

General information

Catalog number explanation

1 1 S F 1- 2 C 1 J

3

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
		A	B	C	D
50/60	A/AF				
	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.

General information

Motor data

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

NOTE: 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

For contactor	Setting range A	Replace Δ with suffix code on starter catalog number	Catalog number
A/AL/AE9 – A/AL/AE40	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/AL/AE30 – A/AL/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/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 ①
	220 – 310	C	TA450DU310 ①
A/AF400 – A/AF460	170 – 500	E5	E500DU500 ②
A/AF580 – A/AF750	270 – 800	E8	E800DU800 ②

NOTE: Overloads on this page are used as standard and do not require a price adder.

① TA450 overloads require mounting kits for installation.

② Not suitable for single-phase motors or direct current (DC) motors.



A9 & TA25



A50 & TA75

General information

Electronic overload relays

Starters

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A145 & E200

Optional – Electronic, Type E, Class 10, 20 & 30 Selectable

For contactor	Setting range	Suffix code	Catalog number ①	List price adder
A/AL/AE9 – A/AL/AE16	0.1 – 0.32	A1	E16DU0.32	\$ 33
	0.3 – 1.0	B1	E16DU1.0	
	0.9 – 2.7	C1	E16DU2.7	
	2.0 – 6.3	D1	E16DU6.3	
	5.7 – 18.9	E1	E16DU18.9	
A/AL/AE26 – A/AL/AE40	9 – 30	E1	E45DU30	42
	15 – 45	E2	E45DU45	49
A/AE/AF50 – A/AE/AF75 A/AE/AF110	27 – 80	E1	E80DU80	86
	50 – 140	E1	E140DU140	96
A/AF145 – A/AF185	65 – 200	E2	E200DU200	100
A/AF210 – A/AF300	105 – 320	E3	E320DU320	287
AF400 – AF460	170 – 500	E5	E500DU500	Std ②
AF580 – AF750	270 – 800	E8	E800DU800	Std ②

① Not suitable for single-phase motors and direct current (DC) motors.
 ② Included in standard list price of starter.