

# Combination Starters



## Combination starters

Enclosed  
A9 – AF750

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### Description

#### A9 – AF750

- Maximum UL/CSA horsepower ratings
- Available with ABB non-fusible or fusible disconnect switches and MCP, thermal magnetic or electronic trip type circuit breakers
- Compact space saving design
- Standard auxiliary contact configurations:
  - A9 – A40 1 N.O.
  - A50 – AF750 1 N.O. & 1 N.C.
- Double break contact design
- Lowest possible contact bounce
- Early make & late break auxiliary contacts available
- Operates over an extended voltage range of 85% to 110% of rated control voltage
- UL listed

For reduced voltage starters, consult factory.

### Overload relay protection

Starters, sizes A9–A185, have Class 10 adjustable thermal bimetallic overload relay protection as standard.

Sizes AF400 – AF750, have selectable Class 10, 20, 30 adjustable electronic overload relay protection as standard.

Electronic overload relay protection is available for other starter sizes.

## General information Factory modifications

### Control cover accessories — NEMA 1, 3R, 12, 4, 4X

Description	Suffix code	List price adder
Start-Stop pushbutton	A	\$ 72
Fwd-rev-stop pushbutton	B	360
2 position selector switch (Std. On-Off)	C	72
3 position selector switch (Std. Hand-Off-Auto)	D	72
LED Pilot light, Red, RUN (Std)	E	135
LED Pilot light, Green, Off (Std)	R	135
Start-Stop pushbutton & pilot light	F	207
Fwd-rev-stop pushbutton & pilot light	G	496
2 position selector switch & pilot light	H	207
3 position selector switch (HOA) & pilot light	J	207
Fast-slow-stop pushbutton	K	360
Fast-slow-stop pushbutton & pilot light	L	495
Fast-slow-off-auto selector switch	M	150
Emergency stop	P	100
F suffix + 1NO & 1NC auxiliary contact	T	237
J suffix + 1NO & 1NC auxiliary contact	U	237
Pushbutton (standard START)	Y	36

### Special modifications

Description	Suffix code	List price adder
<b>Contactors</b>		
Coil surge suppressor	S	\$ 75
<b>Relays</b>		
Type N control relay (4 pole) N.O.	1	225
Phase failure phase reversal with over and undervoltage relay	2	300
Electronic timer (On Delay)	5	300
Electronic timer (Off Delay)	6	300
Ground fault protection	GF	2,250
<b>For multi-speed controllers</b>		
Compelling relay	CPR	300
Accelerating relay	ACR	300
Decelerating	DCR	300
<b>Meter &amp; metering</b>		
Current monitor (single CT)	CT	375
Ammeter (single CT w/meter) ②	AM	705
Voltmeter ②	VM	1,200
Voltmeter & Voltmeter switch ②	VMS	1,800
Elapsed time meter ②	ETM	375
Operation counter ②	OC	560
Wattmeter ②	WM	3,650

### Control circuit transformer — A9 - AF750

Standard size with fused secondary

Primary	Sec-ondary	Hz	Coil suffix	Starter Size	Std. CCT VA	List price adder	Extra VA CCT	Suffix code	List price adder
208	120	50/60	A	A9 - A40	50	\$ 360	50VA	V	\$ 150
240	120	50/60	B	A9 - A40 ①	50	630	75VA	W	200
480	120	50/60	C	A50 - A75	75	435	100VA	X	250
600	120	50/60	D	A110	100	560	200VA	Z	400
208	24	50/60	E	A145 - A185	150	720			
240	24	50/60	F	A260	250	795			
480	24	50/60	G						
600	24	50/60	H						

### Additional auxiliary contact blocks — A9 - AF750

Contact configuration	Suffix code	A9 - AF750 List price adder
1 N.O & 1 N.C.	8	\$ 30
2 N.O & 2 N.C.	9	60

### Fuses — set of three

Fuse switch size	List price adder
30A	\$ 80
60A	100
100A	250
200A	375
400A	900

### 2 Speed combination starters

Starter size	Non-fusible switch price adder	Fusible switch price adder	MCCB or MCP price adder
A9 (A9N00)	\$ 990	\$ 1,008	\$ 1,287
A12	990	1008	1287
A16 (A16N0)	990	1008	1287
A26 (A26N1)	990	1008	1287
A30	990	1224	1350
A40	990	1224	1350
A50 (A50N2)	1152	1224	1350
A63	1230	1350	1785
A75 (A75N3)	1494	1602	1809
A110	2310	2565	2982
A145 (A145N4)	3042	3366	4158
A185	3300	3735	4533
A210	3450	3825	6000
A260 (A260N5)	3744	4068	6849
A300	4200	6000	8750
AF400	6600	9450	9030
AF460	8200	11,100	9475
AF580	8400	11,800	10,200
AF750	9000	12,450	12,900

Utilize non-combination starter pricing with these price adders. Price class will change when adding disconnect / breaker to Discount schedule ACE [EW] [EW].

### Hazardous location enclosure accessories — NEMA 7 & 9

Item	Suffix code	List price adder
3R Breather / drain	A	\$ 80
Start PB green	B	180
Stop PB red	C	180
St/St dual PB	D	360
Em. Stop mush momentary	E	220
Em. Stop mush maintained	F	460
Black PB N.O. auxiliary	G	180
Black PB N.C. auxiliary	H	180
Pilot light	J	180
Illuminated PB	K	460
Push-to-test pilot light	L	450
Potentiometer	M	460
2-pos Selector Maintained	N	260
2-pos Selector spring L to R	P	280
2-pos Selector spring R to L	Q	280
3-pos Selector sw. main	R	260
3-pos Selector spring L to R	S	280
3-pos Selector spring R to L	T	280
3-pos Selector spring to C	U	280
2-pos Selector key operated	V	450
3-pos Selector key operated	W	450

① NEMA 7 and 9.

② For NEMA 7/9, add \$800 to the list price adder of the meter to include a view window on the enclosure door.

# General information

## Catalog number explanation

Combination starters

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**1 1 S F 1-2 C 1 J**

### UL rated starter size

1 – A9    B – A145    J – A9N00 (NEMA size 00)  
 2 – A12    C – A185    K – A16N0 (NEMA size 0)  
 3 – A16    D – A210    L – A26N1 (NEMA size 1)  
 4 – A26    E – A260    M – A50N2 (NEMA size 2)  
 5 – A30    F – A300    N – A75N3 (NEMA size 3)  
 6 – A40    G – AF400    P – A145N4 (NEMA size 4)  
 7 – A50    H – AF460    Q – A260N5 (NEMA size 5)  
 8 – A63    T – AF580    R – AF460N6 (NEMA size 6)  
 9 – A75    U – AF750    S – AF750N7 (NEMA size 7)  
 A – A110

### Starter type

1 – Non-reversing  
 2 – Reversing  
 3 – 2 speed, 2 winding or 1 winding

### Single phase

S – Single phase (Insert only for single phase)

### Combination type

N – Non-fusible disconnect  
 F – Fusible disconnect  
 B – Thermal magnetic or electronic trip type circuit breaker (MCCB)  
 M – Motor Circuit Protection (MCP)  
 J – Fusible disconnect (with fuses, size base on the HP or FLA x 1.75)  
 R – Non-fusible disconnect with trailing Class R fuse block with fuses  
 G – Non-fusible disconnect with trailing Class R fuse block

### Enclosure

1 – NEMA / UL Type 1  
 2 – NEMA / UL Type 12  
 3 – NEMA / UL Type 3R  
 4 – NEMA / UL Type 4  
 X – NEMA / UL Type 4XSS  
 P – NEMA / UL Type 4X PL  
 7 – UL Type 7

### Coil voltage / CCT

#### Coil voltage selection – A9 - A300

Hz	Contactor type	Volts									
		24	110	120	208	220	240	440	480	500	600
60	A	1	2	3			4	5	6		7
50	A	1	2			4				7	

#### Coil voltage selection – AF400 - AF750 ①

Hz	Contactor type	Volts	
		100 - 250	250 - 500
50/60	AF	70	71

#### Control transformer voltage selection chart

Hz	Type	Volts			
		200-208/120	240/120	460 - 480/120	575 - 600/120
50/60	A/AF	A	B	C	D
	Type	200-208/24	240/24	460 - 480/24	575 - 600/24
	A/AF	E	F	G	H

### Overload range

See Overload relay selection chart, see page 3.6 - 3.7

### Accessories

(See Factory Modifications, page 3.3)

### Fuse clip

1 – 30A, 600V Class J  
 2 – 60A, 600V Class J  
 3 – 100A, 600V Class J  
 4 – 200A, 600V Class J  
 5 – 400A, 600V Class J  
 6 – 600A, 600V Class J  
 7 – 800A, 600V Class J  
 8 – 1200A, 600V Class J  
 9 – 2000A, 600V Class J

### Circuit breaker amp rating (200V - 600V)

1 – 15A    B – 90A    M – 400A  
 2 – 20A    C – 100A    N – 450A  
 3 – 25A    D – 125A    O – 500A  
 4 – 30A    E – 150A    P – 600A  
 5 – 35A    F – 175A    Q – 700A  
 6 – 40A    G – 200A    R – 800A  
 7 – 50A    H – 225A    S – 900A  
 8 – 60A    J – 250A    T – 1000A  
 9 – 70A    K – 300A    U – 1200A  
 A – 80A    L – 350A    V – 2500A

### MCP amp rating (200V - 600V)

1 – 3A    7 – 150A    D – 700A  
 2 – 5A    8 – 250A    E – 800A  
 3 – 10A    9 – 400A    F – 900A  
 4 – 25A    A – 450A    G – 1000A  
 5 – 50A    B – 500A    H – 1200A  
 6 – 100A    C – 600A    J – 2500A

NOTE: For AF50 - AF300 starters, consult factory.

① For AF400 - AF750 only.

# Non-fusible disconnect switch type

## A9 - AF750

### Non-reversing, three phase

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UL motor switching current	Contactor size	Maximum ratings - UL Listed				UL Type 1 (Indoor metal)		UL type 3R (Outdoor metal)		UL Type 12 (Metal dusttight)	
		Maximum motor horsepower ratings				Catalog number	List price	Catalog number	List price	Catalog number	List price
		200/208V	230/240V	480/480V	575/600V						
<b>UL rated</b>											
9	A9	2	2	5	7.5	11N1-2Δ	\$ 825	11N3-2Δ	\$ 1,005	11N2-2Δ	\$ 1,005
11	A12	3	3	7.5	10	21N1-2Δ	855	21N3-2Δ	1,035	21N2-2Δ	1,035
17	A16	5	5	10	15	31N1-2Δ	885	31N3-2Δ	1,065	31N2-2Δ	1,065
28	A26	7.5	10	20	25	41N1-2Δ	968	41N3-2Δ	1,148	41N2-2Δ	1,148
34	A30	10	10	25	30	51N1-2Δ	1,050	51N3-2Δ	1,230	51N2-2Δ	1,230
42	A40	10	15	30	40	61N1-2Δ	1,155	61N3-2Δ	1,335	61N2-2Δ	1,335
54	A50	15	20	40	50	71N1-2Δ	1,650	71N3-2Δ	1,830	71N2-2Δ	1,830
65	A63	20	25	50	50	81N1-2Δ	1,875	81N3-2Δ	2,055	81N2-2Δ	2,055
80	A75	25	30	60	75	91N1-2Δ	2,295	91N3-2Δ	2,775	91N2-2Δ	2,775
110	A110	30	40	75	100	A1N1-2Δ	2,865	A1N3-2Δ	3,765	A1N2-2Δ	3,765
130	A145	40	50	100	125	B1N1-2Δ	3,675	B1N3-2Δ	4,890	B1N2-2Δ	4,890
156	A185	50	60	125	150	C1N1-2Δ	4,050	C1N3-2Δ	5,250	C1N2-2Δ	5,250
192	A210	60	75	150	200	D1N1-2Δ	5,685	D1N3-2Δ	7,650	D1N2-2Δ	7,650
248	A260	75	100	200	250	E1N1-2Δ	6,090	E1N3-2Δ	8,085	E1N2-2Δ	8,085
302	A300	100	100	250	300	F1N1-2Δ	7,080	F1N3-2Δ	8,850	F1N2-2Δ	8,850
414	AF400	125	150	350	400	G1N1-2Δ	11,250	G1N3-2Δ	12,285	G1N2-2Δ	12,285
480	AF460	150	200	400	500	H1N1-70Δ	17,100	H1N3-70Δ	18,900	H1N2-70Δ	18,900
590	AF580	200	250	500	600	T1N1-70Δ	20,490	T1N3-70Δ	22,290	T1N2-70Δ	22,290
810	AF750	250	300	600	700	U1N1-70Δ	21,990	U1N3-70Δ	25,050	U1N2-70Δ	25,050

<b>NEMA rated</b>											
NEMA size	Contactor size	Continuous current	200V	230V	460/575V						
00	A9	9	1.5	1.5	2	J1N1-2Δ	\$ 825	J1N3-2Δ	\$ 1,005	J1N2-2Δ	\$ 1,005
0	A16	18	3	3	5	K1N1-2Δ	885	K1N3-2Δ	1,065	K1N2-2Δ	1,065
1	A26	27	7.5	7.5	10	L1N1-2Δ	968	L1N3-2Δ	1,148	L1N2-2Δ	1,148
2	A50	45	10	15	25	M1N1-2Δ	1,650	M1N3-2Δ	1,830	M1N2-2Δ	1,830
3	A75	90	25	30	50	N1N1-2Δ	2,295	N1N3-2Δ	2,775	N1N2-2Δ	2,775
4	A145	135	40	50	100	P1N1-2Δ	3,675	P1N3-2Δ	4,890	P1N2-2Δ	4,890
5	A260	270	75	100	200	Q1N1-2Δ	6,090	Q1N3-2Δ	8,085	Q1N2-2Δ	8,085
6	AF460	540	150	200	400	R1N1-70Δ	17,100	R1N3-70Δ	18,900	R1N2-70Δ	18,900
7	AF750	810	—	300	600	S1N1-70Δ	21,990	S1N3-70Δ	25,050	S1N2-70Δ	25,050

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

Example: 11N1-2X      \$ 825      List  
    - 63      - OLR  
    \$ 762      Net price

### Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the last dash in the catalog number.

Ex.: A 240V coil is required for an A75 starter: 91N1-4F

To select starter with control transformer, substitute the code from the Control transformer voltage selector chart for the two digits after the last dash in the catalog number.

Ex.: A 480V primary voltage with a 120V secondary voltage is required for an A75 starter: 91N1-CF

### Control transformer option

Contactor size	VA rating	List price adder
A9 - A40	50	\$ 360
A50 - A75	75	435
A95 - A110	100	560
A145 - A185	150	720
A210 - A300	250	795
AF400 - AF460	150	720
AF580 - AF750	250	795

Reference page 3.50 for Extra VA under all (Control Transformer Options chart)

### Factory modifications

See page 3.50

### Coil voltage selection - A9 - A300

Hz	Contactor type	Volts									
		24	110	120	208	220	240	440	480	500	600
60	A	1		2	3		4	5	6		7
50	A	1	2			4				7	

### Coil voltage selection - AF400 - AF750

Hz	Contactor type	Volts	
		100 - 250	250 - 500
50/60	AF	70	71

### Control transformer voltage selection chart

Hz	Volts				
	Type	200-208/120	240/120	460 - 480/120	575 - 600/120
	A/AF	A	B	C	D
50/60	Type	200-208/24	240/24	460 - 480/24	575 - 600/24
	A/AF	E	F	G	H

NOTES: For AF50 - AF 300 starters, consult factory.

① AF400 - AF750 only.

**Non-fusible disconnect switch type  
A9 - AF750  
Non-reversing, three phase**

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UL Type 4 (Watertight)		UL Type 4X (Stainless steel)		UL Type 1, 3R, 4, 4X & 12 (Plastic)	
Catalog number	List price	Catalog number	List price	Catalog number	List price
<b>UL rated</b>					
11N4-2Δ	\$ 1,290	11NX-2Δ	\$ 1,600	11NP-2Δ	\$ 945
21N4-2Δ	1,320	21NX-2Δ	1,630	21NP-2Δ	975
31N4-2Δ	1,365	31NX-2Δ	1,675	31NP-2Δ	1,005
41N4-2Δ	1,448	41NX-2Δ	1,790	41NP-2Δ	1,088
51N4-2Δ	1,613	51NX-2Δ	2,110	51NP-2Δ	1,170
61N4-2Δ	1,800	61NX-2Δ	2,500	61NP-2Δ	1,275
71N4-2Δ	2,190	71NX-2Δ	3,100	71NP-2Δ	1,770
81N4-2Δ	2,535	81NX-2Δ	3,550	81NP-2Δ	1,995
91N4-2Δ	3,015	91NX-2Δ	4,000	91NP-2Δ	2,415
A1N4-2Δ	4,163	A1NX-2Δ	5,530	A1NP-2Δ	3,225
B1N4-2Δ	5,175	B1NX-2Δ	6,450	B1NP-2Δ	4,360
C1N4-2Δ	5,775	C1NX-2Δ	7,650	C1NP-2Δ	5,100
D1N4-2Δ	9,150	D1NX-2Δ	12,000	D1NP-2Δ	8,300
E1N4-2Δ	9,600	E1NX-2Δ	16,500	E1NP-2Δ	8,750
F1N4-2Δ	10,350	F1NX-2Δ	21,000	F1NP-2Δ	9,750
G1N4-2Δ	13,800	G1NX-2Δ	25,800	G1NP-2Δ	—
H1N4-70Δ	20,700	H1NX-70Δ	27,900	—	—
T1N4-70Δ	24,750	T1NX-70Δ	32,550	—	—
U1N4-70Δ	26,850	U1NX-70Δ	34,800	—	—
<b>NEMA rated</b>					
J1N4-2Δ	\$ 1,290	J1NX-2Δ	\$ 1,600	J1NP-2Δ	\$ 945
K1N4-2Δ	1,365	K1NX-2Δ	1,675	K1NP-2Δ	1,005
L1N4-2Δ	1,448	L1NX-2Δ	1,780	L1NP-2Δ	1,088
M1N4-2Δ	2,190	M1NX-2Δ	3,100	M1NP-2Δ	1,770
N1N4-2Δ	3,015	N1NX-2Δ	4,000	N1NP-2Δ	2,415
P1N4-2Δ	5,175	P1NX-2Δ	6,450	P1NP-2Δ	4,360
Q1N4-2Δ	9,600	Q1NX-2Δ	16,500	Q1NP-2Δ	8,750
R1N4-70Δ	20,700	R1NX-70Δ	27,900	—	—
S1N4-70Δ	26,850	S1NX-70Δ	34,800	—	—

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

# Fusible disconnect switch type

## A9 - AF750

### Non-reversing, three phase

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UL motor switching current	Contactor size	Maximum ratings - UL Listed					UL Type 1 (Indoor metal)		UL type 3R (Outdoor metal)		UL Type 12 (Metal dusttight)	
		Maximum motor horsepower ratings					Catalog number	List price	Catalog number	List price	Catalog number	List price
		200/208V	230/240V	480/480V	575/600V	Fuse clip rating amp/volts						
<b>UL rated</b>												
9	A9	2	2	5	7.5	30/600	11F1-2Δ1	\$ 885	11F3-2Δ1	\$ 1,065	11F2-2Δ1	\$ 1,065
11	A12	3	3	7.5	10	30/600	21F1-2Δ1	915	21F3-2Δ1	1,095	21F2-2Δ1	1,095
17	A16	5	5	10	15	30/600	31F1-2Δ1	945	31F3-2Δ1	1,125	31F2-2Δ1	1,125
28	A26	7.5	10	20	25	60/600	41F1-2Δ2	1,020	41F3-2Δ2	1,230	41F2-2Δ2	1,230
34	A30	10	10	25	30	60/600	51F1-2Δ2	1,095	51F3-2Δ2	1,313	51F2-2Δ2	1,313
42	A40	10	15	30	40	60/600	61F1-2Δ2	1,185	61F3-2Δ2	1,418	61F2-2Δ2	1,418
54	A50	15	20	40	50	100/600	71F1-2Δ3	1,725	71F3-2Δ3	1,913	71F2-2Δ3	1,913
65	A63	20	25	50	50	100/600	81F1-2Δ3	1,980	81F3-2Δ3	2,138	81F2-2Δ3	2,138
80	A75	25	30	60	75	200/600	91F1-2Δ4	2,445	91F3-2Δ4	2,858	91F2-2Δ4	2,858
110	A110	30	40	75	100	200/600	A1F1-2Δ4	2,925	A1F3-2Δ4	3,818	A1F2-2Δ4	3,818
130	A145	40	50	100	125	200/600	B1F1-2Δ4	3,735	B1F3-2Δ4	5,184	B1F2-2Δ4	5,183
156	A185	50	60	125	150	400/600	C1F1-2Δ5	4,650	C1F3-2Δ5	5,500	C1F2-2Δ5	5,400
192	A210	60	75	150	200	400/600	D1F1-2Δ5	6,870	D1F3-2Δ5	8,850	D1F2-2Δ5	8,850
248	A260	75	100	200	250	400/600	E1F1-2Δ5	7,680	E1F3-2Δ5	9,930	E1F2-2Δ5	9,930
302	A300	100	100	250	300	400/600	F1F1-2Δ5	8,100	F1F3-2Δ5	10,350	F1F2-2Δ5	10,350
414	AF400	125	150	350	400	600/600	G1F1-2Δ6	11,895	G1F3-2Δ6	12,600	G1F2-2Δ6	12,600
480	AF460	150	—	—	—	600/600	H1F1-70Δ6	16,890	H1F3-70Δ6	19,560	H1F2-70Δ6	19,560
480	AF460	150	200	400	500	800/600	H1F1-70Δ7	18,750	H1F3-70Δ7	21,600	H1F2-70Δ7	21,600
590	AF580	200	250	500	600	1200/600	T1F1-70Δ8	22,050	T1F3-70Δ8	25,050	T1F2-70Δ8	25,050
810	AF750	250	300	600	700	1200/600	U1F1-70Δ8	23,550	U1F3-70Δ8	28,050	U1F2-70Δ8	28,050

<b>NEMA rated</b>												
NEMA size	Contactor size	Continuous current	200V	230V	460/575V							
00	A9	9	1.5	1.5	2	30/600	J1F1-2Δ1	\$ 885	J1F3-2Δ1	\$ 1,065	J1F2-2Δ1	\$ 1,065
0	A16	18	3	3	5	30/600	K1F1-2Δ1	945	K1F3-2Δ1	1,125	K1F2-2Δ1	1,125
1	A26	27	—	7.5	10	30/600	L1F1-2Δ1	1,020	L1F3-2Δ1	1,230	L1F2-2Δ1	1,230
1	A26	27	7.5	—	—	60/600	L1F1-2Δ2	1,020	L1F3-2Δ2	1,230	L1F2-2Δ2	1,230
2	A50	45	10	15	25	60/600	M1F1-2Δ2	1,725	M1F3-2Δ2	1,913	M1F2-2Δ2	1,913
3	A75	90	—	—	50	100/600	N1F1-2Δ3	2,021	N1F3-2Δ3	2,434	N1F2-2Δ3	2,434
3	A75	90	25	30	—	200/600	N1F1-2Δ4	2,445	N1F3-2Δ4	2,858	N1F2-2Δ4	2,858
4	A145	135	40	50	100	200/600	P1F1-2Δ4	3,735	P1F3-2Δ4	5,183	P1F2-2Δ4	5,183
5	A260	270	75	100	200	400/600	Q1F1-2Δ5	7,680	Q1F3-2Δ5	9,930	Q1F2-2Δ5	9,930
6	AF460	540	150	—	—	600/600	R1F1-70Δ6	16,890	R1F3-70Δ6	19,560	R1F2-70Δ6	19,560
6	AF460	540	—	200	400	800/600	R1F1-70Δ7	18,750	R1F3-70Δ7	21,600	R1F2-70Δ7	21,600
7	AF750	810	—	300	600	1200/600	S1F1-70Δ8	23,550	S1F3-70Δ8	28,050	S1F2-70Δ8	28,050

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

Example: 11F1-2X1 \$ 885 List  
- 63 - OLR  
\$ 823 Net price

### Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the last dash in the catalog number.

Ex.: A 240V coil is required for an A75 fused starter: 91F4-4F4

To select starter with control transformer, substitute the code from the Control transformer voltage selector chart for the two digits after the last dash in the catalog number.

Ex.: A 480V primary voltage with a 120V secondary voltage is required for an A75 starter: 91F1-CF

### Coil voltage selection - A9 - A300

Hz	Contactor type	Volts									
		24	110	120	208	220	240	440	480	500	600
60	A	1		2	3		4	5	6		7
50	A	1	2			4				7	

### Coil voltage selection - AF400 - AF750

Hz	Contactor type	Volts	
		100 - 250	250 - 500
50/60	AF	70	71

### Control transformer voltage selection chart

Hz	Volts				
	Type	200-208/120	240/120	460 - 480/120	575 - 600/120
	A/AF	A	B	C	D
50/60	Type	200-208/24	240/24	460 - 480/24	575 - 600/24
	A/AF	E	F	G	H

### Control transformer option

Contactor size	VA rating	List price adder
A9 - A40	50	\$ 360
A50 - A75	75	435
A95 - A110	100	560
A145 - A185	150	720
A210 - A300	250	795
AF400 - AF460	150	720
AF580 - AF750	250	795

Reference page 3.50 for Extra VA under all (Control Transformer Options chart)

### Factory modifications

See page 3.50

NOTES: Power fuses are not included as standard.  
For AF50 - AF 300 starters, consult factory.  
① AF400 - AF750 only.

# Fusible disconnect switch type A9 - AF750 Non-reversing, three phase

Combination  
starters

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UL Type 4 (Watertight)		UL Type 4X (Stainless steel)		UL Type 1, 3R, 4, 4X & 12 (Plastic)	
Catalog number	List price	Catalog number	List price	Catalog number	List Price
<b>UL rated</b>					
11F4-2Δ1	\$ 1,350	11FX-2Δ1	\$ 1,800	11FP-2Δ1	\$ 1,005
21F4-2Δ1	1,380	21FX-2Δ1	1,830	21FP-2Δ1	1,035
31F4-2Δ1	1,425	31FX-2Δ1	1,860	31FP-2Δ1	1,065
41F4-2Δ2	1,530	41FX-2Δ2	1,965	41FP-2Δ2	1,148
51F4-2Δ2	1,688	51FX-2Δ2	2,295	51FP-2Δ2	1,230
61F4-2Δ2	1,898	61FX-2Δ2	2,685	61FP-2Δ2	1,335
71F4-2Δ3	2,400	71FX-2Δ3	3,340	71FP-2Δ3	1,830
81F4-2Δ3	2,640	81FX-2Δ3	3,600	81FP-2Δ3	2,055
91F4-2Δ4	3,300	91FX-2Δ4	4,020	91FP-2Δ4	2,475
A1F4-2Δ4	4,275	A1FX-2Δ4	5,850	A1FP-2Δ4	3,550
B1F4-2Δ4	5,685	B1FX-2Δ4	7,455	B1FP-2Δ4	4,880
C1F4-2Δ5	6,200	C1FX-2Δ5	8,865	C1FP-2Δ5	5,400
D1F4-2Δ5	9,600	D1FX-2Δ5	12,375	D1FP-2Δ5	8,800
E1F4-2Δ5	10,950	E1FX-2Δ5	16,800	E1FP-2Δ5	10,100
F1F4-2Δ5	12,000	F1FX-2Δ5	22,350	F1FP-2Δ5	11,200
G1F4-2Δ6	14,663	G1FX-2Δ6	26,400	—	—
H1F4-70Δ6	21,360	H1FX-70Δ6	26,955	—	—
H1F4-70Δ7	23,400	H1FX-70Δ7	28,995	—	—
T1F4-70Δ8	27,000	T1FX-70Δ8	37,350	—	—
U1F4-70Δ8	30,000	U1FX-70Δ8	39,000	—	—
<b>NEMA rated</b>					
J1F4-2Δ1	\$ 1,350	J1FX-2Δ1	\$ 1,800	J1FP-2Δ1	\$ 1,005
K1F4-2Δ1	1,425	K1FX-2Δ1	1,860	K1FP-2Δ1	1,065
L1F4-2Δ1	1,530	L1FX-2Δ1	1,965	L1FP-2Δ1	1,148
L1F4-2Δ2	1,530	L1FX-2Δ2	1,965	L1FP-2Δ2	1,148
M1F4-2Δ2	2,400	M1FX-2Δ2	3,240	M1FP-2Δ2	1,830
N1F4-2Δ3	2,876	N1FX-2Δ3	3,596	N1FP-2Δ3	2,051
N1F4-2Δ4	3,300	N1FX-2Δ4	4,020	N1FP-2Δ4	2,475
P1F4-2Δ4	5,685	P1FX-2Δ4	7,455	P1FP-2Δ4	4,880
Q1F4-2Δ5	10,950	Q1FX-2Δ5	16,800	Q1FP-2Δ5	10,100
R1F4-70Δ6	21,360	R1FX-70Δ6	26,955	—	—
R1F4-70Δ7	23,400	R1FX-70Δ7	28,995	—	—
S1F4-70Δ8	30,000	S1FX-70Δ8	39,000	—	—

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

## Maximum short circuit ratings for UL listed combination starters

Contactors size	Switch/fuse at 600VAC	KA at 600VAC
A9	CF30/30J	200
A12	CF30/30J	
A16	CF30/30J	
A26	F60/60J	
A30	F60/60J	
A40	F100/100J	
A50	F100/100J	
A63	OES200/200J	
A75	OES200/200J	
A95	OES200/200J	
A110	OES200/200J	
A145	OES400/400J	
A185	OES400/400J	
A210	OES400/400J	
A260	OES400/400J or OES600/600J	
A300	OES400/400J or OES600/600J	
AF400	OES600/600J	
AF460	OES800/800L	
AF580	OETL1200W/1200L fuses	
AF750	OETL1200W/1200L fuses	

# Fusible disconnect switch type

## A9 - AF750

### Reversing, three phase

3

UL motor switching current	Contactor size	Maximum ratings - UL Listed					UL Type 1 (Indoor metal)		UL type 3R (Outdoor metal)		UL Type 12 (Metal dustight)	
		Maximum motor horsepower ratings					Catalog number	List price	Catalog number	List price	Catalog number	List price
		200/208V	230/240V	480/480V	575/600V	Fuse clip rating amp/volts						
<b>UL rated</b>												
9	A9	2	2	5	7.5	30/600	12F1-2Δ1	\$ 1,140	12F3-2Δ1	\$ 1,320	12F2-2Δ1	\$ 1,320
11	A12	3	3	7.5	10	30/600	22F1-2Δ1	1,230	22F3-2Δ1	1,410	22F2-2Δ1	1,410
17	A16	5	5	10	15	30/600	32F1-2Δ1	1,290	32F3-2Δ1	1,470	32F2-2Δ1	1,470
28	A26	7.5	10	20	25	60/600	42F1-2Δ2	1,425	42F3-2Δ2	1,635	42F2-2Δ2	1,635
34	A30	10	10	25	30	60/600	52F1-2Δ2	1,643	52F3-2Δ2	1,860	52F2-2Δ2	1,860
42	A40	10	15	30	40	60/600	62F1-2Δ2	1,860	62F3-2Δ2	2,093	62F2-2Δ2	2,093
54	A50	15	20	40	50	100/600	72F1-2Δ3	2,438	72F3-2Δ3	2,625	72F2-2Δ3	2,625
65	A63	20	25	50	50	100/600	82F1-2Δ3	2,850	82F3-2Δ3	3,008	82F2-2Δ3	3,008
80	A75	25	30	60	75	200/600	92F1-2Δ4	3,600	92F3-2Δ4	4,013	92F2-2Δ4	4,013
110	A110	30	40	75	100	200/600	A2F1-2Δ4	4,290	A2F3-2Δ4	5,183	A2F2-2Δ4	5,183
130	A145	40	50	100	125	200/600	B2F1-2Δ4	5,970	B2F3-2Δ4	7,418	B2F2-2Δ4	7,418
156	A185	50	60	125	150	400/600	C2F1-2Δ5	8,010	C2F3-2Δ5	8,760	C2F2-2Δ5	8,760
192	A210	60	75	150	200	400/600	D2F1-2Δ5	10,905	D2F3-2Δ5	12,885	D2F2-2Δ5	12,885
248	A260	75	100	200	250	400/600	E2F1-2Δ5	12,165	E2F3-2Δ5	14,415	E2F2-2Δ5	14,415
302	A300	100	100	250	300	400/600	F2F1-2Δ5	13,560	F2F3-2Δ5	15,810	F2F2-2Δ5	15,810
414	AF400	125	150	350	400	600/600	G2F1-2Δ6	17,880	G2F3-2Δ6	18,585	G2F2-2Δ6	18,585
480	AF460	150	—	—	—	600/600	H2F1-70Δ6	29,175	H2F3-70Δ6	32,025	H2F2-70Δ6	32,025
480	AF460	150	200	400	500	800/600	H2F1-70Δ7	31,035	H2F3-70Δ7	33,885	H2F2-70Δ7	33,885
590	AF580	200	250	500	600	1200/600	T2F1-70Δ8	39,435	T2F3-70Δ8	42,435	T2F2-70Δ8	42,435
810	AF750	250	300	600	700	1200/600	U2F1-70Δ8	42,285	U2F3-70Δ8	46,785	U2F2-70Δ8	46,785

NEMA size	Contactor size	Continuous current	NEMA rated			Catalog number	List price	Catalog number	List price	Catalog number	List price	
			200V	230V	460/575V							
00	A9	9	1.5	1.5	2	30/600	J2F1-2Δ1	\$ 1,140	J2F3-2Δ1	\$ 1,320	J2F2-2Δ1	\$ 1,320
0	A16	18	3	3	5	30/600	K2F1-2Δ1	1,290	K2F3-2Δ1	1,470	K2F2-2Δ1	1,470
1	A26	27	—	7.5	10	30/600	L2F1-2Δ1	1,425	L2F3-2Δ1	1,635	L2F2-2Δ1	1,635
1	A26	27	7.5	—	—	60/600	L2F1-2Δ2	1,425	L2F3-2Δ2	1,635	L2F2-2Δ2	1,635
2	A50	45	10	15	25	60/600	M2F1-2Δ2	2,438	M2F3-2Δ2	2,625	M2F2-2Δ2	2,625
3	A75	90	—	—	50	100/600	N2F1-2Δ3	3,176	N2F3-2Δ3	3,589	N2F2-2Δ3	3,589
3	A75	90	25	30	—	200/600	N2F1-2Δ4	3,600	N2F3-2Δ4	4,013	N2F2-2Δ4	4,013
4	A145	135	40	50	100	200/600	P2F1-2Δ4	5,970	P2F3-2Δ4	7,418	P2F2-2Δ4	7,418
5	A260	270	75	100	200	400/600	Q2F1-2Δ5	12,165	Q2F3-2Δ5	14,415	Q2F2-2Δ5	14,415
6	AF460	540	150	—	—	600/600	R2F1-70Δ6	29,175	R2F3-70Δ6	32,025	R2F2-70Δ6	32,025
6	AF460	540	—	200	400	800/600	R2F1-70Δ7	31,035	R2F3-70Δ7	33,885	R2F2-70Δ7	33,885
7	AF580	810	—	300	600	1200/600	S2F1-70Δ8	42,285	S2F3-70Δ8	46,785	S2F2-70Δ8	46,785

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price. Example: 12F1-2X1 \$ 1140 List - 63 - OLR \$ 1077 Net price

### Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the last dash in the catalog number.

Ex.: A 240V coil is required for an A75 starter: 92F1-4F4

To select starter with control transformer, substitute the code from the Control transformer voltage selector chart for the two digits after the last dash in the catalog number.

Ex.: A 480V primary voltage with a 120V secondary voltage is required for an A75 starter: 92F1-CF4

### Control transformer option

Contactor size	VA rating	List price adder
A9 - A40	50	\$ 360
A50 - A75	75	435
A95 - A110	100	560
A145 - A185	150	720
A210 - A300	250	795
AF400 - AF460	150	720
AF580 - AF750	250	795

Reference page 3.50 for Extra VA under all (Control Transformer Options chart)

### Coil voltage selection - A9 - A300

Hz	Contactor type	Volts									
		24	110	120	208	220	240	440	480	500	600
60	A	1		2	3		4	5	6		7
50	A	1	2			4					7

### Coil voltage selection - AF400 - AF750

Hz	Contactor type	Volts	
		100 - 250	250 - 500
50/60	AF	70	71

### Control transformer voltage selection chart

Hz	Volts				
	Type	200-208/120	240/120	460 - 480/120	575 - 600/120
	A/AF	A	B	C	D
50/60	Type	200-208/24	240/24	460 - 480/24	575 - 600/24
	A/AF	E	F	G	H

### Factory modifications

See page 3.50

NOTES: Power fuses are not included as standard. For AF50 - AF 300 starters, consult factory. ① AF400 - AF750 only.

# Fusible disconnect switch type A9 - AF750 Reversing, three phase

Combination  
starters

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UL Type 4 (Watertight)		UL Type 4X (Stainless steel)		UL Type 1, 3R, 4, 4X & 12 (Plastic)	
Catalog number	List price	Catalog number	List price	Catalog number	List Price
<b>UL rated</b>					
12F4-2Δ1	\$ 1,425	11FX-2Δ1	\$ 1,955	11FP-2Δ1	\$ 1,275
22F4-2Δ1	1,515	21FX-2Δ1	2,045	21FP-2Δ1	1,365
32F4-2Δ1	1,575	31FX-2Δ1	2,105	31FP-2Δ1	1,425
42F4-2Δ2	1,763	41FX-2Δ2	2,270	41FP-2Δ2	1,560
52F4-2Δ2	1,988	51FX-2Δ2	2,745	51FP-2Δ2	1,778
62F4-2Δ2	2,213	61FX-2Δ2	3,260	61FP-2Δ2	1,995
72F4-2Δ3	2,850	71FX-2Δ3	3,855	71FP-2Δ3	2,573
82F4-2Δ3	3,225	81FX-2Δ3	4,370	81FP-2Δ3	2,985
92F4-2Δ4	4,200	91FX-2Δ4	5,075	91FP-2Δ4	3,735
A2F4-2Δ4	5,550	A1FX-2Δ4	7,115	A1FP-2Δ4	4,600
B2F4-2Δ4	7,800	B1FX-2Δ4	9,690	B1FP-2Δ4	7,600
C2F4-2Δ5	9,225	C1FX-2Δ5	12,225	C1FP-2Δ5	9,000
D2F4-2Δ5	13,238	D1FX-2Δ5	16,410	D1FP-2Δ5	13,000
E2F4-2Δ5	15,150	E1FX-2Δ5	21,285	E1FP-2Δ5	14,885
F2F4-2Δ5	16,530	F1FX-2Δ5	27,810	F1FP-2Δ5	16,200
G2F4-2Δ6	20,625	G1FX-2Δ6	32,385	—	—
H2F4-70Δ6	33,540	H1FX-70Δ6	39,420	—	—
H2F4-70Δ7	35,400	H1FX-70Δ7	41,280	—	—
T2F4-70Δ8	45,150	T1FX-70Δ8	54,735	—	—
U2F4-70Δ8	48,450	U1FX-70Δ8	57,735	—	—

<b>NEMA rated</b>					
J2F4-2Δ1	\$ 1,425	J2FX-2Δ1	\$ 1,955	J2FP-2Δ1	\$ 1,275
K2F4-2Δ1	1,575	K2FX-2Δ1	2,105	K2FP-2Δ1	1,425
L2F4-2Δ1	1,763	L2FX-2Δ1	2,270	L2FP-2Δ1	1,560
L2F4-2Δ2	1,763	L2FX-2Δ2	2,270	L2FP-2Δ2	1,560
M2F4-2Δ2	2,850	M2FX-2Δ2	3,855	M2FP-2Δ2	2,573
N2F4-2Δ3	3,776	N2FX-2Δ3	4,651	N2FP-2Δ3	3,311
N2F4-2Δ4	4,200	N2FX-2Δ4	5,075	N2FP-2Δ4	3,735
P2F4-2Δ4	7,800	P2FX-2Δ4	9,690	P2FP-2Δ4	7,600
Q2F4-2Δ5	1,515	Q2FX-2Δ5	21,285	Q2FP-2Δ5	14,885
R2F4-70Δ6	33,540	R2FX-70Δ6	39,420	—	—
R2F4-70Δ7	35,400	R2FX-70Δ7	41,280	—	—
S2F4-70Δ8	48,450	S2FX-70Δ8	57,735	—	—

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

## Maximum short circuit ratings for UL listed combination starters

Contactor size	Switch/fuse at 600VAC	KA at 600VAC
A9	CF30/30J	200
A12	CF30/30J	
A16	CF30/30J	
A26	F60/60J	
A30	F60/60J	
A40	F100/100J	
A50	F100/100J	
A63	OES200/200J	
A75	OES200/200J	
A95	OES200/200J	
A110	OES200/200J	
A145	OES400/400J	
A185	OES400/400J	
A210	OES400/400J	
A260	OES400/400J or OES600/600J	
A300	OES400/400J or OES600/600J	
AF400	OES600/600J	
AF460	OES800/800L	
AF580	OETL1200W/1200L fuses	
AF750	OETL1200W/1200L fuses	



# Circuit breaker type A9 - AF750 Non-reversing, three phase

Combination  
starters

UL Type 4 (Watertight)		UL Type 4X (Stainless steel)		UL Type 1, 3R, 4, 4X & 12 (Plastic)		UL Listed 7 & 9 non-reversing (Explosion proof)	
Catalog number	List price	Catalog number	List price	Catalog number	List price	Catalog number	List price
<b>UL rated</b>							
11M4-2Δ‡	<b>\$ 1,260</b>	11MX-2Δ‡	<b>\$ 1,835</b>	11MP-2Δ‡	<b>\$ 1,050</b>	11M7-2Δ‡	<b>\$ 2,660</b>
21M4-2Δ‡	<b>1,290</b>	21MX-2Δ‡	<b>1,865</b>	21MP-2Δ‡	<b>1,080</b>	21M7-2Δ‡	<b>2,850</b>
31M4-2Δ‡	<b>1,320</b>	31MX-2Δ‡	<b>1,895</b>	31MP-2Δ‡	<b>1,110</b>	31M7-2Δ‡	<b>3,030</b>
41M4-2Δ‡	<b>1,410</b>	41MX-2Δ‡	<b>2,000</b>	41MP-2Δ‡	<b>1,193</b>	41M7-2Δ‡	<b>3,105</b>
51M4-2Δ‡	<b>1,500</b>	51MX-2Δ‡	<b>2,330</b>	51MP-2Δ‡	<b>1,275</b>	51M7-2Δ‡	<b>3,480</b>
61M4-2Δ‡	<b>1,635</b>	61MX-2Δ‡	<b>2,720</b>	61MP-2Δ‡	<b>1,380</b>	61M7-2Δ‡	<b>3,860</b>
71M4-2Δ‡	<b>2,115</b>	71MX-2Δ‡	<b>3,275</b>	71MP-2Δ‡	<b>1,875</b>	71M7-2Δ‡	<b>4,150</b>
81M4-2Δ‡	<b>2,438</b>	81MX-2Δ‡	<b>3,635</b>	81MP-2Δ‡	<b>2,100</b>	81M7-2Δ‡	<b>5,540</b>
91M4-2Δ‡	<b>3,225</b>	91MX-2Δ‡	<b>4,055</b>	91MP-2Δ‡	<b>2,520</b>	91M7-2Δ‡	<b>6,850</b>
A1M4-2Δ‡	<b>4,200</b>	A1MX-2Δ‡	<b>6,050</b>	A1MP-2Δ‡	<b>3,700</b>	A1M7-2Δ‡	<b>11,370</b>
B1M4-2Δ‡	<b>5,588</b>	B1MX-2Δ‡	<b>7,650</b>	B1MP-2Δ‡	<b>5,400</b>	B1M7-2Δ‡	<b>13,595</b>
C1M4-2Δ‡	<b>6,300</b>	C1MX-2Δ‡	<b>9,150</b>	C1MP-2Δ‡	<b>6,150</b>	C1M7-2Δ‡	<b>14,475</b>
D1M4-2Δ‡	<b>9,713</b>	D1MX-2Δ‡	<b>12,510</b>	D1MP-2Δ‡	<b>9,500</b>	D1M7-2Δ‡	<b>17,775</b>
E1M4-2Δ‡	<b>10,950</b>	E1MX-2Δ‡	<b>17,250</b>	E1MP-2Δ‡	<b>10,650</b>	—	—
F1M4-2Δ‡	<b>12,000</b>	F1MX-2Δ‡	<b>22,800</b>	F1MP-2Δ‡	<b>11,500</b>	—	—
G1M4-2Δ‡	<b>13,800</b>	G1MX-2Δ‡	<b>26,850</b>	—	—	—	—
H1M4-70Δ‡	<b>22,500</b>	H1MX-70Δ‡	<b>28,995</b>	—	—	—	—
T1M4-70Δ‡	<b>26,850</b>	T1MX-70Δ‡	<b>36,000</b>	—	—	—	—
U1M4-70Δ‡	<b>30,000</b>	U1MX-70Δ‡	<b>37,650</b>	—	—	—	—

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

‡ MCP or breaker rating. See codes on page 3.51.

### Motor circuit protector data

Motor full load amperes	MCP continuous rating	Suffix code ‡	Catalog number	Starter size	1.5X	2X	4X	5X	6X	7X	8X	9X	10X	11X	12X
.92 - 2.76	3	1	S3L003MW	0	—	—	12	15	18	21	24	27	30	33	36
1.53 - 4.61	5	2	S3L005MW	0	—	—	20	25	30	35	40	45	50	55	60
3.07 - 9.23	10	3	S3L010MW	0	—	—	40	50	60	70	80	90	100	110	120
7.69 - 23.08	25	4	S3L025MW	1	—	—	100	125	150	175	200	225	250	275	300
15.38 - 46.15	50	5	S3L050MW	2	—	—	200	250	300	350	400	450	500	550	600
30.77 - 92.31	100	6	S3L100MW	3	—	—	400	500	600	700	800	900	1000	1100	1200
46.15 - 138.46	150	7	S3L150MW	4	—	—	600	750	900	1050	1200	1350	1500	1650	1800
28.85 - 230.77	250	8	S4L250MW	4	375	500	1000	—	1500	—	2000	—	2500	—	3000
46.15 - 369.23	400	9	S5L400MW	5	600	800	1600	—	2400	—	3200	—	4000	—	4800
69.23 - 553.85	600	C	S6L600MW	6	900	1200	2400	—	3600	—	4800	—	6000	—	7200
92.31 - 738.46	800	E	S6L800MW	7	1200	1600	3200	—	4800	—	6400	—	8000	—	9600
115.38 - 923.07	1000	G	S7H1000MW	7	1500	2000	4000	—	6000	—	8000	—	10,000	—	12,000
138.46 - 1107.69	1200	H	S7H1200MW	7	1800	2400	4800	—	7200	—	9600	—	12,000	—	14,400

# Circuit breaker type

## A9 - AF750, NEMA rated

### Non-reversing, three phase

3

NEMA size	Contactor size	Continuous current	Maximum ratings - UL Listed			UL Type 1 (Indoor metal)		UL type 3R (Outdoor metal)		UL Type 12 (Metal dusttight)	
			Maximum motor horsepower ratings			Catalog number	List price	Catalog number	List price	Catalog number	List price
			200V	230V	460/575V						
<b>UL rated</b>											
00	A9	9	1.5	1.5	2	J1M1-2Δ‡	\$ 930	J1M3-2Δ‡	\$ 1,110	J1M2-2Δ‡	\$ 1,110
0	A16	18	3	3	5	K1M1-2Δ‡	990	K1M3-2Δ‡	1,170	K1M2-2Δ‡	1,170
1	A26	27	7.5	7.5	10	L1M1-2Δ‡	1,073	L1M3-2Δ‡	1,253	L1M2-2Δ‡	1,253
2	A50	45	10	15	25	M1M1-2Δ‡	1,755	M1M3-2Δ‡	1,935	M1M2-2Δ‡	1,935
3	A75	90	25	30	50	N1M1-2Δ‡	2,550	N1M3-2Δ‡	2,880	N1M2-2Δ‡	2,880
4	A145	135	40	50	100	P1M1-2Δ‡	4,020	P1M3-2Δ‡	5,235	P1M2-2Δ‡	5,235
5	A260	270	75	100	200	Q1M1-2Δ‡	8,160	Q1M3-2Δ‡	10,155	Q1M2-2Δ‡	10,155
6	AF460	540	150	200	400	R1M1-70Δ‡	21,150	R1M3-70Δ‡	21,150	R1M2-70Δ‡	21,155
7	AF750	810	—	300	600	S1M1-70Δ‡	24,150	S1M3-70Δ‡	27,330	S1M2-70Δ‡	27,300

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.  
 ‡ MCP or breaker rating. See codes on page 3.51.

Example: JIM1-2X      \$ 930      List  
                                  - 63      - OLR  
                                  \$ 867      Net price

### Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the last dash in the catalog number.

Ex.: A 240V coil is required for an A75 starter: N1M1-4Δ

To select starter with control transformer, substitute the code from the Control transformer voltage selector chart for the two digits after the last dash in the catalog number.

Ex.: A 480V primary voltage with a 120V secondary voltage is required for an A75 starter: N1M1-CF

### Coil voltage selection – A9 - A300

Hz	Contactor type	Volts									
		24	110	120	208	220	240	440	480	500	600
60	A	1		2	3		4	5	6		7
50	A	1	2			4					7

### Coil voltage selection – AF400 - AF750 ①

Hz	Contactor type	Volts	
		100 - 250	250 - 500
50/60	AF	70	71

### Control transformer voltage selection chart

Hz	Volts				
	Type	200-208/120	240/120	460 - 480/120	575 - 600/120
	A/AF	A	B	C	D
50/60	Type	200-208/24	240/24	460 - 480/24	575 - 600/24
	A/AF	E	F	G	H

### Control transformer option

Contactor size	VA rating	List price adder
A9 - A40	50	360
A9 - A40 (N7 & 9)	50	630 ②
A50 - A75	75	435
A95 - A110	100	560
A145 - A185	150	720
A210 - A300	250	795
AF400 - AF460	150	720
AF580 - AF750	250	795

Reference page 3.50 for Extra VA under all (Control Transformer Options chart)

### Maximum short circuit rating for UL listed combination starters

Contactor	Maximum MCP 480VAC	KA at 480VAC	MCP 600VAC	KA at 600VAC
A9	S3L050MW	35	S3L010MW	35
A12	S3L050MW	35	S3L010MW	35
A16	S3L050MW	35	—	—
A26	S3L100MW	35	S3L100MW	35
A30	S3L150MW	65	—	—
A40	S3L150MW	65	—	—
A50	S3L150MW	85	S3L150MW	35
A63	S4L250MW	85	—	—
A75	S4L250MW	85	—	—
A95	S4L250MW	85	S4L250MW	35
A110	S4L250MW	85	S4L250MW	35
A145	S5L400MW	65	S4L250MW	10
A185	S5L400MW	85	S4L250MW	10
A210	S6L800MW	85	S4L250MW	18
A260	S6L800MW	85	S5L400MW	18
A300	S6L800MW	85	S5L400MW	18
AF400	S7H1200MW	85	Consult factory	
AF460	S7H1200MW	85		
AF580	S7H1200MW	85		
AF750	S7H1200MW	85		

For thermal magnetic molded case breakers, consult factory.

### Factory modifications

See page 3.50

NOTES: MCPs are supplied as standard. Thermal magnetic breakers can be supplied by substituting the letter "B" in place of the "M". List price is the same. Example: J1B3-2Δ‡, \$ 1110.00.  
 For AF50 - AF300 starters, consult factory.

- ① AF400 - AF750 only.
- ② NEMA 7 & 9 Enclosed starter only.

## Circuit breaker type A9 - AF750, NEMA rated Non-reversing, three phase

Combination  
starters

3

UL Type 4 (Watertight)		UL Type 4X (Stainless steel)		UL Type 1, 3R, 4, 4X & 12 (Plastic)		UL Listed 7 & 9 non-reversing (Explosion proof)	
Catalog number	List price	Catalog number	List price	Catalog number	List price	Catalog number	List price
<b>UL rated</b>							
J1M4-2Δ‡	\$ 1,260	J1MX-2Δ‡	\$ 1,835	J1MP-2Δ‡	\$ 1,050	J1M7-2Δ‡	\$ 2,660
K1M4-2Δ‡	1,320	K1MX-2Δ‡	1,895	K1MP-2Δ‡	1,110	K1M7-2Δ‡	3,030
L1M4-2Δ‡	1,410	L1MX-2Δ‡	2,000	L1MP-2Δ‡	1,193	L1M7-2Δ‡	3,105
M1M4-2Δ‡	2,115	M1MX-2Δ‡	3,275	M1MP-2Δ‡	1,875	M1M7-2Δ‡	4,150
N1M4-2Δ‡	3,225	N1MX-2Δ‡	4,055	N1MP-2Δ‡	2,520	N1M7-2Δ‡	6,850
P1M4-2Δ‡	5,588	P1MX-2Δ‡	7,650	P1MP-2Δ‡	5,400	P1M7-2Δ‡	13,595
Q1M4-2Δ‡	10,950	Q1MX-2Δ‡	17,250	Q1MP-2Δ‡	18,650	—	—
R1M4-70Δ‡	22,500	R1MX-70Δ‡	28,995	—	—	—	—
S1M4-70Δ‡	30,000	S1MX-70Δ‡	37,650	—	—	—	—

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

‡ MCP or breaker rating. See codes on page 3.51.

### Motor circuit protector data

Motor full load amperes	MCP continuous rating	Suffix code ‡	Catalog number	Starter size	1.5X	2X	4X	5X	6X	7X	8X	9X	10X	11X	12X
.92 - 2.76	3	1	S3L003MW	0	—	—	12	15	18	21	24	27	30	33	36
1.53 - 4.61	5	2	S3L005MW	0	—	—	20	25	30	35	40	45	50	55	60
3.07 - 9.23	10	3	S3L010MW	0	—	—	40	50	60	70	80	90	100	110	120
7.69 - 23.08	25	4	S3L025MW	1	—	—	100	125	150	175	200	225	250	275	300
15.38 - 46.15	50	5	S3L050MW	2	—	—	200	250	300	350	400	450	500	550	600
30.77 - 92.31	100	6	S3L100MW	3	—	—	400	500	600	700	800	900	1000	1100	1200
46.15 - 138.46	150	7	S3L150MW	4	—	—	600	750	900	1050	1200	1350	1500	1650	1800
28.85 - 230.77	250	8	S4L250MW	4	375	500	1000	—	1500	—	2000	—	2500	—	3000
46.15 - 369.23	400	9	S5L400MW	5	600	800	1600	—	2400	—	3200	—	4000	—	4800
69.23 - 553.85	600	C	S6L600MW	6	900	1200	2400	—	3600	—	4800	—	6000	—	7200
92.31 - 738.46	800	E	S6L800MW	7	1200	1600	3200	—	4800	—	6400	—	8000	—	9600
115.38 - 923.07	1000	G	S7H1000MW	7	1500	2000	4000	—	6000	—	8000	—	10,000	—	12,000
138.46 - 1107.69	1200	H	S7H1200MW	7	1800	2400	4800	—	7200	—	9600	—	12,000	—	14,400

# Circuit breaker type A9 - AF750 Reversing, three phase

3

UL motor switching current	Contactor size	Maximum ratings - UL Listed				UL Type 1 (Indoor metal)		UL type 3R (Outdoor metal)		UL Type 12 (Metal dustight)	
		Maximum motor horsepower ratings				Catalog number	List price	Catalog number	List price	Catalog number	List price
		200/208V	230/240V	480/480V	575/600V						
<b>UL rated</b>											
9	A9	2	2	5	7.5	12M1-2Δ‡	\$ 1,185	12M3-2Δ‡	\$ 1,365	12M2-2Δ‡	\$ 1,365
11	A12	3	3	7.5	10	22M1-2Δ‡	1,275	22M3-2Δ‡	1,455	22M2-2Δ‡	1,455
17	A16	5	5	10	15	32M1-2Δ‡	1,335	32M3-2Δ‡	1,515	32M2-2Δ‡	1,515
28	A26	7.5	10	20	25	42M1-2Δ‡	1,478	42M3-2Δ‡	1,658	42M2-2Δ‡	1,658
34	A30	10	10	25	30	52M1-2Δ‡	1,703	52M3-2Δ‡	1,883	52M2-2Δ‡	1,883
42	A40	10	15	30	40	62M1-2Δ‡	1,935	62M3-2Δ‡	2,115	62M2-2Δ‡	2,115
54	A50	15	20	40	50	72M1-2Δ‡	2,468	72M3-2Δ‡	2,648	72M2-2Δ‡	2,648
65	A63	20	25	50	50	82M1-2Δ‡	2,899	82M3-2Δ‡	3,030	82M2-2Δ‡	3,030
80	A95	25	30	60	75	92M1-2Δ‡	2,940	92M3-2Δ‡	4,035	92M2-2Δ‡	4,035
110	A110	30	40	75	100	A2M1-2Δ‡	4,200	A2M3-2Δ‡	5,235	A2M2-2Δ‡	5,235
130	A145	40	50	100	125	B2M1-2Δ‡	4,335	B2M3-2Δ‡	7,470	B2M2-2Δ‡	7,470
156	A185	50	60	125	150	C2M1-2Δ‡	6,285	C2M3-2Δ‡	8,970	C2M2-2Δ‡	8,970
192	A210	60	75	150	200	D2M1-2Δ‡	8,310	D2M3-2Δ‡	13,080	D2M2-2Δ‡	13,080
248	A260	75	100	200	250	E2M1-2Δ‡	8,160	E2M3-2Δ‡	14,640	E2M2-2Δ‡	14,640
302	A300	100	100	250	300	F2M1-2Δ‡	11,115	F2M3-2Δ‡	16,110	F2M2-2Δ‡	16,110
414	AF400	125	150	350	400	G2M1-2Δ‡	18,435	G2M3-2Δ‡	18,975	G2M2-2Δ‡	18,975
480	AF460	150	200	400	500	H2M1-70Δ‡	31,635	H2M3-70Δ‡	33,435	H2M2-70Δ‡	33,435
590	AF585	200	250	500	600	T2M1-70Δ‡	40,035	T2M3-70Δ‡	41,835	T2M2-70Δ‡	41,835
810	AF750	250	300	600	700	U2M1-70Δ‡	42,885	U2M3-70Δ‡	46,065	U2M2-70Δ‡	46,065

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

‡ MCP or breaker rating. See codes on page 3.51.

Example: 12M1-2X      \$ 1185      List  
    - 63              - OLR  
    \$ 1122              Net price

### Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the last dash in the catalog number.

Ex.: A 240V coil is required for an A75 starter: 92M1-4Δ

To select starter with control transformer, substitute the code from the Control transformer voltage selector chart for the two digits after the last dash in the catalog number.

Ex.: A 480V primary voltage with a 120V secondary voltage is required for an A75 starter: 92M1-CF

### Factory modifications

See page 3.3

### Coil voltage selection – A9 - A300

Hz	Contactor type	Volts									
		24	110	120	208	220	240	440	480	500	600
60	A	1		2	3		4	5	6		7
50	A	1	2			4					7

### Coil voltage selection – AF400 - AF750 ①

Hz	Contactor type	Volts	
		100 - 250	250 - 500
50/60	AF	70	71

### Control transformer voltage selection chart

Hz	Volts				
	Type	200-208/120	240/120	460 - 480/120	575 - 600/120
	A/AF	A	B	C	D
50/60	Type	200-208/24	240/24	460 - 480/24	575 - 600/24
	A/AF	E	F	G	H

### Maximum short circuit rating for UL listed combination starters

Contactor	Maximum MCP 480VAC	KA at 480VAC	MCP 600VAC	KA at 600VAC
A9	S3L050MW	35	S3L010MW	35
A12	S3L050MW	35	S3L010MW	35
A16	S3L050MW	35	—	—
A26	S3L100MW	35	S3L100MW	35
A30	S3L150MW	65	—	—
A40	S3L150MW	65	—	—
A50	S3L150MW	85	S3L150MW	35
A63	S4L250MW	85	—	—
A75	S4L250MW	85	—	—
A95	S4L250MW	85	S4L250MW	35
A110	S4L250MW	85	S4L250MW	35
A145	S5L400MW	65	S4L250MW	10
A185	S5L400MW	85	S4L250MW	10
A210	S6L800MW	85	S4L250MW	18
A260	S6L800MW	85	S5L400MW	18
A300	S6L800MW	85	S5L400MW	18
AF400	S7H1200MW	85	Consult factory	
AF460	S7H1200MW	85		
AF580	S7H1200MW	85		
AF750	S7H1200MW	85		

For thermal magnetic molded case breakers, consult factory.

### Control transformer option

Contactor size	VA rating	List price adder
A9 - A40	50	\$ 360
A50 - A75	75	435
A95 - A110	100	560
A145 - A185	150	720
A210 - A300	250	795
AF400 - AF460	150	720
AF580 - AF750	250	795

Reference page 3.50 for extra VA under all (Control Transformer Options chart)

NOTES: MCPs are supplied as standard. Thermal magnetic/electronic trip type breakers can be supplied by substituting the letter "B" in place of the "M". List price is the same.

Example: 12G1-2Δ‡, \$ 1185.00.

For AF50 - AF300 starters, consult factory.

① AF400 - AF750 only.

# Circuit breaker type A9 - AF750 Reversing, three phase

Combination  
starters

3

UL Type 4 (Watertight)		UL Type 4X (Stainless steel)		UL Type 1, 3R, 4, 4X & 12 (Plastic)	
Catalog number	List price	Catalog number	List price	Catalog number	List price
<b>UL rated</b>					
12M4-2Δ‡	\$ 1,515	12MX-2Δ‡	\$ 2,090	12MP-2Δ‡	\$ 1,320
22M4-2Δ‡	1,605	22MX-2Δ‡	2,180	22MP-2Δ‡	1,410
32M4-2Δ‡	1,688	32MX-2Δ‡	2,240	32MP-2Δ‡	1,470
42M4-2Δ‡	1,800	42MX-2Δ‡	2,405	42MP-2Δ‡	1,703
52M4-2Δ‡	2,100	52MX-2Δ‡	2,878	52MP-2Δ‡	1,853
62M4-2Δ‡	2,438	62MX-2Δ‡	3,395	62MP-2Δ‡	2,085
72M4-2Δ‡	2,963	72MX-2Δ‡	3,988	72MP-2Δ‡	2,618
82M4-2Δ‡	3,338	82MX-2Δ‡	4,505	82MP-2Δ‡	3,090
92M4-2Δ‡	4,200	92MX-2Δ‡	5,210	92MP-2Δ‡	3,855
A2M4-2Δ‡	5,663	A2MX-2Δ‡	7,415	A2MP-2Δ‡	4,700
B2M4-2Δ‡	7,950	B2MX-2Δ‡	9,885	B2MP-2Δ‡	7,620
C2M4-2Δ‡	9,638	C2MX-2Δ‡	12,510	C2MP-2Δ‡	9,250
D2M4-2Δ‡	13,650	D2MX-2Δ‡	16,545	D2MP-2Δ‡	13,300
E2M4-2Δ‡	15,450	E2MX-2Δ‡	21,735	E2MP-2Δ‡	15,000
F2M4-2Δ‡	18,150	F2MX-2Δ‡	28,260	F2MP-2Δ‡	17,600
G2M4-2Δ‡	21,000	G2MX-2Δ‡	32,835	—	—
H2M4-70Δ‡	35,850	H2MX-70Δ‡	41,280	—	—
T2M4-70Δ‡	45,000	T2MX-70Δ‡	53,385	—	—
U2M4-70Δ‡	48,338	U2MX-70Δ‡	56,385	—	—

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

‡ MCP or breaker rating. See codes on page 3.51.

### Motor circuit protector data

Motor full load amperes	MCP continuous rating	Suffix code ‡	Catalog number	Starter size	1.5X	2X	4X	5X	6X	7X	8X	9X	10X	11X	12X
.92 - 2.76	3	1	S3L003MW	0	—	—	12	15	18	21	24	27	30	33	36
1.53 - 4.61	5	2	S3L005MW	0	—	—	20	25	30	35	40	45	50	55	60
3.07 - 9.23	10	3	S3L010MW	0	—	—	40	50	60	70	80	90	100	110	120
7.69 - 23.08	25	4	S3L025MW	1	—	—	100	125	150	175	200	225	250	275	300
15.38 - 46.15	50	5	S3L050MW	2	—	—	200	250	300	350	400	450	500	550	600
30.77 - 92.31	100	6	S3L100MW	3	—	—	400	500	600	700	800	900	1000	1100	1200
46.15 - 138.46	150	7	S3L150MW	4	—	—	600	750	900	1050	1200	1350	1500	1650	1800
28.85 - 230.77	250	8	S4L250MW	4	375	500	1000	—	1500	—	2000	—	2500	—	3000
46.15 - 369.23	400	9	S5L400MW	5	600	800	1600	—	2400	—	3200	—	4000	—	4800
69.23 - 553.85	600	C	S6L600MW	6	900	1200	2400	—	3600	—	4800	—	6000	—	7200
92.31 - 738.46	800	E	S6L800MW	7	1200	1600	3200	—	4800	—	6400	—	8000	—	9600
115.38 - 923.07	1000	G	S7H1000MW	7	1500	2000	4000	—	6000	—	8000	—	10,000	—	12,000
138.46 - 1107.69	1200	H	S7H1200MW	7	1800	2400	4800	—	7200	—	9600	—	12,000	—	14,400

# Circuit breaker type

## A9 - AF750, NEMA rated

### Reversing, three phase

3

NEMA size	Contactor size	Continuous current	Maximum ratings - UL Listed			UL Type 1 (Indoor metal)		UL type 3R (Outdoor metal)		UL Type 12 (Metal dusttight)	
			Maximum motor horsepower ratings			Catalog number	List price	Catalog number	List price	Catalog number	List price
			200V	230V	460/575V						
<b>UL rated</b>											
00	A9	9	1.5	1.5	2	J2M1-2Δ‡	\$ 1,185	J2M3-2Δ‡	\$ 1,365	J2M2-2Δ‡	\$ 1,365
0	A16	18	3	3	5	K2M1-2Δ‡	1,335	K2M3-2Δ‡	1,515	K2M2-2Δ‡	1,515
1	A26	27	7.5	7.5	10	L2M1-2Δ‡	1,478	L2M3-2Δ‡	1,658	L2M2-2Δ‡	1,658
2	A50	45	10	15	25	M2M1-2Δ‡	2,468	M2M3-2Δ‡	2,648	M2M2-2Δ‡	2,648
3	A75	90	25	30	50	N2M1-2Δ‡	3,705	N2M3-2Δ‡	4,035	N2M2-2Δ‡	4,035
4	A145	135	40	50	100	P2M1-2Δ‡	6,285	P2M3-2Δ‡	7,470	P2M2-2Δ‡	7,470
5	A260	270	75	100	200	Q2M1-2Δ‡	14,645	Q2M3-2Δ‡	14,640	Q2M2-2Δ‡	14,640
6	AF460	540	150	200	400	R2M1-70Δ‡	31,635	R2M3-70Δ‡	33,435	R2M2-70Δ‡	33,435
7	AF750	810	—	300	600	S2M1-70Δ‡	42,885	S2M3-70Δ‡	46,065	S2M2-70Δ‡	46,065

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

‡ MCP or breaker rating. See codes on page 3.51.

Example: A9NSRM1-84X \$ 1185 List  
 - 63 - OLR  
 \$ 1122 Net price

### Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the last dash in the catalog number.

Ex.: A 240V coil is required for an A75 starter: N2M1-4Δ

To select starter with control transformer, substitute the code from the Control transformer voltage selector chart for the two digits after the last dash in the catalog number.

Ex.: A 480V primary voltage with a 120V secondary voltage is required for an A75 starter: N2M1-CF

### Coil voltage selection – A9 - A300

Hz	Contactor type	Volts									
		24	110	120	208	220	240	440	480	500	600
60	A	1		2	3		4	5	6		7
50	A	1	2			4					7

### Coil voltage selection – AF400 - AF750 ①

Hz	Contactor type	Volts	
		100 - 250	250 - 500
50/60	AF	70	71

### Control transformer voltage selection chart

Hz	Volts				
	Type	200-208/120	240/120	460 - 480/120	575 - 600/120
	A/AF	A	B	C	D
50/60	Type	200-208/24	240/24	460 - 480/24	575 - 600/24
	A/AF	E	F	G	H

### Maximum short circuit rating for UL listed combination starters

Contactor	Maximum MCP 480VAC	KA at 480VAC	MCP 600VAC	KA at 600VAC
A9	S3L050MW	35	S3L010MW	35
A12	S3L050MW	35	S3L010MW	35
A16	S3L050MW	35	—	—
A26	S3L100MW	35	S3L100MW	35
A30	S3L150MW	65	—	—
A40	S3L150MW	65	—	—
A50	S3L150MW	85	S3L150MW	35
A63	S4L250MW	85	—	—
A75	S4L250MW	85	—	—
A95	S4L250MW	85	S4L250MW	35
A110	S4L250MW	85	S4L250MW	35
A145	S5L400MW	65	S4L250MW	10
A185	S5L400MW	85	S4L250MW	10
A210	S6L800MW	85	S4L250MW	18
A260	S6L800MW	85	S5L400MW	18
A300	S6L800MW	85	S5L400MW	18
AF400	S7H1200MW	85	Consult factory	
AF460	S7H1200MW	85		
AF580	S7H1200MW	85		
AF750	S7H1200MW	85		

For thermal magnetic molded case breakers, consult factory.

### Factory modifications

See page 3.3

### Control transformer option

Contactor size	VA rating	List price adder
A9 - A40	50	\$ 360
A50 - A75	75	435
A95 - A110	100	560
A145 - A185	150	720
A210 - A300	250	795
AF400 - AF460	150	720
AF580 - AF750	250	795

Reference page 3.50 for extra VA under all (Control Transformer Options chart)

NOTES: MCPs are supplied as standard. Thermal magnetic/electronic trip type breakers can be supplied by substituting the letter "B" in place of the "M". List price is the same.

Example: J2B1-2Δ‡, \$ 1185.00.

For AF50 - AF300 starters, consult factory.

① AF400 - AF750 only.

## Circuit breaker type A9 - AF750, NEMA rated Reversing, three phase

Combination  
starters

3

UL Type 4 (Watertight)		UL Type 4X (Stainless steel)		UL Type 1, 3R, 4, 4X & 12 (Plastic)	
Catalog number	List price	Catalog number	List price	Catalog number	List price
<b>UL rated</b>					
J2M4-2Δ‡	\$ 1,515	J2MX-2Δ‡	\$ 2,090	J2MP-2Δ‡	\$ 1,320
K2M4-2Δ‡	1,688	K2MX-2Δ‡	1,335	K2MP-2Δ‡	1,470
L2M4-2Δ‡	1,800	L2MX-2Δ‡	2,405	L2MP-2Δ‡	1,703
M2M4-2Δ‡	2,963	M2MX-2Δ‡	3,988	M2MP-2Δ‡	2,618
N2M4-2Δ‡	4,200	N2MX-2Δ‡	5,210	N2MP-2Δ‡	3,855
P2M4-2Δ‡	7,950	P2MX-2Δ‡	9,885	P2MP-2Δ‡	7,620
Q2M4-2Δ‡	15,450	Q2MX-2Δ‡	21,735	Q2MP-2Δ‡	15,000
R2M4-70Δ‡	35,850	R2MX-70Δ‡	41,280	—	—
S2M4-70Δ‡	48,338	S2MX-70Δ‡	56,385	—	—

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. Overload relays are required for all combination starters. If overload relay is provided by customer, substitute an "X" in place of the Δ and then subtract list price of overload relay from combination starter's list price.

‡ MCP or breaker rating. See codes on page 3.51.

### Motor circuit protector data

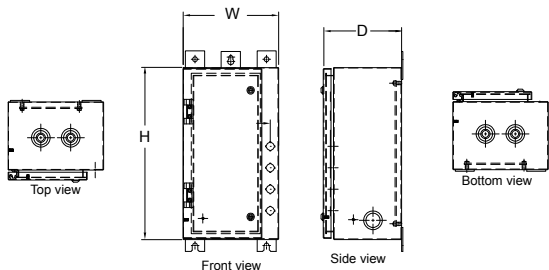
Motor full load amperes	MCP continuous rating	Suffix code ‡	Catalog number	Starter size	1.5X	2X	4X	5X	6X	7X	8X	9X	10X	11X	12X
.92 - 2.76	3	1	S3L003MW	0	—	—	12	15	18	21	24	27	30	33	36
1.53 - 4.61	5	2	S3L005MW	0	—	—	20	25	30	35	40	45	50	55	60
3.07 - 9.23	10	3	S3L010MW	0	—	—	40	50	60	70	80	90	100	110	120
7.69 - 23.08	25	4	S3L025MW	1	—	—	100	125	150	175	200	225	250	275	300
15.38 - 46.15	50	5	S3L050MW	2	—	—	200	250	300	350	400	450	500	550	600
30.77 - 92.31	100	6	S3L100MW	3	—	—	400	500	600	700	800	900	1000	1100	1200
46.15 - 138.46	150	7	S3L150MW	4	—	—	600	750	900	1050	1200	1350	1500	1650	1800
28.85 - 230.77	250	8	S4L250MW	4	375	500	1000	—	1500	—	2000	—	2500	—	3000
46.15 - 369.23	400	9	S5L400MW	5	600	800	1600	—	2400	—	3200	—	4000	—	4800
69.23 - 553.85	600	C	S6L600MW	6	900	1200	2400	—	3600	—	4800	—	6000	—	7200
92.31 - 738.46	800	E	S6L800MW	7	1200	1600	3200	—	4800	—	6400	—	8000	—	9600
115.38 - 923.07	1000	G	S7H1000MW	7	1500	2000	4000	—	6000	—	8000	—	10,000	—	12,000
138.46 - 1107.69	1200	H	S7H1200MW	7	1800	2400	4800	—	7200	—	9600	—	12,000	—	14,400

## Approximate dimensions

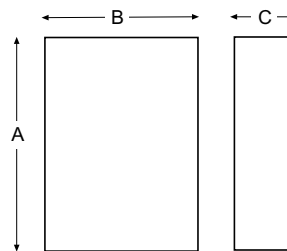
Non-fusible, across the line  
Fusible, across the line

3

Enclosure A



Enclosure B



Non-fusible across the line w/CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
	4X Stainless	B	10	8	6
4X plastic	B	10	8	7	
A50 - A110	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
4X Stainless	B	14	12	6	
	B	14	12	7	
4X plastic	B	20	16	8	
	B	20	16	8	
A95 - A110	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	30	24	8
4X plastic	B	30	20	12	
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	24	12
4X plastic	B	40	30	20	
AF400	1	B	42	36	12
	3R	B	42	36	12
	4	B	42	36	12
	12	B	42	36	12
	4X Stainless	B	42	30	10
AF460	1	B	42	36	12
	3R	B	42	30	10
	4	B	42	30	10
	12	B	42	30	10
	4X Stainless	B	42	30	10
AF580	1	B	48	36	16
	3R	B	48	36	16
	4	B	48	36	16
	12	B	48	36	16
	4X Stainless	B	48	36	16
AF750	1	—	—	—	—
	3R	B	48	36	16
	4	B	48	36	16
	12	B	48	36	16
	4X Stainless	B	48	36	16

Fusible across the line w/CCT

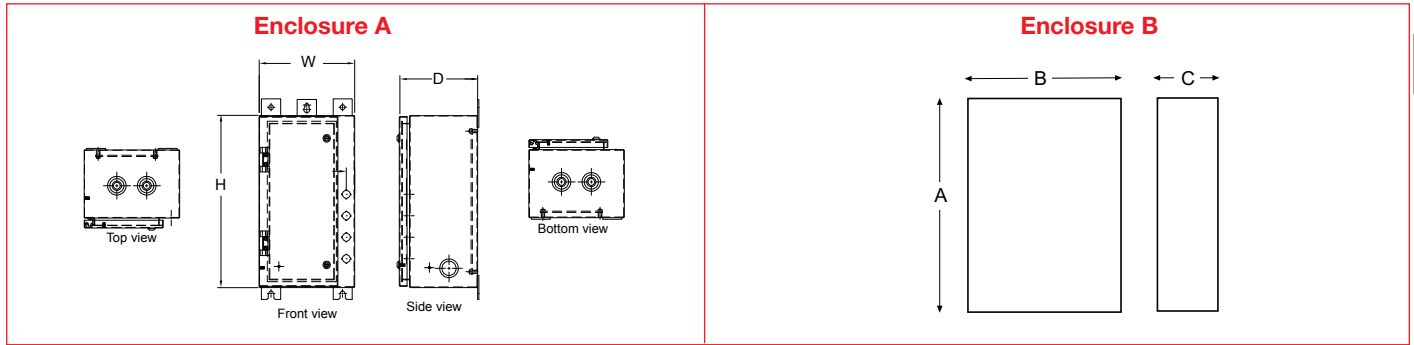
Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
	4X Stainless	B	14	12	6
4X plastic	B	14	12	7	
A50 - A110	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
4X Stainless	B	20	16	8	
	B	20	16	8	
4X plastic	B	20	16	8	
	B	20	16	8	
A145 - A185	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	30	24	8
4X plastic	B	30	20	12	
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	24	12
4X plastic	B	40	30	20	
AF400	1	B	42	36	12
	3R	B	42	36	12
	4	B	42	36	12
	12	B	42	36	12
	4X Stainless	B	42	30	10
AF460	1	B	42	36	12
	3R	B	42	30	10
	4	B	42	30	10
	12	B	42	30	10
	4X Stainless	B	42	30	10
AF580 - AF750	1	B	48	36	16
	3R	B	48	36	16
	4	B	48	36	16
	12	B	48	36	16
	4X Stainless	B	48	36	16

Dimensions subject to change; please consult factory for construction dimension.

- Enclosures have KO's in:
- Type 1-Top & Bottom
  - Type 3R- Bottom Only
  - Type 4,12- None

**Approximate dimensions**  
 Non-fusible, across the line, reversing  
 Fusible, across the line, reversing

3



**Fusible across the line reversing w/CCT**

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
	4X Stainless	B	14	12	8
	4X plastic	B	14	12	8
A50 - A110	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
A50 - A75	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A110	4X Stainless	B	24	20	8
	4X plastic	B	30	20	12
A145 - A185	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	30	24	12
	4X plastic	B	30	30	12
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	36	12
	4X plastic	B	40	30	12
AF400 - AF460	1	B	48	36	12
	3R	B	48	36	12
	4	B	48	36	12
	12	B	48	36	12
	4X Stainless	B	48	36	12
AF580 - AF750	1	B	60	36	16
	3R	B	60	36	16
	4	B	60	36	16
	12	B	60	36	16
	4X Stainless	B	60	36	16

Dimensions subject to change; please consult factory for construction dimension.

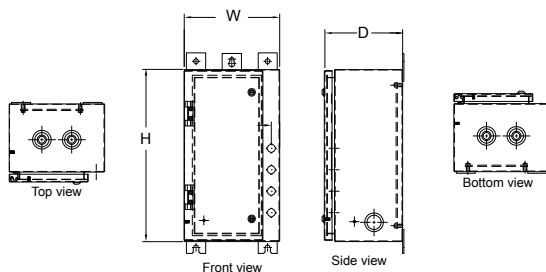
Enclosures have KO's in:

- Type 1-Top & Bottom
- Type 3R- Bottom Only
- Type 4,12- None

## Approximate dimensions Circuit breaker, across the line Reversing, non-fused w/CCT

3

Enclosure A



Circuit breaker across the line with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A16 (S3)	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
A9 - A40	4X Stainless	B	16	12	8
	4X plastic	B	14	12	7
A9-A26 A40	7 ⊕	B	14	10	6
	7 ⊕	B	18	12	6
A26 - A75 (S3)	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
A50 - A75	4X Stainless	B	16	12	8
	4X plastic	B	14	12	7
	7 ⊕	B	18	12	6
A95 - A110 (S3)	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless 4X plastic	B B	20 20	16 16	8 8
A145 - A185 (S3, S4)	7 ⊕	B	24	16	6
	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
A210 - A300 (S4, S5)	4X Stainless 4X plastic	B B	30 30	24 24	12 12
	7 ⊕	B	30	24	12
	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
AF400 (S6)	12	A	48	24	13
	4X Stainless 4X plastic	B B	42 40	36 40	10 11
	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
AF460 (S6)	12	A	48	24	13
	4X Stainless	B	42	36	10
	1	A	48	24	13
	3R	A	48	24	13
AF580 (S6)	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	48	36	16
	1	A	48	24	13
AF750 (S7)	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	60	36	16

Circuit breaker across the line reversing with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A16 (S3)	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
A9 - A40	4X Stainless	B	16	12	8
	4X plastic	B	14	12	7
A50 - A75 (S3)	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
95 - A110 (S3)	4X Stainless 4X plastic	B B	20 20	16 16	8 8
	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
A145 (S3)	12	A	24	12.5	8
	4X Stainless 4X plastic	B B	24 30	20 24	8 12
	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
A185 (S3, S4)	12	A	36	24	12
	4X Stainless 4X plastic	B B	30 32	24 24	12 12
	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
A210 - A300 (S4, S5)	12	A	36	24	12
	4X Stainless 4X plastic	B B	30 40	24 30	12 12
	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
A300 (S6)	12	A	48	24	13
	4X Stainless 4X plastic	B B	42 40	30 30	10 12
	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
AF400 - AF460 (S6)	12	B	48	36	16
	4X Stainless	B	48	36	16
	1	B	48	36	16
	3R	B	48	36	16
AF580 - AF750 (S7)	4	B	48	36	16
	12	B	48	36	16
	4X Stainless	B	60	36	16
	1	B	60	36	16
	3R	B	60	36	16

Dimensions subject to change; please consult factory for construction dimension.

- Enclosures have KO's in:
- Type 1-Top & Bottom
  - Type 3R- Bottom Only
  - Type 4,12- None

⊕ Type 7 explosion-proof enclosure inside dimensions.

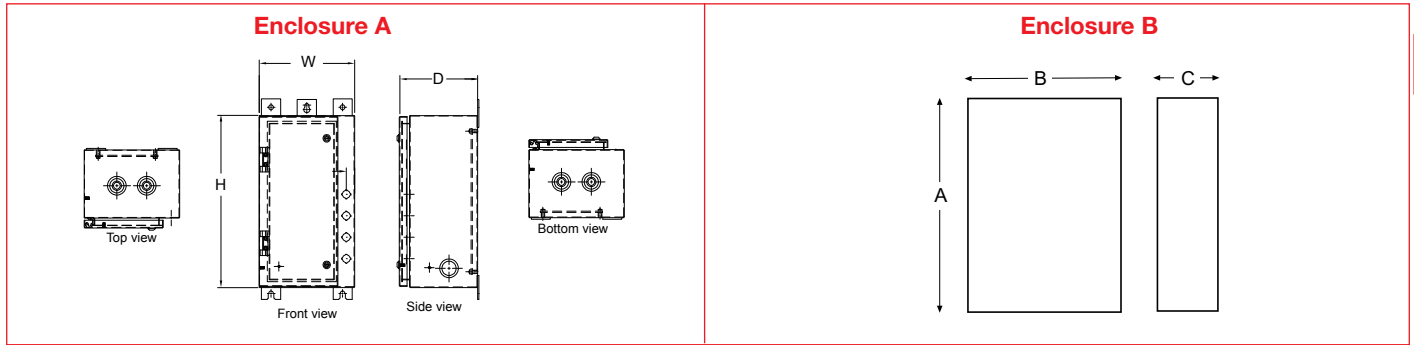
# Approximate dimensions

## Reversing fused combination

## Reversing breaker combination w/CCT

Combination starters

3



Fusible across the line reversing w/CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
	4X Stainless	B	14	12	8
	4X plastic	B	14	12	8
A50 - A110	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
A50 - A75	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A110	4X Stainless	B	24	20	8
	4X plastic	B	30	20	12
A145 - A185	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	30	24	12
	4X plastic	B	30	30	12
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	36	12
	4X plastic	B	40	30	12
AF400 - AF460	1	B	48	36	12
	3R	B	48	36	12
	4	B	48	36	12
	12	B	48	36	12
	4X Stainless	B	48	36	12
AF580 - AF750	1	B	60	36	16
	3R	B	60	36	16
	4	B	60	36	16
	12	B	60	36	16
	4X Stainless	B	60	36	16

Circuit breaker across the line reversing with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40 (S3)	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless	B	14	12	6
	4X plastic	B	14	12	7
	4X plastic	B	14	12	7
A50 - A75 (S3)	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless	B	20	16	8
95 - A110 (S3)	4X plastic	B	20	16	8
	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
A145 (S3)	12	A	36	24	12
	4X Stainless	B	30	24	12
	4X plastic	B	30	20	12
	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
A185 (S3,S4)	12	A	36	24	12
	4X Stainless	B	30	24	12
	4X plastic	B	30	20	12
	1	A	48	24	13
	3R	A	48	24	13
A210 - A300 (S4, S5)	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	24	12
	4X plastic	B	40	20	12
	1	A	48	24	13
A300 (S6)	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	24	12
AF400 - AF460 (S6)	4X plastic	B	40	20	12
	1	B	60	36	12
	3R	B	60	36	12
	4	B	60	36	12
	12	B	60	36	12
AF580 - AF750 (S7)	4X Stainless	B	60	36	12
	1	B	87	36	24
	3R	B	87	36	24
	4	B	87	36	24
	12	B	87	36	24
4X Stainless	B	87	36	24	

Dimensions subject to change; please consult factory for construction dimension.

- Enclosures have KO's in:
- Type 1-Top & Bottom
  - Type 3R- Bottom Only
  - Type 4,12- None

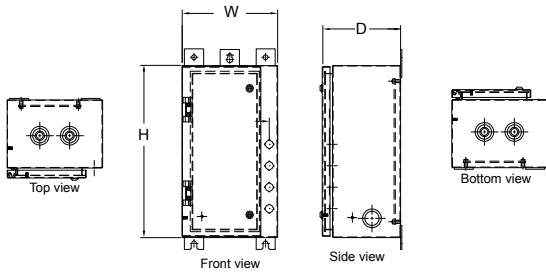
## Approximate dimensions

2 Speed, 1 winding, non-fused w/CCT

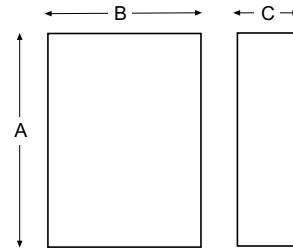
2 Speed, 1 winding, fused combination w/CCT

3

Enclosure A



Enclosure B



### 2 speed, 1 wind non-fused with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless	B	14	12	6
4X plastic	B	14	12	7	
A50 - A110	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
A50-75	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A145-A185	1	A	36	36	12
	3R	A	36	36	12
	4	A	36	36	12
	12	A	36	36	12
A110-A185	4X Stainless	B	36	36	12
	4X plastic	B	40	30	20
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	42	36	13
4X plastic	B	40	40	12	
AF400 - AF460	1	B	60	36	12
	3R	B	60	36	12
	4	B	60	36	12
	12	B	60	36	12
	4X Stainless	B	60	36	12
AF580 - AF750	1	B	87	36	24
	3R	B	87	36	24
	4	B	87	36	24
	12	B	87	36	24
	4X Stainless	B	87	36	24

### 2 speed, 1 wind fused with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	24	12	8
	3R	A	24	12	8
	4	A	24	12	8
	12	A	24	12	8
	4X Stainless	B	20	16	8
4X plastic	B	20	16	8	
A50 - A110	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
A50-75	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A145-A185	1	A	36	36	12
	3R	A	36	36	12
	4	A	36	36	12
	12	A	36	36	12
A110-A185	4X Stainless	B	36	36	12
	4X plastic	B	40	30	20
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	42	36	13
4X plastic	B	40	40	12	
AF400 - AF460	1	B	60	36	12
	3R	B	60	36	12
	4	B	60	36	12
	12	B	60	36	12
	4X Stainless	B	60	36	12
AF580 - AF750	1	B	87	36	24
	3R	B	87	36	24
	4	B	87	36	24
	12	B	87	36	24
	4X Stainless	B	87	36	24

Dimensions subject to change; please consult factory for construction dimension.

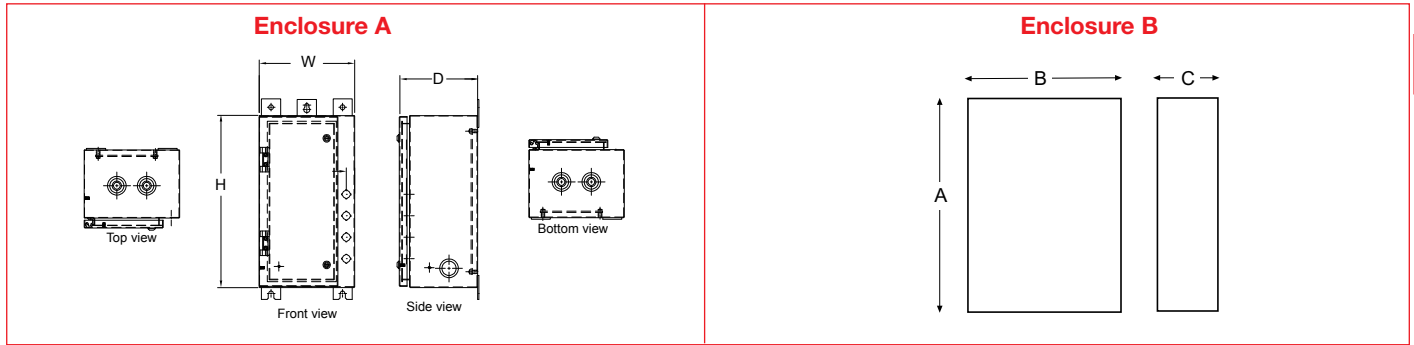
Enclosures have KO's in:

- Type 1-Top & Bottom
- Type 3R- Bottom Only
- Type 4,12- None

# Approximate dimensions 2 Speed, 1 winding, breaker combination w/CCT

Combination  
starters

3



## 2 speed, 1 wind Breaker with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A50 - A75	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A110	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	30	24	8
	4X plastic	B	30	20	12
A145 - A185	1	A	36	36	12
	3R	A	36	36	12
	4	A	36	36	12
	12	A	36	36	12
	4X Stainless	B	36	36	12
	4X plastic	B	40	30	20
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	42	36	13
	4X plastic	B	40	30	20
AF400 - AF460	1	B	60	36	12
	3R	B	60	36	12
	4	B	60	36	12
	12	B	60	36	12
	4X Stainless	B	60	36	12
AF580 - AF750	1	B	87	36	24
	3R	B	87	36	24
	4	B	87	36	24
	12	B	87	36	24
	4X Stainless	B	87	36	24

Dimensions subject to change; please consult factory for construction dimension.

- Enclosures have KO's in:
- Type 1-Top & Bottom
  - Type 3R- Bottom Only
  - Type 4,12- None

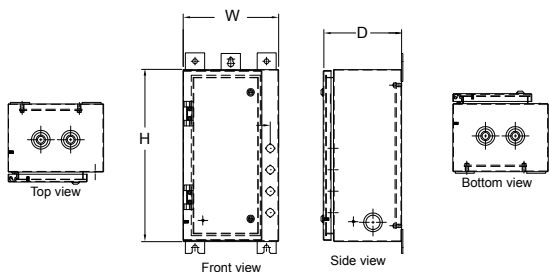
## Approximate dimensions

2 Speed - 2 Winding, Non-fused w/CCT

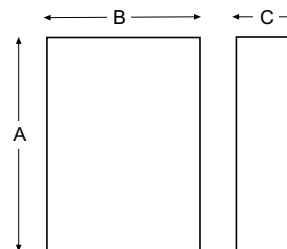
2 Speed - 2 Winding, Fused combination w/CCT

3

Enclosure A



Enclosure B



### 2 speed - 2 wind, non-fusible with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
A50 - A75	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
A9 - A75	4X Stainless	B	14	12	6
	4X plastic	B	14	12	7
A95 - A110	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless	B	20	16	8
A145 - A185	4X plastic	B	20	16	8
	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
A210 - A300	12	A	36	24	12
	4X Stainless	B	30	24	8
	4X plastic	B	30	20	12
	1	A	48	24	13
	3R	A	48	24	13
AF400 - AF460	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	24	12
	4X plastic	B	40	20	12
AF580 - AF750	1	B	60	36	12
	3R	B	60	36	12
	4	B	60	36	12
	12	B	60	36	12
AF580 - AF750	4X Stainless	B	60	36	12
	1	B	87	36	24
	3R	B	87	36	24
	4	B	87	36	24
AF580 - AF750	12	B	87	36	24
	4X Stainless	B	87	36	24

### 2 speed, 2 wind fusible with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	18	10	8
	3R	A	18	10	8
	4	A	18	10	8
	12	A	18	10	8
A50 - A75	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
A9 - A75	4X Stainless	B	14	12	6
	4X plastic	B	14	12	7
A95 - A110	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	30	24	8
A145 - A185	4X plastic	B	30	20	12
	1	A	36	36	12
	3R	A	36	36	12
	4	A	36	36	12
A210 - A300	12	A	36	36	12
	4X Stainless	B	36	36	12
	4X plastic	B	40	30	20
	1	A	48	24	13
	3R	A	48	24	13
AF400 - AF460	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	42	36	13
	4X plastic	B	40	20	12
AF400 - AF460	1	B	60	36	12
	3R	B	60	36	12
	4	B	60	36	12
	12	B	60	36	12
AF580 - AF750	4X Stainless	B	60	36	12
	1	B	87	36	24
	3R	B	87	36	24
	4	B	87	36	24
AF580 - AF750	12	B	87	36	24
	4X Stainless	B	87	36	24

Dimensions subject to change; please consult factory for construction dimension.

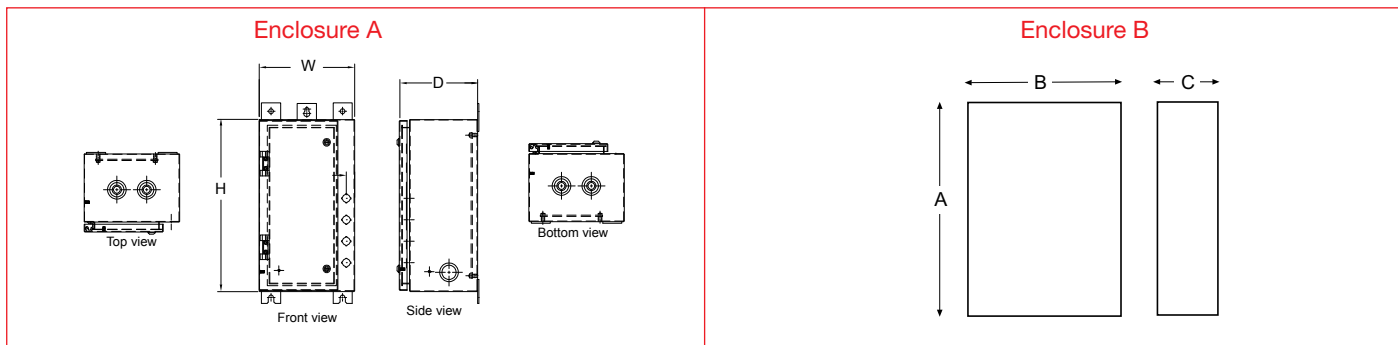
Enclosures have KO's in:

- Type 1-Top & Bottom
- Type 3R- Bottom Only
- Type 4,12- None

## Approximate dimensions 2 Speed - 2 Winding, breaker combination w/CCT

Combination  
starters

3



### 2 speed, 2 wind breaker with CCT

Starter Size	Enclosure type	Encl Dwg	H	W	D
A9 - A40	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless	B	14	12	6
	4X plastic	B	14	12	7
A50 - A75	1	A	24	12.5	8
	3R	A	24	12.5	8
	4	A	24	12.5	8
	12	A	24	12.5	8
	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A95 - A110	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	20	16	8
	4X plastic	B	20	16	8
A145 - A185	1	A	36	24	12
	3R	A	36	24	12
	4	A	36	24	12
	12	A	36	24	12
	4X Stainless	B	30	24	8
	4X plastic	B	30	20	12
A210 - A300	1	A	48	24	13
	3R	A	48	24	13
	4	A	48	24	13
	12	A	48	24	13
	4X Stainless	B	36	24	12
	4X plastic	B	40	20	12
AF400 - AF460	1	B	60	36	12
	3R	B	60	36	12
	4	B	60	36	12
	12	B	60	36	12
	4X Stainless	B	60	36	12
AF580 - AF750	1	B	87	36	24
	3R	B	87	36	24
	4	B	87	36	24
	12	B	87	36	24
	4X Stainless	B	87	36	24

Dimensions subject to change; please consult factory for construction dimension.

- Enclosures have KO's in:
- Type 1- Top & Bottom
  - Type 3R- Bottom Only
  - Type 4,12- None

