



General information

Catalog number explanation

A110 SR F 1 - 84 C 6 D 4 L A

3 Starter size

Starter type

- S - Non-reversing
- SR - Reversing
- SS - Single phase, non-reversing
- ST - Multi-speed, 2 speed 1 winding, 2 speed 2 winding
- SA - Autotransformer
- SG - Wye-delta open transition
- SY - Wye-delta closed transition
- SH - Part winding
- N - NEMA

Combination type

- N - Non-fusible disconnect
- F - Fusible disconnect
- B - Thermal magnetic or electronic trip type circuit breaker
- M - Motor Circuit Protection (MCP)

Enclosure

- 1 - UL Type 1
- 2 - UL Type 12
- 3 - UL Type 3R
- 4 - UL Type 4
- X - UL Type 4X stainless steel
- P - Plastic
- 7 - UL Type 7 & 9
- Class I, Group C, D, Div 1 & 2
- Class II, Groups E, F & G, Div 1 & 2
- Class III
- 74 - Hazardous Type 4

Coil voltage/CCT

Coil voltage selection – A9 - A300 ①

Hz	Cntr type	Volts															
		12	24	48	110	120	125	208	220	240	277	380	415	440	480	500	600
60	A		81	83	84	84		34	36	80	42		86	86	51	53	55
50	A		81	83	84					80			85	86			55

For other voltages, see page 1.26.

Coil voltage selection – A400 - A750

Hz	Cntr type	Volts			
		24 - 60	48 - 130	100 - 250	250 - 500
60	AF	68	69	70	71 ②
50	AF	68	69	70	71 ②
DC	AF	68	69	70	71 ②

Control transformer voltage selection chart

Hz	Type	Volts			
		208/120	230 - 240/120	460 - 480/120	575 - 600/120
50/60	A/AF	0	7	8	9

For other voltages, consult factory.

Overload range

See Overload Relay Selection chart, see page 3.6.

Accessories

See Factory modifications, page 3.3.

Horsepower

- A - 10
- B - 15
- C - 20
- D - 25
- E - 30
- F - 40
- G - 50
- H - 60
- J - 75
- K - 100
- L - 125
- M - 150
- N - 200
- P - 250
- R - 300
- S - 350
- T - 400
- U - 500
- V - 600
- W - 700
- X - 800
- Y - 900
- Z - 1000

Line voltage

- 1 - 200 - 208V
- 2 - 230 - 240V
- 3 - 380 - 415V
- 4 - 460 - 480V
- 6 - 575 - 600V

Fuse clip

- 6A - 30A, 600V, Class J
- 6B - 60A, 600V, Class J
- 6C - 100A, 600V, Class J
- 6D - 200A, 600V, Class J
- 6E - 400A, 600V, Class J
- 6F - 600A, 600V, Class J
- 6G - 800A, 600V, Class L
- 6H - 1200A, 600V, Class L

Circuit breaker amp rating (600V)

- 6D - 15
- 6E - 20
- 6F - 25
- 6G - 30
- 6H - 35
- 6J - 40
- 6K - 50
- 6L - 60
- 6M - 70
- 6N - 80
- 6P - 90
- 6R - 100
- 6S - 125
- 6T - 150
- 6U - 175
- 6V - 200
- 6W - 225
- 6X - 250
- 6Y - 300
- 6Z - 350
- 6A - 400
- 6B - 450
- 6C - 500
- 6D - 600

Circuit breaker amp rating (200V - 480V)

- 4D - 15
- 4E - 20
- 4F - 25
- 4G - 30
- 4H - 35
- 4J - 40
- 4K - 50
- 4L - 60
- 4M - 70
- 4N - 80
- 4P - 90
- 4R - 100
- 4S - 125
- 4T - 150
- 4U - 175
- 4V - 200
- 4W - 225
- 4X - 250
- 4Y - 300
- 4Z - 350
- 4A - 400
- 4B - 450
- 4C - 500
- 4D - 600

MCP amp rating (600V)

- 6A - 3
- 6B - 5
- 6C - 10
- 6D - 25
- 6E - 50
- 6F - 100
- 6G - 150
- 6H - 250
- 6J - 400
- 6K - 600
- 6L - 800
- 6M - 1000
- 6N - 1200

MCP amp rating (200V - 480V)

- 4A - 3
- 4B - 5
- 4C - 10
- 4D - 25
- 4E - 50
- 4F - 100
- 4G - 150
- 4H - 250
- 4J - 400
- 4K - 600
- 4L - 800
- 4M - 1000
- 4N - 1200

① For AF50 - AF300 starters, consult factory.

② For AF400 - AF750 only.

General information

Motor data ①



3

Ampere ratings of 3 phase, AC induction motors

Horse power	110 – 120V			200 – 208V			220 – 240V			380 – 415V		440 – 480V			550 – 600V		
	Single phase	Two phase	Three phase	Single phase	Two phase	Three phase	Single phase	Two phase	Three phase	Single phase	Three phase	Single phase	Two phase	Three phase	Single phase	Two phase	Three phase
1/10	3.0	—	—	1.65	—	—	1.5	—	—	1.0	—	—	—	—	—	—	—
1/8	3.8	—	—	2.1	—	—	1.9	—	—	1.2	—	—	—	—	—	—	—
1/6	4.4	—	—	2.4	—	—	2.2	—	—	1.4	—	—	—	—	—	—	—
1/4	5.8	—	—	3.2	—	—	2.9	—	—	1.8	—	—	—	—	—	—	—
1/3	7.2	—	—	4.0	—	—	3.6	—	—	2.3	—	—	—	—	—	—	—
1/2	9.8	4.0	4.4	5.4	2.2	2.4	4.9	2.0	2.2	3.2	1.3	2.5	1.0	1.1	2.0	0.8	0.9
3/4	13.8	4.8	6.4	7.6	2.6	3.5	6.9	2.4	3.2	4.5	1.8	3.5	1.2	1.6	2.8	1.0	1.3
1	16.0	6.4	8.4	8.8	3.6	4.6	8.0	3.2	4.2	5.1	2.3	4.0	1.6	2.1	3.2	1.3	1.7
1 1/2	20.0	9.0	12.0	11.0	5.0	6.6	10.0	4.5	6.0	6.4	3.3	5.0	2.3	3.0	4.0	1.8	2.4
2	24.0	11.8	13.6	13.2	6.5	7.5	12.0	5.9	6.8	7.7	4.3	6.0	3.0	3.4	4.8	2.4	2.7
3	34.0	16.6	19.2	18.7	9.2	10.6	17.0	8.3	9.6	10.9	6.1	8.5	4.2	4.8	6.8	3.3	3.9
5	56.0	26.4	30.4	30.8	14.5	16.8	28.0	13.2	15.2	17.9	9.7	14.0	6.6	7.6	11.2	5.3	6.1
7 1/2	80.0	38.0	44.0	44.0	21.0	24.2	40.0	19.0	22.0	27.0	14.0	21.0	9.0	11.0	16.0	8.0	9.0
10	100.0	48.0	56.0	55.0	26.4	30.8	50.0	24.0	28.0	33.0	18.0	26.0	12.0	14.0	20.0	10.0	11.0
15	135.0	72.0	84.0	75.0	39.6	46.2	68.0	36.0	42.0	44.0	27.0	34.0	18.0	21.0	27.0	14.0	17.0
20	—	94.0	108.0	96.8	52.0	60.0	88.0	47.0	54.0	56.0	34.0	44.0	23.0	27.0	35.0	19.0	22.0
25	—	118.0	136.0	121.0	65.0	75.0	110.0	59.0	68.0	70.0	44.0	55.0	29.0	34.0	44.0	24.0	27.0
30	—	138.0	160.0	150.0	76.0	88.0	136.0	69.0	80.0	87.0	51.0	68.0	35.0	40.0	54.0	28.0	32.0
40	—	180.0	208.0	194.0	100.0	115.0	176.0	90.0	104.0	112.0	66.0	88.0	45.0	52.0	70.0	36.0	41.0
50	—	226.0	260.0	238.0	125.0	143.0	216.0	113.0	130.0	139.0	83.0	108.0	56.0	65.0	86.0	45.0	52.0
60	—	—	—	—	147.0	160.0	—	133.0	154.0	—	103.0	—	67.0	77.0	—	53.0	62.0
75	—	—	—	—	183.0	212.0	—	166.0	192.0	—	128.0	—	83.0	96.0	—	66.0	77.0
100	—	—	—	—	240.0	273.0	—	218.0	248.0	—	165.0	—	109.0	124.0	—	87.0	99.0
125	—	—	—	—	—	344.0	—	—	312.0	—	208.0	—	135.0	156.0	—	108.0	125.0
150	—	—	—	—	—	396.0	—	—	360.0	—	240.0	—	156.0	180.0	—	125.0	144.0
200	—	—	—	—	—	528.0	—	—	480.0	—	320.0	—	208.0	240.0	—	167.0	192.0
250	—	—	—	—	—	663.0	—	—	602.0	—	403.0	—	—	302.0	—	—	242.0
300	—	—	—	—	—	—	—	—	—	—	482.0	—	—	361.0	—	—	289.0
350	—	—	—	—	—	—	—	—	—	—	560.0	—	—	414.0	—	—	336.0
400	—	—	—	—	—	—	—	—	—	—	636.0	—	—	477.0	—	—	382.0
500	—	—	—	—	—	—	—	—	—	—	786.0	—	—	590.0	—	—	472.0

① The above values of full-load currents are typical for motors running at speeds normal for belted motors and motors with normal torque characteristics. Whenever possible, use the actual motor nameplate full-load current when selecting motor control products.

General information Standard thermal overload relays

Standard – Thermal, Type TA, Class 10 & Electronic, Type E, Class 10, 20 & 30



A9



A50

For contactor	Setting range A	Suffix code for all other starters	Catalog number
A/AE9 – A/AE40 BC9 – BC30	0.1 – 0.16	A	TA25DU0.16
	0.16 – 0.25	B	TA25DU0.25
	0.25 – 0.4	C	TA25DU0.4
	0.4 – 0.63	D	TA25DU0.63
	0.63 – 1.0	E	TA25DU1.0
	1.0 – 1.4	F	TA25DU1.4
	1.3 – 1.8	G	TA25DU1.8
	1.7 – 2.4	H	TA25DU2.4
	2.2 – 3.1	J	TA25DU3.1
	2.8 – 4.0	K	TA25DU4.0
	3.5 – 5.0	L	TA25DU5.0
	4.5 – 6.5	M	TA25DU6.5
	6.0 – 8.5	N	TA25DU8.5
	7.5 – 11	P	TA25DU11
10 – 14	Q	TA25DU14	
13 – 19	R	TA25DU19	
18 – 25	S	TA25DU25	
24 – 32	T	TA25DU32	
A/AE30 – A/AE40	18 – 25	A	TA42DU25
	22 – 32	B	TA42DU32
	29 – 42	C	TA42DU42
A/AE/AF50 – A/AE/AF75	18 – 25	A	TA75DU25
	22 – 32	B	TA75DU32
	29 – 42	C	TA75DU42
	36 – 52	D	TA75DU52
	45 – 63	E	TA75DU63
	60 – 80	F	TA75DU80
A/AE/AF95 – A/AE/AF110	29 – 42	C	TA80DU42
	36 – 52	D	TA80DU52
	45 – 63	E	TA80DU63
	60 – 80	F	TA80DU80
	65 – 90	A	TA110DU90
	80 – 110	B	TA110DU110
A/AF145 – A/AF185	65 – 90	A	TA200DU90
	80 – 110	B	TA200DU110
	100 – 135	C	TA200DU135
	110 – 150	D	TA200DU150
	130 – 175	E	TA200DU175
	150 – 200	F	TA200DU200
A/AF210 – A/AF300	130 – 185	A	TA450DU185 ①
	165 – 235	B	TA450DU235
	220 – 310	C	TA450DU310
A/AF400 – A/AF460	170 – 500	E5	E500DU500 ②
A/AF580 – A/AF750	270 – 800	E8	E800DU800 ②

① TA450 overloads require mounting kits for installation.
② Not suitable for single-phase motors or direct current (DC) motors.