ABB BALDOR RELIANCE

Customer information packet

BSM90N-375AF

BSM90N-375AF T'STAT ENCODER

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11/20/2026 10:26:43 AM

Specifications

Enclosure	TENV
Nameplate Speed	4000
Agency Approvals	CE
	CSA
	TUV
	UR
Base Indicator	Bracket Mounted
Dimensional Drawing Numbers	S3LYP136
Frame	D130D
Frame Material	Exposed Laminations
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Standards	IEC
Mounting Arrangement	F1
Nameplate Output	3.46KW
Shaft Rotation	Reversible

Part Detail

Revision	AN
Type	AC
Mech. spec.	S3P136
Base	
Status	PRD/A
Elec. spec.	S3WGW063
Layout	S3LYP136
Eff. date	07-29-2025
CD Diagram	CD0006A02
Poles	08
Leads	3#14
Proprietary	False
Created date	01-01-0001

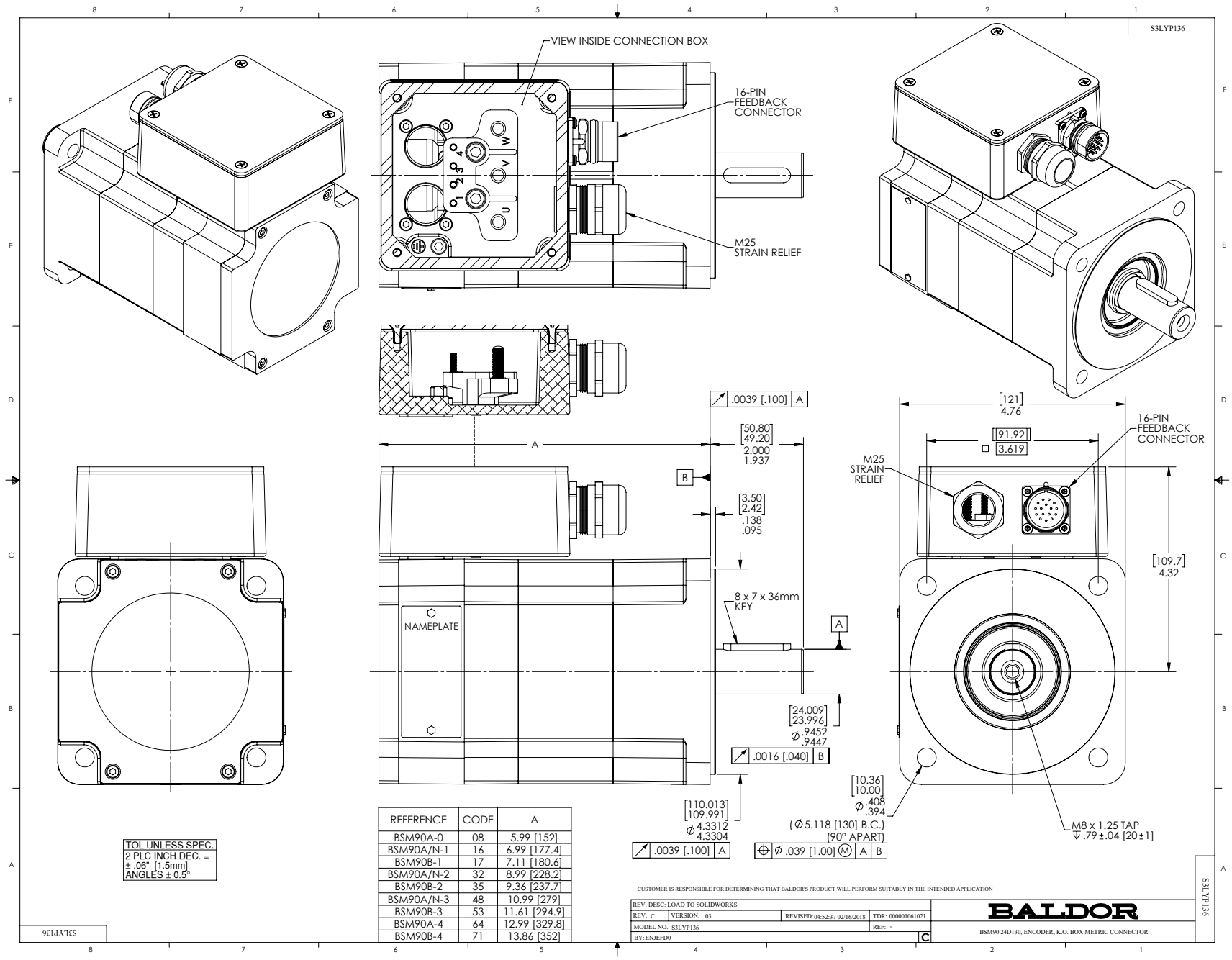
Nameplate

NP2863L						
CAT.NO.	BSM90N-375AF					
SPEC.	S3P136W063					
MFG.NO.						
TORQ CONT STALL	13.3 NM					
CUR CONT STALL/A RMS	19					
POWER	3.46KW					
RATED SPEED/RPM(1/MIN)	4000					
RATED BUS VOLTS	300					
PEAK CUR/A RMS	68.5					
MAX SPEED/RPM(1/MIN)	7000					
IP	54	**IC**	410	**WT.**	19	
CLASS	F	**25C RATED**				

Parts List

Part number	Description	Quantity
SA111920	SA S3P136W063	1.000 ea
RA103226	RA S3P136W063	1.000 ea
WD1000D140	TRM,T&B #B71,RING,18-14,.25,NON-INSL	3.000 ea
RM1020A03	O-RING, -045 BUNA-N, .070 CS X 3.989 ID	1.000 ea
84YN0030L006	SHCS 3MM X 6MM W/NYLON PATCH	2.000 ea
HW1020A03	WASHER, FLAT 3MM	2.000 ea
HW1021A03	WASHER, M3 SPLIT LOCK	2.000 ea
S3CB3002E01	BSM90 BLDC FEEDBACK COVER LIGHT GREY	1.000 ea
84YN0040J020	M4 X 20MM SHC SCREW	4.000 ea
HW5002A94	RET RING 52MM INTERNAL BEVELED F/205 BRG	1.000 ea
BG6205E03	6205 D.SL,C3,POLYREX EM	1.000 ea
HW5100A43	WASHER WAVE (W1543-020) ZINC PLATED 40MM	2.000 ea
HW2511A101	KEY, 8MM X 7MM X 36MM W/ROUNDED ENDS	1.000 ea
HA1038	SYNCHRO CLAMP, BLDC RESOLVER/HALL MTG	1.000 ea
OE0323A03	ENCODER, EPC, 2500L,8 POLE, 40MM BC, CE	1.000 ea
S4CB5001A41EPC	TERM BOX ASSY BSM90-100 M25 TAP WITH	1.000 ea
S3EP3504C07	FR EP BSM90, TERMINAL BOX MTG W\ ENCODER	1.000 ea
84YN0040J020	M4 X 20MM SHC SCREW	4.000 ea
HW1021A04	WASHER, M4 SPLIT LOCK	4.000 ea
RM1020A03	O-RING, -045 BUNA-N, .070 CS X 3.989 ID	1.000 ea
WD1000D84	TERMINAL, NON-INS RING, 22-18 GA, BULK P	2.000 ea
99XM0356A02	STICK SCREW, #3-56 X .125 LG. HEX (MARK	2.000 ea
MJ5004A02	P-2 FRANKLIN RESIN	0.001 ga
MJ5004A03	S-C FRANKLIN ACTIVATOR, THIS IS A NO CHA	0.001 qt
ME3001A02	449S2 FIBERGLASS 20 END ROVING AA-750	0.015 lb
MG2000A17	RUST INHIBITOR PART # SRPO #20	0.001 ga
MG1025L02-1	WILKOFAST, 776.06 TEXTURE (BSM) BLACK	0.003 ga
MG1025Z09	CATALYST #060.06 WILCO	0.003 qt
MG1500Y08	PRIMER-WILKOPON (603.08A)YELLOW PRIMER W	0.003 qt
MG1025Z08	WILKO 603.08B PRIMER REDUCER TDR# 72361	0.003 qt
NP2863L	NAMEPLATE BSM90/100 ALUM, LASER ETCHED	1.000 ea

PK3083	STYROFOAM PACKING CRADLE	1.000 ea
27PA1001	PKG GRP, PRINT PK1027A07	1.000 ea
LB1534	MYLAR CE WARNING LABEL FOR SERVO MOTORS	1.000 ea
LB1417	LABEL CARTON 6X4 PERFORATED BLANK ROLLS	1.000 ea
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS	1.000 ea

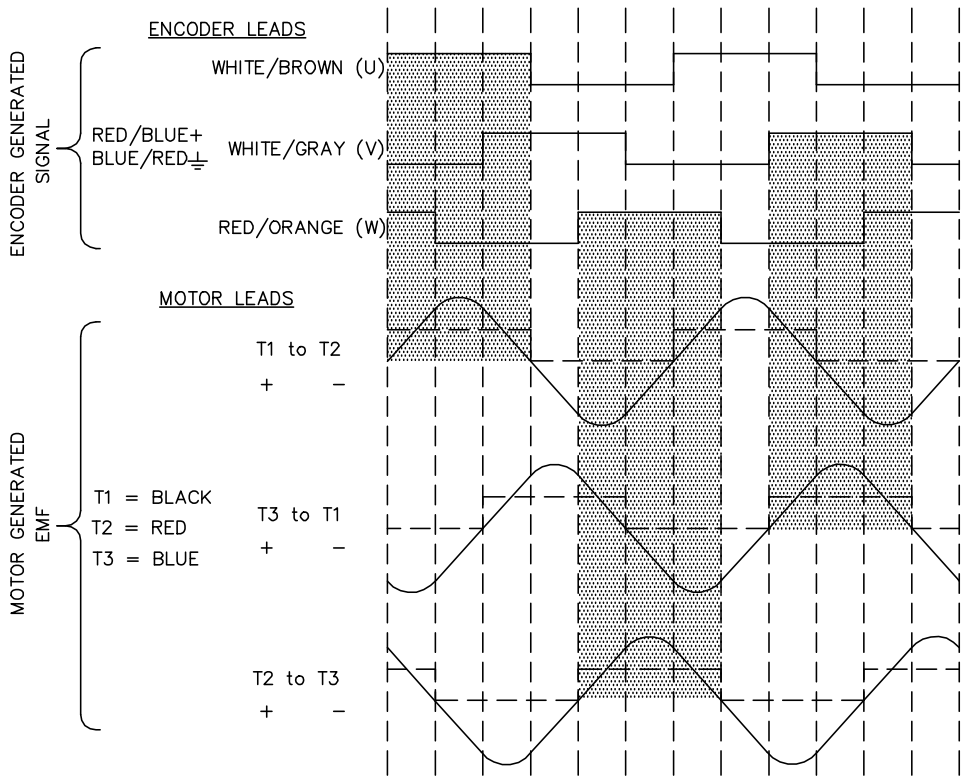


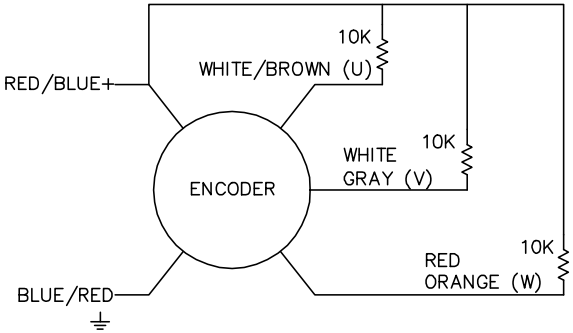
REFERENCE	CODE	A
BSM90A-0	08	5.99 [152]
BSM90A/N-1	16	6.99 [177.4]
BSM90B-1	17	7.11 [180.6]
BSM90A/N-2	32	8.99 [228.2]
BSM90B-2	35	9.36 [237.7]
BSM90A/N-3	48	10.99 [279]
BSM90B-3	53	11.61 [294.9]
BSM90A-4	64	12.99 [329.8]
BSM90B-4	71	13.86 [352]

CD1338A01

BRUSHLESS D.C. COMMUTATION

8 POLE MECHANICAL DEGREES	0	15	30	45	60	75	90	105	120	135	150	165	180
4 POLE MECHANICAL DEGREES	0	30	60	90	120	150	180	210	240	270	300	330	360
ELECTRICAL DEGREES	0	60	120	180	240	300	360	420	480	540	600	660	720





NOTE:
CCW ROTATION VIEWING
MOTOR SHAFT END

REV. DESC: NEW			BALDOR ELECTRIC Co.
REV. LTR: –	BY: FN	REVISED: 11:22:25 03/24/2004	TDR: 328266
CD1338A01		FILE: AAA00115153	REF: CD1338A01
		MTL: –	BLDC COMMUTATION KOYO ENC.(CHANNELS TO MATCH TMGW/SUMTAK)

CD1338A01

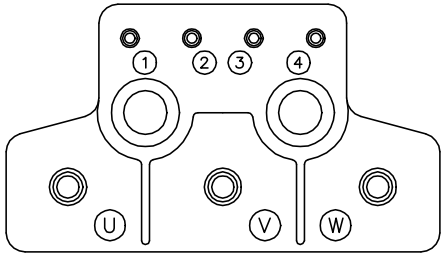
CD1388A02

MOTOR CONNECTIONS

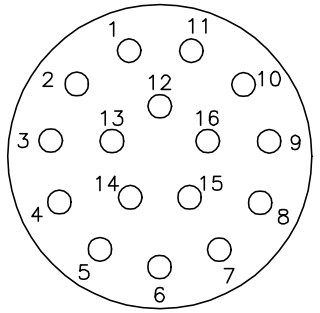
TERMINAL LABEL	FUNCTION	INTERNAL WIRE MARKING
1	THERMAL SWITCH	YELLOW
2	THERMAL SWITCH	YELLOW
3	✳BRAKE	BLACK
4	✳BRAKE	BLACK
⏚	GROUND	-----
U	PHASE U	BLACK OR T1
V	PHASE V	RED OR T2
W	PHASE W	BLUE OR T3

✳ WHEN REQUIRED

GROUND BOSS



PIN	FUNCTION	WIRE COLOR
1	DC+5V	RED/BLUE
2	GROUND	BLUE/RED
3	CHANNEL A	BLUE
4	CHANNEL $\overline{A}$	ORANGE
5	CHANNEL B	GREEN
6	CHANNEL $\overline{B}$	BROWN
7	CHANNEL Z	BLACK
8	CHANNEL $\overline{Z}$	YELLOW
9	OPEN	---
10	CHANNEL U	WHITE/BROWN
11	CHANNEL $\overline{U}$	BROWN/WHITE
12	CHANNEL V	WHITE/GRAY
13	CHANNEL $\overline{V}$	GRAY/WHITE
14	CHANNEL W	RED/ORANGE
15	CHANNEL $\overline{W}$	ORANGE/RED
16	OPEN	---



16 PIN CONNECTOR
THREADED CRIMP PIN STYLE
16– #20 CONTACT SIZE
(CRIMP SIDE)

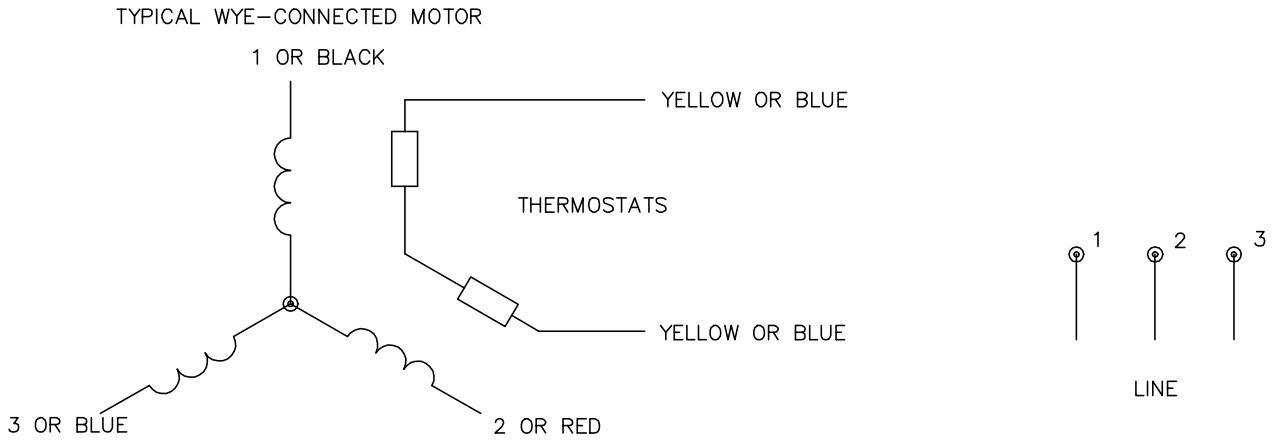
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CD1388A02		FILE: AAA00115200	REF: CD1388A02
		MTL: –	

BALDOR ELECTRIC Co.

CONN DIAG KOYO ENCODER C/T, K.O. BOX & 16 PIN CONNECTOR

CD1388A02

CD0006A02



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.

REV. DESC: REMOVED "OPTIONAL" FROM PRINT, SERVO REQ'S T'STATS			BALDOR ELECTRIC Co.
REV. LTR: D	VERSION: 03	TDR: 000000414937	
CD0006A02	FILE: \AAA\00068\606	REVISED: 10:02:28 11/21/2006	3PH, SV, 3 LEADS, WYE CONNECTED
	MTL: –	BY: ENJEFDO	

CD0006A02