S2BCWU	S2BCWU	350	W2BCW	W2BCWU	658	J2BCW	420	
	...	15	2	250	200	S2BDW	S2BDWU	S2BDWU	374	W2BDW	W2BDWU	682	J2BDW	446	
	30	15⑥	3	250	100	S3BCW	S3BCWU	S3BCWU	546	W3BCW	W3BCWU	1082	J3BCW	636	
	...	30	3	250	200	S3BDW	S3BDWU	S3BDWU	594	W3BDW	W3BDWU	1130	J3BDW	684	
	50	30	4	250	200	S4BDW	S4BDWU	S4BDWU	1018	W4BDW	W4BDWU	1704	J4BDW	1272	
	...	50	4	250	400	S4BEW	S4BEWU	S4BEWU	1152	W4BEW	W4BEWU	1838	J4BEW	1406	
480 (440 /50)	...	5	0	600	30	S0AAX	S0AAXU	S0AAXU	200	W0AAX	W0AAXU	400	J0AAX	250	
	10	5	1	600	30	S1AAX	S1AAXU	S1AAXU	210	W1AAX	W1AAXU	410	J1AAX	260	
	...	10	1	600	60	S1ABX	S1ABXU	S1ABXU	214	W1ABX	W1ABXU	414	J1ABX	264	
	25	15	2	600	60	S2ABX	S2ABXU	S2ABXU	330	W2ABX	W2ABXU	638	J2ABX	402	
	...	25	2	600	100	S2ACX	S2ACXU	S2ACXU	354	W2ACX	W2ACXU	662	J2ACX	424	
	50	30⑥	3	600	100	S3ACX	S3ACXU	S3ACXU	558	W3ACX	W3ACXU	1094	J3ACX	650	
	...	50	3	600	200	S3ADX	S3ADXU	S3ADXU	602	W3ADX	W3ADXU	1138	J3ADX	692	
	...	60	4	600	200	S4ADX	S4ADXU	S4ADXU	1058	W4ADX	W4ADXU	1746	J4ADX	1312	
	100	100	4	600	400	S4AEX	S4AEXU	S4AEXU	1170	W4AEX	W4AEXU	1856	J4AEX	1422	
	600	...	5	0	600	30	S0AAE	S0AAEU	S0AAEU	200	W0AAE	W0AAEU	400	J0AAE	250
10		7½	1	600	30	S1AAE	S1AAEU	S1AAEU	210	W1AAE	W1AAEU	410	J1AAE	260	
...		10	1	600	60	S1ABE	S1ABEU	S1ABEU	214	W1ABE	W1ABEU	414	J1ABE	264	
25		15	2	600	60	S2ABE	S2ABEU	S2ABEU	330	W2ABE	W2ABEU	638	J2ABE	402	
...		25	2	600	100	S2ACE	S2ACEU	S2ACEU	354	W2ACE	W2ACEU	662	J2ACE	424	
50		30⑥	3	600	100	S3ACE	S3ACEU	S3ACEU	558	W3ACE	W3ACEU	1094	J3ACE	650	
...		50	3	600	200	S3ADE	S3ADEU	S3ADEU	602	W3ADE	W3ADEU	1138	J3ADE	692	
...		60	4	600	200	S4ADE	S4ADEU	S4ADEU	1058	W4ADE	W4ADEU	1746	J4ADE	1312	
100		100	4	600	400	S4AEE	S4AEEU	S4AEEU	1170	W4AEE	W4AEEU	1856	J4AEE	1422	

① Prices changed since previous issue.

② For other voltages, see coil table on page 38.

③ Provides space for field mounting a control transformer.

④ Prices do not include control circuit transformers. If required to meet JIC specifications, add prices from modification table.

⑤ NEMA 12 normally supplied without external reset pushbutton, specify if required. No extra charge.

⑥ Suitable for this horsepower on light starting duty. For heavy starting duty, starter with next size larger fuse clips is recommended.

⑦ Provides space for field mounting fuse kits, MCP, current limiter and control transformer.

⑧ When using Type J fuses, order by description. Fuse clips for dual element fuses supplied as standard.

⑨ If used on 600 volt application change third digit "B" to "A". For horsepower rating refer to 600 volt coil voltage.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S3

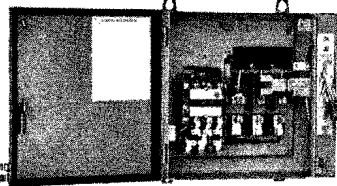
Selling Policy 7000

Low Voltage Ac Control
**A/200 Magnetic Control
 Enclosed Combination
 Starters**

Non-Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A204 60 Cycle, 3-Phase Horizontal Starters With Fusible Disconnect Switch



60 Cycle Coil Voltage ^②	Max. Hp.		NEMA Size	Fuse Clip Ratings ^⑥		NEMA 1 General Purpose		NEMA 12 ^{③④} Dust-tight	
	Dual Element Fuses	N. E. C. Fuses		Volts	Amps	Catalog Number	List Price ⑤	Cat. No. A204	List Price ⑤
120 (Separate control 110/50)	See Ratings Below		1	250	30	(Order by description)	\$206.00	H1BAAC	\$256.00
			1	250	60		210.00	H1BBAC	260.00
			2	250	60		324.00	H2BBAC	396.00
			2	250	100		350.00	H2BCAC	420.00
208/220	7½ ... 15 ...	3 7½ 7½ 15 ^⑤	1	250	30	(Order by description)	206.00	H1BAB	256.00
			1	250	60		210.00	H1BBB	260.00
			2	250	60		324.00	H2BBB	396.00
			2	250	100		350.00	H2BCB	420.00
240 (220/50)	7½ ... 15 ...	3 7½ 7½ 15 ^⑤	1	250	30	(Order by description)	206.00	H1BAW	256.00
			1	250	60		210.00	H1BBW	260.00
			2	250	60		324.00	H2BBW	396.00
			2	250	100		350.00	H2BCW	420.00
480 (440/50)	10 ... 15 ...	5 10 15 25	1	600	30	(Order by description)	210.00	H1AAX	260.00
			1	600	60		214.00	H1ABX	264.00
			2	600	60		330.00	H2ABX	402.00
			2	600	100 ^⑦		354.00	H2ACX	424.00

① Prices changed since previous issue.

② For other voltages, see coil table on page 36.

③ Prices do not include control circuit transformers. If required to meet JIC specifications, add prices from modification table.

④ NEMA 12 normally supplied without external reset pushbutton, specify if required. No extra charge.

⑤ Suitable for this horsepower on light starting duty. For heavy starting duty, starter with next size larger fuse clips is recommended.

⑥ When using Type J fuses, order by description.

⑦ For 25 horsepower applications with 600 volt 100 amp fuse clips Type J fuses must be used.

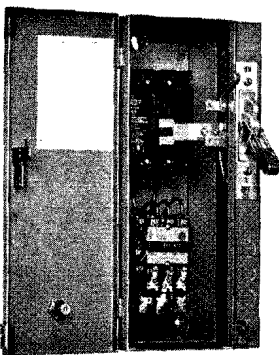
Westinghouse



Non-Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A206 60 Cycle, 3-Phase Starters With AB DE-ION® Circuit Breaker or Motor Circuit Protector

	60 Cycle Coil Voltage ^②	Max. Hp.	NEMA Size	Circuit Breaker Amps Frame Size ^⑥	NEMA 1 General Purpose Enclosure				NEMA 4 Water-tight Stainless Steel Enclosure			NEMA 12 ^{④⑤} Dust-tight Encl.	
					Standard Cat. No. A206	Oversize ^③ Cat. No. A206	Universal ^⑦ Cat. No. A206	List Price ^①	Standard Cat. No. A206	Oversize ^③ Cat. No. A206	List Price ^①	Standard Cat. No. A206	List Price ^①
	120 (Separate Control 110 /50)	See Ratings Below	0	15EB 7MCP	S0BAAC	S0BAACU	S0MUAC	\$ 196	W0BAAC	W0BAACU	\$ 388	J0BAAC	\$ 244
			0	15EB 7MCP	S0MUAC	S0MUACU	S0MUACU	254	W0MUAC	W0MUACU	446	J0MUAC	302
			0	15EB 15MCP	S0MAAC	S0MAACU	S0MAACU	196	W0MAAC	W0MAACU	388	J0MAAC	244
			0	20EB 15MCP	S0BBAC	S0BBACU	S0MAACU	254	W0BBAC	W0BBACU	446	J0BBAC	302
			0	20EB 15MCP	S0MAAC	S0MAACU	S0MAACU	196	W0MAAC	W0MAACU	388	J0MAAC	244
			1	30EB 30MCP	S1BDAC	S1BDACU	S1MDACU	254	W1BDAC	W1BDACU	446	J1BDAC	302
			1	30EB 30MCP	S1MDAC	S1MDACU	S1MDACU	206	W1MDAC	W1MDACU	398	J1MDAC	254
			1	50EB 30MCP	S1BGAC	S1BGACU	S1MDACU	264	W1BGAC	W1BGACU	456	J1BGAC	312
			1	50EB 30MCP	S1MDAC	S1MDACU	S1MDACU	206	W1MDAC	W1MDACU	398	J1MDAC	254
			2	70EB 50MCP	S2BHAC	S2BHACU	S2MGACU	316	W2BHAC	W2BHACU	612	J2BHAC	384
			2	70EB 50MCP	S2MGAC	S2MGACU	S2MGACU	374	W2MGAC	W2MGACU	670	J2MGAC	442
			2	100EB 50MCP	S2BJAC	S2BJACU	S2MGACU	316	W2BJAC	W2BJACU	612	J2BJAC	384
			3	100EB 50MCP	S2MGAC	S2MGACU	S2MGACU	374	W2MGAC	W2MGACU	670	J2MGAC	442
			3	100MCP	S3MJAC	S3MJACU	S3MJACU	544	W3MJAC	W3MJACU	1060	J3MJAC	632
			4	150MCP	S4MLAC	S4MLACU	S4MLACU	1194	W4MLAC	W4MLACU	1854	J4MLAC	1438
			1	15EB 7MCP	S0BAB	S0BABU	S0MUBU	196	W0BAB	W0BABU	388	J0BAB	244
			2	15EB 15MCP	S0BAB	S0BABU	S0MUBU	254	W0BAB	W0BABU	446	J0BAB	302
			3	20EB 15MCP	S0BAB	S0BABU	S0MUBU	196	W0BAB	W0BABU	388	J0BAB	244
			3	20EB 15MCP	S0BBB	S0BBBU	S0MABU	254	W0BBB	W0BBBU	446	J0BBB	302
			5	30EB 30MCP	S1BDB	S1BDBU	S1MDBU	206	W1BDB	W1BDBU	398	J1BDB	254
			7½	50EB 30MCP	S1MDB	S1MDBU	S1MDBU	264	W1MDB	W1MDBU	456	J1MDB	312
			7½	50EB 30MCP	S1BGB	S1BGBU	S1MDBU	206	W1BGB	W1BGBU	398	J1BGB	254
			10	70EB 50MCP	S1MDB	S1MDBU	S1MDBU	264	W1MDB	W1MDBU	456	J1MDB	312
			10	70EB 50MCP	S2HBB	S2HBBU	S2MGBU	316	W2HBB	W2HBBU	612	J2HBB	384
			15	100EB 50MCP	S2MGB	S2MGBU	S2MGBU	374	W2MGB	W2MGBU	670	J2MGB	442
			15	100EB 50MCP	S2BJB	S2BJB	S2MGBU	316	W2BJB	W2BJB	612	J2BJB	384
			30	100MCP	S2MGB	S2MGBU	S2MGBU	374	W2MGB	W2MGBU	670	J2MGB	442
			50	150MCP	S3MJB	S3MJB	S3MJBY	544	W3MJB	W3MJB	1060	J3MJB	632
			50	150MCP	S4MLB	S4MLB	S4MLB	1194	W4MLB	W4MLB	1854	J4MLB	1438
	208 /220		1	15EB 7MCP	S0BAW	S0BAWU	S0MUWU	196	W0BAW	W0BAWU	388	J0BAW	244
			2	15EB 15MCP	S0MUW	S0MUWU	S0MUWU	254	W0MUW	W0MUWU	446	J0MUW	302
			2	15EB 15MCP	S0BAW	S0BAWU	S0MAWU	196	W0BAW	W0BAWU	388	J0BAW	244
			3	20EB 15MCP	S0MAW	S0MAWU	S0MAWU	254	W0MAW	W0MAWU	446	J0MAW	302
			3	20EB 15MCP	S0BBW	S0BBWU	S0MAWU	196	W0BBW	W0BBWU	388	J0BBW	244
			5	30EB 30MCP	S0MAW	S0MAWU	S0MAWU	254	W0MAW	W0MAWU	446	J0MAW	302
			5	30EB 30MCP	S1BDW	S1BDWU	S1MDWU	206	W1BDW	W1BDWU	398	J1BDW	254
			7½	50EB 30MCP	S1MDW	S1MDWU	S1MDWU	264	W1MDW	W1MDWU	456	J1MDW	312
			7½	50EB 30MCP	S1BGW	S1BGWU	S1MDWU	206	W1BGW	W1BGWU	398	J1BGW	254
			10	70EB 50MCP	S1MDW	S1MDWU	S1MDWU	264	W1MDW	W1MDWU	456	J1MDW	312
			10	70EB 50MCP	S2BHW	S2BHWU	S2MGWU	316	W2BHW	W2BHWU	612	J2BHW	384
			15	100EB 50MCP	S2MGW	S2MGWU	S2MGWU	374	W2MGW	W2MGWU	670	J2MGW	442
			15	100EB 50MCP	S2BJW	S2BJWU	S2MGWU	316	W2BJW	W2BJWU	612	J2BJW	384
			30	100MCP	S2MGW	S2MGWU	S2MGWU	374	W2MGW	W2MGWU	670	J2MGW	442
			50	150MCP	S3MJW	S3MJWU	S3MJWU	544	W3MJW	W3MJWU	1060	J3MJW	632
			50	150MCP	S4MLW	S4MLW	S4MLW	1194	W4MLW	W4MLW	1854	J4MLW	1438
			1	3MCP	S0MTX	S0MTXU	S0MTXU	254	W0MTX	W0MTXU	446	J0MTX	302
			2	7MCP	S0MUX	S0MUXU	S0MUXU	254	W0MUX	W0MUXU	446	J0MUX	302
			5	15MCP	S0MAX	S0MAXU	S0MAXU	254	W0MAX	W0MAXU	446	J0MAX	302
			10	30MCP	S1MDX	S1MDXU	S1MDXU	264	W1MDX	W1MDXU	456	J1MDX	312
			25	50MCP	S2MGX	S2MGXU	S2MGXU	374	W2MGX	W2MGXU	670	J2MGX	442
			50	100MCP	S3MJX	S3MJXU	S3MJXU	544	W3MJX	W3MJXU	1060	J3MJX	632
			100	150MCP	S4MLX	S4MLX	S4MLX	1194	W4MLX	W4MLX	1854	J4MLX	1438
	480 (440 /50)		1	3MCP	S0MTE	S0MTEU	S0MTEU	254	W0MTE	W0MTEU	446	J0MTE	302
			2	7MCP	S0MUE	S0MUEU	S0MUEU	254	W0MUE	W0MUEU	446	J0MUE	302
			5	15MCP	S0MAE	S0MAEU	S0MAEU	254	W0MAE	W0MAEU	446	J0MAE	302
			10	30MCP	S1MDE	S1MDEU	S1MDEU	264	W1MDE	W1MDEU	456	J1MDE	312
			25	50MCP	S2MGE	S2MGEU	S2MGEU	374	W2MGE	W2MGEU	670	J2MGE	442
			50	100MCP	S3MJE	S3MJEU	S3MJEU	544	W3MJE	W3MJEU	1060	J3MJE	632
			100	150MCP	S4MLE	S4MLE	S4MLE	1194	W4MLE	W4MLE	1854	J4MLE	1438
			100	150MCP	S4MLE	S4MLE	S4MLE	1194	W4MLE	W4MLE	1854	J4MLE	1438

② Prices changed since previous issue.

③ For other voltages, see coil table on page 38.

④ Provide space for field mounting a control transformer.

⑤ Prices do not include control circuit transformers. If required to meet JIC specifications, add prices from modification table.

⑥ MCP is coordinated to starter size. When using oversize starter, order by description giving motor full load current.

⑦ Provides space for field mounting fuse kits. MCP, current limiter and control transformer.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S3

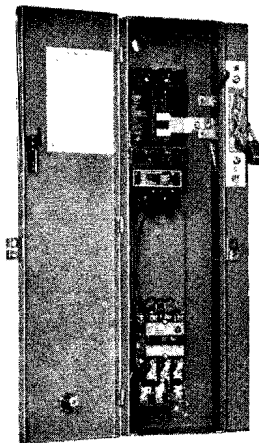
Selling Policy 7000

Low Voltage Ac Control
**A/200 Magnetic Control
 Enclosed Combination
 Starters**

Non-Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A207 60 Cycle, 3-Phase Non-Reversing Starters With MCP and Current Limiter



A 207 Size 1
 NEMA 1 Enclosure

60 Cycle Coil Voltage ^②	Max. Hp.	NEMA Size	Circuit Breaker Amps Frame Size ^⑤	NEMA 1 General Purpose Encl.		NEMA 4 Water-tight Stainless Steel Encl.		NEMA 12 ^{③④} Dust-tight Encl.	
				Standard Cat. No. A207	List Price ①	Standard Cat. No. A207	List Price ①	Standard Cat. No. A207	List Price ①
120 (Separate control 110/50)	See Ratings Below	0	7MCP	S0MUAC	\$314	W0MUAC	\$506	J0MUAC	\$362
		0	15MCP	S0MAAC	314	W0MAAC	506	J0MAAC	362
		1	30MCP	S1MDAC	324	W1MDAC	516	J1MDAC	372
		2	50MCP	S2MGAC	434	W2MGAC	730	J2MGAC	502
		3	100MCP	S3MJAC	682	W3MJAC	1198	J3MJAC	770
208/220	1 3 7½ 15 30 50	0	7MCP	S0MUB	314	W0MUB	506	J0MUB	362
		0	15MCP	S0MAB	314	W0MAB	506	J0MAB	362
		1	30MCP	S1MDB	324	W1MDB	516	J1MDB	372
		2	50MCP	S2MGB	434	W2MGB	730	J2MGB	502
		3	100MCP	S3MJB	682	W3MJB	1198	J3MJB	770
240 (220/50)	1 3 7½ 15 30 50	0	7MCP	S0MUW	314	W0MUW	506	J0MUW	362
		0	15MCP	S0MAW	314	W0MAW	506	J0MAW	362
		1	30MCP	S1MDW	324	W1MDW	516	J1MDW	372
		2	50MCP	S2MGW	434	W2MGW	730	J2MGW	502
		3	100MCP	S3MJW	682	W3MJW	1198	J3MJW	770
480 (440/50)	1 2 5 10 25 50 100	0	3MCP	S0MTX	314	W0MTX	506	J0MTX	362
		0	7MCP	S0MUX	314	W0MUX	506	J0MUX	362
		0	15MCP	S0MAX	314	W0MAX	506	J0MAX	362
		1	30MCP	S1MDX	324	W1MDX	516	J1MDX	372
		2	50MCP	S2MGX	424	W2MGX	730	J2MGX	502
600	1 2 5 10 25 50 100	3	100MCP	S3MJX	682	W3MJX	1198	J3MJX	770
		4	150MCP	S4MLX	1480	W4MLX	2140	J4MLX	1724
		0	3MCP	S0MTE	314	W0MTE	506	J0MTE	362
		0	7MCP	S0MUE	314	W0MUE	506	J0MUE	362
		0	15MCP	S0MAE	314	W0MAE	506	J0MAE	362
	1 2 5 10 25 50 100	1	30MCP	S1MDE	324	W1MDE	516	J1MDE	372
		2	50MCP	S2MGE	434	W2MGE	780	J2MGE	502
		3	100MCP	S3MJE	682	W3MJE	1198	J3MJE	770
		4	150MCP	S4MLE	1480	W4MLE	2140	J4MLE	1724

① Prices changed since previous issue.

② For other voltages, see coil table on page 38.

③ Prices do not include control circuit transformers. If required, add prices from modification table.

④ NEMA 12 normally supplied without external reset pushbutton, specify if required. No extra charge.

⑤ MCP is coordinated to starter size. When using oversize starter, order by description giving motor full load current.

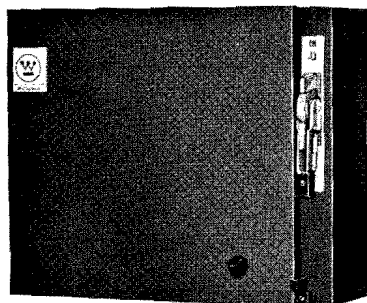
Westinghouse



Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A213 60 Cycle, 3-Phase Reversing Starters With Non-Fusible Disconnect



NEMA 1 Enclosure

60 Cycle Coil Voltage ^②	Maximum Horsepower	NEMA Size	NEMA 1 General Purpose		NEMA 4 Water-tight Stainless Steel		NEMA 12 ^{③④} Dust-tight	
			Standard Cat. No. A213	List Price ①	Standard Cat. No. A213	List Price ①	Standard Cat. No. A213	List Price ①
120 (Separate Control) (110/50)	See Ratings Below	0	S0AC	\$ 306	W0AC	\$ 550	J0AC	\$ 374
		1	S1AC	326	W1AC	570	J1AC	394
		2	S2AC	544	W2AC	916	J2AC	632
		3	S3AC	902	W3AC	1554	J3AC	1018
		4	S4AC	1888	W4AC	2712	J4AC	2206
208/220	3 7½ 15 30 50	0	S0B	306	W0B	550	J0B	374
		1	S1B	326	W1B	570	J1B	394
		2	S2B	544	W2B	916	J2B	632
		3	S3B	902	W3B	1554	J3B	1018
		4	S4B	1888	W4B	2712	J4B	2206
240 (220/50)	3 7½ 15 30 50	0	S0W	306	W0W	550	J0W	374
		1	S1W	326	W1W	570	J1W	394
		2	S2W	544	W2W	916	J2W	632
		3	S3W	902	W3W	1554	J3W	1018
		4	S4W	1888	W4W	2712	J4W	2206
480 (440/50)	5 10 25 50 100	0	S0X	306	W0X	550	J0X	374
		1	S1X	326	W1X	570	J1X	394
		2	S2X	544	W2X	916	J2X	632
		3	S3X	902	W3X	1554	J3X	1018
		4	S4X	1888	W4X	2712	J4X	2206
600	5 10 25 50 100	0	S0E	306	W0E	550	J0E	374
		1	S1E	326	W1E	570	J1E	394
		2	S2E	544	W2E	916	J2E	632
		3	S3E	902	W3E	1554	J3E	1018
		4	S4E	1888	W4E	2712	J4E	2206

① Prices changed since previous issue.

② For other voltages, see coil table on page 36.

③ Prices do not include control circuit transformers. If required, add prices from modification table.

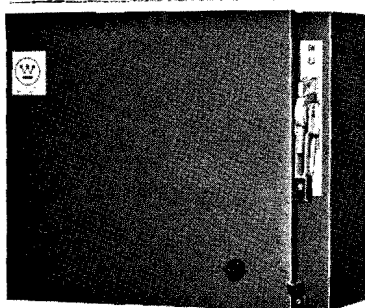
④ NEMA 12 normally supplied without external reset pushbutton, specify if required. No extra charge.

Low Voltage Ac Control A/200 Magnetic Control Enclosed Combination Starters

Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A214 60 Cycle, 3-Phase Starters With Fusible Disconnect



NEMA 1 Enclosure

60 Cycle Coil Voltage	Maximum Horsepower		NEMA Size	Fuse Clip Ratings ^⑥		NEMA 1 General Purpose		NEMA 4 Water- tight Stainless Steel		NEMA 12 ^{③④} Dust-tight	
	Dual Element Fuses	N.E.C. Fuses		Volts	Amps	Standard Cat. No. A214	List Price ^①	Standard Cat. No. A214	List Price ^①	Standard Cat. No. A214	List Price ^①
120 (Separate Control 110/50)	See Ratings Below ^⑦		0	250	30	S0BAAC	\$ 312	W0BAAC	\$ 556	J0BAAC	\$ 380
			1	250	30	S1BAAC	332	W1BAAC	576	J1BAAC	400
			1	250	60	S1BBAC	336	W1BBAC	580	J1BBAC	404
			2	250	60	S2BBAC	552	W2BBAC	924	J2BBAC	640
			2	250	100	S2BCAC	578	W2BCAC	950	J2BCAC	666
			2	250	200	S2BDAC	602	W2BDAC	974	J2BDAC	690
			3	250	100	S3BCAC	914	W3BCAC	1566	J3BCAC	1030
			3	250	200	S3BDAC	962	W3BDAC	1614	J3BDAC	1078
			4	250	200	S4BDAC	1870	W4BDAC	2746	J4BDAC	2240
			4	250	400	S4BEAC	2004	W4BEAC	2848	J4BEAC	2342
			3	250	30	S0BAB	312	W0BAB	556	J0BAB	380
			3	250	30	S1BAB	332	W1BAB	576	J1BAB	400
208/220	7½	7½	1	250	60	S1BBB	336	W1BBB	580	J1BBB	404
	15	7½	2	250	60	S2BBB	552	W2BBB	924	J2BBB	640
	15	15 ^⑤	2	250	100	S2BCB	578	W2BCB	950	J2BCB	666
	15	15	2	250	200	S2BDB	602	W2BDB	974	J2BDB	690
	30	15 ^⑤	3	250	100	S3BCB	914	W3BCB	1566	J3BCB	1030
	30	30	3	250	200	S3BDB	962	W3BDB	1614	J3BDB	1078
	50	30	4	250	200	S4BDB	1870	W4BDB	2746	J4BDB	2240
	50	50	4	250	400	S4BEB	2004	W4BEB	2848	J4BEB	2342
	15	15	2	250	200	S2BDW	602	W2BDW	974	J2BDW	690
	30	15 ^⑤	3	250	100	S3BCW	914	W3BCW	1566	J3BCW	1030
	30	30	3	250	200	S3BDW	962	W3BDW	1614	J3BDW	1078
	50	30	4	250	200	S4BDW	1870	W4BDW	2746	J4BDW	2240
240 (220/50)	15	15	2	250	100	S2BCW	578	W2BCW	950	J2BCW	666
	15	15	2	250	200	S2BDW	602	W2BDW	974	J2BDW	690
	30	15 ^⑤	3	250	100	S3BCW	914	W3BCW	1566	J3BCW	1030
	30	30	3	250	200	S3BDW	962	W3BDW	1614	J3BDW	1078
	50	30	4	250	200	S4BDW	1870	W4BDW	2746	J4BDW	2240
	50	50	4	250	400	S4BEW	2004	W4BEW	2848	J4BEW	2342
	10	5	0	600	30	S0AAX	316	W0AAX	560	J0AAX	384
	10	5	1	600	30	S1AAX	336	W1AAX	580	J1AAX	404
	10	10	1	600	60	S1ABX	340	W1ABX	584	J1ABX	408
	25	15	2	600	60	S2ABX	558	W2ABX	930	J2ABX	646
	25	25	2	600	100	S2ACX	582	W2ACX	954	J2ACX	670
	50	30 ^⑤	3	600	100	S3ACX	926	W3ACX	1578	J3ACX	1042
480 (440/50)	50	50	3	600	200	S3ADX	970	W3ADX	1622	J3ADX	1086
	100	60	4	600	200	S4ADX	1930	W4ADX	2754	J4ADX	2248
	100	100	4	600	400	S4AEX	2042	W4AEX	2866	J4AEX	2360
	10	5	0	600	30	S0AAE	316	W0AAE	560	J0AAE	384
	10	7½	1	600	30	S1AAE	336	W1AAE	580	J1AAE	404
	10	10	1	600	60	S1ABE	340	W1ABE	584	J1ABE	408
	25	15	2	600	60	S2ABE	558	W2ABE	930	J2ABE	646
	25	25	2	600	100	S2ACE	582	W2ACE	954	J2ACE	670
	50	30 ^⑤	3	600	100	S3ACE	926	W3ACE	1578	J3ACE	1042
	50	50	3	600	200	S3ADE	970	W3ADE	1622	J3ADE	1086
	100	60	4	600	200	S4ADE	1930	W4ADE	2754	J4ADE	2248
	100	100	4	600	400	S4AEE	2042	W4AEE	2866	J4AEE	2360

① Prices changed since previous issue.

② For other voltages, see coil table on page 36.

③ Prices do not include control circuit transformers. If required to meet JIC specifications, add prices from modification table.

④ NEMA 12 normally supplied without external reset pushbutton, specify if required. No extra charge.

⑤ Suitable for this horsepower on light starting duty. For heavy starting duty, starter with next size larger fuse clips is recommended.

⑥ When ordering Type J fuses, order by description. Fuse clips for dual element fuses supplied as standard.

⑦ If used on 600 volt applications, change third digit "B" to "A". For horsepower rating, refer to 600 volt coil voltages.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S3

Selling Policy 7000

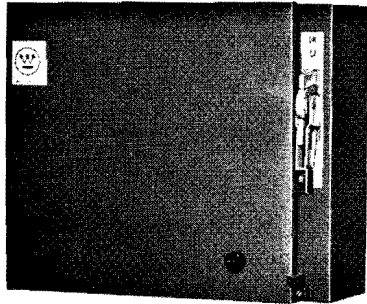
Westinghouse



Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A216, 60 Cycle, 3-Phase Starters With AB De-ion® Circuit Breakers or Motor Circuit Protector



NEMA 1 Enclosure

60 Cycle Coil Voltage ^②	Max. Hp.	NEMA Size	Circuit Breaker Amps Frame Size ^⑤	NEMA 1 General Purpose Encl.	Standard Cat. No. A216	List Price ①	NEMA 4 Water-tight Stainless Steel Encl.	Standard Cat. No. A216	List Price ①	NEMA 12 ^{③④} Dust-tight Encl.	Standard Cat. No. A216	List Price ①
120 (Separate Control 110/50)	See Rat- ings Below	0	15EB	S0BAAC	\$ 312		W0BAAC	\$ 556		J0BAAC	\$ 380	
			7MCP	S0MUAC	358		W0MUAC	602		J0MUAC	426	
		0	15EB	S0BAAC	312		W0BAAC	556		J0BAAC	380	
			15MCP	S0MAAC	358		W0MAAC	602		J0MAAC	426	
	0	0	20EB	S0BBAC	312		W0BBAC	556		J0BBAC	380	
			15MCP	S0MAAC	358		W0MAAC	602		J0MAAC	426	
		1	30EB	S1BDAC	336		W1BDAC	580		J1BDAC	404	
			30MCP	S1MDAC	382		W1MDAC	626		J1MDAC	450	
	1	1	50EB	S1BGAC	336		W1BGAC	580		J1BGAC	404	
			30MCP	S1MDAC	382		W1MDAC	626		J1MDAC	450	
		2	70EB	S2BHAC	564		W2BHAC	936		J2BHAC	652	
			50MCP	S2MGAC	610		W2MGAC	982		J2MGAC	698	
	2	2	100EB	S2BJAC	564		W2BJAC	936		J2BJAC	652	
			50MCP	S2MGAC	610		W2MGAC	982		J2MGAC	698	
		3	100MCP	S3MJAC	912		W3MJAC	1564		J3MJAC	1028	
			150MCP	S4MLAC	2066		W4MLAC	2890		J4MLAC	2384	
208/220	1	0	15EB	S0BAB	312		W0BAB	556		J0BAB	380	
			7MCP	S0MUB	358		W0MUB	602		J0MUB	426	
		0	15EB	S0BAB	312		W0BAB	556		J0BAB	380	
			15MCP	S0MAB	358		W0MA0	602		J0MAB	426	
	3	0	20EB	S0BBB	312		W0BBB	556		J0BBB	380	
			15MCP	S0MAB	358		W0MAB	602		J0MAB	426	
		1	30EB	S1BDB	336		W1BDB	580		J1BDB	404	
			30MCP	S1MDB	382		W1MDB	626		J1MDB	450	
	7½	1	50EB	S1BGB	336		W1BGB	580		J1BGB	404	
			30MCP	S1MDB	382		W1MDB	626		J1MDB	450	
		2	70EB	S2BHB	564		W2BHB	936		J2BHB	652	
			50MCP	S2MGB	610		W2MGB	982		J2MGB	698	
	15	2	100EB	S2BJB	564		W2BJB	936		J2BJB	652	
			50MCP	S2MGB	610		W2MGB	982		J2MGB	698	
		3	100MCP	S3MJB	912		W3MJB	1564		J3MJB	1028	
			150MCP	S4MLB	2066		W4MLB	2890		J4MLB	2384	
240 (220/50)	1	0	15EB	S0BAW	312		W0BAW	556		J0BAW	380	
			7MCP	S0MUW	358		W0MUW	602		J0MUW	426	
		0	15EB	S0BAW	312		W0BAW	556		J0BAW	380	
			15MCP	S0MAW	358		W0MAW	602		J0MAW	426	
	3	0	20EB	S0BBW	312		W0BBW	556		J0BBW	380	
			15MCP	S0MAW	358		W0MAW	602		J0MAW	426	
		1	30EB	S1BDW	336		W1BDW	580		J1BDW	404	
			30MCP	S1MDW	382		W1MDW	626		J1MDW	450	
	7½	1	50EB	S1BGW	336		W1BGW	580		J1BGW	404	
			30MCP	S1MDW	382		W1MDW	626		J1MDW	450	
		2	70EB	S2BHW	564		W2BHW	936		J2BHW	652	
			50MCP	S2MGW	610		W2MGW	982		J2MGW	698	
	15	2	100EB	S2BJW	564		W2BJW	936		J2BJW	652	
			50MCP	S2MGW	610		W2MGW	982		J2MGW	698	
		3	100MCP	S3MJW	912		W3MJW	1564		J3MJW	1028	
			150MCP	S4MLW	2066		W4MLW	2890		J4MLW	2384	
480 (440/50)	1	0	3MCP	S0MTX	358		W0MTX	602		J0MTX	426	
			7MCP	S0MUX	358		W0MUX	602		J0MUX	426	
		0	15MCP	S0MAX	358		W0MAX	602		J0MAX	426	
			30MCP	S1MDX	382		W1MDX	626		J1MDX	450	
	25	2	50MCP	S2MGX	610		W2MGX	982		J2MGX	698	
			100MCP	S3MJX	912		W3MJX	1564		J3MJX	1028	
		4	150MCP	S4MLX	2066		W4MLX	2890		J4MLX	2384	
600	1	0	3MCP	S0MTE	358		W0MTE	602		J0MTE	426	
			7MCP	S0MUE	358		W0MUE	602		J0MUE	426	
		0	15MCP	S0MAE	358		W0MAE	602		J0MAE	426	
			30MCP	S1MDE	382		W1MDE	626		J1MDE	450	
	25	2	50MCP	S2MGE	610		W2MGE	982		J2MGE	698	
			100MCP	S3MJE	912		W3MJE	1564		J3MJE	1028	
		4	150MCP	S4MLE	2066		W4MLE	2890		J4MLE	2384	

① Prices changed since previous issue.

② For other voltages, see coil table on page 36.

③ Prices do not include control circuit transformers. If required to meet JIC specifications, add prices from modification table.

④ NEMA 12 normally supplied without external reset pushbutton, specify if required. No extra charge.

⑤ MCP is coordinated to starter. When starter used does not agree with sizes shown, order by description.

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S3

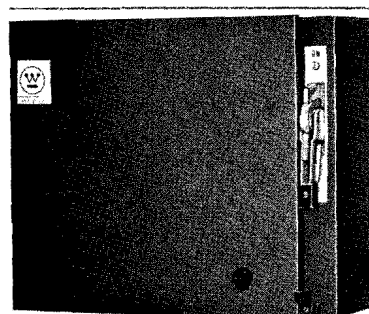
Selling Policy 7000

Low Voltage Ac Control
**A/200 Magnetic Control
 Enclosed Combination
 Starters**

Reversing Combination Starters

List Prices Prices Do Not Include Heaters. Select From Page 38 (Overload Relay Requires 3 Heaters)

Type A217, 60 Cycle, 3-Phase Starters With MCP and Current Limiter



NEMA 1 Enclosure

60 Cycle Coil Voltage ^②	Max. Hp.	NEMA Size	Circuit Breaker Amps. Frame Size ^⑤	NEMA 1 General Purpose Encl.		NEMA 4 Water-tight Stainless Steel Encl.		NEMA 12 ^{③④} Dust-tight Encl.	
				Standard Cat. No. A217	List Price ①	Standard Cat. No. A217	List Price ①	Standard Cat. No. A217	List Price ①
120 (Separate Control 110/50)	See Rat- ings Below	0	7MCP	S0MUAC	\$ 418	W0MUAC	\$ 662	J0MUAC	\$ 486
		0	15MCP	S0MAAC	418	W0MAAC	662	J0MAAC	486
		1	30MCP	S1MDAC	442	W1MDAC	686	J1MDAC	510
		2	50MCP	S2MGAC	670	W2MGAC	1042	J2MGAC	758
		3	100MCP	S3MJAC	1050	W3MJAC	1702	J3MJAC	1166
208/220		4	150MCP	S4MLAC	2352	W4MLAC	3176	J4MALC	2670
		1	7MCP	S0MUB	418	W0MUB	662	J0MUB	486
		0	15MCP	S0MAB	418	W0MAB	662	J0MAB	486
		7½	30MCP	S1MDB	442	W1MDB	686	J1MDB	510
		15	50MCP	S2MGB	670	W2MGB	1042	J2MGB	758
240 (220/50)		30	100MCP	S3MJB	1050	W3MJB	1702	J3MJB	1166
		50	150MCP	S4MLB	2352	W4MLB	3176	J4MLB	2670
		1	7MCP	S0MUW	418	W0MUW	662	J0MUW	486
		3	15MCP	S0MAW	418	W0MAW	662	J0MAW	486
		7½	30MCP	S1MDW	442	W1MDW	686	J1MDW	510
480 (440/50)		15	50MCP	S2MGW	670	W2MGW	1042	J2MGW	758
		30	100MCP	S3MJW	1050	W3MJW	1702	J3MJW	1166
		50	150MCP	S4MLW	2352	W4MLW	3176	J4MLW	2670
		1	3MCP	S0MTX	418	W0MTX	662	J0MTX	486
		2	7MCP	S0MUX	418	W0MUX	662	J0MUX	486
600		5	15MCP	S0MAX	418	W0MAX	662	J0MAX	486
		10	30MCP	S1MDX	442	W1MDX	686	J1MDX	510
		25	50MCP	S2MGX	670	W2MGX	1042	J2MGX	758
		50	100MCP	S3MJX	1050	W3MJX	1702	J3MJX	1166
		100	150MCP	S4MLX	2352	W4MLX	3176	J4MLX	2670
		1	3MCP	S0MTE	418	W0MTE	662	J0MTE	486
		2	7MCP	S0MUE	418	W0MUE	662	J0MUE	486
		5	15MCP	S0MAE	418	W0MAE	662	J0MAE	486
		10	30MCP	S1MDE	442	W1MDE	686	J1MDE	510
		25	50MCP	S2MGE	670	W2MGE	1042	J2MGE	758
		50	100MCP	S3MJE	1050	W3MJE	1702	J3MJE	1166
		100	150MCP	S4MLE	2352	W4MLE	3176	J4MLE	2670

① Prices changed since previous issue.

② For other voltages, see coil table on page 38.

③ Prices do not include control circuit transformers. If required to meet JIC specifications, add prices from modification table.

④ NEMA 12 normally supplied without external reset pushbutton, specify if required. No extra charge.

⑤ MCP is coordinated to starter size. When using oversize starter, order by description giving motor full load current.

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Current Limiters

For replacement in A207's (see SP 7000 for replacement policy) or installation in A206's with MCP to convert to A207. (See dimensions, page 37 for A206 enclosures which will accept MCP and C/L.) One required per starter. Includes mounting hardware.

Current Limiter Cat. No.	For Use With Catalog Number	MCP Continuous Current	List Price Disc. Sym. C10-S3A ^①
EL-3003	MCP0322	3	\$ 46.00
EL-3007	MCP0358	7	46.00
EL-3015	MCP03150	15	46.00
EL-3030	MCP13300	30	46.00
EL-3050	MCP23480	50	46.00
EL-3100	MCP331000	100	106.00
EL-3150	MCP431550	150	222.00

Ordering Information

Order by catalog number; a complete catalog number consists of catalog number at top of column, plus suffix in column.

EXAMPLE: A203+S0AC=A203S0AC
Enter heaters as separate item by listing catalog number from table, page 38.
Selling price, \$3.00^② list each, c10-s5.

Interrupting Capacity of A206, A207, A216 and A217 Combination Starters Symmetrical, Amperes

NEMA Size	Starter and Breaker Type	240 Volts	480 Volts	600 Volts
0	A206, A216 (EB)	10,000	.....	.....
	A206, A216 (MCP)	50,000	50,000 ^③	50,000 ^③
	A207, A217 (MCP+CL)	100,000	100,000	100,000
1, 2	A206, A216 (EB)	10,000	.....	.....
	A206, A216 (MCP)	50,000	18,000	14,000
	A207, A217 (MCP+CL)	100,000	100,000	100,000
3, 4	A206, A216 (MCP)	50,000	18,000	14,000
	A207, A217 (MCP+CL)	100,000	100,000	100,000

Factory Modifications

Add catalog number suffix from table, page 39, at end of starter catalog number.

Other Available Coil Voltages

Substitute suffix letters in table below for coil voltage (7th digit in A203 and A213, 9th digit in A204, A214, A206, A216 and A207, A217) in catalog numbers listed in price tables. For separate control, add the letter C at end of catalog number.

Examples: A203S0B=208/220/60
A204S0BAAC=120/60
with separate control

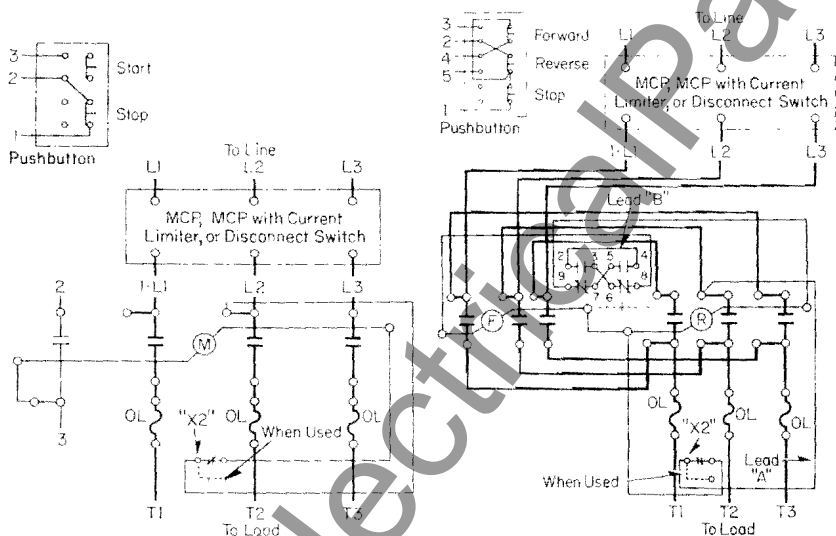
Suffix Letter	Volts	Cycles
Standard Voltages		
A	120/110	60/50
D	550	60
E	600/550	60/50
H	440/380	60/50
I	24	60
V	110	60
K	600	50
Y	200	60
Dual Voltages^②		
C	240/480	60
J	208/220/440	60
R	120/240	60

^① Prices changed since previous issue.

^② List Price Addition: \$4.00^③ each.

^③ 18,000 amperes, 480 volts; 14,000 amperes, 600 volts when using 15 ampere MCP.

Typical Wiring Diagrams



3 Phase Non-Reversing Starter

3 Phase Reversing Starter

Low Voltage Ac Control

A/200 Magnetic Control

Enclosed Combination Starters

Accessory and Field Modification Kits

Fuse Clip Kits (For use only with Type DS Switches)

These kits are to be used to change existing A203 and A213 to A204 and A214 fusible starters, and to change ratings of existing A204 and A214 fusible starters.

Volts	Max. Hp.	NEMA Size	Fuse Clip Ratings	Disconnect Switch Rating Amps	Fuse Clip Kit Catalog Numbers	List Price ②
	Dual Element Fuses	N.E.C. Fuses	Volts	Amps		
208/240	 3	0	250	30	179C726G01	\$ 5.00
	7½ 3	1	250	30	179C726G01	5.00
	 7½	1	250	60	179C726G03	6.00
	15 7½	2	250	60	179C726G03	6.00
	 15②	2	250	100③	179C726G05	21.00
	30 15②	3	250	100	179C726G07	21.00
	 30	3	250	200	179C726G08	32.00
	50 30	4	250	200	179C726G09	32.00
	 5	0	600	30	179C726G02	8.00
	10 5	1	600	30	179C726G02	8.00
480	 10	1	600	60	179C726G04	10.00
	25 15	2	600	60	179C726G04	10.00
	 25	2	600	100③	179C726G05	21.00
	50 30②	3	600	100	179C726G07	21.00
	 50	3	600	200	179C726G08	32.00
	100 60	4	600	200	179C726G09	32.00
	 5	0	600	30	179C726G02	8.00
	10 7½	1	600	30	179C726G02	8.00
	25 15	2	600	60	179C726G04	10.00
	 25	2	600	100③	179C726G05	21.00
600	50 30	3	600	100	179C726G07	21.00
	 50	3	600	200	179C726G08	32.00
	100 60	4	600	200	179C726G09	32.00
	 5	0	600	30	179C726G02	8.00
	10 7½	1	600	30	179C726G02	8.00
	25 15	2	600	60	179C726G04	10.00
	 25	2	600	100③	179C726G05	21.00
	50 30	3	600	100	179C726G07	21.00
	 50	3	600	200	179C726G08	32.00
	100 60	4	600	200	179C726G09	32.00

② Prices changed since previous issue.

① Change or added since previous issue.

② Suitable for this horsepower on light starting duty. For heavy starting duty, starter with next size larger fuse clips is recommended.

③ NEMA 1 and NEMA 4 oversize enclosures without transformer are required for this kit. NEMA 12 enclosures must be without transformer.

① Field Modification Kits

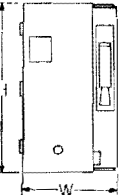
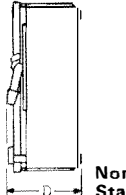
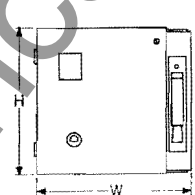
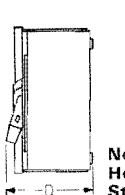
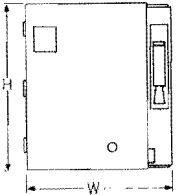
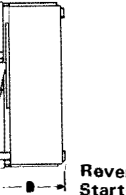
Kit	Catalog Number	NEMA Encl.	List Price ①
Start-Stop Pushbutton Selector Switch	PBK-1	1	\$10.00
Forward-Reverse-Stop Pushbutton	SSK-1	1	10.00
L-56 Interlock	PBK-2	1	50.00
Red Pilot Light	L-56	Any	12.00
120 Volt	PLK-1	1	22.00
240 Volt	PLK-2	1	22.00
480 Volt	PLK-4	1	22.00
Green Pilot Light			
120 Volt	PLK-1 G	1	22.00
240 Volt	PLK-2 G	1	22.00
480 Volt	PLK-4 G	1	22.00
Amber Pilot Light			
120 Volt	PLK-1A	1	22.00
240 Volt	PLK-2A	1	22.00
480 Volt	PLK-4A	1	22.00
50 VA Transformer for Sizes 0, 1, 2	TXK-1	Any	36.00
200 VA Transformer for Sizes 3, 4	TXK-3	Any	66.00
① 2 Pole Overload			
Sizes 00-2	2-OLK-1	All	3.00
Sizes 3, 4	2-OLK-3	All	3.00

Gasket Kits

For installation in NEMA 1 enclosures. Kit includes gasket only—customer to supply cement for installation.

NEMA Size	Catalog Number	List Prices ②	Factory Installed
		Kit Only	
0, 1	GK-1	\$10.00	\$20.00
2	GK-1	10.00	33.00
3	GK-3	12.00	44.00
4	GK-3	12.00	76.00

Dimensions, Inches *Not to be used for construction purposes unless approved.*

															
Non-Reversing Starters		Non-Reversing Horizontal Starters						Reversing Starters							
Starter Type and NEMA 1 Enclosure Design (Standard, Oversize or Universal)	NEMA Size	Circuit Breaker Frame	Max. Fuse Clip Rating Amps	Space for Current Limiter or Control Transformer	Space for Current Limiter and Control Transformer	Space for Control Transformer	NEMA 1 Enclosure			NEMA 4 Enclosure			NEMA 12 Enclosure		
							H	W	D	H	W	D	H	W	D
Non-Reversing Starters															
A203, A206 Standard	0, 1, 2	EB, MCP	...	No	No	No	18 ⁵ / ₁₆	8 ⁷ / ₁₆	6 ⁵ / ₁₆	20 ¹ / ₁₆	8 ⁷ / ₁₆	6 ⁵ / ₁₆	.....	.....	.....
A203, A206 Oversize	0, 1, 2	EB, MCP	...	Yes	No	Yes	22 ¹ / ₃₂	8 ⁷ / ₁₆	6 ⁵ / ₁₆	23 ³ / ₃₂	8 ⁷ / ₁₆	6 ⁵ / ₁₆	23 ³ / ₃₂	8 ⁷ / ₁₆	7 ² / ₁₆
A203, A206 Univ.; A207 Std.	0, 1, 2	EB, MCP	...	Yes	Yes	Yes	25 ²⁹ / ₃₂	8 ²⁵ / ₃₂	6 ⁵ / ₁₆	27 ¹ / ₁₆	8 ²⁵ / ₃₂	6 ⁵ / ₁₆	27 ¹ / ₁₆	8 ²⁵ / ₃₂	7 ² / ₁₆
A204 Standard	0, 1, 2	.....	60	...	...	No	22 ¹ / ₃₂	8 ⁷ / ₁₆	6 ⁵ / ₁₆	23 ³ / ₃₂	8 ⁷ / ₁₆	6 ⁵ / ₁₆	.....	.....	.....
A204 O'size and Univ.	0, 1, 2	.....	60	...	...	Yes	25 ²⁹ / ₃₂	8 ²⁵ / ₃₂	6 ⁵ / ₁₆	27 ¹ / ₁₆	8 ²⁵ / ₃₂	6 ⁵ / ₁₆	27 ¹ / ₁₆	8 ²⁵ / ₃₂	7 ² / ₁₆
A204 Standard	2	.....	100	...	...	No	25 ²⁹ / ₃₂	8 ²⁵ / ₃₂	6 ⁵ / ₁₆	27 ¹ / ₁₆	8 ²⁵ / ₃₂	6 ⁵ / ₁₆	.....	.....	.....
A204 O'Size and Univ.	2	.....	100	...	...	Yes	17 ⁷ / ₃₂	19 ¹⁵ / ₃₂	6 ⁵ / ₁₆	18 ³ / ₁₆	19 ¹⁵ / ₃₂	6 ⁵ / ₁₆	18 ³ / ₁₆	19 ¹⁵ / ₃₂	7 ² / ₁₆
A203, A206 Standard	3	MCP	...	No	No	No	24 ¹ / ₃₂	8 ²⁵ / ₃₂	8 ⁵ / ₁₆	26 ¹ / ₁₆	8 ²⁵ / ₃₂	8 ⁵ / ₁₆	.....	.....	.....
A203, A206 O'Size; A207 Std.	3	MCP	...	Yes	Yes	Yes	30 ⁶ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	33 ³ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	33 ³ / ₁₆	12 ² / ₃₂	9 ² / ₁₆
A203, A206 Std., O'Size; A207 Std.	4	MCP	...	Yes	Yes	Yes	30 ⁶ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	33 ³ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	33 ³ / ₁₆	12 ² / ₃₂	9 ² / ₁₆
A204; Size 3, All; Size 4 Std., O'Size	3, 4	.....	200	...	...	Yes	39 ³ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	41 ¹ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	41 ¹ / ₁₆	12 ² / ₃₂	9 ² / ₁₆
A203, A206 Univ.	3, 4	MCP	...	Yes	Yes	Yes	39 ³ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	41 ¹ / ₁₆	12 ² / ₃₂	9 ² / ₁₆	41 ¹ / ₁₆	12 ² / ₃₂	9 ² / ₁₆
Non-Reversing, Horizontal															
A203, A204	0, 1, 2	.....	60	...	...	Yes	13	14	6 ⁵ / ₁₆	.....	.....	.....	14 ³ / ₄	14	7 ² / ₁₆
Reversing															
All Reversing Types	0, 1, 2	.....	...	...	...	Yes	17 ⁷ / ₃₂	19 ¹⁵ / ₃₂	6 ⁵ / ₁₆	18 ³ / ₁₆	19 ¹⁵ / ₃₂	6 ⁵ / ₁₆	18 ³ / ₁₆	19 ¹⁵ / ₃₂	7 ² / ₁₆
	3, 4	.....	...	...	...	Yes	30 ⁶ / ₁₆	28 ¹ / ₃₂	9 ² / ₁₆	33 ³ / ₁₆	28 ¹ / ₃₂	9 ² / ₁₆	33 ³ / ₁₆	28 ¹ / ₃₂	9 ² / ₁₆

Prices effective July 6, 1971; subject to change without notice.

Discount Symbol C10-S5

Selling Policy 7000

Westinghouse



Heater Selection

Each heater is identified by a catalog number stamped on one terminal. The heater application table indicates the range of full load motor current to which a given heater may be applied.

Heaters should be selected on the basis of the actual full load current and service factor as shown on the motor nameplate or in the manufacturer's published literature.

When motor and overload relay are in the same ambient and the service factor of the

motor is 1.15 to 1.25, select heaters from the heater application table. If the service factor of the motor is 1.0, or there is no service factor shown, or a maximum of 115% protection is desired, select one size smaller heater than indicated.

When motor and overload relay are in different ambients and when using non-compensated overload relays, select heaters from the table using adjusted motor currents as follows: decrease rated motor current 1% for each °C motor ambient exceeds controller ambient. Increase rated motor current 1% for each °C controller ambient exceeds motor ambient.

For temperature compensated overload relays, select heaters according to the table and selection information above regardless of ambient.

Protect the heater and starter against short circuits by providing branch circuit protection per National Electric Code.

Heater Tables

For A200 Starters, Sizes 00, 0, 1 and 2

Size Starter	Ambient Enclosed Starters	Compensating Enclosed Starters	Block Type Overload Using 3 Heaters	Single Pole and Two Pole Block Type Overload	Block Type Overload Using 3 Heaters	Single Pole and Two Pole Block Type Overload	Full Load Current of Motor (Amps.)	Full Load Current of Motor (Amps.)	Heater Cat- alog Num- ber	MCP Cat. No. ②
For Size 2 Starters										
For Size 1 Starters										
For Size 0 Starters										
			.25 - .27	.29 - .31	.24 - .25	.28 - .30			H03	
			.28 - .31	.32 - .35	.26 - .28	.31 - .33			H04	
			.32 - .34	.36 - .39	.29 - .31	.34 - .36			H05	
			.35 - .38	.40 - .43	.32 - .35	.37 - .41			H06	
			.39 - .42	.44 - .48	.36 - .39	.42 - .45			H07	
			.43 - .46	.49 - .53	.40 - .43	.46 - .50			H08	
			.47 - .50	.54 - .58	.44 - .47	.51 - .55			H09	
			.51 - .55	.59 - .64	.48 - .51	.56 - .60			H10	
			.56 - .62	.65 - .71	.52 - .57	.61 - .67			H11	
			.63 - .68	.72 - .79	.58 - .63	.68 - .75			H12	
			.69 - .75	.80 - .87	.64 - .70	.76 - .82			H13	
			.76 - .83	.88 - .96	.71 - .77	.83 - .91			H14	
			.84 - .91	.97 - 1.06	.78 - .85	.92 - .99			H15	
			.92 - 1.00	1.07 - 1.16	.86 - .93	1.00 - 1.09			H16	
			1.01 - 1.11	1.17 - 1.28	.94 - 1.03	1.10 - 1.20			H17	
			1.12 - 1.22	1.29 - 1.41	1.04 - 1.13	1.21 - 1.32			H18	
			1.23 - 1.34	1.42 - 1.55	1.14 - 1.25	1.33 - 1.46			H19	
			1.35 - 1.47	1.56 - 1.71	1.26 - 1.37	1.47 - 1.60			H20	
			1.48 - 1.62	1.72 - 1.87	1.38 - 1.51	1.61 - 1.76			H21	
			1.63 - 1.78	1.88 - 2.06	1.52 - 1.65	1.77 - 1.93			H22	
			1.79 - 1.95	2.07 - 2.26	1.66 - 1.81	1.94 - 2.12			H23	
			1.96 - 2.15	2.27 - 2.48	1.82 - 1.99	2.13 - 2.33			H24	
			2.16 - 2.35	2.49 - 2.72	2.00 - 2.19	2.34 - 2.55			H25	
			2.36 - 2.58	2.73 - 2.99	2.20 - 2.39	2.56 - 2.80			H26	
			2.59 - 2.83	3.00 - 3.28	2.40 - 2.63	2.81 - 3.08			H27	
			2.84 - 3.11	3.29 - 3.60	2.64 - 2.89	3.09 - 3.39			H28	
			3.12 - 3.42	3.61 - 3.95	2.90 - 3.17	3.40 - 3.71			H29	
			3.43 - 3.73	3.96 - 4.31	3.18 - 3.47	3.72 - 4.07			H30	
			3.74 - 4.07	4.32 - 4.71	3.48 - 3.79	4.08 - 4.39			H31	
			4.08 - 4.39	4.72 - 5.14	3.80 - 4.11	4.40 - 4.79			H32	
			4.40 - 4.87	5.15 - 5.6	4.12 - 4.55	4.80 - 5.3			H33	
			4.88 - 5.3	5.7 - 6.2	4.56 - 5.0	5.4 - 5.8			H34	
			5.4 - 5.9	6.3 - 6.8	5.1 - 5.5	5.9 - 6.4			H35	
			6.0 - 6.4	6.9 - 7.5	5.6 - 5.9	6.5 - 7.0			H36	
			6.5 - 7.1	7.6 - 8.2	6.0 - 6.6	7.1 - 7.7			H37	
			7.2 - 7.8	8.3 - 9.0	6.7 - 7.2	7.8 - 8.4			H38	
			7.9 - 8.5	9.1 - 9.9	7.3 - 7.9	8.5 - 9.3			H39	
			8.6 - 9.4	10.0 - 10.8	8.0 - 8.7	9.4 - 10.2			H40	
			9.5 - 10.3	10.9 - 11.9	8.8 - 9.5	10.3 - 11.2			H41	
			10.4 - 11.3	12.0 - 13.1	9.6 - 10.5	11.3 - 12.3			H42	
			11.4 - 12.4	13.2 - 14.3	10.6 - 11.5	12.4 - 13.5			H43	
			12.5 - 13.5	14.4 - 15.7	11.6 - 12.6	13.6 - 14.7			H44	
			13.6 - 14.9	15.8 - 17.2	12.7 - 13.8	14.8 - 16.2			H45	
			15.0 - 16.3	17.3 - 18.9	13.9 - 15.1	16.3 - 17.8			H46	
			16.4 - 18.0	19.0 - 20.8	15.2 - 16.7	17.9 - 19.5			H47	
			18.1 - 19.8	20.9 - 22.9	16.8 - 18.3	19.6 - 21.5			H48	
			19.9 - 21.7	23.0 - 25.2	18.4 - 20.2	21.6 - 23.6			H49	
			21.8 - 23.9	25.3 - 27.6	20.3 - 22.2	23.7 - 25.9			H50	
			24.0 - 26.2	27.7 - 30.3	22.3 - 24.3	26.0 - 28.5			H51	
			26.3 - 28.7	30.4 - 33.3	24.4 - 26.6	28.6 - 31.1			H52	
			28.8 - 31.4	33.4 - 36.4	26.7 - 29.1	31.2 - 34.2			H53	
			31.5 - 34.5	36.5 - 39.9	29.2 - 32.0	34.3 - 37.5			H54	
			34.6 - 37.9	40.0 - 43.9	32.1 - 35.2	37.6 - 41.3			H55	
			38.0 - 41.5		35.3 - 38.5	41.4 - 45.0			H56	
			41.6 - 45.0		38.6 - 42.3				H57	

For Starter Sizes 3 and 4

Stator Used With ②	Ambient Compensated Enclosed Starters	Non- Compensating Enclosed Starters	Cat. No.	MCP Cat. No.
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All Applications

Full Load Current of Motor Amps.

For Size 4 Starters	For Size 3 Starters	For Size 2 Starters	For Size 1 Starters	For Size 0 Starters
19.0 - 20.8	17.5 - 19.1	15.0 - 16.3	13.6 - 14.9	12.5 - 13.5
20.9 - 22.9	19.2 - 21.1	16.4 - 18.0	15.0 - 16.3	13.6 - 14.9
23.0 - 25.2	21.2 - 23.2	18.1 - 19.8	16.4 - 18.0	15.0 - 16.3
25.3 - 27.8	23.3 - 25.6	19.9 - 21.7	18.1 - 19.8	16.4 - 18.0
27.9 - 30.6	25.7 - 28.1	21.8 - 23.9	19.9 - 21.7	18.1 - 19.8
30.7 - 33.5	28.2 - 30.8	24.0 - 26.2	21.8 - 23.9	19.9 - 21.7
33.6 - 37.5	30.9 - 34.5	26.3 - 28.7	24.0 - 26.2	21.8 - 23.9
37.6 - 41.5	34.6 - 38.2	28.8 - 31.4	26.3 - 28.7	24.0 - 26.2
41.6 - 46.3	38.3 - 42.6	31.5 - 34.5	28.8 - 31.4	26.3 - 28.7
46.4 - 50	42.7 - 46	34.6 - 37.9	31.5 - 34.5	28.8 - 31.4
51 - 55	47 - 51	38.0 - 41.5	34.6 - 37.9	31.5 - 34.5
56 - 61	52 - 56	41.6 - 45.0	38.0 - 41.5	34.6 - 37.9
62 - 66	57 - 61		41.6 - 45.0	38.0 - 41.5
67 - 73	62 - 67			41.6 - 45.0
74 - 79	68 - 73			41.6 - 45.0
80 - 87	74 - 80			41.6 - 45.0
81 - 87	81 - 87			41.6 - 45.0
88 - 95	88 - 95			41.6 - 45.0
96 - 105	88 - 95			41.6 - 45.0
106 - 116	96 - 105			41.6 - 45.0
117 - 128	106 - 116			41.6 - 45.0
117 - 127	117 - 127			41.6 - 45.0

Heater Selling Price, \$3.00® List Each.

① Prices changed since previous issue.

② MCP is coordinated to starter size. When using oversize starter, order by description giving motor full load current.

Low Voltage Ac Control

A/200 Magnetic Control Enclosed Combination Starters

A/200 Control Factory Modifications, List Price Additions

To indicate a maximum of two modifications to standard starters or contactors, add the proper suffix letter or letters to the catalog number listed. When the modification carries no suffix letter, give complete description.

tion. EXAMPLE: To add a start-stop pushbutton and red pilot light to a standard non-reversing unit, add letters for modifications (A, L) to the catalog number of the starter, (A200S1CW). The new catalog number

then becomes A200 S1CWAL.

When three or more modifications are required, order similar to standard catalog number and describe modifications desired.

Cat. No.	Modification	NEMA Enclosures	NEMA Size, List Price Addition®	00	0	1	2	3	4
Pushbuttons and Indicating Lights (Discount Symbol C10-S5)									
A	START-STOP pushbuttons.....	1, 1B	\$16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00
	(Momentary contact).....	3, 4, 12		44.00	44.00	44.00	44.00	44.00	44.00
B	HAND-OFF-AUTO selector switch.....	1, 1B	16.00	16.00	16.00	16.00	16.00	16.00	16.00
	(Maintained contact) in cover.....	3, 4, 12		44.00	44.00	44.00	44.00	44.00	44.00
A	FORWARD-REVERSE-STOP pushbuttons or FAST-SLOW-STOP.....	1		80.00	80.00	80.00	80.00	80.00	80.00
	(Momentary contact) in cover.....	4, 12		100.00	100.00	100.00	100.00	100.00	100.00
..	Pilot Light in Cover, Add Suffix: L (Red); L2 (Green); L3 (Amber).....	1, 1B		30.00	30.00	30.00	30.00	30.00	30.00
		4, 12		54.00	54.00	54.00	54.00	54.00	54.00
Overload and Auxiliary Relays (Discount Symbol C10-S5)									
E	Control contacts, 1 NO and 1 NC with common.....	Any	8.00	8.00	8.00	8.00	8.00	8.00	8.00
M	Substitute ambient compensated relay for standard relay (per relay)....	Any	4.00	4.00	4.00	4.00	4.00	4.00	4.00
..	Guardistor® SS solid state control relay in starter or contactor (add to complete starter or contactor price. Suitable for 110 or 220 volts only).....	Any		216.00	216.00	216.00	216.00	216.00	216.00
..	Auxiliary relay, control transformer, fuse block Guardistor® SS solid state control relay in starter or contactor (add to complete starter or contactor price). Suitable for 440 volts.....	Any		2128.00	2128.00	2128.00	2128.00	2128.00	2128.00
P	Omit overload relay (does not include heaters).....	Any		10.00	10.00	10.00	10.00	10.00	10.00
..	Control relay, max. of 4 poles.....	1, 12		102.00	102.00	102.00	102.00	102.00	160.00
		3, 4		156.00	156.00	156.00	156.00	156.00	212.00
..	Reverse phase and phase failure relays min. of 1.5 amps motor FLC.....	1, 12		500.00	500.00	500.00	500.00	500.00	500.00
..	Time limit relay (Type AM – single step-timing range 0.2 to 200 seconds).....	1, 12		168.00	168.00	168.00	168.00	168.00	168.00
		3, 4		220.00	220.00	220.00	220.00	220.00	220.00
Extra Interlocks, Per Contactor (Discount Symbol C10-S5)									
I	1 extra interlock, A200, A201, A203, A204, A206 and A207.....	Any		22.00	22.00	22.00	22.00	22.00	22.00
	A210, A211, and A900.....	Any		44.00	44.00	44.00	44.00	44.00	44.00
J	2 extra interlocks, A200, A201, A203, A204, A206, and A207.....	Any		44.00	44.00	44.00	44.00	44.00	44.00
	A210, A211, and A900.....	Any		88.00	88.00	88.00	88.00	88.00	88.00
K	3 extra interlocks, A200, A201, A203, A204, A206, and A207.....	Any		66.00	66.00	66.00	66.00	66.00	66.00
N	4 extra interlocks, A200, A201, A203, A204, A206, and A207, size 0 and 1 to 3 pole only.....	Any		88.00	88.00	88.00	88.00	88.00	88.00
C	Wired for separate control circuit.....	Any		No charge	any size starter				
Transformers, With Fused Secondary (Discount Symbol C10-S5)									
T	Dual voltage primary, 240/480 volts, 60 hertz (120 volt secondary) ..	1, 4, 12		54.00	54.00	76.00	112.00	136.00	
..	Transformer, 50 hertz.....	1, 4, 12		54.00	54.00	76.00	112.00	136.00	
T2	Transformer, with additional capacity up to 100 watts work lamp 60 hertz.....	1, 4, 12		96.00	96.00	124.00	156.00	176.00	
T3	Transformer, with additional capacity up to 200 watts work lamp 60 hertz.....	1, 4, 12		130.00	130.00	162.00	194.00	214.00	
T4	Transformer, with additional capacity up to 300 watts work lamp 60 hertz.....	1, 4, 12		164.00	164.00	200.00	232.00	252.00	
A900 Multi-speed Starters Only – Auxiliary Relays (Discount Symbol C10-S5)									
..	Compelling relay.....	Any		132.00	132.00	132.00	132.00	132.00	132.00
..	Accelerating relay – 2 speed.....	Any		308.00	308.00	308.00	308.00	308.00	308.00
..	Time decelerating relay – 2 speed.....	Any		308.00	308.00	308.00	308.00	308.00	308.00
Multi-Speed Combination Starters: Add price of disconnect device listed here, to A900 enclosed starter list prices, page 8, for complete unit. (Discount Symbol C10-S3)									
..	Non-fusible disconnect – changing to A903.....	1		196.00	196.00	250.00	316.00	436.00	
		4			320.00	408.00	640.00	778.00	
		12			200.00	266.00	346.00	704.00	
..	Fusible disconnect, 250 or 600 volts – changing to A904								
	30 or 60 amperes.....	1		228.00	228.00	266.00			
		4			354.00	424.00			
		12			232.00	282.00			
	100 amperes.....	1				310.00	342.00		
		4				468.00	666.00		
		12				326.00	370.00		
	200 amperes.....	1				352.00	424.00	528.00	
		4				510.00	748.00	852.00	
		12				368.00	454.00	778.00	
	400 amperes.....	1					586.00	752.00	
		4					912.00	1078.00	
		12					616.00	1002.00	
..	Motor Circuit Protector – changing to A906.....	1		282.00	344.00	374.00	684.00		
		4		402.00	496.00	686.00	996.00		
		12		286.00	360.00	402.00	924.00		
..	MCP and current limiter – changing to A907.....	1		342.00	404.00	512.00	970.00		
		4		462.00	556.00	824.00	1282.00		
		12		346.00	420.00	540.00	1210.00		
Miscellaneous									
..	Special nameplates.....	1, 2	10.00	10.00	10.00	10.00	10.00	10.00	10.00

® Prices changed since previous issue.

② Prices do not include the Guardistor unit which is included in the motor price.

Prices effective July 6, 1971; subject to change without notice.

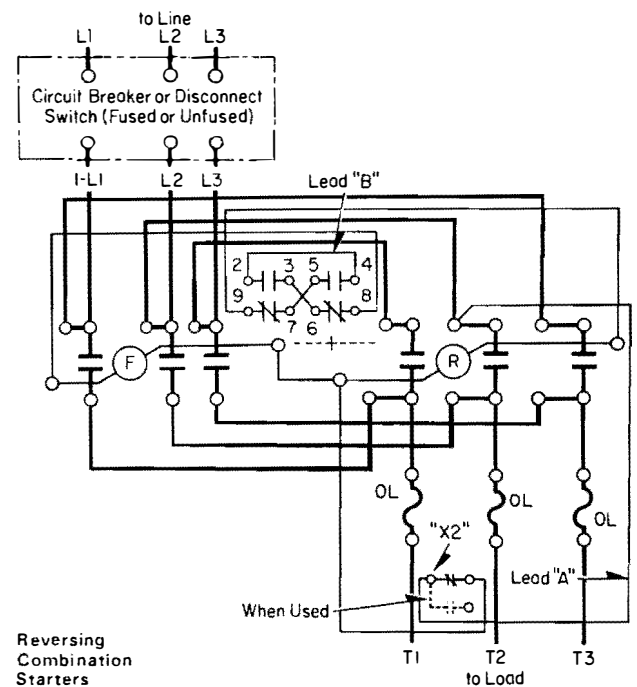
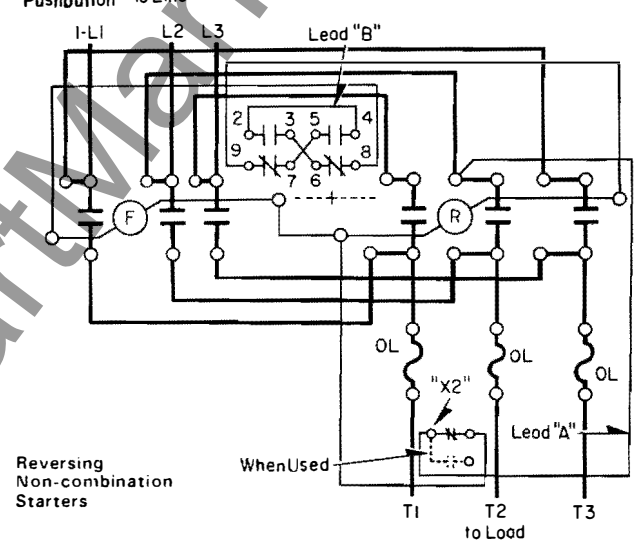
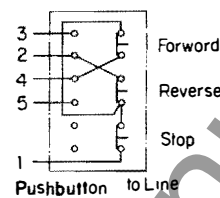
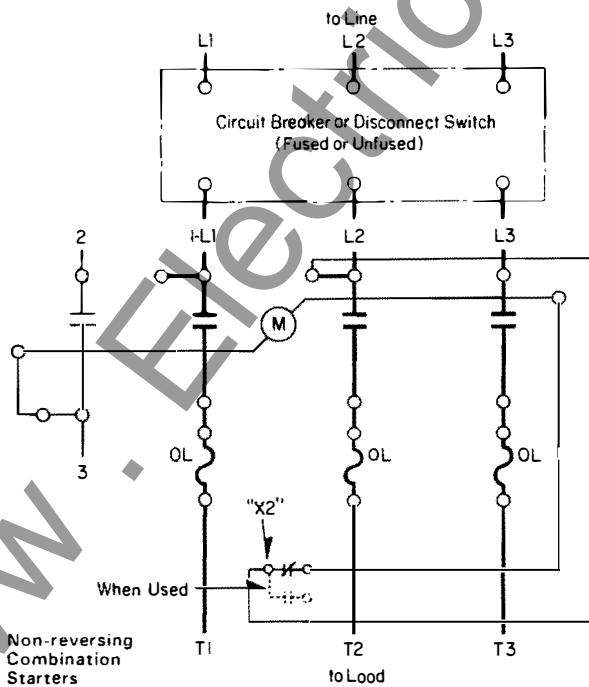
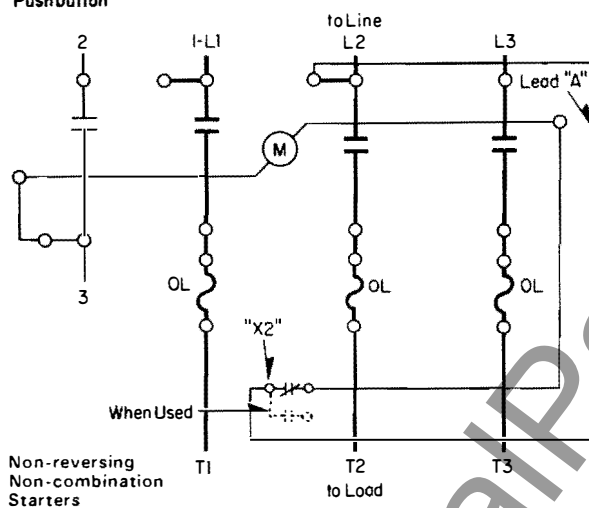
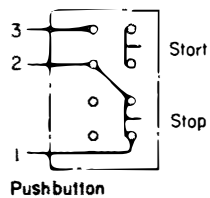
Discount Symbol C10-S3, C10-S5

Selling Policy 7000

Low Voltage Ac Control
A/200 Magnetic Control
Enclosed Combination
Starters

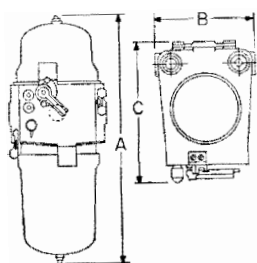
Low Voltage Ac Control A/200 Magnetic Control Starters for Hazardous Locations

Typical Wiring Diagrams

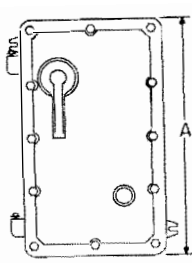


Low Voltage Ac Control A/200 Magnetic Control Starters for Hazardous Locations

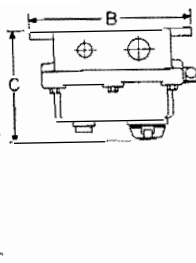
Outline Dimensions, Inches *Not to be used for construction purposes unless approved.*



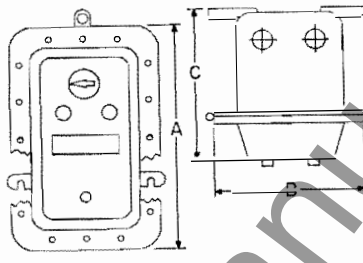
Crouse-Hinds EPC Enclosure



Killark Bolted Flange Enclosure



Nelson Whiteline Enclosure



Pyle National ECS Enclosure

Starter Size	Flange Type Enclosures									Threaded Type Enclosures								
	Killark NEMA 4, 9			NEMA 7			Nelson NEMA 4 and NEMA 9②			NEMA 7			Crouse Hinds NEMA 7, 9			Pyle National NEMA 7, 9		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
A200 Non-reversing, Non-combination Starters																		
0, 1	10	7 1/2	7 1/2	10	7 1/2	7 1/2	15 1/2	11	8 3/8	14 1/2	9 1/2	8 1/2	19 1/2	10 1/2	14 1/2	19 1/2	10 1/2	14 1/2
2	11 1/2	8	7 3/4	11 1/2	8 1/2	7 3/4	15 1/2	11	8 3/8	14 1/2	9 1/2	8 1/2	19 1/2	10 1/2	14 1/2	19 1/2	10 1/2	14 1/2
3	20 1/2	8 1/2	10 1/2	18 1/2	12 1/2	11	21 1/2	13 1/2	9 1/2	22 1/2	13 1/2	10 1/2	25 1/2	16 1/2	20 1/2	20 1/2	12	16 1/2
4	20 1/2	8 1/2	10 1/2	18 1/2	12 1/2	11	21 1/2	13 1/2	9 1/2	22 1/2	13 1/2	10 1/2	31 1/2	16 1/2	20 1/2	20 1/2	16 1/2	19 1/2
A203 Non-reversing, Combination Starters																		
0, 1	20	12	9	20	12	9	17 1/2	10 1/2	9 1/2	19 1/2	11 1/2	9 1/2	27 1/2	10 1/2	14 1/2	25 1/2	10 1/2	15 1/2
2	20	12	9	20	12	9	17 1/2	10 1/2	9 1/2	19 1/2	11 1/2	9 1/2	27 1/2	10 1/2	14 1/2	25 1/2	10 1/2	15 1/2
3	26 1/2	16 1/2	11 1/2	27	16 1/2	11 1/2	23 1/2	16 1/2	12 1/2	23 1/2	16 1/2	12 1/2	38 1/2	16 1/2	20 1/2	29 1/2	12	17 1/2
4	32 1/2	20 1/2	12 1/2	35	20 1/2	12 1/2	27 1/2	18 1/2	12 1/2	27 1/2	18 1/2	12 1/2	44 1/2	16 1/2	20 1/2	29 1/2	16 1/2	19 1/2
A204 Non-reversing, Combination Starters																		
0, 1	20 1/2	12 1/2	7 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
2	25 1/2	12 1/2	7 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
3	32 1/2	16 1/2	11 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4	32 1/2	20 1/2	11 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
A206 Non-reversing, Combination Starters																		
0, 1	20	12	9	20	12	9	17 1/2	10 1/2	9 1/2	19 1/2	11 1/2	9 1/2	27 1/2	10 1/2	14 1/2	25 1/2	10 1/2	15 1/2
2	20	12	9	20	12	9	17 1/2	10 1/2	9 1/2	19 1/2	11 1/2	9 1/2	27 1/2	10 1/2	14 1/2	25 1/2	10 1/2	15 1/2
3 (FA)	26 1/2	12 1/2	11 1/2	27	16 1/2	11 1/2	23 1/2	16 1/2	12 1/2	23 1/2	16 1/2	12 1/2	38 1/2	16 1/2	20 1/2	29 1/2	12	17 1/2
3 (JA)	32 1/2	16 1/2	11 1/2	35	16 1/2	11 1/2	....	....	....	....	....	....	38 1/2	16 1/2	20 1/2	29 1/2	12	17 1/2
4	32 1/2	16 1/2	11 1/2	35	16 1/2	11 1/2	27 1/2	18 1/2	12 1/2	27 1/2	18 1/2	12 1/2	44 1/2	16 1/2	20 1/2	29 1/2	16 1/2	19 1/2
A210 Reversing, Non-combination Starters																		
0, 1	12 1/2	12	8 1/2	12 1/2	12	8 1/2	15 1/2	11	8 3/8	16 1/2	11 1/2	8 1/2	35 1/2	10 1/2	14 1/2	19 1/2	10 1/2	14 1/2
2	12 1/2	12	8 1/2	12 1/2	12	8 1/2	21 1/2	13 1/2	9 1/2	22 1/2	13 1/2	10 1/2	41 1/2	12	16 1/2	25 1/2	10 1/2	15 1/2
3	20 1/2	16 1/2	10 1/2	22	16 1/2	11	28	18 1/2	10 1/2	26 1/2	17	11 1/2	50 1/2	16 1/2	20 1/2	29 1/2	12	17 1/2
4	20 1/2	16 1/2	10 1/2	22	16 1/2	11	28	18 1/2	10 1/2	26 1/2	17	11 1/2	50 1/2	16 1/2	20 1/2	42	16 1/2	19 1/2
A214 Reversing, Combination Starters																		
0, 1	20 1/2	12 1/2	7 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
2	25 1/2	12 1/2	7 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
3	32 1/2	16 1/2	11 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4	32 1/2	20 1/2	11 1/2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
A216 Reversing, Combination Starters																		
0, 1	20	12	9	20	12	9	20 1/2	12 1/2	10 1/2	22 1/2	13 1/2	11 1/2	35 1/2	10 1/2	14 1/2	34 1/2	10 1/2	15 1/2
2	20	12	9	20	12	9	20 1/2	12 1/2	10 1/2	22 1/2	13 1/2	11 1/2	41 1/2	12	16 1/2	34 1/2	10 1/2	15 1/2
3 (FA)	26 1/2	16 1/2	11 1/2	27	16 1/2	11 1/2	23 1/2	16 1/2	12 1/2	23 1/2	16 1/2	12 1/2	53 1/2	16 1/2	20 1/2	42	12	17 1/2
3 (JA)	32 1/2	16 1/2	11 1/2	35	16 1/2	11 1/2	....	....	....	....	....	....	53 1/2	16 1/2	20 1/2	42	12	17 1/2
4	32 1/2	16 1/2	11 1/2	35	16 1/2	11 1/2	27 1/2	18 1/2	12 1/2	27 1/2	18 1/2	12 1/2	53 1/2	16 1/2	20 1/2	42	16 1/2	19 1/2

② These are separate enclosures having identical dimensions.