

2 Speed, 1 winding A9 - AF750 Three phase

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UL motor switching current	Contactor size	Maximum ratings - UL Listed				Open type		UL Type 1 (Indoor metal)		UL type 3R (Outdoor metal)	
		Maximum motor horsepower ratings				Catalog number	List price	Catalog number	List price	Catalog number	List price
		200/208V	230/240V	480/480V	575/600V						
UL rated											
9	A9	2	2	5	7.5	13-2Δ1Δ	\$ 504	131-2Δ1Δ	\$ 690	133-2Δ1Δ	\$ 810
11	A12	3	3	7.5	10	23-2Δ1Δ	525	231-2Δ1Δ	771	233-2Δ1Δ	891
17	A16	5	5	10	15	33-2Δ1Δ	581	331-2Δ1Δ	837	333-2Δ1Δ	957
28	A26	7.5	10	20	25	43-2Δ1Δ	752	431-2Δ1Δ	1,097	433-2Δ1Δ	1,187
34	A30	10	10	25	30	53-2Δ1Δ	1,038	531-2Δ1Δ	1,316	533-2Δ1Δ	1,406
42	A40	10	15	30	40	63-2Δ1Δ	1,259	631-2Δ1Δ	1,577	633-2Δ1Δ	1,802
54	A50	15	20	40	50	73-2Δ1Δ	1,697	731-2Δ1Δ	1,940	733-2Δ1Δ	2,307
65	A63	20	25	50	50	83-2Δ1Δ	2,150	831-2Δ1Δ	2,195	833-2Δ1Δ	2,945
80	A75	25	30	60	75	93-2Δ1Δ	2,307	931-2Δ1Δ	2,592	933-2Δ1Δ	3,500
110	A110	30	40	75	100	A3-2Δ1Δ	2,681	A31-2Δ1Δ	3,851	A33-2Δ1Δ	4,511
130	A145	40	50	100	125	B3-2Δ1Δ	4,506	B31-2Δ1Δ	5,079	B33-2Δ1Δ	5,784
156	A185	50	60	125	150	C3-2Δ1Δ	5,845	C31-2Δ1Δ	6,605	C33-2Δ1Δ	7,059
192	A210	60	75	150	200	D3-2Δ1Δ	6,895	D31-2Δ1Δ	7,825	D33-2Δ1Δ	8,500
248	A260	75	100	200	250	E3-2Δ1Δ	8,535	E31-2Δ1Δ	10,710	E33-2Δ1Δ	11,455
302	A300	100	100	250	300	F3-2Δ1Δ	9,171	F31-2Δ1Δ	11,391	F33-2Δ1Δ	12,155
414	AF400	125	150	350	400	G3-70Δ1Δ	10,100	G31-70Δ1Δ	19,460	G33-70Δ1Δ	20,135
480	AF460	150	200	400	500	H3-70Δ1Δ	17,995	H31-70Δ1Δ	28,910	H23-70Δ1Δ	29,652
590	AF580	200	250	500	600	T3-70Δ1Δ	23,735	T31-70Δ1Δ	35,400	T33-70Δ1Δ	35,850
810	AF750	250	300	600	700	U3-70Δ1Δ	26,645	U31-70Δ1Δ	39,195	U33-70Δ1Δ	40,170

NEMA rated											
NEMA size	Contactor size	Continuous current	200V	230V	460/575V						
00	A9	9	1.5	1.5	2	J3-2Δ1Δ	\$ 504	J31-2Δ1Δ	\$ 690	J33-2Δ1Δ	\$ 810
0	A16	18	3	3	5	K3-2Δ1Δ	581	K31-2Δ1Δ	837	K33-2Δ1Δ	957
1	A26	27	7.5	7.5	10	L3-2Δ1Δ	752	L31-2Δ1Δ	1,097	L33-2Δ1Δ	1,187
2	A50	45	10	15	25	M3-2Δ1Δ	1,697	M31-2Δ1Δ	1,940	M33-2Δ1Δ	2,307
3	A75	90	25	30	50	N3-2Δ1Δ	2,307	N31-2Δ1Δ	2,589	N33-2Δ1Δ	3,500
4	A145	135	40	50	100	P3-2Δ1Δ	4,506	P31-2Δ1Δ	5,079	P33-2Δ1Δ	5,784
5	A260	270	75	100	200	Q3-2Δ1Δ	8,535	Q31-2Δ1Δ	10,710	Q33-2Δ1Δ	11,455
6	AF460	540	150	200	400	R3-70Δ1Δ	17,995	R31-70Δ1Δ	28,910	R33-70Δ1Δ	29,652
7	AF750	810	—	300	600	S3-70Δ1Δ	26,645	S31-70Δ1Δ	39,195	S33-70Δ1Δ	40,170

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. 1st Δ low speed; 2nd Δ high speed.

Description

Motors that have separate windings for each speed provide more combinations of speed variations. Multi-speed starters from ABB Control are available for constant horsepower, constant torque and variable torque motors.

Constant horsepower

Motors that maintain the same horsepower regardless of speed are called constant horsepower motors. These motors are used in applications like metal working.

Constant torque

Motors that maintain constant torque at all speeds are called constant torque motors. In applications like conveyors, horsepower varies directly with speed.

Variable torque motors

Motors that produce a torque characteristic which varies as the square of the speed are called variable torque motors and are used in applications like blowers and fans.

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 3.3 for Extra VA under all (Control Transformer Options chart)

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 A110 starter: A3-4Δ1Δ

D.C. operated starters

If DC operation is required, consult factory.

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

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

① AF400 - AF750 only.

2 Speed, 1 winding

A9 - AF750

Three phase

UL Type 12 (Metal dustight)		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	Catalog number	List price
UL rated							
132-2Δ1Δ	\$ 810	134-2Δ1Δ	\$ 1,020	13X-2Δ1Δ	\$ 1,305	13P-2Δ1Δ	\$ 788
232-2Δ1Δ	891	234-2Δ1Δ	1,095	23X-2Δ1Δ	1,416	23P-2Δ1Δ	869
332-2Δ1Δ	957	334-2Δ1Δ	1,215	33X-2Δ1Δ	1,520	33P-2Δ1Δ	972
432-2Δ1Δ	1,187	434-2Δ1Δ	1,515	43X-2Δ1Δ	2,012	43P-2Δ1Δ	1,247
532-2Δ1Δ	1,406	534-2Δ1Δ	1,688	53X-2Δ1Δ	2,231	53P-2Δ1Δ	1,466
632-2Δ1Δ	1,802	634-2Δ1Δ	2,100	63X-2Δ1Δ	2,507	63P-2Δ1Δ	1,727
732-2Δ1Δ	2,307	734-2Δ1Δ	2,528	73X-2Δ1Δ	2,757	73P-2Δ1Δ	2,075
832-2Δ1Δ	2,945	834-2Δ1Δ	3,285	83X-2Δ1Δ	3,777	83P-2Δ1Δ	2,330
932-2Δ1Δ	3,500	934-2Δ1Δ	3,788	93X-2Δ1Δ	4,287	93P-2Δ1Δ	2,835
A32-2Δ1Δ	4,511	A34-2Δ1Δ	4,800	A3X-2Δ1Δ	5,358	A3P-2Δ1Δ	4,300
B32-2Δ1Δ	5,784	B34-2Δ1Δ	6,265	B3X-2Δ1Δ	7,175	B3P-2Δ1Δ	5,513
C32-2Δ1Δ	7,059	C34-2Δ1Δ	7,440	C3X-2Δ1Δ	8,400	C3P-2Δ1Δ	6,729
D32-2Δ1Δ	8,500	D34-2Δ1Δ	8,890	D3X-2Δ1Δ	9,925	D3P-2Δ1Δ	8,103
E32-2Δ1Δ	11,455	E34-2Δ1Δ	12,940	E3X-2Δ1Δ	15,090	E3P-2Δ1Δ	10,919
F32-2Δ1Δ	12,155	F34-2Δ1Δ	13,425	F3X-2Δ1Δ	16,275	F3P-2Δ1Δ	11,586
G32-70Δ1Δ	20,135	G34-70Δ1Δ	21,600	G3X-70Δ1Δ	24,700		
H32-70Δ1Δ	29,652	H34-70Δ1Δ	30,000	H3X-70Δ1Δ	30,675		
T32-70Δ1Δ	35,850	T34-70Δ1Δ	36,225	T3X-70Δ1Δ	38,097		
U32-70Δ1Δ	40,170	U34-70Δ1Δ	40,875	U3X-70Δ1Δ	42,570		
NEMA rated							
J32-2Δ1Δ	\$ 810	J34-2Δ1Δ	\$ 1,020	J3X-2Δ1Δ	\$ 1,305	J3P-2Δ1Δ	\$ 788
K32-2Δ1Δ	957	K34-2Δ1Δ	1,215	K3X-2Δ1Δ	1,520	K3P-2Δ1Δ	972
L32-2Δ1Δ	1,187	L34-2Δ1Δ	1,515	L3X-2Δ1Δ	2,012	L3P-2Δ1Δ	1,247
M32-2Δ1Δ	2,307	M34-2Δ1Δ	2,528	M3X-2Δ1Δ	2,757	M3P-2Δ1Δ	2,075
N32-2Δ1Δ	3,500	N34-2Δ1Δ	3,788	N3X-2Δ1Δ	4,287	N3P-2Δ1Δ	2,835
P32-2Δ1Δ	5,748	P34-2Δ1Δ	6,265	P3X-2Δ1Δ	7,175	P3P-2Δ1Δ	5,513
Q32-2Δ1Δ	11,455	Q34-2Δ1Δ	12,940	Q3X-2Δ1Δ	15,090	Q3P-2Δ1Δ	10,919
R32-70Δ1Δ	29,652	R34-70Δ1Δ	30,000	R3X-70Δ1Δ	30,675		
S32-70Δ1Δ	40,170	S34-70Δ1Δ	40,875	S3X-70Δ1Δ	42,570		

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.6 - 3.7. 1st Δ low speed; 2nd Δ high speed.