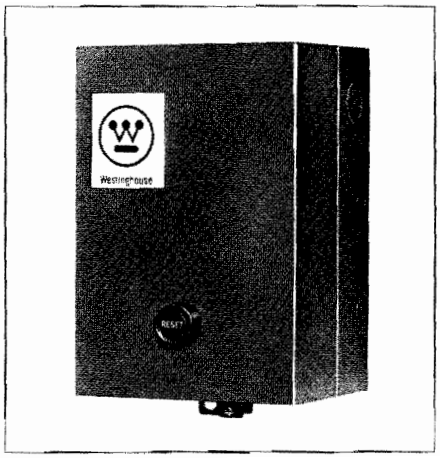
Westinghouse

A/200 Magnetic Control

A200 Non-Combination Starters 100 Hp., 600 Volts Maximum, 60 Hertz Ac



Application

A200 magnetic motor starters are designed for across-the-line control of squirrel cage motors or as the primary control for wound rotor motors. A200 starters can be furnished for non-reversing, reversing and two-speed applications.

Starter Types

A200 Non-Reversing

A210 Reversing

A900 Two Speed

Enclosures

NEMA 1: General Purpose

NEMA 1B: General Purpose Flush Mounting

NEMA 3R: Raintight

NEMA 4: Watertight

NEMA 7D: Class I, Group D Hazardous Locations

NEMA 9E, F, G: Class II, Groups E, F, G Hazardous Locations

NEMA 12: Dust Tight – Industrial Use

Typical Specification

A200 Non-Reversing Starters

Across-the-line magnetic starters for motors up to 100 Hp., 600 Volts, shall be Westinghouse Type A200 or approved equal. They shall be built and tested in accordance with the latest NEMA standards.

Starters shall be equipped with three overload relays. Overload shall have ±15% adjustment from nominal heater rating to compensate for ambient conditions, or to provide closer overload protection upon installation. Starter shall provide for field installation of up to 3 NO and 4 NC interlocks in addition to the hold-in interlock.

A210 Reversing Starters

Reversing magnetic starters for motors up to 100 Hp., 600 Volts shall be Westinghouse type A210 or approved equal. They shall be built and tested in accordance with the latest NEMA standards.

Starters shall be equipped with three overload relays. Overload shall have ±15% adjustment from nominal heater rating to compensate for ambient conditions, or to provide closer overload protection upon installation. Starter shall provide for field installation of up to 4 NO and 4 NC interlocks in addition to the normal interlocks.

A900 Two Speed Starters

Two-speed magnetic starters for motors up to 100 Hp., 600 Volts shall be Westinghouse Type A900 or approved equal.

Starters shall be equipped with three overload relays. Overload shall have ±15% adjustment from nominal heater rating to compensate for ambient conditions, or to provide closer overload protection upon installation. Starter shall provide for field installation of up to 4 NO and 4 NC interlocks in addition to the normal interlocks.

Ratings

A200, A210 Starters

NEMA Size	Maximum Horsepower 120 Volts Ac	208/220 Volts Ac	240 Volts Ac	480 Volts Ac
3 Phase, 3 Pole				
00	...	1½	1½	2
0	...	3	3	5
1	...	7½	7½	10
2	...	15	15	25
3	...	30	30	50
4	...	50	50	100
Single Phase				
00	⅓	...	1	...
0	1	...	2	...
1	2	...	3	...
1½	3	...	5	...
2	3	...	7½	...

A900 Two Speed Starters

Maximum Horsepower Ratings, 3 Phase②

NEMA Size	Constant or Variable Torque 208/240 Volts Ac	480/600 Volts Ac	Constant Horsepower 208/240 Volts Ac	480/600 Volts Ac
0	3	5	2	3
1	7½	10	5	7½
2	15	25	10	20
3	30	50	25	40
4	50	100	40	75

② For inching service, where operation exceeds 5 times per minute, decreased horsepower ratings in accordance with NEMA standards 1C 1-218.21 are recommended.

Westinghouse Electric Corporation
A200 Across-the-Line Starters

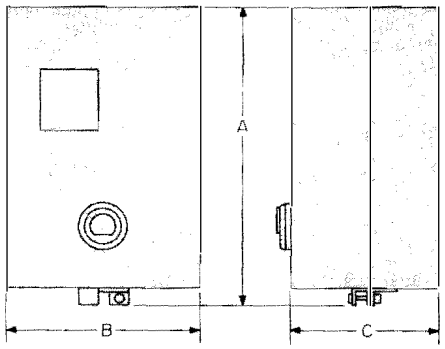
Gen. Ord. No._____ Item No._____

November, 1972
Supersedes Spec. Data 8280, pages 1-2, dated August, 1967
E. D. C/1787/PL

A/200 Magnetic Control

A200 Non-Combination Starters 100 Hp., 600 Volts Maximum, 60 Hertz Ac

Dimensions, Inches③ *Dimension certification for construction purposes for G. O. No._____ by_____*

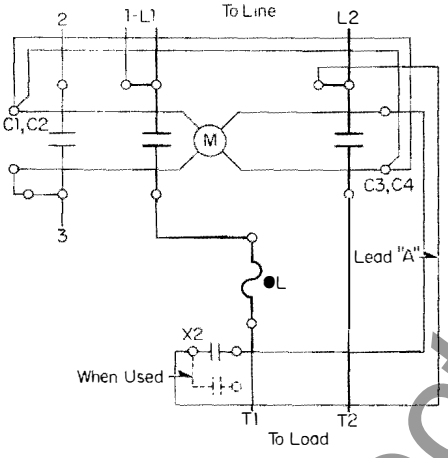


NEMA Enclosure	Starter Size	A200 Starters 3 Phase A	B	C	1 Phase A	B	C	A210, A900 Starters A	B	C
1	00, 0, 1	9 25/32	6 1/4	5 21/32	11 25/32	6 21/32	6 1/16	9 13/16	10 15/16	6 1/16
	2	11 25/32	6 21/32	6 1/16	11 25/32	6 21/32	6 1/16	11 27/32	12 1/4	6 1/2
	3	16 19/32	8 1/4	7 7/8	....	....	....	18 1/16	16	8 3/8
	4	18 1/16	9 1/4	7 7/8	....	....	....	18 1/16	17	8 3/8
1B	00, 0, 1	10 3/4	8 31/32	5 53/64	12 13/16	9 21/32	6 3/16	....	....	....
	2	12 13/16	9 21/32	6 3/16	12 13/16	9 21/32	6 3/16	....	....	....
3R	00, 0, 1	10 23/32	7 1/32	6 1/64	12 5/32	7 23/32	6 3/8	....	....	....
	2	12 5/32	7 23/32	6 3/8	12 5/32	7 23/32	6 3/8	....	....	....
	3	19 5/32	10 19/32	8 1/32	....	....	....	....	....	....
	4	19 13/32	10 19/32	8 1/32	....	....	....	....	....	....
4, 12②	00, 0, 1	10 45/64	7	5 15/16	12 3/4	7 11/16	6 19/64	10 45/64	11 11/16	6 3/8
	2	12 3/4	7 11/16	6 19/64	12 3/4	7 11/16	6 19/64	12 3/4	13 21/64	6 3/4
	3	20 5/8	10 5/8	8 13/64	....	....	....	20 5/8	18 23/64	8 45/64
	4	20 5/8	10 5/8	8 13/64	....	....	....	20 5/8	18 23/64	8 45/64

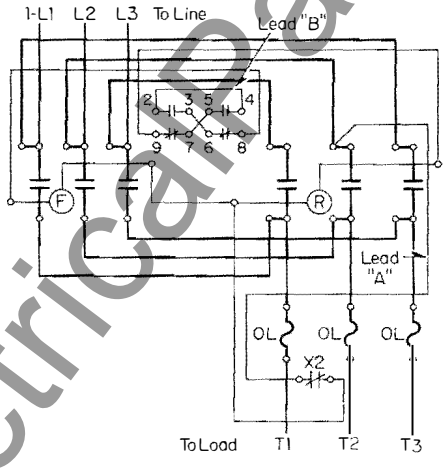
② Separate enclosures with identical dimensions.
③ Dimensions shown are overall, including mounting feet, hubs, etc. Drawings not intended to show construction features.

Typical Wiring Diagrams

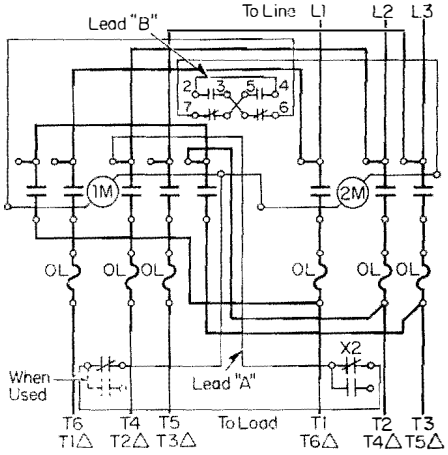
A200 Single Phase



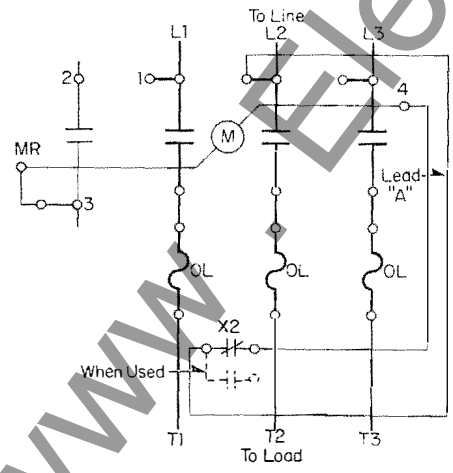
A210 Reversing



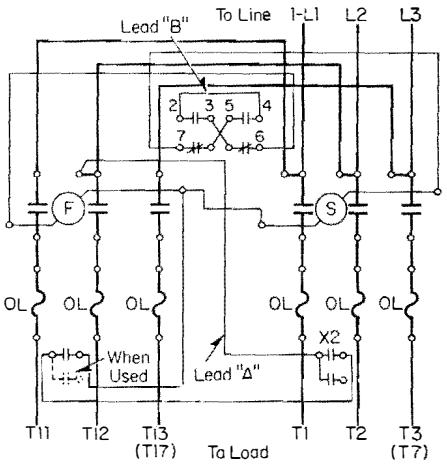
A900 Two Speed, One Winding



A200 Three Phase



A900 Two Speed, Two Winding

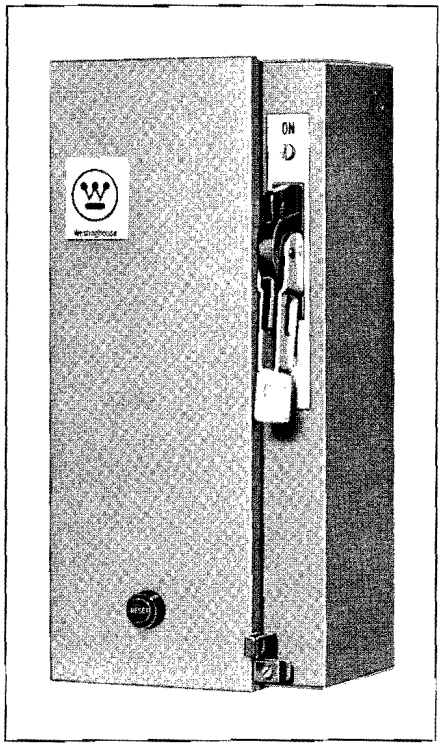


Westinghouse Electric Corporation
Control Products Division, Beaver, Pa. 15009
Printed in USA

Westinghouse

A/200 Magnetic Control

A204, 206 Combination Starters 100 Hp., 600 Volts Maximum, 60 Hertz Ac



Application

A200 magnetic combination starters are designed for across-the-line control of squirrel cage motors or as primary control for wound rotor motors. In addition, they provide a means of line disconnect and short circuit protection. They can be furnished for non-reversing or reversing applications.

Starter Types

Non-Reversing
A204 Fusible Switch
A206 Circuit Breaker (MCP)

Reversing
A214 Fusible Switch
A216 Circuit Breaker (MCP)

Enclosures

NEMA 1: General Purpose
NEMA 3R: Raintight
NEMA 4: Watertight
NEMA 7D: Class I, Group D Hazardous Locations
NEMA 9E, F, G: Class II, Groups E, F, G Hazardous Locations
NEMA 12: Dust Tight – Industrial Use

Typical Specification

Non-Reversing Starters

Across-the-line Combination starters for motors up to 100 Hp., 600 volts shall be Westinghouse A/204 (fusible disconnect switch) or A206 (circuit breaker) or approved equal. They shall be built in accordance with the latest NEMA standards.

Starters shall be equipped with three overload relays. Overload shall have ±15% adjustment from nominal heater rating to compensate for ambient conditions, or to provide closer overload protection upon installation. Starter shall provide for field installation of up to 3 NO and 4 NC interlocks in addition to the hold-in interlock.

Operating handle shall always remain connected to the breaker or switch. The operating handle shall not be mounted in the door of the enclosure, but to the side of the door for safe "stand-aside" operation. Position of operating handle will indicate On, Off or Tripped condition of switch or circuit breaker.

Interlock provisions shall prevent unauthorized opening or closing of the starter door with the disconnect in the On position.

Reversing Starters

Reversing combination starters for motors up to 100 Hp., 600 Volts shall be Westinghouse A214 (fusible disconnect switch) or A216 (circuit breaker) or approved equal. They shall be built in accordance with the latest NEMA standards.

Starters shall be equipped with three overload relays. Overload shall have ±15% adjustment from nominal heater rating to compensate for ambient conditions, or to provide closer overload protection upon installation. Starter shall provide for field installation of up to 4 NO and 4 NC interlocks in addition to the normal interlocks.

Operating handle shall always remain connected to the breaker or switch. The operating handle shall not be mounted in the door of the enclosure, but to the side of the door for safe "stand-aside" operation. Position of operating handle will indicate On, Off, or Tripped condition of switch or circuit breaker.

Interlock provisions shall prevent unauthorized opening or closing of the starter door with the disconnect in the On position.

Ratings

NEMA Size	Maximum Horsepower 208/220 Volts Ac	240 Volts Ac	480 Volts Ac
A204, A214 Fusible Switch			
0	3	3	5
1	7½	7½	10
2	15	15	25
3	30	30	50
4	50	50	100
A206, A216 Circuit Breaker			
0	3	3	5
1	7½	7½	10
2	15	15	25
3	30	30	50
4	50	50	100

Westinghouse Electric Corporation
A/200 Combination Starters

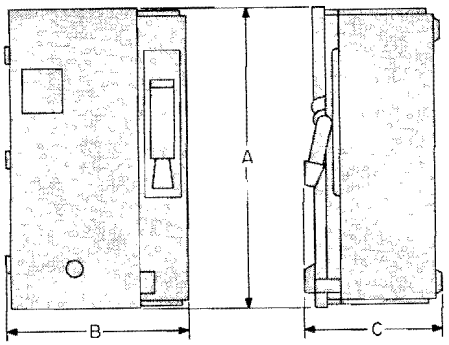
Gen. Ord. No. _____ Item No. _____

November, 1972
Supersedes Spec. Data 8280, pages 3-4, dated August, 1967
E. D. C/1787/PL

A/200 Magnetic Control

A204, A206 Combination Starters 100 Hp., 600 Volts Maximum, 60 Hertz Ac

Dimensions, Inches④ *Dimension certification for construction purposes for G. O. No._____by_____.*

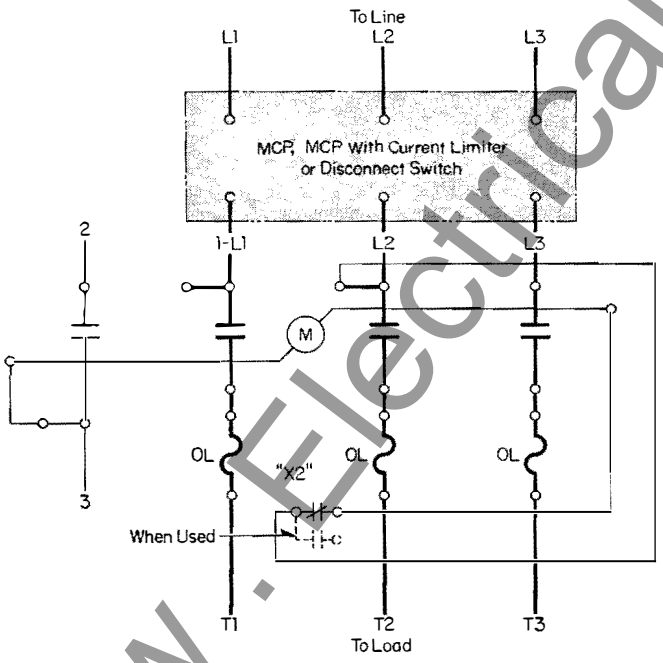


NEMA Enclosure	Starter Size	Starter Types A204 A	A204 B	A204 C	A206 A	A206 B	A206 C	A214 A	A214 B	A214 C	A216 A	A216 B	A216 C
1	0, 1, 2	22 17/32	8 47/64	6 57/64	18 55/64	8 47/64	6 57/64	....	....	....	....	....	....
	0, 1, 2②	24 25/32	8 25/32	6 59/64	22 17/32	8 47/64	6 57/64	17 1/32	19 15/32	6 59/64	17 1/32	19 15/32	6 59/64
	2③	17 1/32	19 15/32	6 59/64	....	....	....	....	....	....	....	....	....
	3	....	....	....	24 15/32	8 29/32	9 25/64	....	....	....	....	....	....
	3, 4②	39 31/64	12 29/32	9 25/64	30 63/64	12 29/32	9 25/64	25 63/64	25 13/32	9 25/64	25 63/64	25 13/32	9 25/64
3R	1	12 1/8	31 7/8	8 5/32	12 1/8	31 7/8	8 5/32	....	....	....	....	....	....
	2	13 3/8	31 7/8	8 5/32	13 3/8	31 7/8	8 5/32	....	....	....	....	....	....
	3	15 15/16	35 27/32	10 1/8	15 15/16	35 27/32	10 1/8	....	....	....	....	....	....
	4	17 1/16	40 1/16	10 1/8	17 1/16	40 1/16	10 1/8	....	....	....	....	....	....
4	0, 1, 2	23 61/64	8 47/64	6 53/64	20 15/64	8 47/64	6 53/64	....	....	....	....	....	....
	0, 1, 2②	27 11/64	8 25/32	6 55/64	23 61/64	8 47/64	6 53/64	18 37/64	19 15/32	6 55/64	18 37/64	19 15/32	6 55/64
	2③	18 37/64	19 15/32	6 55/64	....	....	....	....	....	....	....	....	....
	3	....	....	....	26 13/16	8 29/32	7 23/32	....	....	....	....	....	....
	3, 4②	41 1/16	12 29/32	8 51/64	33 3/16	12 29/32	8 51/64	28 3/16	25 13/32	9 23/64	28 3/16	25 13/32	9 23/64
12	0, 1, 2②	27 11/64	8 25/32	7 25/64	23 61/64	8 47/64	7 23/64	18 37/64	19 15/32	7 25/64	18 37/64	19 15/32	7 25/64
	2	18 37/64	19 15/32	7 25/64	....	....	....	....	....	....	....	....	....
	3, 4②	41 11/16	12 29/32	9 7/8	33 3/16	12 29/32	9 7/8	28 3/16	25 13/32	9 7/8	28 3/16	25 13/32	9 7/8

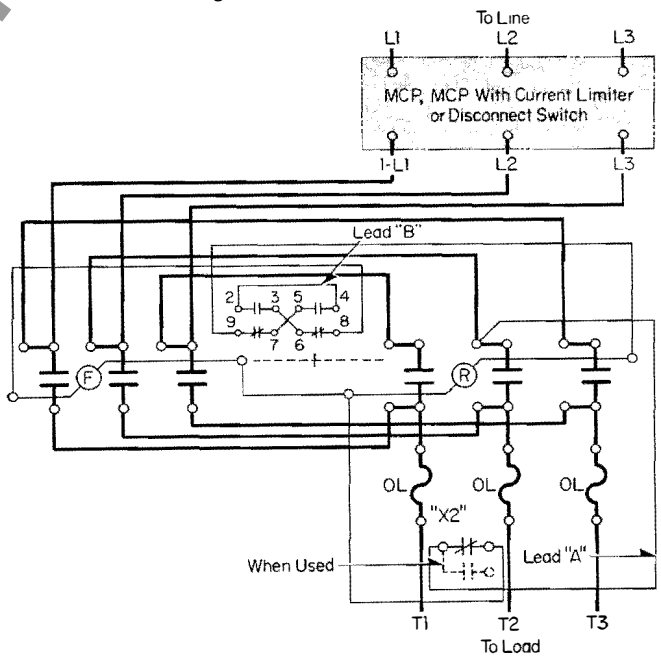
② Space available for control transformer.
③ 200 amperes, maximum fuse clip rating.
④ Dimensions shown are over-all, including mounting feet, hubs, etc. Drawings not intended to show construction features.

Typical Wiring Diagrams

Three Phase Non-Reversing Starter



Three Phase Reversing Starter



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