

2 Speed, 2 winding A9 - AF750 Three phase

3

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	13-2Δ2Δ	\$ 396	131-2Δ2Δ	\$ 582	133-2Δ2Δ	\$ 702	
11	A12	3	3	7.5	10	23-2Δ2Δ	426	231-2Δ2Δ	657	233-2Δ2Δ	777	
17	A16	5	5	10	15	33-2Δ2Δ	476	331-2Δ2Δ	702	333-2Δ2Δ	822	
28	A26	7.5	10	20	25	43-2Δ2Δ	552	431-2Δ2Δ	882	433-2Δ2Δ	972	
34	A30	10	10	25	30	53-2Δ2Δ	747	531-2Δ2Δ	1,025	533-2Δ2Δ	1,115	
42	A40	10	15	30	40	63-2Δ2Δ	834	631-2Δ2Δ	1,152	633-2Δ2Δ	1,377	
54	A50	15	20	40	50	73-2Δ2Δ	1,224	731-2Δ2Δ	1,467	733-2Δ2Δ	1,835	
65	A63	20	25	50	50	83-2Δ2Δ	1,587	831-2Δ2Δ	1,632	833-2Δ2Δ	2,382	
80	A75	25	30	60	75	93-2Δ2Δ	1,692	931-2Δ2Δ	1,977	933-2Δ2Δ	2,885	
110	A110	30	40	75	100	A3-2Δ2Δ	1,872	A31-2Δ2Δ	3,042	A33-2Δ2Δ	3,702	
130	A145	40	50	100	125	B3-2Δ2Δ	3,069	B31-2Δ2Δ	3,642	B33-2Δ2Δ	4,347	
156	A185	50	60	125	150	C3-2Δ2Δ	4,068	C31-2Δ2Δ	4,827	C33-2Δ2Δ	5,285	
192	A210	60	75	150	200	D3-2Δ2Δ	4,722	D31-2Δ2Δ	5,652	D33-2Δ2Δ	6,327	
248	A260	75	100	200	250	E3-2Δ2Δ	5,500	E31-2Δ2Δ	7,685	E33-2Δ2Δ	8,427	
302	A300	100	100	250	300	F3-2Δ2Δ	6,340	F31-2Δ2Δ	8,142	F33-2Δ2Δ	8,905	
414	AF400	125	150	350	400	G3-70Δ2Δ	6,855	G31-70Δ2Δ	15,522	G33-70Δ2Δ	16,197	
480	AF460	150	200	400	500	H3-70Δ2Δ	13,560	H31-70Δ2Δ	22,554	H23-70Δ2Δ	23,300	
590	AF580	200	250	500	600	T3-70Δ2Δ	18,660	T31-70Δ2Δ	25,872	T33-70Δ2Δ	26,332	
810	AF750	250	300	600	700	U3-70Δ2Δ	20,025	U31-70Δ2Δ	29,322	U33-70Δ2Δ	30,297	

NEMA rated											
NEMA size	Contactor size	Continuous current	200V	230V	460/575V						
00	A9	9	1.5	1.5	2	J3-2Δ2Δ	\$ 396	J31-2Δ2Δ	\$ 582	J33-2Δ2Δ	\$ 702
0	A16	18	3	3	5	K3-2Δ2Δ	476	K31-2Δ2Δ	702	K33-2Δ2Δ	822
1	A26	27	7.5	7.5	10	L3-2Δ2Δ	552	L31-2Δ2Δ	882	L33-2Δ2Δ	972
2	A50	45	10	15	25	M3-2Δ2Δ	1,224	M31-2Δ2Δ	1,467	M33-2Δ2Δ	1,835
3	A75	90	25	30	50	N3-2Δ2Δ	1,692	N31-2Δ2Δ	1,977	N33-2Δ2Δ	2,885
4	A145	135	40	50	100	P3-2Δ2Δ	3,069	P31-2Δ2Δ	3,642	P33-2Δ2Δ	4,347
5	A260	270	75	100	200	Q3-2Δ2Δ	5,508	Q31-2Δ2Δ	7,685	Q33-2Δ2Δ	8,427
6	AF460	540	150	200	400	R3-70Δ2Δ	13,560	R31-70Δ2Δ	22,554	R33-70Δ2Δ	23,300
7	AF750	810	—	300	600	S3-70Δ2Δ	20,025	S31-70Δ2Δ	29,322	S33-70Δ2Δ	30,297

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)

NOTE: For AF50 - AF 300 starters, consult factory.
Ⓢ AF400 - AF 750 only.

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: A3-4Δ2Δ

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 Ⓢ

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

2 Speed, 2 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							
132-2Δ2Δ	\$ 702	134-2Δ2Δ	\$ 915	13X-2Δ2Δ	\$ 1,197	13P-2Δ2Δ	\$ 680
232-2Δ2Δ	777	234-2Δ2Δ	990	23X-2Δ2Δ	1,302	23P-2Δ2Δ	755
332-2Δ2Δ	822	334-2Δ2Δ	1,065	33X-2Δ2Δ	1,385	33P-2Δ2Δ	837
432-2Δ2Δ	972	434-2Δ2Δ	1,200	43X-2Δ2Δ	1,797	43P-2Δ2Δ	1,032
532-2Δ2Δ	1,115	534-2Δ2Δ	1,388	53X-2Δ2Δ	1,940	53P-2Δ2Δ	1,175
632-2Δ2Δ	1,377	634-2Δ2Δ	1,545	63X-2Δ2Δ	2,082	63P-2Δ2Δ	1,302
732-2Δ2Δ	1,835	734-2Δ2Δ	1,988	73X-2Δ2Δ	2,285	73P-2Δ2Δ	1,602
832-2Δ2Δ	2,382	834-2Δ2Δ	2,513	83X-2Δ2Δ	3,215	83P-2Δ2Δ	1,767
932-2Δ2Δ	2,885	934-2Δ2Δ	3,090	93X-2Δ2Δ	3,672	93P-2Δ2Δ	2,200
A32-2Δ2Δ	3,702	A34-2Δ2Δ	3,863	A3X-2Δ2Δ	4,550	A3P-2Δ2Δ	3,300
B32-2Δ2Δ	4,347	B34-2Δ2Δ	4,650	B3X-2Δ2Δ	5,735	B3P-2Δ2Δ	3,919
C32-2Δ2Δ	5,285	C34-2Δ2Δ	5,740	C3X-2Δ2Δ	6,627	C3P-2Δ2Δ	4,857
D32-2Δ2Δ	6,327	D34-2Δ2Δ	6,510	D3X-2Δ2Δ	7,752	D3P-2Δ2Δ	5,899
E32-2Δ2Δ	8,427	E34-2Δ2Δ	9,150	E3X-2Δ2Δ	12,065	E3P-2Δ2Δ	7,512
F32-2Δ2Δ	8,905	F34-2Δ2Δ	9,750	F3X-2Δ2Δ	13,025	F3P-2Δ2Δ	7,990
G32-70Δ2Δ	16,197	G34-70Δ2Δ	17,100	G3X-70Δ2Δ	20,760		
H32-70Δ2Δ	23,300	H34-70Δ2Δ	23,700	H3X-70Δ2Δ	24,320		
T32-70Δ2Δ	26,322	T34-70Δ2Δ	27,000	T3X-70Δ2Δ	28,570		
U32-70Δ2Δ	30,297	U34-70Δ2Δ	30,900	U3X-70Δ2Δ	32,697		
NEMA rated							
J32-2Δ2Δ	\$ 702	J34-2Δ2Δ	\$ 915	J3X-2Δ2Δ	\$ 1,197	J3P-2Δ2Δ	\$ 680
K32-2Δ2Δ	822	K34-2Δ2Δ	1,065	K3X-2Δ2Δ	1,385	K3P-2Δ2Δ	837
L32-2Δ2Δ	972	L34-2Δ2Δ	1,200	L3X-2Δ2Δ	1,797	L3P-2Δ2Δ	1,032
M32-2Δ2Δ	1,835	M34-2Δ2Δ	1,988	M3X-2Δ2Δ	2,285	M3P-2Δ2Δ	1,602
N32-2Δ2Δ	2,885	N34-2Δ2Δ	3,090	N3X-2Δ2Δ	3,672	N3P-2Δ2Δ	2,200
P32-2Δ2Δ	4,347	P34-2Δ2Δ	4,650	P3X-2Δ2Δ	5,735	P3P-2Δ2Δ	3,919
Q32-2Δ2Δ	8,427	Q34-2Δ2Δ	9,150	Q3X-2Δ2Δ	12,065	Q3P-2Δ2Δ	7,512
R32-70Δ2Δ	23,300	R34-70Δ2Δ	23,700	R3X-70Δ2Δ	24,320		
S32-70Δ2Δ	30,297	S34-70Δ2Δ	30,900	S3X-70Δ2Δ	32,697		

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.