



COMPACT MANUAL NEMA STARTERS



B7MSN2P



Internal View

Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, Ga
 Class III, Div. 1 & 2
 ENCL. Type 3, 4 & 4X



Certified - File LR11714

FEATURES-SPECIFICATIONS

Applications

The PRISM® B7MSN Series of nonreversing, manual line voltage starters and enclosures are suitable for use in applications requiring manual across-the-line starting and stopping of small single and polyphase AC motors, and where overload protection is needed. Manual starters are generally used on small machine tools, fans and blowers, pumps, compressors, and conveyors as well as many other types of electrical equipment.

PRISM® enclosures universal design accommodates, as standard, starter manufacturers including

- Allen-Bradley 609 Series
- Cutler-Hammer B100M Series
- GE CR106 Series
- Square D 2510M Series

Allen Bradley © Rockwell Automation

Cutler-Hammer © Eaton Corporation

GE © General Electric Company

Square D © Schneider Electric

Features

- Compact size enclosures provide application flexibility with cost savings over industry standard sizes
- NEMA 4, 4X rated – providing protection from hose directed water and corrosion
- Pre-drilled to facilitate easy field installation of starters
- Large double green/red start-stop push buttons
- Can be pad locked in “OFF” position
- Provisions for drain and breather
- Bolt on ductile mounting lugs
- Two 1-1/2” NPT conduit openings provided as standard, with custom openings on request

Electrical Rating

NEMA starter sizes 0, 1, 1-1/2 FVNR;
 2 pole single phase = 230 VAC
 3 pole three phase = 600 VAC
 2 pole VDC = 230 VDC

Overload Heaters

Heaters are not included, see next page.

Standard Materials /Finish

- Enclosures: Copper-free aluminum (less than 4/10 of 1% copper content)
- Cover Bolts: 316 Stainless Steel
- O-ring Gasket: Silicone
- Finish: Grey Powder Polyester painted exterior, electrostatically applied

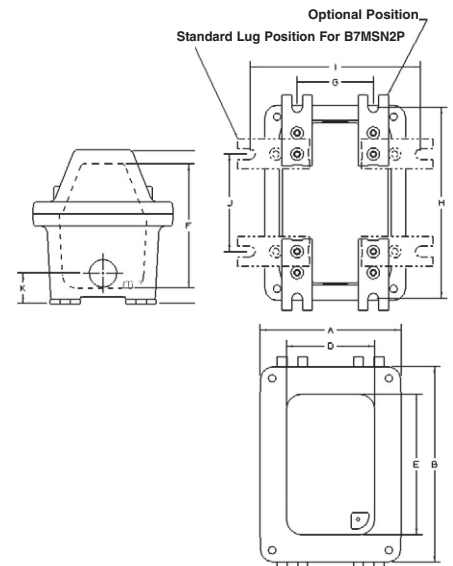
MODIFICATIONS

SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
AO	Aux. contact NO only
AC	Aux. contact NC only
SU-2	Hinge-9 Installed
SU3B-4X	Drain & Breather installed TYPE 4X
SU3B-4XSS	Drain & Breather installed TYPE 4X SS
B7SPNPT	Change Std. conduit size and location
SU9	Special paint finish
SU14	Fungus proofing of enclosures

* NOTE: The installation of a Drain & Breather will void the NEMA 4-4X rating of enclosure.

CATALOG NUMBER			SIZE/ PHASE	SINGLE PHASE HP		THREE PHASE				DC HP	
ENCLOSURE	W/CUTLER-HAMMER	W/ SQUARE D		120VAC	230VAC	208VAC	230VAC	480VAC**	600VAC	115DC	230VDC
B7MSN2P	B7MSN2PC0B	B7MSN2PS0B	M-0 2P	1	2					1 CH	1.5 CH
	B7MSN2PC1B	B7MSN2PS1B	M-1 2P	2	3					1.5 CH	2 CH
		B7MSN2PSDB	M-1P 2P	3	5						
	B7MSN2PC0C	B7MSN2PS0C	M-0 3P			3	3	5	5		
	B7MSN2PC1C	B7MSN2PS1C	M-1 3P			7.5	7.5	10	10		
		B7MSN2PS0V	M-0 2P VDC							1	1.5
		B7MSN2PS1V	M-1 2P VDC							1.5	2

ENCLOSURE	OUTSIDE BOX DIMENSIONS			NOMINAL INSIDE BOX			MOUNTING DIMENSIONS				
	A	B	C	D	E	F	G	H	I	J	K
B7MSN2P	8-1/8	13-1/16	7-13/16	4-1/4	9-3/16	6-5/16	2-1/2	11-3/8	6-3/8	7-1/2	1-13/16





B7MSN SERIES

HEATERS, CATALOG LOGIC, DIMENSIONS

B7MSN HEATER SELECTION ^① SQUARE D 2510M ONLY		
MOTOR FULL LOAD AMPS @ 40° C		
SIZE 0		
CATALOG NUMBER	SINGLE PHASE	THREE PHASE
KB044	0.33 - 0.36	0.29 - 0.32
KB051	0.37 - 0.40	0.33 - 0.36
KB057	0.41 - 0.45	0.37 - 0.39
KB063	0.46 - 0.52	0.40 - 0.47
KB071	0.53 - 0.59	0.48 - 0.56
KB081	0.60 - 0.66	0.57 - 0.63
KB092	0.67 - 0.73	0.64 - 0.69
KB103	0.74 - 0.81	0.70 - 0.77
KB116	0.82 - 0.91	0.78 - 0.86
KB130	0.92 - 1.02	0.87 - 0.96
KB145	1.03 - 1.14	0.97 - 1.11
KB167	1.15 - 1.29	1.12 - 1.23
KB188	1.20 - 1.42	1.24 - 1.37
KB210	1.43 - 1.64	1.38 - 1.55
KB240	1.65 - 1.80	1.56 - 1.75
KB265	1.81 - 2.10	1.76 - 1.92
KB300	2.11 - 2.30	1.93 - 2.16
KB330	2.31 - 2.61	2.17 - 2.50
KB370	2.62 - 2.99	2.51 - 2.81
KB415	3.00 - 3.37	2.82 - 3.16
KB485	3.38 - 3.94	3.17 - 3.40
KB550	3.95 - 4.24	3.41 - 3.76
KB625	4.25 - 4.54	3.77 - 4.00
KB690	4.55 - 5.29	4.01 - 4.68
KB770	5.30 - 5.73	4.69 - 5.18
KB820	5.74 - 6.35	5.19 - 5.51
KB910	6.36 - 7.08	5.52 - 6.19
KB102	7.09 - 7.83	6.20 - 7.12
KB115	7.84 - 8.47	7.13 - 8.15
KB128	8.48 - 9.83	8.16 - 8.60
KB014	9.84 - 10.5	8.61 - 9.21
KB155	10.6 - 11.4	9.22 - 10.1
KB175	11.5 - 12.8	10.2 - 11.2
KB195	12.9 - 13.9	11.3 - 12.0
KB022	14.0 - 16.1	-----
KB025	16.2 - 18.0	-----
SIZE 1 & 1P	SIZE 1 & 1P	SIZE 1 & 1P
KB195	-----	11.3 - 12.1
KB022	-----	12.2 - 13.6
KB025	16.2 - 17.6	13.7 - 15.3
KB280	17.7 - 20.6	15.4 - 17.3
KB032	20.7 - 23.1	17.4 - 19.1
KB036	23.2 - 26.0	19.2 - 21.7
KB040	-----	21.8 - 24.2
KB045	-----	24.3 - 26.0
SIZE 1P	SIZE 1P	SIZE 1P
KB036	23.2 - 27.1	-----
KB040	27.2 - 29.2	-----
KB045	29.3 - 33.0	-----
KB050	33.1 - 36.0	-----

① Select heater element based on motor nameplate listed full load amps. Trip rating of element is 125% of motor minimum F.L.A. listed for the element

Catalog Logic

Constant for Series _____ **B7MSN** **2** **P** **C** **1** **B** **A**
Enclosure Size _____
 2 = B7EQ
Operating Device _____
 P = Push Buttons
Starter Manufacturer _____
 C = Cutler-Hammer
 S = Square D
 Blank = Enclosure only
NEMA Size _____
 O = Size 0 1 = Size 1 D = Size 1-1/2
Number of Poles _____
 B = 2 Pole 1 Ø (Cutler-Hammer, Sq.D only)
 C = 3 Pole 3 Ø
 V = 2 Pole DC
Accessories _____
 AO = NO Aux. Contact AC = NC Aux. Contact

B7MSN HEATER SELECTIONS CUTLER-HAMMER							
CATALOG NUMBER	MOTOR FULL-LOAD AMPS @ 40°C		CUTLER- HAMMER CODEMARK	CATALOG NUMBER	MOTOR FULL-LOAD AMPS @ 40°C		CUTLER- HAMMER CODEMARK
	SINGLE PHASE	THREE PHASE			SINGLE PHASE	THREE PHASE	
YOWEA200-FH03	.28-.29	.25-.26	FH03	YOWEA200-FH30	4.04-4.40	3.54-3.86	FH30
YOWEA200-FH04	.30-.33	.27-.29	FH04	YOWEA200-FH31	4.41-4.81	3.87-4.22	FH31
YOWEA200-FH05	.34-.36	.30-.32	FH05	YOWEA200-FH32	4.82-5.26	4.23-4.61	FH32
YOWEA200-FH06	.37-.40	.33-.35	FH07	YOWEA200-FH33	5.27-5.74	4.62-5.03	FH33
YOWEA200-FH07	.41-.45	.36-.39	FH07	YOWEA200-FH34	5.75-6.25	5.04-5.49	FH34
YOWEA200-FH08	.46-.50	.40-.44	FH08	YOWEA200-FH35	6.27-6.83	5.50-5.99	FH35
YOWEA200-FH09	.51-.56	.45-.49	FH09	YOWEA200-FH36	6.84-7.45	6.00-6.53	FH36
YOWEA200-FH10	.57-.63	.50-.55	FH10	YOWEA200-FH37	7.46-8.11	6.54-7.11	FH37
YOWEA200-FH11	.64-.70	.56-.61	FH11	YOWEA200-FH38	8.12-8.81	7.12-7.73	FH38
YOWEA200-FH12	.71-.78	.62-.68	FH12	YOWEA200-FH39	8.82-9.58	7.74-8.40	FH39
YOWEA200-FH13	.79-.86	.69-.75	FH13	YOWEA200-FH40	9.59-10.40	8.41-9.12	FH40
YOWEA200-FH14	.87-.95	.76-.83	FH14	YOWEA200-FH41	10.41-11.3	9.13-9.89	FH41
YOWEA200-FH15	.96-1.04	.84-.91	FH15	YOWEA200-FH42	11.4-12.2	9.9-10.7	FH42
YOWEA200-FH16	1.05-1.14	.92-1.00	FH16	YOWEA200-FH43	12.3-13.5	10.8-11.8	FH43
YOWEA200-FH17	1.15-1.25	1.01-1.10	FH17	YOWEA200-FH44	13.6-14.9	11.9-13.0	FH44
YOWEA200-FH18	1.26-1.39	1.11-1.22	FH18	YOWEA200-FH45	15.0-16.0	13.1-14.0	FH45
YOWEA200-FH19	1.40-1.54	1.23-1.35	FH19	YOWEA200-FH46	16.1-17.1	14.1-15.0	FH46
YOWEA200-FH20	1.55-1.71	1.36-1.50	FH20	YOWEA200-FH47	17.2-18.3	15.1-16.1	FH47
YOWEA200-FH21	1.72-1.89	1.51-1.66	FH21	YOWEA200-FH48	18.4-19.7	16.2-17.3	FH48
YOWEA200-FH22	1.90-2.10	1.67-1.84	FH22	YOWEA200-FH49	19.8-21.2	17.4-18.6	FH49
YOWEA200-FH23	2.11-2.32	1.85-2.03	FH23	YOWEA200-FH50	21.3-22.8	18.7-20.0	FH50
YOWEA200-FH24	2.33-2.54	2.04-2.23	FH24	YOWEA200-FH51	22.9-24.5	20.1-21.5	FH51
YOWEA200-FH25	2.55-2.79	2.24-2.45	FH25	YOWEA200-FH52	24.6-26.4	21.6-23.2	FH52
YOWEA200-FH26	2.80-3.07	2.46-2.69	FH26	YOWEA200-FH53	26.5-28.5	23.2-25.0	FH53
YOWEA200-FH27	3.08-3.36	2.70-2.95	FH27	YOWEA200-FH54	28.6-30.8	25.1-26.8	FH54
YOWEA200-FH28	3.37-3.68	2.96-3.23	FH28	YOWEA200-FH55	30.9-33.3	—	FH55
YOWEA200-FH29	3.69-4.03	3.24-3.53	FH29	YOWEA200-FH56	33.4-36.0	—	FH56
				YOWEA200-FH57	36.1-38.9	—	FH57