

3 - Starters



IEC & NEMA Enclosed starters..... 3.1 – 3.48

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Starters

Notes

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IEC & NEMA Enclosed starters

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IEC & NEMA Enclosed starters

Description**AF09 – AF750 and AFN00 – AFN4**

- Maximum UL/CSA horsepower ratings
- Available with non-reversing, reversing, two speed one winding and two speed two winding
- Available in non-combination and combination
- Available in UL type 1,3R,12, 4, and 4X stainless steel enclosures
- Available with non-fusible or fusible disconnect switches and thermal magnetic circuit breaker
- Compact space saving design
- Standard auxiliary contact configurations: AF09 – AF750 (AFN00-AFN4) 1 N.O. & 1 N.C.
- Double break contact design
- Lowest possible contact bounce
- Operates over an extended voltage range of 85% to 110% of rated control voltage

Overload relay protection

Starters, sizes AF09 – AF300 (AFN00-AFN4), 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.

Optional electronic overload relay protection is available for all starter sizes.

Field modification kits

Offers a wide variety of pilot device kits for non-reversing, reversing, two speed one winding and two speed two winding starters.

Control circuit transformer kits are also available with the following voltages:

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

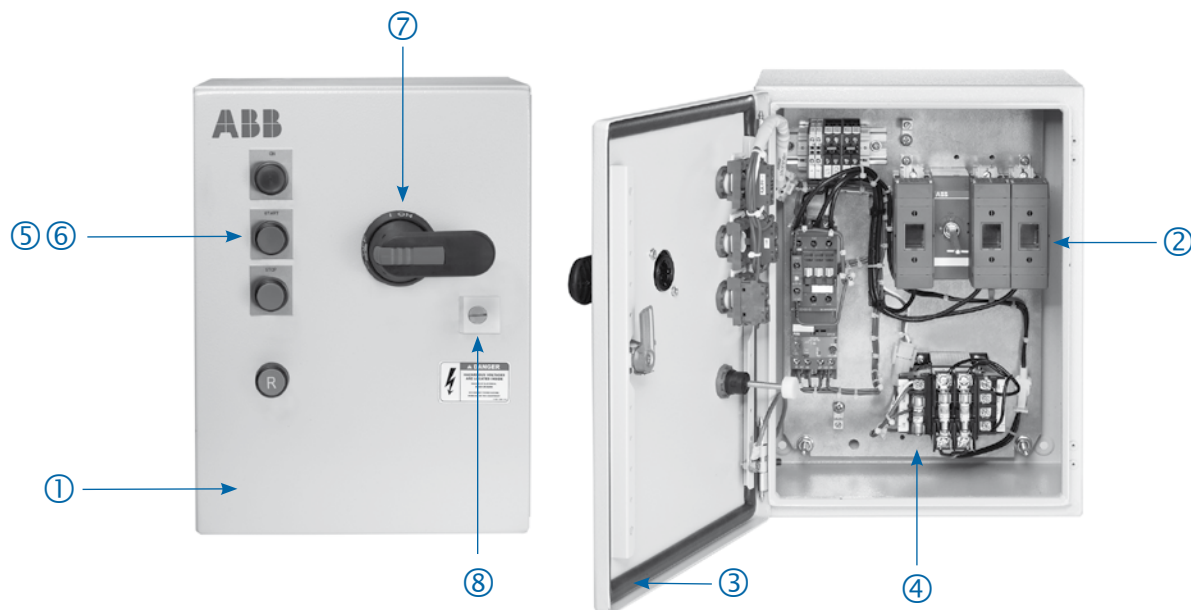
The field kits are pre-wired, ready to operate, making installation easy and reliable

IEC & NEMA
Enclosed starters

General information

Features and benefits

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Features and benefits

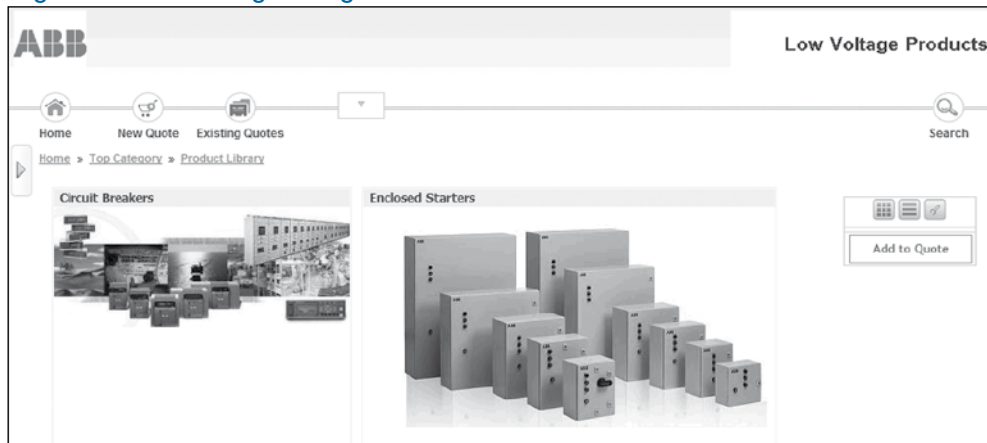
1. Durable protective finish (carbon steel enclosures)
 - Industry exclusive electrophoretic dip coat prime
 - Power coated surface for added protection
2. Flange trough collar opening
 - Channels liquids and dust away from enclosure gasket and enclosure interior
3. Seamless foamed-in-place gasket
 - Provide secure seal against contaminants
 - Ensures a dust tight and water tight seal
4. Pre-drilled mounting plate
 - Easy mounting for control circuit transformer kit
5. Rugged and compact 22 mm pilot devices
 - Meets UL/NEMA Type 1, 3R, 4, 4X, 12, 13
6. Convenient hole plugs for pilot device control
 - Allows for quick installation of pilot device kit
7. Disconnect handle accepts 3 -3/8" padlocks in off position for safe maintenance
8. Quarter turn enclosure latches
 - Allows for quick entry and proper sealing of enclosure

Product configurator

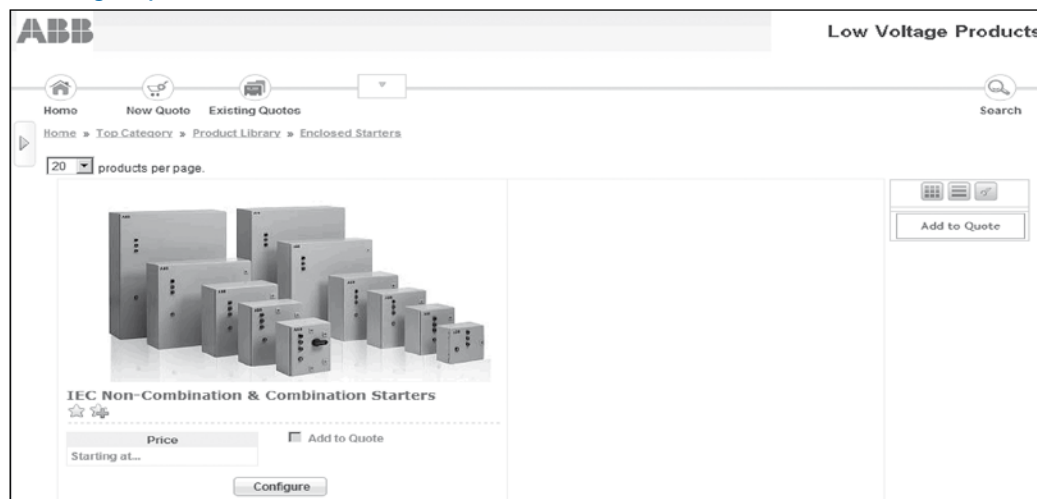
IEC & NEMA
Enclosed starters

1. Login to the LVP CPQ guest login.

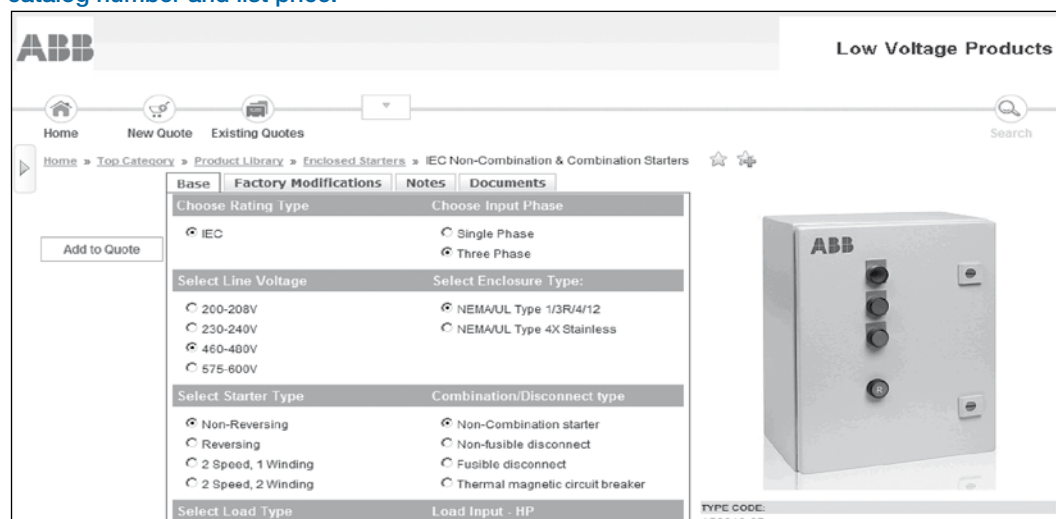
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2. Configure product.



3. Configure the catalog number using radial buttons and pull down menus to generate a valid catalog number and list price.



Catalog number explanation
Non-combination starter

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AF26 1 S N 1 - 2 H A**Contactor size**

AF26	AF210	AFN00
AF30	AF260	AFN0
AF50	AF300	AFN1
AF63	AF400	AFN2
AF75	AF460	AFN3
AF110	AF580	AFN4
AF145	AF750	
AF185		

Starter type

- 1 - Non reversing
- 2 - Reversing
- 3 - 2 Speed, 1 winding
- 4 - 2 Speed, 2 winding

Single phase

S - Single phase (insert only for single phase)

Disconnect type

Blank - Non-combination (starter only)

N - Non-fusible disconnect

Enclosure type

2 - NEMA/UL Type 1, 3R, 4, 12

X - NEMA/UL Type 4X (Stainless steel)

Coil voltage CCT**Option 1**

See factory installed modifications on pages 3.29 & 3.30

Overload selection

See overload relay selection on pages 3.34 - 3.37

Coil voltage selection

AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

CCT Selection

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

Catalog number explanation

Combination starter

3

AF09 1 S F 1 - 2 H 1 A

Contactor size

AF09	AF145	AFN00
AF12	AF185	AFN0
AF16	AF210	AFN1
AF26	AF260	AFN2
AF30	AF300	AFN3
AF63	AF460	AFN4
AF75	AF580	
AF110	AF750	

Starter type

- 1 - Non reversing
- 2 - Reversing
- 3 - 2 Speed, 1 winding
- 4 - 2 Speed, 2 winding

Single phase

S - Single phase (insert only for single phase)

Disconnect type

B - Thermal magnetic circuit breaker (MCCB)
F - Fusible disconnect

IEC Enclosure type

2 - NEMA/UL Type 1, 3R, 4, 12
X - NEMA/UL Type 4X (Stainless steel)

Coil voltage CCT

Coil voltage selection

AC Volts, 40-60 Hz

24 AC	100 - 250 AC	250 - 500 AC
1	2	3

CCT Selection

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

Overload selection

See Overload Relay Selection Chart on pages 3.34 - 3.37

Option 1

See factory installed modifications on pages 3.29 & 3.30

Fuse clip rating / voltage fuse type

- 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 L
- 8 - 1200A, 600V Class L

Circuit breaker amp rating (200 - 600V)

1 - 15A	B - 150A	M - 800A
2 - 20A	C - 200A	N - 1000A
3 - 25A	D - 250A	P - 1200A
4 - 30A	E - 300A	
5 - 35A	F - 350A	
6 - 40A	G - 400A	
7 - 50A	H - 450A	
8 - 80A	J - 500A	
9 - 100A	K - 600A	
A - 125A	L - 700A	

IEC & NEMA
Enclosed starters

IEC & NEMA Non-combination

AF26 - AF750; AFN00 - AFN4

Non-reversing, three phase

3 IEC Non-combination

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	7.5	7.5	15	20	AF2612-2Δ	AF261X-2Δ
34	AF30	10	10	20	25	AF3012-2Δ	AF301X-2Δ
54	AF50	15	20	40	50	AF5012-2Δ	AF501X-2Δ
68	AF63	20	25	50	60	AF6312-2Δ	AF631X-2Δ
80	AF75	25	30	60	75	AF7512-2Δ	AF751X-2Δ
110	AF110	30	40	75	100	AF11012-2Δ	AF1101X-2Δ
130	AF145	40	50	100	125	AF14512-2Δ	AF1451X-2Δ
156	AF185	50	60	125	150	AF18512-2Δ	AF1851X-2Δ
192	AF210	60	75	150	200	AF21012-2Δ	AF2101X-2Δ
248	AF260	75	100	200	250	AF26012-2Δ	AF2601X-2Δ
302	AF300	100	-	250	300	AF30012-2Δ	AF3001X-2Δ
414	AF400	125	150	350	400	AF40012-2Δ	AF4001X-2Δ
480	AF460	150	200	400	500	AF46012-2Δ	AF4601X-2Δ
590	AF580	200	250	500	600	AF58012-2Δ	AF5801X-2Δ
722	AF750	250	300	600	700	AF75012-2Δ	AF7501X-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

NEMA Non-combination

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed			UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings			General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			200V	230V	460/575V	Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	AFN0012-2Δ	AFN001X-2Δ
0	AFN0	18	3	3	5	AFN012-2Δ	AFN01X-2Δ
1	AN1	27	7.5	7.5	10	AFN112-2Δ	AFN11X-2Δ
2	AFN2	45	10	15	25	AFN212-2Δ	AFN21X-2Δ
3	AFN3	90	25	30	50	AFN312-2Δ	AFN31X-2Δ
4	AFN4	135	40	50	100	AFN412-2Δ	AFN41X-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the dash in the catalog number. Ex.: A 24V AC coil is required for an AF26 starter: AF2612-1K

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection

To select starter with control transformer, substitute the code from the control transformer voltage selector chart after the dash in the catalog number. Ex.: A 480V primary voltage with a 120V secondary voltage is required for an AF26 starter: AF2612-CK

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

¹⁾ 24 AC coil voltage is available only with AF26 & AF30, AFN00 - AFN1, For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA Non-combination

AF26 - AF110; AFN00 - AFN2

Non-reversing, single phase

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IEC Non-combination

UL motor switching current	Contactor Size	Maximum ratings - UL Listed		UL Type 1	UL Type 4X
		Maximum motor horsepower ratings		General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		120V	240V	Catalog number	Catalog number
28	AF26	2	3	AF261S2-2Δ	AF261SX-2Δ
34	AF30	-	5	AF301S2-2Δ	AF301SX-2Δ
54	AF50	-	10	AF501S2-2Δ	AF501SX-2Δ
80	AF75	-	15	AF751S2-2Δ	AF751SX-2Δ
110	AF110	-	25	AF1101S2-2Δ	AF1101SX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34.

NEMA Non-combination

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed		UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings		General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			120V	230V	Catalog number	Catalog number
00	AFN00	9	1/3	1	AFN001S2-2Δ	AFN001SX-2Δ
0	AFN0	18	1	2	AFN01S2-2Δ	AFN01SX-2Δ
1	AN1	27	2	3	AFN11S2-2Δ	AFN11SX-2Δ
2	AFN2	45	-	7.5	AFN21S2-2Δ	AFN21SX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.36.

Coil voltage selection ¹⁾

All rated AC catalog numbers include a 120V AC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the dash in the catalog number. Ex.: A 24V AC coil is required for an AF26 starter: AF261S2-1S

Control transformer voltage selection

To select starter with control transformer, substitute the code from the control transformer voltage selector chart after the dash in the catalog number. Ex.: A 230V primary voltage with a 120V secondary voltage is required for an AF12 starter: AF121S2-BS

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection chart

Control Voltage	230-240
120V AC @ 50/60 Hz	B
24V AC @ 50/60 Hz	F

1) 24 AC coil voltage is available only with AF26 & AF30, AFN00 - AFN1.
For factory modifications, see page 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC & NEMA Non-fusible disconnect switch

AF26 - AF750; AFN00 - AFN4

Non-reversing, three phase

IEC Non-fusible disconnect switch

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UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	5	7.5	15	20	AF261N2-2Δ	AF261NX-2Δ
34	AF30	10	10	20	25	AF301N2-2Δ	AF301NX-2Δ
54	AF50	15	20	40	50	AF501N2-2Δ	AF501NX-2Δ
68	AF63	20	25	50	60	AF631N2-2Δ	AF631NX-2Δ
80	AF75	25	30	60	75	AF751N2-2Δ	AF751NX-2Δ
110	AF110	30	40	75	100	AF110N2-2Δ	AF1101NX-2Δ
130	AF145	40	50	100	125	AF1451N2-2Δ	AF1451NX-2Δ
156	AF185	50	60	125	150	AF1851N2-2Δ	AF1851NX-2Δ
192	AF210	60	75	150	200	AF2101N2-2Δ	AF2101NX-2Δ
248	AF260	75	100	200	250	AF2601N2-2Δ	AF2601NX-2Δ
302	AF300	100	-	250	300	AF3001N2-2Δ	AF3001NX-2Δ
414	AF400	125	150	350	400	AF4001N2-2Δ	AF4001NX-2Δ
480	AF460	150	200	400	500	AF4601N2-2Δ	AF4601NX-2Δ
590	AF580	200	250	500	600	AF5801N2-2Δ	AF5801NX-2Δ
722	AF750	250	300	600	700	AF7501N2-2Δ	AF7501NX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

NEMA Non-fusible disconnect switch

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed			UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings			General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			200V	230V	460/575V	Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	AFN001N2-2Δ	AFN001NX-2Δ
0	AFN0	18	3	3	5	AFN01N2-2Δ	AFN01NX-2Δ
1	AFN1	27	7.5	7.5	10	AFN11N2-2Δ	AFN11NX-2Δ
2	AFN2	45	10	15	25	AFN21N2-2Δ	AFN21NX-2Δ
3	AFN3	90	25	30	50	AFN31N2-2Δ	AFN31NX-2Δ
4	AFN4	135	40	50	100	AFN41N2-2Δ	AFN41NX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the suffix code after the dash in the catalog number. Ex.: A 24V AC coil is required for an AF26 starter: AF261N2-1K

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection

To select starter with control transformer, substitute the code from the control transformer voltage selector chart after the dash in the catalog number. Ex.: A 480V primary voltage with a 120V secondary voltage is required for an AF26 starter: AF261N2-CK

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30, AFN00 - AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA Non-fusible disconnect switch

AF26 - AF110; AFN00 - AFN2

Non-reversing, single phase

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IEC Non-fusible disconnect switch

UL motor switching current	Contactor Size	Maximum ratings - UL Listed		UL Type 1	UL Type 4X
		Maximum motor horsepower ratings		General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		120V	240V	Catalog number	Catalog number
28	AF26	2	3	AF261SN2-2Δ	AF261SNX-2Δ
34	AF30	-	5	AF301SN2-2Δ	AF301SNX-2Δ
54	AF50	-	10	AF501SN2-2Δ	AF501SNX-2Δ
80	AF75	-	15	AF751SN2-2Δ	AF751SNX-2Δ
110	AF110	-	25	AF1101SN2-2Δ	AF1101SNX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34.

NEMA Non-fusible disconnect switch

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed		UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings		General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			120V	230V	Catalog number	Catalog number
00	AFN00	9	1/3	1	AFN001SN2-2Δ	A9N001SNX-2Δ
0	AFN0	18	1	2	AFN01SN2-2Δ	A16N01SNX-2Δ
1	AN1	27	2	3	AFN11SN2-2Δ	A26N11SNX-2Δ
2	AFN2	45	-	7.5	AFN21SN2-2Δ	A50N21SNX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.36.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF12 starter: AF261SN2-1S

Control transformer voltage selection

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 230V primary voltage with a 120V secondary voltage is required for an AF26 starter: AF261SN2-BS

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection chart

Control Voltage	230-240
120V AC @ 50/60 Hz	B
24V AC @ 50/60 Hz	F

¹⁾ 24 AC coil voltage is available only with AF26 & AF30, AFN00 - AFN1.
For factory modifications, see page 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC & NEMA Fusible disconnect switch

AF09 - AF750; AFN00 - AFN4

Non-reversing, three phase

IEC Fusible disconnect switch

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UL motor switching current	Contactor Size	Maximum ratings - UL Listed				Fuse clip rating amp/volts	UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
9	AF09	2	2	5	7.5	30/600	AF091F2-2Δ1	AF091FX-2Δ1
11	AF12	3	3	7.5	10	30/600	AF121F2-2Δ1	AF121FX-2Δ1
17	AF16	5	5	10	15	30/600	AF161F2-2Δ1	AF161FX-2Δ1
28	AF26	7.5	7.5	15	20	60/600	AF261F2-2Δ2	AF261FX-2Δ2
34	AF30	10	10	20	25	60/600	AF301F2-2Δ2	AF301FX-2Δ2
54	AF50	15	20	40	50	100/600	AF501F2-2Δ3	AF501FX-2Δ3
68	AF63	20	25	50	60	200/600	AF631F2-2Δ4	AF631FX-2Δ4
80	AF75	25	30	60	75	200/600	AF751F2-2Δ4	AF751FX-2Δ4
110	AF110	30	40	75	100	200/600	AF1101F2-2Δ4	A1101FX-2Δ4
130	AF145	40	50	100	125	400/600	AF1451F2-2Δ5	AF1451FX-2Δ5
156	AF185	50	60	125	150	400/600	AF1851F2-2Δ5	AF1851FX-2Δ5
192	AF210	60	75	150	200	400/600	AF2101F2-2Δ5	AF2101FX-2Δ5
248	AF260	75	-	-	-	400/600	AF2601F2-2Δ5	AF2601FX-2Δ5
248	AF260	-	100	200	250	600/600	AF2601F2-2Δ6	AF2601FX-2Δ6
302	AF300	100	-	250	300	600/600	AF3001F2-2Δ6	AF3001FX-2Δ6
414	AF400	125	150	350	400	800/600	AF4001F2-2Δ7	AF4001FX-2Δ7
480	AF460	150	200	400	500	800/600	AF4601F2-2Δ7	AF4601FX-2Δ7
590	AF580	200	250	500	600	1200/600	AF5801F2-2Δ8	AF5801FX-2Δ8
720	AF750	250	300	600	700	1200/600	AF7501F2-2Δ8	AF7501FX-2Δ8

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

NEMA Fusible disconnect switch

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed			Fuse clip rating amp/volts	UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			200V	230V	460/575V		Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	30/600	AFN001F2-2Δ1	AFN001FX-2Δ1
0	AFN0	18	3	3	5	30/600	AFN01F2-2Δ1	AFN01FX-2Δ1
1	AFN1	27	—	—	10	30/600	AFN11F2-2Δ1	AFN11FX-2Δ1
1	AFN1	27	7.5	7.5	—	60/600	AFN11F2-2Δ2	AFN11FX-2Δ2
2	AFN2	45	10	—	25	60/600	AFN21F2-2Δ2	AFN21FX-2Δ2
2	AFN2	45	—	15	—	100/600	AFN21F2-2Δ3	AFN21FX-2Δ3
3	AFN3	90	25	30	50	200/600	AFN31F2-2Δ4	AFN31FX-2Δ4
4	AFN4	135	40	50	100	400/600	AFN41F2-2Δ5	AFN41FX-2Δ5

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF12 starter: AF121F2-1R1

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection

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 AF12 starter: AF121F2-CR1

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF09 - AF30, AFN00 - AFN1.
For factory modifications, see page 3.29 & 3.30.

IEC & NEMA Fusible disconnect

AF09 - AF110; AFN00 - AFN2

Non-reversing, single phase

3

IEC Fusible disconnect switch

UL motor switching current	Contactor Size	Maximum ratings - UL Listed		UL Type 1	UL Type 4X
		Maximum motor horsepower ratings		General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		120V	240V	Catalog number	Catalog number
9	AF09	1/2	1	AF091SF2-2Δ1	AF91SFX-2Δ1
11	AF12	-	2	AF121SF2-2Δ1	AF121SFX-2Δ1
17	AF16	3/4, 1	-	AF161SF2-2Δ1	AF161SFX-2Δ1
28	AF26	-	3	AF261SF2-2Δ1	AF261SFX-2Δ1
28	AF26	2	-	AF261SF2-2Δ2	AF261SFX-2Δ2
34	AF30	-	5	AF301SF2-2Δ2	AF301SFX-2Δ2
54	AF50	-	10	AF501SF2-2Δ3	AF501SFX-2Δ3
80	AF75	-	15	AF751SF2-2Δ4	AF751SFX-2Δ4
110	AF110	-	25	AF1101SF2-2Δ4	AF1101SFX-2Δ4

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34.

NEMA Fusible disconnect switch

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed		UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings		General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			120V	230V	Catalog number	Catalog number
00	AFN00	9	1/3	1	AFN001SF2-2Δ1	AFN001SFX-2Δ1
0	AFN0	18	1	2	AFN01SF2-2Δ1	AFN01SFX-2Δ1
1	AFN1	27	-	3	AFN11SF2-2Δ1	AFN11SFX-2Δ1
1	AFN1	27	2	-	AFN11SF2-2Δ2	AFN11SFX-2Δ2
2	AFN2	45	-	7.5	AFN21SF2-2Δ2	AFN21SFX-2Δ2

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.36.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF12 starter: AF121SF2-2R1

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 230V primary voltage with a 120V secondary voltage is required for an AF12 starter: AF121SF2-BR1

Control transformer voltage selection chart

Control Voltage	230-240
120V AC @ 50/60 Hz	B
24V AC @ 50/60 Hz	F

1) 24 AC coil voltage is available only with AF09 - AF30, AFN00 & AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC Circuit breaker type

AF26 - AF750

Non-reversing, three phase

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				Circuit Breaker Amp Rating	UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
28	AF26	2	3	5	7.5	15 A	AF261B2-2Δ1	AF261BX-2Δ1
28	AF26	3	-	7.5	10	20 A	AF261B2-2Δ2	AF261BX-2Δ2
28	AF26	-	5	10	-	25 A	AF261B2-2Δ3	AF261BX-2Δ3
28	AF26	5	-	-	15	30 A	AF261B2-2Δ4	AF261BX-2Δ4
28	AF26	-	7.5	15	20	35 A	AF261B2-2Δ5	AF261BX-2Δ5
34	AF30	7.5	-	-	-	40 A	AF301B2-2Δ6	AF301BX-2Δ6
34	AF30	10	10	20	25	50 A	AF301B2-2Δ7	AF301BX-2Δ7
54	AF50	-	-	-	30	50 A	AF501B2-2Δ7	AF501BX-2Δ7
54	AF50	15	15	40	50	80 A	AF501B2-2Δ8	AF501BX-2Δ8
68	AF63	20	20	50	60	100 A	AF631B2-2Δ9	AF631BX-2Δ9
80	AF75	25	30	60	75	125 A	AF751B2-2ΔA	AF751BX-2ΔA
110	AF110	30	-	75	100	150 A	AF1101B2-2ΔB	AF1101BX-2ΔB
110	AF110	-	40	-	-	200 A	AF1101B2-2ΔC	AF1101BX-2ΔC
130	AF145	40	50	100	125	200 A	AF1451B2-2ΔC	AF1451BX-2ΔC
156	AF185	50	60	125	150	250 A	AF1851B2-2ΔD	AF1851BX-2ΔD
192	AF210	60	-	-	-	250 A	AF2101B2-2ΔD	AF2101BX-2ΔD
192	AF210	-	75	150	200	300 A	AF2101B2-2ΔE	AF2101BX-2ΔE
248	AF260	75	-	-	-	350 A	AF2601B2-2ΔF	AF2601BX-2ΔF
248	AF260	-	100	200	250	400 A	AF2601B2-2ΔG	AF2601BX-2ΔG
302	AF300	100	-	-	300	450 A	AF3001B2-2ΔH	AF3001BX-2ΔH
302	AF300	-	-	250	-	500 A	AF3001B2-2ΔJ	AF3001BX-2ΔJ
414	AF400	-	125	-	-	500 A	AF4001B2-2ΔJ	AF4001BX-2ΔJ
414	AF400	125	150	300	400	600 A	AF4001B2-2ΔK	AF4001BX-2ΔK
414	AF400	-	-	350	-	700 A	AF4001B2-2ΔL	AF4001BX-2ΔL
480	AF460	150	-	-	-	600 A	AF4601B2-2ΔK	AF4601BX-2ΔK
480	AF460	-	200	400	500	800 A	AF4601B2-2ΔM	AF4601BX-2ΔM
590	AF580	200	-	-	-	800 A	AF5801B2-2ΔM	AF5801BX-2ΔM
590	AF580	-	250	500	600	1000 A	AF5801B2-2ΔN	AF5801BX-2ΔN
722	AF750	250	-	-	-	1000 A	AF7501B2-2ΔN	AF7501BX-2ΔN
722	AF750	-	300	600	700	1200 A	AF7501B2-2ΔP	AF7501BX-2ΔP

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF261B2-1K1

Control transformer voltage selection

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 AF26 starter: AF261B2-CK1

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see pages 3.29 & 3.30.

NEMA Circuit breaker type

AFN00 - AFN4

Non-reversing, three phase

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed				Circuit breaker rating Amps	UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			208V	230V	460V	575V		Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	2	15 A	AFN001B2-2Δ1	AFN001BX-2Δ1
0	AFN0	18	2	3	5	5	15 A	AFN01B2-2Δ1	AFN01BX-2Δ1
			3	-	-	-	20 A	AFN01B2-2Δ2	AFN01BX-2Δ2
1	AFN1	27	-	-	-	7.5	15 A	AFN11B2-2Δ1	AFN11BX-2Δ1
			-	-	7.5	10	20 A	AFN11B2-2Δ2	AFN11BX-2Δ2
			-	5	10	-	25 A	AFN11B2-2Δ3	AFN11BX-2Δ3
			5	-	-	-	30 A	AFN11B2-2Δ4	AFN11BX-2Δ4
			-	7.5	-	-	35 A	AFN11B2-2Δ5	AFN11B2-2Δ5
			7.5	-	-	-	40 A	AFN11B2-2Δ6	AFN11B2-2Δ6
2	AFN2	45	-	-	15	20	40 A	AFN21B2-2Δ6	AFN21BX-2Δ6
			10	10	20	25	50 A	AFN21B2-2Δ7	AFN21BX-2Δ7
			-	-	25	-	80 A	AFN21B2-2Δ8	AFN21BX-2Δ8
			-	15	-	-	80 A	AFN21B2-2Δ8	AFN21BX-2Δ8
3	AFN3	90	-	-	-	30	50 A	AFN31B2-2Δ7	AFN31BX-2Δ7
			-	-	30	-	80 A	AFN31B2-2Δ8	AFN31BX-2Δ8
			15	-	-	40	80 A	AFN31B2-2Δ8	AFN31BX-2Δ8
			-	-	40	50	80 A	AFN31B2-2Δ8	AFN31BX-2Δ8
			-	-	50	-	100 A	AFN31B2-2Δ9	AFN31BX-2Δ9
			25	30	-	-	125 A	AFN31B2-2ΔA	AFN31BX-2ΔA
4	AFN4	135	-	-	60	75	125 A	AFN41B2-2ΔA	AFN41BX-2ΔA
			30	-	75	100	150 A	AFN41B2-2ΔB	AFN41BX-2ΔB
			40	50	100	-	200 A	AFN41B2-2ΔC	AFN41BX-2ΔC

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AFN1B2-1R1

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 230V primary voltage with a 120V secondary voltage is required for an AFN1B2-CR1

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AFN00 - AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC & NEMA Circuit breaker disconnect

AF26 - AF110; AFN00 - AFN2

Non-reversing, single phase

IEC Circuit breaker disconnect

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed		Circuit breaker amp rating	UL Type 1	UL Type 4X
		Maximum motor horsepower ratings			General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		120V	240V		Catalog number	Catalog number
28	AF26	1/2	1	15 A	AF261SB2-2Δ1	AF261SBX-2Δ1
28	AF26	-	2	20 A	AF261SB2-2Δ2	AF261SBX-2Δ2
28	AF26	1	-	25 A	AF261SB2-2Δ3	AF261SBX-2Δ3
28	AF26	1.5	3	30 A	AF261SB2-2Δ4	AF261SBX-2Δ4
28	AF26	2	-	40 A	AF261SB2-2Δ6	AF261SBX-2Δ6
34	AF30	-	5	50 A	AF301SB2-2Δ7	AF301SBX-2Δ7
54	AF50	-	10	80 A	AF501SB2-2Δ8	AF501SBX-2Δ8
80	AF75	-	15	125 A	AF751SB2-2ΔA	AF751SBX-2ΔA
110	AF110	-	20	150 A	AF1101SB2-2ΔB	AF1101SBX-2ΔB
110	AF110	-	25	200 A	AF1101SB2-2ΔC	AF1101SBX-2ΔC

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34.

NEMA Circuit breaker disconnect

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed		Circuit breaker amp rating	UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings			General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			120V	230V		Catalog number	Catalog number
00	AFN00	9	1/3	1	15 A	AFN001SB2-2Δ1	AFN001SBX-2Δ1
0	AFN0	18	1/2	1.5	15 A	AFN01SB2-2Δ1	AFN01SBX-2Δ1
0	AFN0	18	-	2	20 A	AFN01SB2-2Δ2	AFN01SBX-2Δ2
0	AFN0	18	1	-	25 A	AFN01SB2-2Δ3	AFN01SBX-2Δ3
1	AFN1	27	-	3	30 A	AFN11SB2-2Δ4	AFN11SBX-2Δ4
1	AFN1	27	2	-	40 A	AFN11SB2-2Δ6	AFN11SBX-2Δ6
2	AFN2	45	-	7.5	80 A	AFN21SB2-2Δ8	AFN21SBX-2Δ8

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.36.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF261SB2-1R1

Control transformer voltage selection

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 230V primary voltage with a 120V secondary voltage is required for an AF26 starter: AF261SB2-BR1

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection chart

Control Voltage	230-240
120V AC @ 50/60 Hz	B
24V AC @ 50/60 Hz	F

¹⁾ 24 AC coil voltage is available only with AF26 & AF30, AFN00 - AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA Non-combination

AF26 - AF750; AFN00 - AFN4

Reversing, three phase

IEC Non-combination

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	7.5	7.5	15	20	AF2622-2Δ	AF262X-2Δ
34	AF30	10	10	20	25	AF3022-2Δ	AF302X-2Δ
54	AF50	15	20	40	50	AF5022-2Δ	AF502X-2Δ
68	AF63	20	25	50	60	AF6322-2Δ	AF632X-2Δ
80	AF75	25	30	60	75	AF7522-2Δ	AF752X-2Δ
110	AF110	30	40	75	100	AF11022-2Δ	AF1102X-2Δ
130	AF145	40	50	100	125	AF14522-2Δ	AF1452X-2Δ
156	AF185	50	60	125	150	AF18522-2Δ	AF1852X-2Δ
192	AF210	60	75	150	200	AF21022-2Δ	AF2102X-2Δ
248	AF260	75	100	200	250	AF26022-2Δ	AF2602X-2Δ
302	AF300	100	-	250	300	AF30022-2Δ	AF3002X-2Δ
414	AF400	125	150	350	400	AF40022-2Δ	AF4002X-2Δ
480	AF460	150	200	400	500	AF46022-2Δ	AF4602X-2Δ
590	AF580	200	250	500	600	AF58022-2Δ	AF5802X-2Δ
720	AF750	250	300	600	700	AF75022-2Δ	AF7502X-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

NEMA Non-combination

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed			UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings			General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			200V	230V	460/575V	Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	AFN0022-2Δ	AFN002X-2Δ
0	AFN0	18	3	3	5	AFN022-2Δ	AFN02X-2Δ
1	AN1	27	7.5	7.5	10	AFN122-2Δ	AFN12X-2Δ
2	AFN2	45	10	15	25	AFN222-2Δ	AFN22X-2Δ
3	AFN3	90	25	30	50	AFN322-2Δ	AFN32X-2Δ
4	AFN4	135	40	50	100	AFN422-2Δ	AFN42X-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF2622-1K

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection

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 AF26 starter: AF2622-CK

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30, AFN00 - AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC & NEMA Non-fusible disconnect switch

AF26 - AF750; AFN00 - AFN4

Reversing, three phase

3 IEC Non-combination

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	7.5	7.5	15	20	AF262N2-2Δ	AF262NX-2Δ
24	AF30	10	10	20	25	AF302N2-2Δ	AF302NX-2Δ
54	AF50	15	20	40	50	AF502N2-2Δ	AF502NX-2Δ
68	AF63	20	25	50	60	AF632N2-2Δ	AF632NX-2Δ
80	AF75	25	30	60	75	AF752N2-2Δ	AF752NX-2Δ
110	AF110	30	40	75	100	AF110N2-2Δ	AF1102NX-2Δ
130	AF145	40	50	100	125	AF1452N2-2Δ	AF1452NX-2Δ
156	AF185	50	60	125	150	AF1852N2-2Δ	AF1852NX-2Δ
192	AF210	60	75	150	200	AF2102N2-2Δ	AF2102NX-2Δ
248	AF260	75	100	200	250	AF2602N2-2Δ	AF2602NX-2Δ
302	AF300	100	-	250	300	AF3002N2-2Δ	AF3002NX-2Δ
414	AF400	125	150	350	400	AF4002N2-2Δ	AF4002NX-2Δ
480	AF460	150	200	400	500	AF4602N2-2Δ	AF4602NX-2Δ
590	AF580	200	250	500	600	AF5802N2-2Δ	AF5802NX-2Δ
722	AF750	250	300	600	700	AF7502N2-2Δ	AF7502NX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

NEMA Non-combination

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed			UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings			General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			200V	230V	460/575V	Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	AFN002N2-2Δ	AFN002NX-2Δ
0	AFN0	18	3	3	5	AFN02N2-2Δ	AFN02NX-2Δ
1	AN1	27	7.5	7.5	10	AFN12N2-2Δ	AFN12NX-2Δ
2	AFN2	45	10	15	25	AFN22N2-2Δ	AFN22NX-2Δ
3	AFN3	90	25	30	50	AFN32N2-2Δ	AFN32NX-2Δ
4	AFN4	135	40	50	100	AFN42N2-2Δ	AFN42NX-2Δ

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF262N2-1K

Control transformer voltage selection

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 AF26 starter: AF262N2-CK

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30, AFN00 - AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA Fusible disconnect switch

AF09 - AF750; AFN00 - AFN4

Reversing, three phase

IEC Fusible disconnect switch

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				Fuse clip rating amp/volts	UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
9	AF9	2	2	5	7.5	30/600	AF092F2-2Δ1	AF092FX-2Δ1
11	AF12	3	3	7.5	10	30/600	AF122F2-2Δ1	AF122FX-2Δ1
17	AF16	5	5	10	15	30/600	AF162F2-2Δ1	AF162FX-2Δ1
28	AF26	7.5	7.5	15	20	60/600	AF262F2-2Δ2	AF262FX-2Δ2
34	AF30	10	10	20	25	60/600	AF302F2-2Δ2	AF302FX-2Δ2
54	AF50	15	20	40	50	100/600	AF502F2-2Δ3	AF502FX-2Δ3
68	AF63	20	25	50	60	200/600	AF632F2-2Δ4	AF632FX-2Δ4
80	AF75	25	30	60	75	200/600	AF752F2-2Δ4	AF752FX-2Δ4
110	AF110	30	40	75	100	200/600	AF1102F2-2Δ4	AF1102FX-2Δ4
130	AF145	40	50	100	125	400/600	AF1452F2-2Δ5	AF1452FX-2Δ5
156	AF185	50	60	125	150	400/600	AF1852F2-2Δ5	AF1852FX-2Δ5
192	AF210	60	75	150	200	400/600	AF2102F2-2Δ5	AF2102FX-2Δ5
248	AF260	75	-	-	-	400/600	AF2602F2-2Δ5	AF2602FX-2Δ5
248	AF260	-	100	200	250	600/600	AF2602F2-2Δ6	AF2602FX-2Δ6
302	AF300	100	100	250	300	600/600	AF3002F2-2Δ6	AF3002FX-2Δ6
414	AF400	125	150	350	400	800/600	AF4002F2-2Δ7	AF4002FX-2Δ7
480	AF460	150	200	400	500	800/600	AF4602F2-2Δ7	AF4602FX-2Δ7
590	AF580	200	250	500	600	1200/600	AF5802F2-2Δ8	AF5802FX-2Δ8
722	AF750	250	300	600	700	1200/600	AF7502F2-2Δ8	AF7502FX-2Δ8

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

NEMA Fusible disconnect switch

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed			Fuse clip rating amp/volts	UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			200V	230V	460/575V		Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	30/600	AFN002F2-2Δ1	AFN002FX-2Δ1
0	AFN0	18	3	3	5	30/600	AFN02F2-2Δ1	AFN02FX-2Δ1
1	AFN1	27	—	—	10	30/600	AFN12F2-2Δ1	AFN12FX-2Δ1
1	AFN1	27	7.5	7.5	—	60/600	AFN12F2-2Δ2	AFN12FX-2Δ2
2	AFN2	45	10	—	25	60/600	AFN22F2-2Δ2	AFN22FX-2Δ2
2	AFN2	45	—	15	—	100/600	AFN22F2-2Δ3	AFN22FX-2Δ3
3	AFN3	90	25	30	50	200/600	AFN32F2-2Δ4	AFN32FX-2Δ4
4	AFN4	135	40	50	100	400/600	AFN42F2-2Δ5	AFN42FX-2Δ5

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF12 starter: AF122F2-1K1

Control transformer voltage selection

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 AF12 starter: AF122F2-CR1

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

¹⁾ 24 AC coil voltage is available only with AF09 - AF30, AFN00 - AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC Circuit breaker type

AF26 - AF750

Reversing, three phase

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				Circuit Breaker Amp Rating	UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
28	AF26	2	3	5	7.5	15 A	AF262B2-2Δ1	AF262BX-2Δ1
28	AF26	3	-	7.5	10	20 A	AF262B2-2Δ2	AF262BX-2Δ2
28	AF26	-	5	10	-	25 A	AF262B2-2Δ3	AF262BX-2Δ3
28	AF26	5	-	-	15	30 A	AF262B2-2Δ4	AF262BX-2Δ4
28	AF26	-	7.5	15	20	35 A	AF262B2-2Δ5	AF262BX-2Δ5
34	AF30	7.5	-	-	-	40 A	AF302B2-2Δ6	AF302BX-2Δ6
34	AF30	10	10	20	25	50 A	AF302B2-2Δ7	AF302BX-2Δ7
54	AF50	-	-	-	30	50 A	AF502B2-2Δ7	AF502BX-2Δ7
54	AF50	15	15	40	50	80 A	AF502B2-2Δ8	AF502BX-2Δ8
68	AF63	20	20	50	60	100 A	AF632B2-2Δ9	AF632BX-2Δ9
80	AF75	25	30	60	75	125 A	AF752B2-2ΔA	AF752BX-2ΔA
110	AF110	30	-	75	100	150 A	AF1102B2-2ΔB	AF1102BX-2ΔB
110	AF110	-	40	-	-	200 A	AF1102B2-2ΔC	AF1102BX-2ΔC
130	AF145	40	50	100	125	200 A	AF1452B2-2ΔC	AF1452BX-2ΔC
156	AF185	50	60	125	150	250 A	AF1852B2-2ΔD	AF1852BX-2ΔD
192	AF210	60	-	-	-	250 A	AF2102B2-2ΔD	AF2102BX-2ΔD
192	AF210	-	75	150	200	300 A	AF2102B2-2ΔE	AF2102BX-2ΔE
248	AF260	75	-	-	-	350 A	AF2602B2-2ΔF	AF2602BX-2ΔF
248	AF260	-	100	200	250	400 A	AF2602B2-2ΔG	AF2602BX-2ΔG
302	AF300	100	-	-	300	450 A	AF3002B2-2ΔH	AF3002BX-2ΔH
302	AF300	-	-	250	-	500 A	AF3002B2-2ΔJ	AF3002BX-2ΔJ
414	AF400	-	125	-	-	500 A	AF4002B2-2ΔJ	AF4002BX-2ΔJ
414	AF400	125	150	300	400	600 A	AF4002B2-2ΔK	AF4002BX-2ΔK
414	AF400	-	-	350	-	700 A	AF4002B2-2ΔL	AF4002BX-2ΔL
480	AF460	150	-	-	-	600 A	AF4602B2-2ΔK	AF4602BX-2ΔK
480	AF460	-	200	400	500	800 A	AF4602B2-2ΔM	AF4602BX-2ΔM
590	AF580	200	-	-	-	800 A	AF5802B2-2ΔM	AF5802BX-2ΔM
590	AF580	-	250	500	600	1000 A	AF5802B2-2ΔN	AF5802BX-2ΔN
722	AF750	250	-	-	-	1000 A	AF7502B2-2ΔN	AF7502BX-2ΔN
722	AF750	-	300	600	700	1200 A	AF7502B2-2ΔP	AF7502BX-2ΔP

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.34 & 3.35.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF262B2-1K1

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection

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 AF26 starter: AF261B2-CK1

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see page 3.29 & 3.30.

NEMA Circuit breaker type

AFN00 - AFN4

Reversing, three phase

NEMA size	Contactor	Continuous	Maximum ratings - UL Listed				Circuit breaker rating Amps	UL Type 1, 3R, 4, 12	UL Type 4X
			Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
			208V	230V	460V	575V		Catalog number	Catalog number
00	AFN00	9	1.5	1.5	2	2	15 A	AFN002B2-2Δ1	AFN002BX-2Δ1
0	AFN0	18	2	3	5	5	15 A	AFN02B2-2Δ1	AFN02BX-2Δ1
			3	-	-	-	20 A	AFN02B2-2Δ2	AFN02BX-2Δ2
1	AFN1	27	-	-	-	7.5	15 A	AFN12B2-2Δ1	AFN12BX-2Δ1
			-	-	7.5	10	20 A	AFN12B2-2Δ2	AFN12BX-2Δ2
			-	5	10	-	25 A	AFN12B2-2Δ3	AFN12BX-2Δ3
			5	-	-	-	30 A	AFN12B2-2Δ4	AFN12BX-2Δ4
			-	7.5	-	-	35 A	AFN12B2-2Δ5	AFN11BX-2Δ5
			7.5	-	-	-	40 A	AFN12B2-2Δ6	AFN11B2X-2Δ6
			-	-	15	20	40 A	AFN22B2-2Δ6	AFN22BX-2Δ6
2	AFN2	45	10	10	20	25	50 A	AFN22B2-2Δ7	AFN22BX-2Δ7
			-	15	25	-	80 A	AFN22B2-2Δ8	AFN22BX-2Δ8
			-	-	-	30	50 A	AFN32B2-2Δ7	AFN32BX-2Δ7
3	AFN3	90	-	-	30	-	80 A	AFN32B2-2Δ8	AFN32BX-2Δ8
			15	-	-	40	80 A	AFN32B2-2Δ8	AFN32BX-2Δ8
			-	-	40	50	80 A	AFN32B2-2Δ8	AFN32BX-2Δ8
			-	-	50	-	100 A	AFN32B2-2Δ9	AFN32BX-2Δ9
			-	-	-	-	125 A	AFN32B2-2ΔA	AFN32BX-2ΔA
			25	30	-	-	125 A	AFN32B2-2ΔA	AFN32BX-2ΔA
4	A145N4	135	-	-	60	75	125 A	AFN42B2-2ΔA	AFN42BX-2ΔA
			30	-	75	100	150 A	AFN42B2-2ΔB	AFN42BX-2ΔB
			40	50	100	-	200 A	AFN42B2-2ΔC	AFN42BX-2ΔC

Δ Overload relay suffix code. Select from the overload relay selection chart on pages 3.36 & 3.37.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AFN0 starter: AFN12B2-1K1.

Coil voltage selection chart

Coil voltage		
AC Volts, 40-60 Hz		
24 AC	100 - 250 AC	250 - 500 AC
1	2	3

Control transformer voltage selection

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 AFN0 starter: AFN12B2-CK1.

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AFN00 - AFN1.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC Non-combination

AF26 - AF75

2 Speed, 1 winding; three phase

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	7.5	7.5	15	20	AF2632-2ΔΔ	AF263X-2ΔΔ
34	AF30	10	10	20	25	AF3032-2ΔΔ	AF303X-2ΔΔ
54	AF50	15	20	40	50	AF5032-2ΔΔ	AF503X-2ΔΔ
68	AF63	20	25	50	60	AF6332-2ΔΔ	AF633X-2ΔΔ
80	AF75	25	30	60	75	AF7532-2ΔΔ	AF753X-2ΔΔ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF2632-1KP

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 AF26 starter: AF2632-CKP

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC Non-fusible disconnect switch

AF26 - AF75

2 Speed, 1 winding; three phase

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	7.5	7.5	15	20	AF263N2-2ΔΔ	AF263NX-2ΔΔ
34	AF30	10	10	20	25	AF303N2-2ΔΔ	AF303NX-2ΔΔ
54	AF60	15	20	40	50	AF603N2-2ΔΔ	AF603NX-2ΔΔ
68	AF63	20	25	50	60	AF633N2-2ΔΔ	AF633NX-2ΔΔ
80	AF75	25	30	60	75	AF753N2-2ΔΔ	AF753NX-2ΔΔ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF263N2-1KP

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 AF26 starter: AF263N2-CKP

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

Fusible disconnect switch

AF09 - AF75

2 Speed, 1 winding; three phase

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				Fuse clip rating amp/volts	UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
9	AF09	2	2	5	7.5	30/600	AF093F2-2ΔΔ1	AF093FX-2ΔΔ1
11	AF12	3	3	7.5	10	30/600	AF123F2-2ΔΔ1	AF123FX-2ΔΔ1
17	AF16	5	5	10	15	30/600	AF163F2-2ΔΔ1	AF163FX-2ΔΔ1
28	AF26	7.5	7.5	15	20	60/600	AF263F2-2ΔΔ2	AF263FX-2ΔΔ2
34	AF30	10	10	20	25	60/600	AF303F2-2ΔΔ2	AF303FX-2ΔΔ2
54	AF50	15	20	40	50	100/600	AF503F2-2ΔΔ3	AF503FX-2ΔΔ3
68	AF63	20	25	50	60	200/600	AF633F2-2ΔΔ4	AF633FX-2ΔΔ4
80	AF75	25	30	60	75	200/600	AF753F2-2ΔΔ4	AF753FX-2ΔΔ4

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF09 starter: AF093F121KP1

Control transformer voltage selection

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 AF09 starter: AF093F2-CKP1

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF09 - AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC Circuit breaker type

AF26 - AF75

2 Speed, 1 winding; three phase

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				Circuit Breaker Amp Rating	UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
28	AF26	2	3	5	7.5	15 A	AF263B2-2ΔΔ1	AF263BX-2ΔΔ1
28	AF26	3	-	7.5	10	20 A	AF263B2-2ΔΔ2	AF263BX-2ΔΔ2
28	AF26	-	5	10	-	25 A	AF263B2-2ΔΔ3	AF263BX-2ΔΔ3
28	AF26	5	-	-	15	30 A	AF263B2-2ΔΔ4	AF263BX-2ΔΔ4
28	AF26	-	7.5	15	20	35 A	AF263B2-2ΔΔ5	AF263BX-2ΔΔ5
34	AF30	7.5	-	-	-	40 A	AF303B2-2ΔΔ6	AF303BX-2ΔΔ6
34	AF30	10	10	20	25	50 A	AF303B2-2ΔΔ7	AF303BX-2ΔΔ7
54	AF50	-	-	-	30	50 A	AF503B2-2ΔΔ7	AF503BX-2ΔΔ7
54	AF50	15	15	40	50	80 A	AF503B2-2ΔΔ8	AF503BX-2ΔΔ8
68	AF63	20	20	50	60	100 A	AF633B2-2ΔΔ9	AF633BX-2ΔΔ9
80	AF75	25	30	60	75	125 A	AF753B2-2ΔΔA	AF753BX-2ΔΔA

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF263B2-1KP1

Control transformer voltage selection

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 AF26 starter: AF263B2-CKP1

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC Non-combination AF26 - AF75 2 Speed, 2 winding; three phase

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	7.5	7.5	15	20	AF2642-2ΔΔ	AF264X-2ΔΔ
34	AF30	10	10	20	25	AF3042-2ΔΔ	AF304X-2ΔΔ
54	AF50	15	20	40	50	AF5042-2ΔΔ	AF504X-2ΔΔ
68	AF63	20	25	50	60	AF6342-2ΔΔ	AF634X-2ΔΔ
80	AF75	25	30	60	75	AF7542-2ΔΔ	AF754X-2ΔΔ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF2642-1KP

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 AF26 starter: AF2642-CKP

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC Non-fusible disconnect switch

AF26 - AF75

2 Speed, 2 winding; three phase

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V	Catalog number	Catalog number
28	AF26	7.5	7.5	15	20	AF264N2-2ΔΔ	AF264NX-2ΔΔ
34	AF30	10	10	20	25	AF304N2-2ΔΔ	AF304NX-2ΔΔ
54	AF50	15	20	40	50	AF504N2-2ΔΔ	AF504NX-2ΔΔ
68	AF63	20	25	50	60	AF634N2-2ΔΔ	AF634NX-2ΔΔ
80	AF75	25	30	60	75	AF754N2-2ΔΔ	AF754NX-2ΔΔ

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF264N2-1KP

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 AF26 starter: AF264N2-CKP

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

IEC Fusible disconnect switch

AF09 - AF75

2 Speed, 2 winding; three phase

3

UL motor switching current	Contactor Size	Maximum ratings - UL Listed					UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings				Fuse clip rating amp/volts	General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
9	AF09	2	2	5	7.5	30/600	AF094F2-2ΔΔ1	AF094FX-2ΔΔ1
11	AF12	3	3	7.5	10	30/600	AF124F2-2ΔΔ1	AF124FX-2ΔΔ1
17	AF16	5	5	10	15	30/600	AF164F2-2ΔΔ1	AF164FX-2ΔΔ1
28	AF26	7.5	7.5	15	20	60/600	AF264F2-2ΔΔ2	AF264FX-2ΔΔ2
34	AF30	10	10	20	25	60/600	AF304F2-2ΔΔ2	AF304FX-2ΔΔ2
54	AF50	15	20	40	50	100/600	AF504F2-2ΔΔ3	AF504FX-2ΔΔ3
68	AF63	20	25	50	60	200/600	AF634F2-2ΔΔ4	AF634FX-2ΔΔ4
80	AF75	25	30	60	75	200/600	AF754F2-2ΔΔ4	AF754FX-2ΔΔ4

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF12 starter: AF124F2-1KP1

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 AF12 starter: AF124F2-CKP1

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

¹⁾ 24 AC coil voltage is available only with AF09 - AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC Circuit breaker type

AF26 - AF75

2 Speed, 2 winding; three phase

UL motor switching current	Contactor Size	Maximum ratings - UL Listed				Circuit Breaker Amp Rating	UL Type 1, 3R, 4, 12	UL Type 4X
		Maximum motor horsepower ratings					General Purpose, Rainproof, Waterproof, Dusttight	Watertight Corrosion Resistant Stainless steel
		200/208V	230/240V	460V/480V	575/600V		Catalog number	Catalog number
28	AF26	2	3	5	7.5	15 A	AF264B2-2ΔΔ1	AF264BX-2ΔΔ1
28	AF26	3	-	7.5	10	20 A	AF264B2-2ΔΔ2	AF264BX-2ΔΔ2
28	AF26	-	5	10	-	25 A	AF264B2-2ΔΔ3	AF264BX-2ΔΔ3
28	AF26	5	-	-	15	30 A	AF264B2-2ΔΔ4	AF264BX-2ΔΔ4
28	AF26	-	7.5	15	20	35 A	AF264B2-2ΔΔ5	AF264BX-2ΔΔ5
34	AF30	7.5	-	-	-	40 A	AF304B2-2ΔΔ6	AF304BX-2ΔΔ6
32	AF30	10	10	20	25	50 A	AF304B2-2ΔΔ7	AF304BX-2ΔΔ7
54	AF50	-	-	-	30	50 A	AF504B2-2ΔΔ7	AF504BX-2ΔΔ7
54	AF50	15	15	40	50	80 A	AF504B2-2ΔΔ8	AF504BX-2ΔΔ8
68	AF63	20	20	50	60	100 A	AF634B2-2ΔΔ9	AF634BX-2ΔΔ9
80	AF75	25	30	60	75	125 A	AF754B2-2ΔΔA	AF754BX-2ΔΔA

Δ Overload relay suffix code. Select from the overload relay selection chart on page 3.34. 1st Δ low speed; 2nd Δ high speed.

Overload relays are required for all combination starters.

Coil voltage selection ¹⁾

All AC operated catalog numbers include a 100-250V AC 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 24V AC coil is required for an AF26 starter: AF264B2-1KP1

Coil voltage selection chart

Coil voltage	
AC Volts, 40-60 Hz	
24 AC	100 - 250 AC
1	2

Control transformer voltage selection

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 AF26 starter: AF264B2-CKP1

Control transformer voltage selection chart

Control Voltage	200-208	230-240	460-480	575-600
120V AC @ 50/60 Hz	A	B	C	D
24V AC @ 50/60 Hz	E	F	G	H

1) 24 AC coil voltage is available only with AF26 & AF30.
For factory modifications, see pages 3.29 & 3.30.

IEC & NEMA
Enclosed starters

General information

Factory installed options

Control cover factory modifications - NEMA/UL Type 1, 3R, 4, 4X & 12

3

Pilot device kits

	Starter type	Description	Nameplate	Suffix code
One operator	DOL	2-Position Switch	OFF-ON	C
	DOL	3-Position Switch	HAND-OFF-AUTO	D
	DOL	Pilot Light	"ON" Red pilot light	E
	REV	3-Position Switch	FOR-OFF-REV	L
	2 Speed	3-Position Switch	SLOW-OFF-FAST	M
Two operators	DOL	Push Buttons	START/STOP	A
	DOL	Push Buttons	START/ EMERGENCY STOP	N
	DOL	2 Position Switch & Pilot Light	OFF-ON/"ON"	H
	DOL	3 Position Switch & Pilot Light	HAND-OFF-AUTO/"ON"	J
Three operators	DOL	Push Buttons & Pilot Light	START/STOP/"ON"	F
	DOL	2 Position Switch & Pilot Lights	OFF-ON/"ON"/"FAULT"	P
	DOL	3 Position Switch & Pilot Lights	HAND-OFF-AUTO/"ON"/"FAULT"	Q
	REV	Push Buttons	FORWARD- REVERSE-STOP	B
	REV	3 Position Switch & Pilot Lights	FOR-OFF-REV/"FORWARD"/"REVERSE"	G
	2 Speed	Push Buttons	FAST-SLOW-STOP	K
	2 Speed	3 Position Switch & Pilot Lights	SLOW-OFF-FAST/"SLOW"/"FAST"	R

General information

Factory installed options

Control circuit transformers

Contacteur size	Description	Option
AF09 -AF30 AFN00 & AFN1	50VA, 200-208/120 VAC	A
	50VA, 230-240/120 VAC	B
	50VA, 460-480/120 VAC	C
	50VA, 575-600/120 VAC	D
	50VA, 200-208/24 VAC	E
	50VA, 230-240/24 VAC	F
	50VA, 460-480/24 VAC	G
	50VA, 575-600/24 VAC	H
AF50 -AF75 AFN2 & AFN3	75VA, 200-208/120 VAC	A
	75VA, 230-240/120 VAC	B
	75VA, 460-480/120 VAC	C
	75VA, 575-600/120 VAC	D
AF110	100VA, 200-208/120 VAC	A
	100VA, 230-240/120 VAC	B
	100VA, 460-480/120 VAC	C
	100VA, 575-600/120 VAC	D
AF145 - AF185 AF400-AF460 AFN4	150VA, 200-208/120 VAC	A
	150VA, 230-240/120 VAC	B
	150VA, 460-480/120 VAC	C
	150VA, 575-600/120 VAC	D
AF210 - AF300 AF580-AF750	250VA, 200-208/120 VAC	A
	250VA, 230-240/120 VAC	B
	250VA, 460-480/120 VAC	C
	250VA, 575-600/120 VAC	D

General information

Field modification kits

Pilot device field modifications kits- NEMA/UL Type 1, 3R, 4, 4X & 12

3

	Starter type	Description	Nameplate	Catalog number
One operator	DOL	2-Position Switch	OFF-ON	SS2P-1
	DOL	3-Position Switch	HAND-OFF-AUTO	SS3P-2
	DOL	Pilot Light (120V AC)	"ON" Green pilot light	PL-120VAC
	DOL	Pilot Light (24V AC)	"ON" Green pilot light	PL-24VAC
	REV	3-Position Switch	FOR-OFF-REV	SS3P-3
Two operators	2 Speed	3-Position Switch	SLOW-OFF-FAST	SS3P-4
	DOL	Push Buttons	START/STOP	PB-SS
	DOL	Push Buttons	START/ EMERGENCY STOP	PB-SES
	DOL	2 Position Switch & Pilot Light (120V AC)	OFF-ON/"ON"	SS2PPL-120VAC
	DOL	2 Position Switch & Pilot Light (24V AC)	OFF-ON/"ON"	SS2PPL-24VAC
	DOL	3 Position Switch & Pilot Light (120V AC)	HAND-OFF-AUTO/"ON"	SS3PPL-120VAC
Three operators	DOL	3 Position Switch & Pilot Light (24V AC)	HAND-OFF-AUTO/"ON"	SS3PPL-24VAC
	DOL	Push Buttons & Pilot Light (120V AC)	START/STOP/"ON"	PBPL-SS120VAC
	DOL	Push Buttons & Pilot Light (24V AC)	START/STOP/"ON"	PBPL-SS24VAC
	DOL	2 Position Switch & Pilot Lights (120V AC)	OFF-ON/"ON"/"FAULT"	SS2PPL-FLT-120VAC
	DOL	2 Position Switch & Pilot Lights (24V AC)	OFF-ON/"ON"/"FAULT"	SS2PPL-FLT-24VAC
	DOL	3 Position Switch & Pilot Lights (120V AC)	HAND-OFF-AUTO/"ON"/"FAULT"	SS3PPL-FLT-120VAC
	DOL	3 Position Switch & Pilot Lights (24V AC)	HAND-OFF-AUTO/"ON"/"FAULT"	SS3PPL-FLT-24VAC
	REV	Push Buttons	FORWARD- REVERSE-STOP	PB-FRS
	REV	3 Position Switch & Pilot Lights (120V AC)	FOR-OFF-REV/"FORWARD"/"REVERSE"	SS3PPL-FR-120VAC
	REV	3 Position Switch & Pilot Lights (24V AC)	FOR-OFF-REV/"FORWARD"/"REVERSE"	SS3PPL-FR-24VAC
	2 Speed	Push Buttons	FAST-SLOW-STOP	PB-FSS
	2 Speed	3 Position Switch & Pilot Lights(120V AC)	SLOW-OFF-FAST/"SLOW"/"FAST"	SS3PPL-SF-120VAC
	2 Speed	3 Position Switch & Pilot Lights (24V AC)	SLOW-OFF-FAST/"SLOW"/"FAST"	SS3PPL-SF-24VAC

General information

Field modification kits

Control circuit transformer field modifications kits

Contacteur size	Description	Catalog number
AF9 - AF30 AFN00 - AFN1	50VA, 200-208/120 VAC	CCT50-208/120
	50VA, 230-240/120 VAC	CCT50-240/120
	50VA, 460-480/120 VAC	CCT50-480/120
	50VA, 575-600/120 VAC	CCT50-600/120
	50VA, 200-208/24 VAC	CCT50-208/24
	50VA, 230-240/24 VAC	CCT50-240/24
	50VA, 460-480/24 VAC	CCT50-480/24
AF50 - AF75 AFN2 & AFN3	50VA, 575-600/24 VAC	CCT50-600/24
	75VA, 200-208/120 VAC	CCT75-208/120
	75VA, 230-240/120 VAC	CCT75-240/120
	75VA, 460-480/120 VAC	CCT75-480/120
AF110	75VA, 575-600/120 VAC	CCT75-600/120
	100VA, 200-208/120 VAC	CCT100-208/120
	100VA, 230-240/120 VAC	CCT100-240/120
	100VA, 460-480/120 VAC	CCT100-480/120
AF145 - AF185 AF400 - AF460 AFN4	100VA, 575-600/120 VAC	CCT100-600/120
	150VA, 200-208/120 VAC	CCT150-208/120
	150VA, 230-240/120 VAC	CCT150-240/120
	150VA, 460-480/120 VAC	CCT150-480/120
AF210 - AF300 AF580 - AF750	150VA, 575-600/120 VAC	CCT150-600/120
	250VA, 200-208/120 VAC	CCT250-208/120
	250VA, 230-240/120 VAC	CCT250-240/120
	250VA, 460-480/120 VAC	CCT250-480/120
	250VA, 575-600/120 VAC	CCT250-600/120

IEC & NEMA
Enclosed starters

General information

Motor data

Ampere ratings of 3 phase, AC induction motors

3

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

General information - IEC Starter

Standard thermal overload relays

IEC & NEMA
Enclosed starters

Standard - Thermal, Type TF and TA, Class 10
Correct sizing of overload relay per motor HP

3

1-phase		3-phase				Catalog Number	Code	Setting Range (A)	Contactor Size			
120V	240V	208V	240V	480V	600V							
-	-	-	-	-	-	TF42-0.13	A	0.10-0.13	AF09/AF26*			
-	-	-	-	-	-	TF42-0.17	B	0.13-0.17				
-	-	-	-	-	-	TF42-0.23	C	0.17-0.23				
-	-	-	-	-	-	TF42-0.41	D	0.31- 0.41				
-	-	-	-	-	-	TF42-0.55	E	0.41-0.55				
-	-	-	-	-	-	TF42-0.74	F	0.55-0.74				
-	-	-	-	-	1/2	TF42-1.0	G	0.74-1.0				
-	-	-	-	1/2	3/4	TF42-1.3	H	1.0-1.3				
-	1/10	-	-	3/4	1	TF42-1.7	J	1.3-1.7				
-	1/8, 1/6	-	1/2	1	-	TF42-2.3	K	1.7-2.3				
1/10	1/4	1/2	-	1 1/2	1 1/2, 2	TF42-3.1	L	2.3-3.1				
1/8	1/3	3/4	3/4,1	2	3	TF42-4.2	M	3.1-4.2				
1/6	1/2	1	-	3	-	TF42-5.7	N	4.2-5.7				
1/4, 1/3	3/4	1 1/2, 2	1 1/2, 2	5	5	TF42-7.6	P	5.7-7.6				
1/2	1	-	-	-	7.5	TF42-10	Q	7.6-10	AF12/AF26*			
-	-	-	3	-	-	TF42-13	R	10-13				
-	1 1/2, 2	3	-	7.5	10	TF42-16	S	13-16	AF16/AF26*			
3/4,1	-	-	5	10	-	TF42-20	T	16-20				
-	3	-	-	-	15	TF42-24	U	20-24	AF26*			
1 1/2, 2	-	-	7.5	15	20	TF42-29	V	24-29				
-	5	7.5	10	20	25	TF42-35	W	29-35	AF30			
-	-	10	-	-	-	TA75DU25	A	18-25				
-	-	-	-	-	-	TA75DU32	B	22-32	AF50			
-	7 1/2	-	15	25, 30	30, 40	TA75DU42	C	29-42				
-	10	15	-	40	50	TA75DU52	D	36-52				
-	-	-	20	-	-	TA75DU63	E	45-63				
-	-	20	-	-	60	TA75DU80	F	60-80	AF63			
-	-	-	25	50	-	TA110DU90	A	65-90				
-	15	25	30	60	75	TA110DU110	B	80-110	AF75			
-	20	30	-	-	-	TA200DU90	A	65-90				
-	25	-	40	75	100	TA200DU110	B	80-110	AF145			
-	-	-	-	-	-	TA200DU135	C	100-135				
-	-	-	-	-	-	TA200DU150	D	110-150	AF185			
-	-	50	60	125	150	TA200DU175	E	130-175				
-	-	60	-	150	-	TA450DU185	A	130-185	AF210			
-	-	-	75	-	200	TA450DU235	B	165-235				
-	-	75	-	-	-	TA450DU310	C	220-310	AF260			
-	-	-	100	200	250	Only available with an electronic overload						
-	-	100	-	250	300							
-	-	-	125	300	350							
-	-	125	150	350	400							
-	-	-	200	400	500							
-	-	200	250	500	600							
-	-	250	300	600	700				AF300			
									AF400			
									AF460			
									AF580			
									AF750			

* Note: AF26 contactor used with non-combination and circuit breaker disconnect.

IEC & NEMA
Enclosed starters

General information - IEC Starter

Electronic overload relays

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

Correct sizing of overload relay per motor HP

3

3-phase				Catalog Number	Code	Setting Range (A)	Contactor Size
208V	240V	480V	600V				
-	-	-	-	EF19-0.32	A1	0.10-0.32	AF09/AF26*
-	-	-	-	EF19-1.0	B1	0.3-1.0	
-	-	1/2	1/2, 3/4	EF19-2.7	C1	0.80-2.7	
-	-	3/4	1				
-	1/2	1	1 1/2				
1/2	-	1 1/2	2	EF19-6.3	D1	1.9-6.3	
3/4	3/4	2	3				
1	1	3	-				
1 1/2	1 1/2	-	5	EF19-18.9	E1	5.7-18.9	
2	2	5	7.5				
3	3	7.5	10				
-	5	10	-				
5	7.5	15	15, 20	EF45-30	E2	9-30	AF26*
7.5	10	20	25	EF45-45	E3	15-45	AF30
10	-	-	-	E80DU80	E1	27-80	AF50
-	-	25	30				
-	15	30	40				
15	20	40	50				
20	25	50	60				
25	30	60	75	E140DU140	E1	50-140	AF110
30	40	75	100				
40	50	100	125	E200DU200	E2	65-200	AF145
50	60	125	150				
60	75	150	200	E320DU320	E3	105-320	AF210
75	100	200	250				
100	-	250	300				
-	125	300	350	E500DU500	E5	170-500	AF400
125	150	350	400				
150	200	400	500				
200	250	500	600	E800DU800	E8	270-800	AF460
250	300	600	700				
							AF580
							AF750

* Note: AF26 contactor used with non-combination and circuit breaker disconnect.

General information - NEMA Starter

Standard thermal overload relays

IEC & NEMA
Enclosed starters

Standard - Thermal, Type TF and TA, Class 10

Correct sizing of overload relay per motor HP

3

1-phase		3-phase				Catalog Number	Code	Setting Range (A)	Contactor Size
120V	240V	208V	240V	480V	600V				
-	-	-	-	-	-	TF42-0.13	A	0.10-0.13	AFN00
-	-	-	-	-	-	TF42-0.17	B	0.13-0.17	
-	-	-	-	-	-	TF42-0.23	C	0.17-0.23	
-	-	-	-	-	-	TF42-0.41	D	0.31-0.41	
-	-	-	-	-	-	TF42-0.55	E	0.41-0.55	
-	-	-	-	-	-	TF42-0.74	F	0.55-0.74	
-	-	-	-	-	1/2	TF42-1.0	G	0.74-1.0	
-	-	-	-	1/2	3/4	TF42-1.3	H	1.0-1.3	
-	1/10	-	-	3/4	1	TF42-1.7	J	1.3-1.7	
-	1/8	-	1/2	1	-	TF42-2.3	K	1.7-2.3	
1/10	1/6, 1/4	1/2	-	1 1/2	1 1/2, 2	TF42-3.1	L	2.3-3.1	AFN0
1/8	1/3	3/4	3/4	2	-	TF42-4.2	M	3.1-4.2	
1/6	1/2	1	1	-	-	TF42-5.7	N	4.2-5.7	
1/4	3/4	1 1/2	1 1/2	-	-	TF42-7.6	P	5.7-7.6	
1/3	1	-	-	-	-	TF42-10	Q	7.6-10	
-	-	-	-	-	3	TF42-4.2	M	3.1-4.2	
-	-	-	-	3	-	TF42-5.7	N	4.2-5.7	
-	-	2	2	5	5	TF42-7.6	P	5.7-7.6	
1/2	1 1/2	-	3	-	-	TF42-10	Q	7.6-10	
-	2	3	-	-	-	TF42-13	R	10-13	
3/4, 1	-	-	-	-	-	TF42-16	S	13-16	AFN1 1)
-	-	-	-	-	7.5	TF42-10	Q	7.6-10	
-	-	-	-	7.5	10	TF42-13	R	10-13	
-	-	-	5	10	-	TF42-16	S	13-16	
-	3	5	-	-	-	TF42-20	T	16-20	
2	-	-	7.5	-	-	TF42-24	U	20-24	
-	-	7.5	-	-	-	TF42-29	V	24-29	
-	-	-	-	15	20	TA75DU25	A	18-25	
-	-	10	10	20	25	TA75DU32	B	22-32	
3	7 1/2	-	15	25	-	TA75DU42	C	29-42	AFN2
-	-	-	-	-	30	TA75DU42	C	29-42	
-	-	15	-	30	40	TA75DU52	D	36-52	
-	-	20	20	40	50	TA75DU63	E	45-63	
-	-	25	25, 30	50	-	TA75DU80	F	60-80	AFN3
-	-	30	-	60	75	TA200DU90	A	65-90	
-	-	-	40	75	100	TA200DU110	B	80-110	
-	-	40	50	100	-	TA200DU135	C	100-135	

1) AFN1 contactor can use AFN00 and AFN0 overloads.

IEC & NEMA
Enclosed starters

General information - NEMA Starter

Electronic overload relays

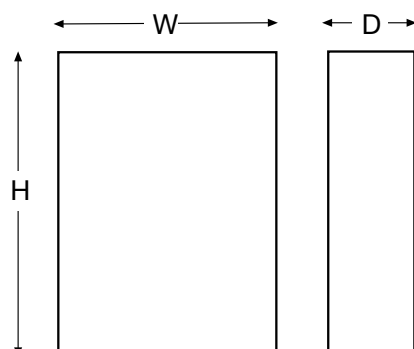
Optional - Electronic, Type E, Class 10, 20, & 30 Selectable

3 Correct sizing of overload relay per motor HP

3-phase				Catalog Number	Code	Setting Range (A)	Contactor Size	
208V	240V	480V	600V					
-	-	-	-	EF19-0.32	A1	0.10-0.32	AFN00	
-	-	-	-	EF19-1.0	B1	0.3-1.0		
-	-	3/4, 1/2	3/4, 1/2	EF19-2.7	C1	0.9-2.7		
-	1/2	1	1, 1.5					
1/2	-	-	-					
3/4	3/4	-	-	EF19-6.3	D1	1.9-6.3		
1	1	1.5, 2	2					
1.5	1.5	-	-				AFN0	
-	-	3	3	EF19-18.9	E1	5.7 -18.9		
2	2	-	-					
3	3	5	5					
5	5	7.5	7.5	E45DU30	E1	9-30		AFN1 1)
7.5	7.5	10	10					AFN2
-	10,15	20	20	E80DU80	E1	27-80		
10	-	25	25				AFN3	
15	20, 25	30, 40	30, 40				AFN4	
20, 25	30	50	50	E200DU200	E2	40-140		
30	40	60	-					
40	50	75, 100	75, 100					

1) AFN1 contactor can use AFN00 and AFN0 overloads.

Approximate dimensions Non-combination starters



3

IEC and NEMA starters Non reversing and reversing

Contactor Size	Enclosure Type	H (in)	H (mm)	W (in)	W (mm)	D (in)	D (mm)
AF09-AF30, AFN00-AFN1	1, 3R, 4, 4X, 12	12	300	12	300	6	150
AF50-AF75, AFN3		16	400	12	300	8	200
AF110		24	600	20	500	10	250
AF145-AF185, AFN4		36	900	30	760	10	250
AF210-AF300		48	1200	36	900	12	300
AF400-AF460		48	1200	36	900	16	400
AF580-AF750		60	1500	60	1500	18	449

Two speed 1 winding & 2 winding

AF09-AF30	1, 3R, 4, 4X, 12	16	400	12	300	8	200
AF50-AF75		20	500	16	400	8	200
AF110		24	600	20	500	10	250
AF145-AF185		36	900	30	760	10	250
AF210-AF300		48	1200	36	900	12	300
AF400-AF460		48	1200	36	900	16	400
AF580-AF750		60	1500	60	1500	18	449

Enclosure accessories for non-combination and combination controllers

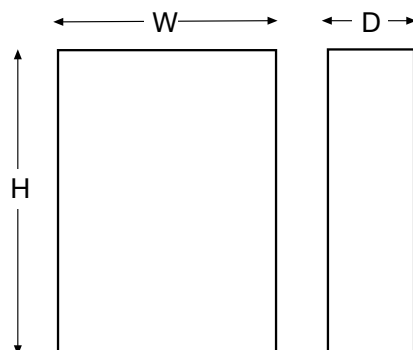
Description	Catalog number
12Hx16D Floormount Kit	RC-FSK1212C
12Hx16D Floormount Kit	RC-FSK1216C
12Hx12D Floormount Kit Type 304 SS	RC-FSK12124
12Hx12D Floormount Kit Type 304 SS	RC-FSK12164
Padlock lockout carbon steel 1)	RC-WMPADRC5
Padlock lockout stainless steel 1)	RC-WMPADRS6
Wallmount Bracket Kit	RC-2508.200
Wallmount Bracket Kit Type 304 SS	RC-2433.000

Exact dimensions can be obtained using the on line configurator

1) Used on enclosures below 36" in height.

Approximate dimensions
Combination starters

3



IEC and NEMA starters

Non reversing

Contactor Size	Enclosure Type	H (in)	H (mm)	W (in)	W (mm)	D (in)	D (mm)
AF09-AF30, AFN00-AFN1	1, 3R, 4, 4X, 12	16	400	12	300	8	200
AF50-AF75, AFN2-AFN3		20	500	16	400	8	200
AF110		24	600	20	500	10	250
AF145-AF185, AFN4		36	900	30	760	10	250
AF210-AF460		48	1200	36	900	16	400
AF580-AF750		60	1500	60	1500	18	449

Reversing

AF09-AF30, AFN00-AFN1	1, 3R, 4, 4X, 12	20	500	16	400	8	200
AF50-AF75, AFN2-AFN3		24	600	20	500	10	250
AF110-AF185, AFN4		30	760	30	760	10	250
AF210-AF300		36	900	48	1200	12	300
AF400-AF460		60	1500	60	1500	18	449
AF580-AF750		60	1500	60	1500	18	449

Two speed 1 winding & 2 winding

AF09-AF30	1, 3R, 4, 4X, 12	24	600	20	500	10	250
AF50-AF110		30	760	30	760	10	250
AF145-AF300		36	900	48	1200	12	300
AF400-AF460		72	900	60	1500	18	449
AF580-AF750		72	900	60	1500	18	449

Exact dimensions can be obtained using the on line configurator

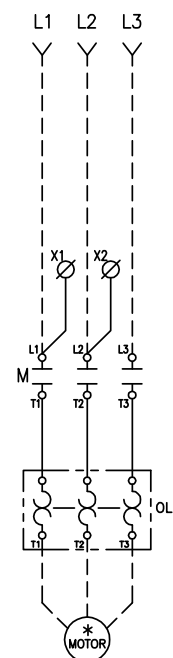
Circuit diagrams

Non-reversing, reversing

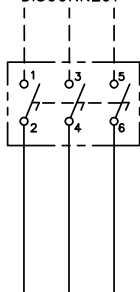
AF09 - AF750, AFN00 - AFN4

3

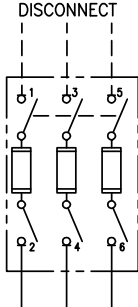
INCOMING LINES



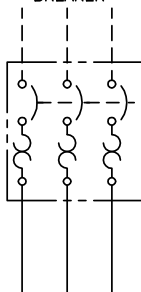
DISCONNECT



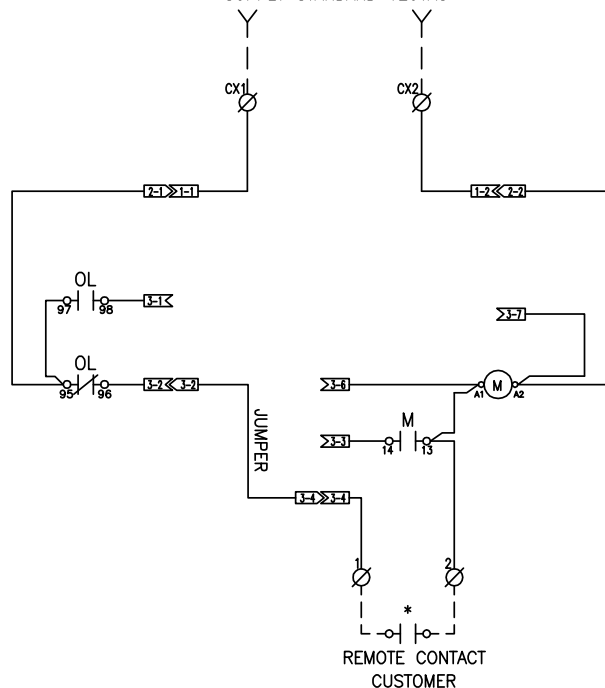
FUSE



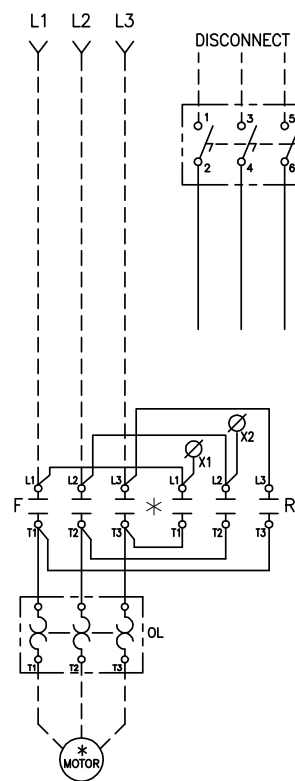
BREAKER



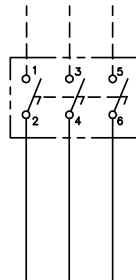
EXTERNAL CONTROL
SUPPLY STANDARD 120VAC



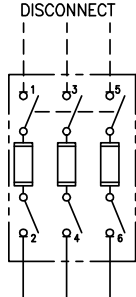
INCOMING LINES



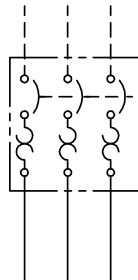
DISCONNECT



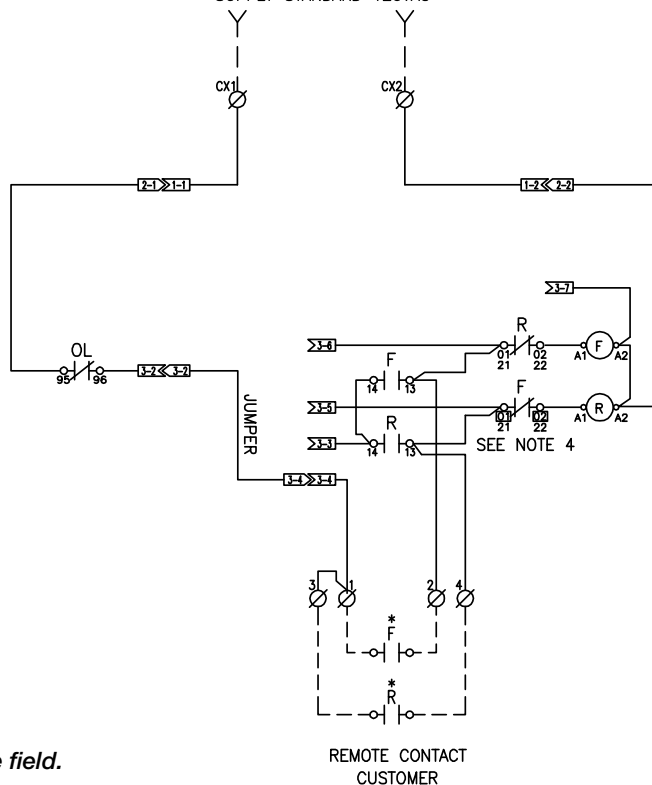
FUSE



BREAKER



EXTERNAL CONTROL
SUPPLY STANDARD 120VAC



***All units ship with a NO & NC contacts.
Additional contacts can be added in the field.***

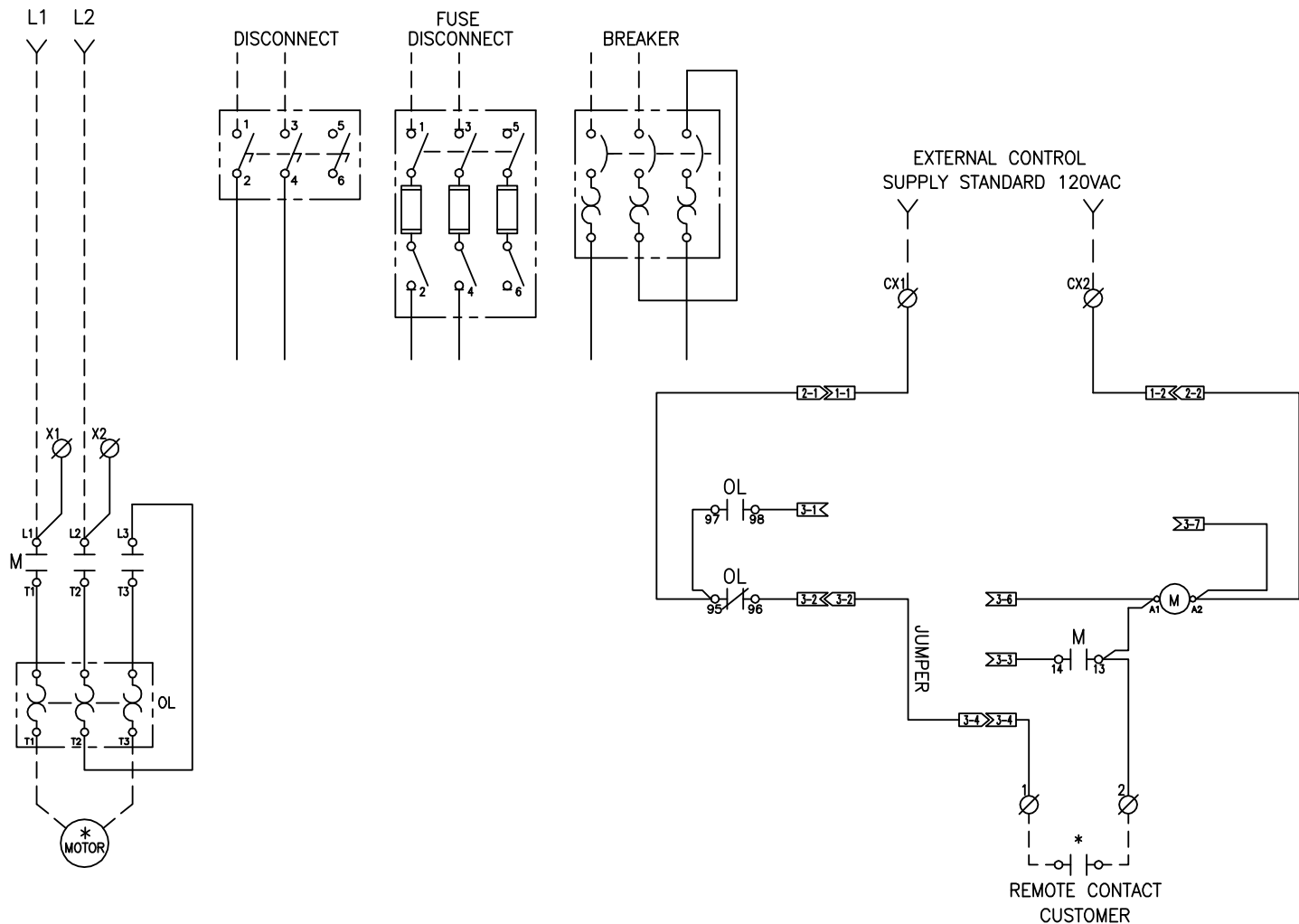
IEC & NEMA
Enclosed starters

Circuit diagrams

Non-reversing, single phase

AF09 - AF110, AFN00 - AFN2

3 INCOMING LINES



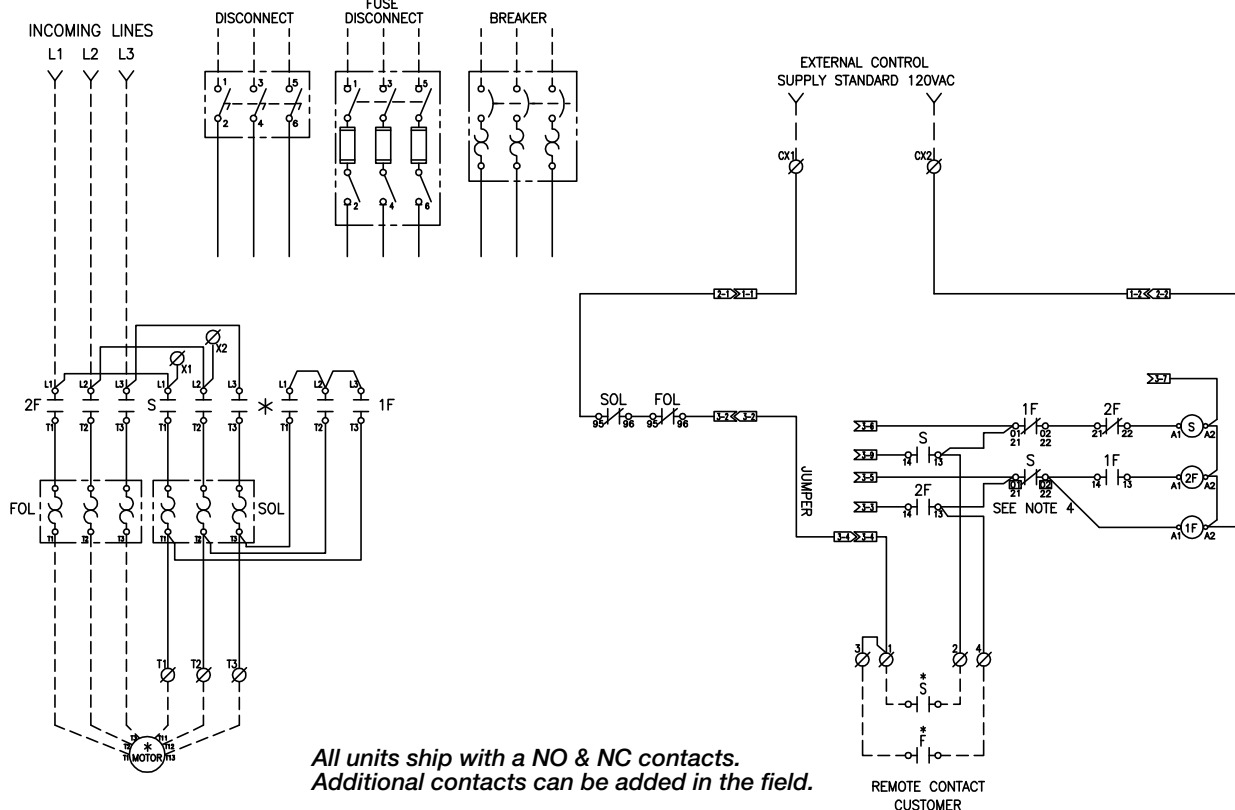
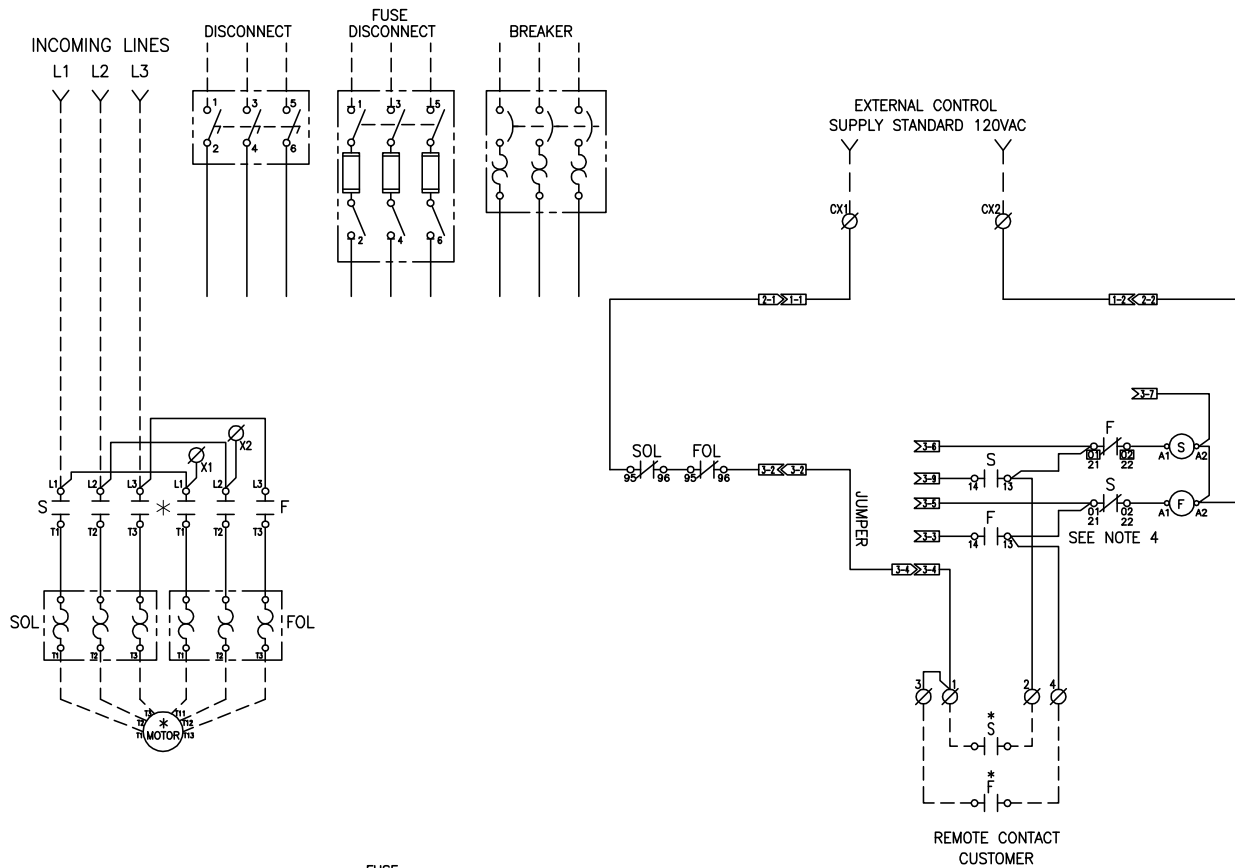
*All units ship with a NO & NC contacts.
Additional contacts can be added in the field.*

Circuit diagrams

2 Speed, 1 winding; 2 speed, 2 winding

AF09 - AF75

3



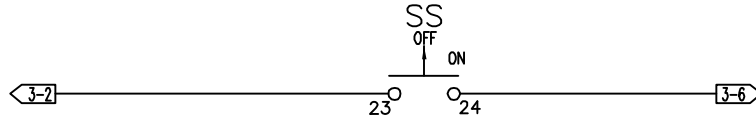
All units ship with a NO & NC contacts.
Additional contacts can be added in the field.

Circuit diagrams

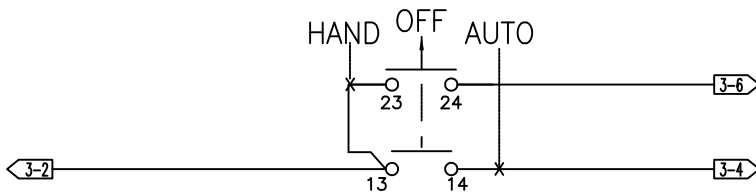
Pilot device kits, one operator

3

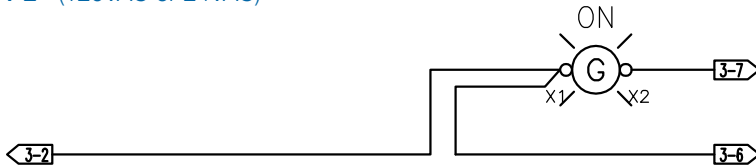
SS2P-1



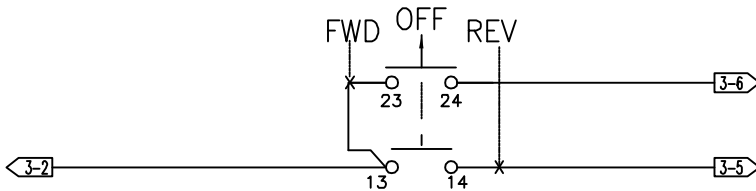
SS3P-2



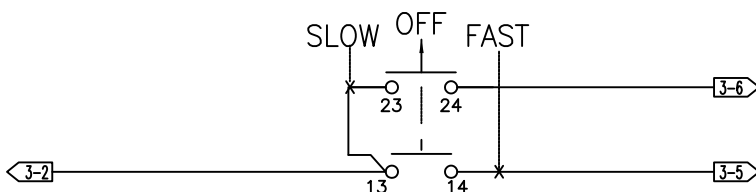
PL - (120VAC or 24VAC)



SS3P-3



SS3P-4

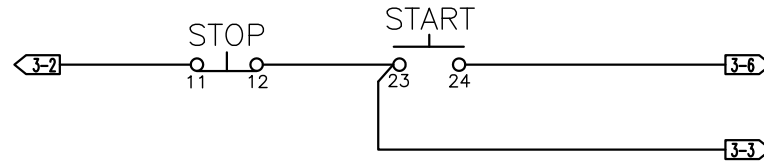


Circuit diagrams

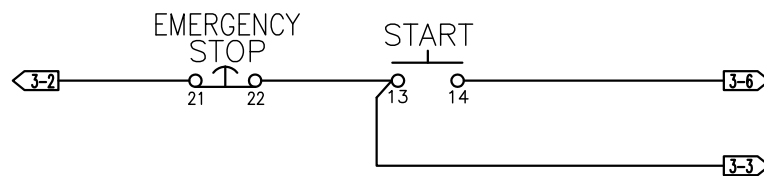
Pilot device kits, two operators

3

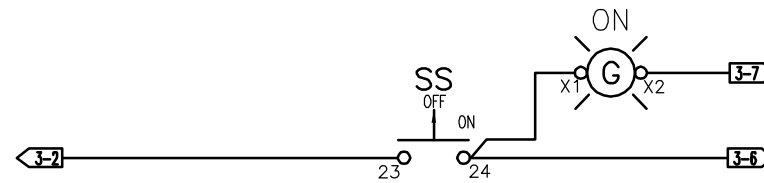
PB-SS



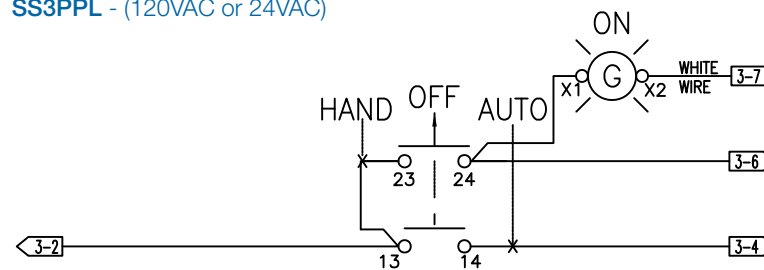
PB-SES



SS2PPL - (120VAC or 24VAC)



SS3PPL - (120VAC or 24VAC)



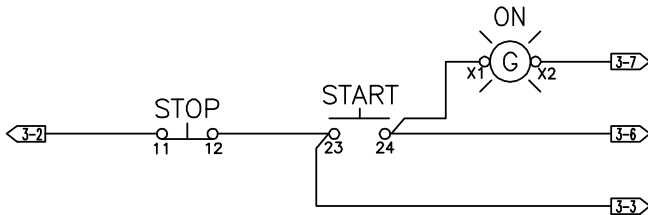
IEC & NEMA
Enclosed starters

Circuit diagrams

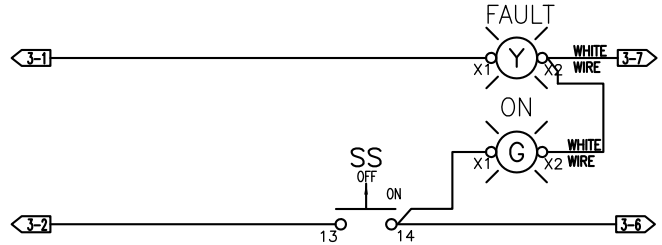
Pilot device kits, three operators

3

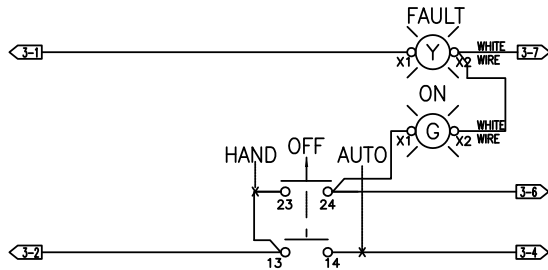
PBPL-SS - (120VAC or 24VAC)



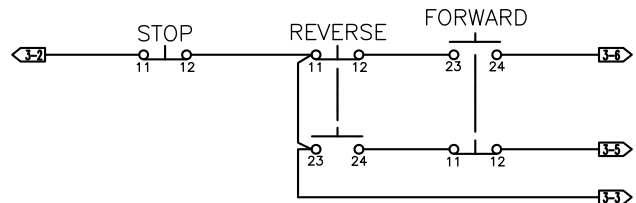
SS2PPL-FLT - (120VAC or 24VAC)



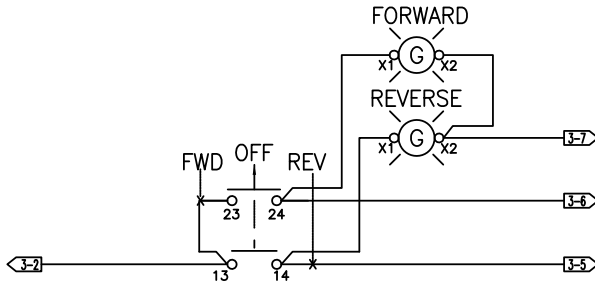
SS3PPL-FLT - (120VAC or 24VAC)



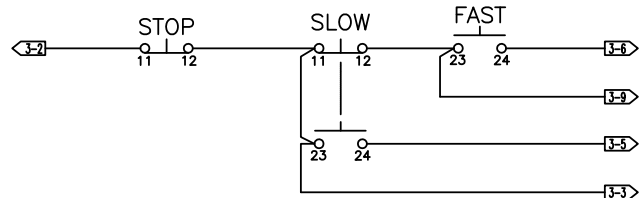
PB-FRS



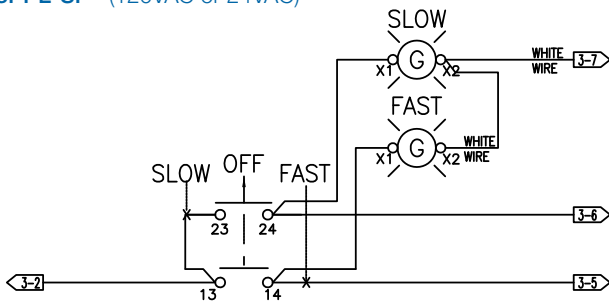
SS3PPL-FR - (120VAC or 24VAC)



PB-FSS



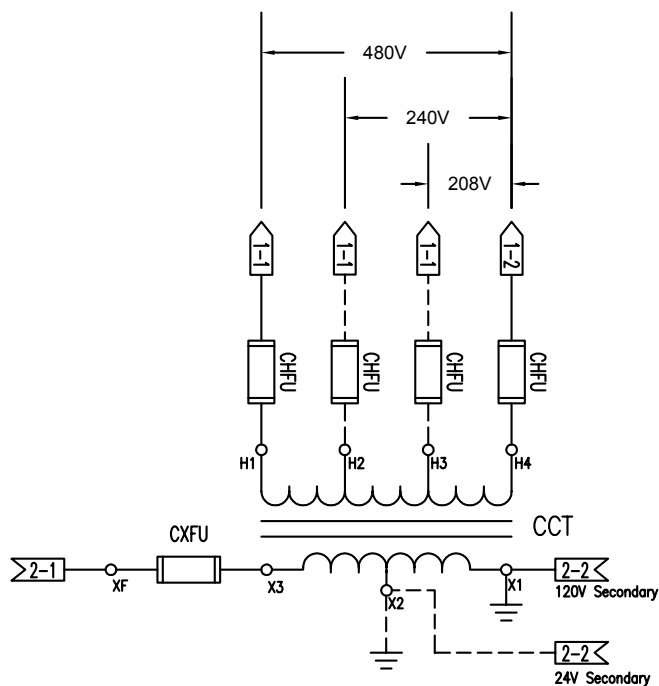
SS3PPL-SF - (120VAC or 24VAC)



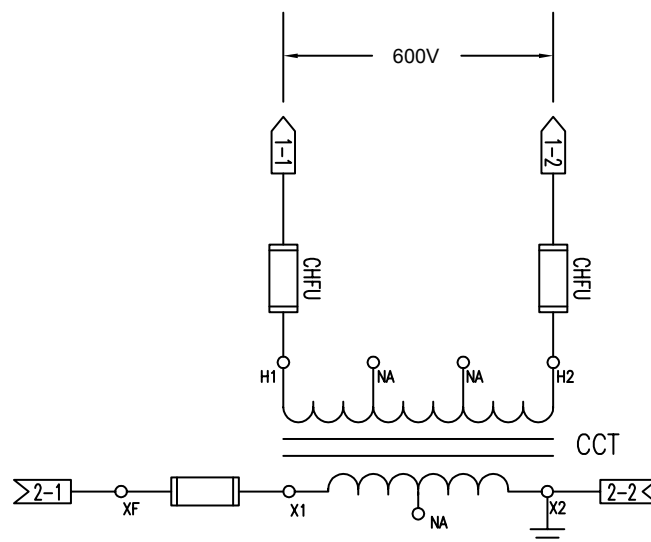
Circuit diagrams

Control circuit transformer

Primary voltages: 208V, 240V & 480V



Primary voltages: 600V



Enclosure rating definitions

Introduction

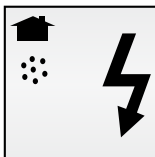
3

An enclosure is a surrounding case constructed to provide a degree of protection to personnel against accidental contact with the enclosed equipment and to provide a degree of protection to the enclosed equipment against specified environmental conditions.

A brief description of the more common types of enclosures used by the electrical industry relating to their environmental capabilities follows. Refer to NEMA Standards Publication for more information regarding applications, features and design tests.

Individual NEMA product Standards Publications or third party certification standards may contain additional requirements for product testing and performance.

Definitions pertaining to nonhazardous locations



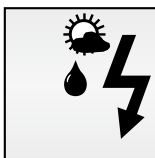
Type 1

Enclosures are intended for indoor use primarily to provide a degree of protection against limited amounts of falling dirt. (NEMA Standard 7-15-1991.)



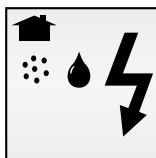
Type 4X

Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water and damage from external ice formation. (NEMA Standard 1-10-1979)



Type 3R

Enclosures are intended for outdoor use primarily to provide a degree of protection against rain, sleet and damage from external ice formation. (NEMA Standard 7-15-1991.)



Type 12

Enclosures are intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt, and dripping noncorrosive liquids. (NEMA Standard 7-15-1991.)



Type 4

Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, hose-directed water and damage from external ice formation. (NEMA Standard 1-10-1979.)

Legend

-  – Indoors
-  – Outdoors
-  – Water
-  – Dirt/dust
-  – Corrosion

Short circuit current ratings

Maximum short circuit current ratings for combination starters

Fusible disconnect

Contactors	Size	Switch @ 600 VAC	Fuse size (A)	UL Fuse type @ 600 VAC	kA @ 600 VAC		
AF09, AFN00		OS30	30	J	100		
AF12							
AF16, AFN0							
AF26, AFN1		OS60GJ12	60				
AF30							
AF50, AFN2							
AF63		OS200J12	200				
AF75, AFN3							
AF110							
AF145, AFN4		OS400J12	400				
AF185							
AF210							
AF260		OS600J12	600				
AF300							
AF400							
AF460		OS800L12	800	L			
AF580				30			
AF750		OS1200L12	1200	42			

Circuit breaker disconnect

Contactors	Size	Circuit breaker	kA @ 480 VAC	kA @ 600 VAC
AF26, AFN00-AFN1		Ts3L040TW	65	25
AF30		Ts3L050TW		
AF50, AFN2		Ts3L090TW		
AF63		Ts3L100TW	50	25
AF75, AFN3		Ts3L125TW		
AF110		T4H200TW		25
AF145, AFN4		T4H200TW	65	35
AF185		T4H250TW		
AF210		T5L300TW		
AF260		T5L400TW	100	42
AF300		T6L600TW		
AF400		T6L800TW		
AF460		T6L800TW	30	30
AF580		T7L1000BW		
AF750		T7L1200BW	42	42

IEC & NEMA
Enclosed starters

Notes

3

Type MSSP Single phase manual starters



Single phase manual starters Type MSSP

3



MSSP

Starting and overload protection of small 1Ø AC/DC motors used on the following:

- Unit heater stokers
- Refrigeration compressors
- Fans
- Pumps

MSSP manual switches consist of a snap switch combined with a thermal overload device operating on the solder-ratchet principle. The switch is designed to prevent being held closed under a sustained motor overload. To reset the overload mechanism, the switch lever is moved to the OFF position. The motor can be restarted by pushing the switch lever to the ON position. Applications include compressors, fans and pumps.

Standards compliance and certifications

- UL Listed — Enclosed Products (File No. E137861; Guide No. NLRV)
- UL – Open Style
- Products (File No. E137861; Guide No. NLRV2)
- CSA Certified LR 1234
- American Bureau of Shipping
- CE Marked (Per 60947)

Product Selection

Your order must include:

- Cat. No. of the switch
- Cat. No. of the heater element(s)
- If required, Cat. No. of any accessories.

Single phase manual starters

Type MSSP

Ratings

Single pole — 1 HP 115...230V AC, 1 HP 277V AC, Open Type without Enclosure or Type 1 General Purpose Enclosure

Two pole — 1 Hp 115...230V AC, 1 HP 277 AC, Open Type without enclosure or Type 1 General Purpose Enclosure, 3/4 HP 115...230V DC



MSSP1-T2P



MSSP-T2P



MSSP-PL



MSSP-LA

Description	Open type without enclosure - includes legend plate	Type 1 General purpose enclosure - surface mount	Type 1 General purpose enclosure - flush mounting includes flush plate but not switch box
	Catalog number	Catalog number	Catalog number

Switch only

Toggle type	1 pole	MSSP-T1	MSSP1-T1	MSSP-T1S
	2 pole	MSSP-T2	MSSP1-T2	MSSP-T2S
Key type	2 pole	MSSP-K2	MSSP1-K2	MSSP-K2S
Lever type	1 pole	MSSP-L1	MSSP1-L1	—

Switch with neon pilot light (115 or 230V)

Toggle type	1 pole	MSSP-T1P	MSSP1-T1P	MSSP-T1PS
	2 pole	MSSP-T2P	MSSP1-T2P	MSSP-T2PS
Key type	2 pole	MSSP-K2P	MSSP1-K2P	MSSP-K2PS

Switch and "hand-off-auto" selector switch (for use on AC only)

Toggle type	2 pole	—	MSSP1-T2H	MSSP-T2SH
-------------	--------	---	-----------	-----------

Switch with neon pilot light and "hand-off-auto" selector switch (115 or 230V AC only)

Toggle type	2 pole	—	MSSP1-T2HP	MSSP-T2SHP
Key type	2 pole	—	MSSP1-K2HP	—

Two switch units in one enclosure

Toggle type	2 pole	—	MSSP1-T2T2	—
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Two switch units in one enclosure neon pilot light on both units (115 or 230V)

Toggle type	2 pole	—	MSSP1-T2PT2P	MSSP-T2PT2P
-------------	--------	---	--------------	-------------

Two speed switch

Toggle type	2 pole	—	MSSP1-22	—
-------------	--------	---	----------	---

Two speed switch with neon pilot lights (115 or 230V)

Toggle type	2 pole	—	MSSP1-22P	MSSP-22P
-------------	--------	---	-----------	----------

Accessories

Description	Catalog number
Pilot light replacement bulb incandescent Note: Pilot lights as used on MSSP switches indicate whether the motor is running only if the switch is used to control the motor directly. If a thermostat, pressure switch, or some other pilot device controls the operation of the motor, the light on the MMSP switch merely indicates whether the power is ON or OFF	MSSP-PL
Locking attachment (for toggle operated only)	MSSP-LA

Single phase manual starters

Type MSSP

Starters
Single phase
Manual starters

3

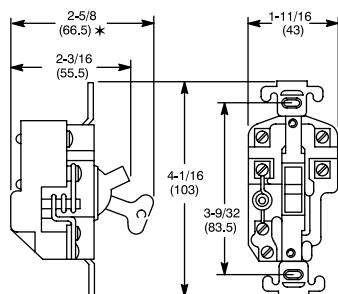
Full load amperes	Catalog number
0.17	MSSP-P1
0.21	MSSP-P2
0.25	MSSP-P3
0.32	MSSP-P4
0.39	MSSP-P5
0.46	MSSP-P6
0.57	MSSP-P7
0.71	MSSP-P8
0.79	MSSP-P9
0.87	MSSP-P10
0.98	MSSP-P11
1.08	MSSP-P12
1.19	MSSP-P13
1.30	MSSP-P14
1.43	MSSP-P15
1.58	MSSP-P16
1.75	MSSP-P17
1.88	MSSP-P18
2.13	MSSP-P19
2.40	MSSP-P20
2.58	MSSP-P21
2.92	MSSP-P22
3.09	MSSP-P23
3.32	MSSP-P24
3.37	MSSP-P25
4.16	MSSP-P26
4.51	MSSP-P27
4.93	MSSP-P28
5.43	MSSP-P29
6.03	MSSP-P30
6.83	MSSP-P31
7.72	MSSP-P32
8.24	MSSP-P33
8.90	MSSP-P34
9.60	MSSP-P35
10.8	MSSP-P36
12.0	MSSP-P37
13.5	MSSP-P38
15.2	MSSP-P39

Starters
Single phase
manual starters

Approximate dimensions

Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

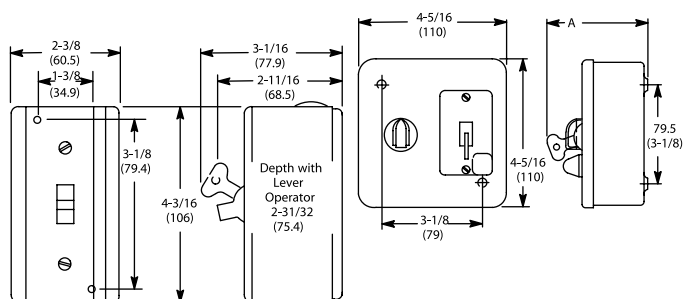
3 Open type without enclosure



Catalog number

MSSP-T1	MSSP-T2P	MSSP-T1
MSSP-T2	MSSP-K2P	
MSSP-K2	MSSP-L2	

Type 1 general purpose enclosure surface mounting



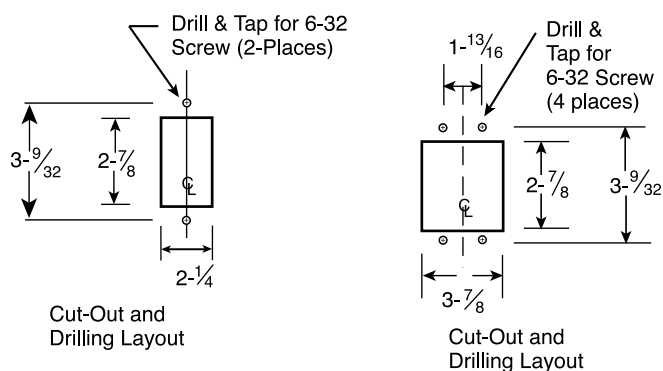
Catalog number

MSSP-T1	MSSP-T2P	MSSP-T1P
MSSP-T2	MSSP-K2P	MSSP1-K2HP
MSSP-K2	MSSP-L1	
MSSP1-T2H	MSSP1-T2HP	
MSSP1-T2T2	MSSP1-T2PT2P	

Dimension A (inches / millimeters)

Key inserted	1-1/8 (79.5)
Selector switch	2-3/4 (70)
Toggle operator	2-9/16 (65)

Type 1 general purpose enclosure flush mounting



Catalog number

MSSP-T1S	MSSP-T2PS
MSSP-T2	MSSP-K2PS
MSSP-K2S	MSSP-T1PS
MSSP-T2SH	MSSP-T2PT2P
MSSP-T2SHP	

