

# **ABB BALDOR RELIANCE III**

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## **Customer information packet** BSM50N-233AF

BSM50N-233AF T'STAT ENCODER

**Specifications**

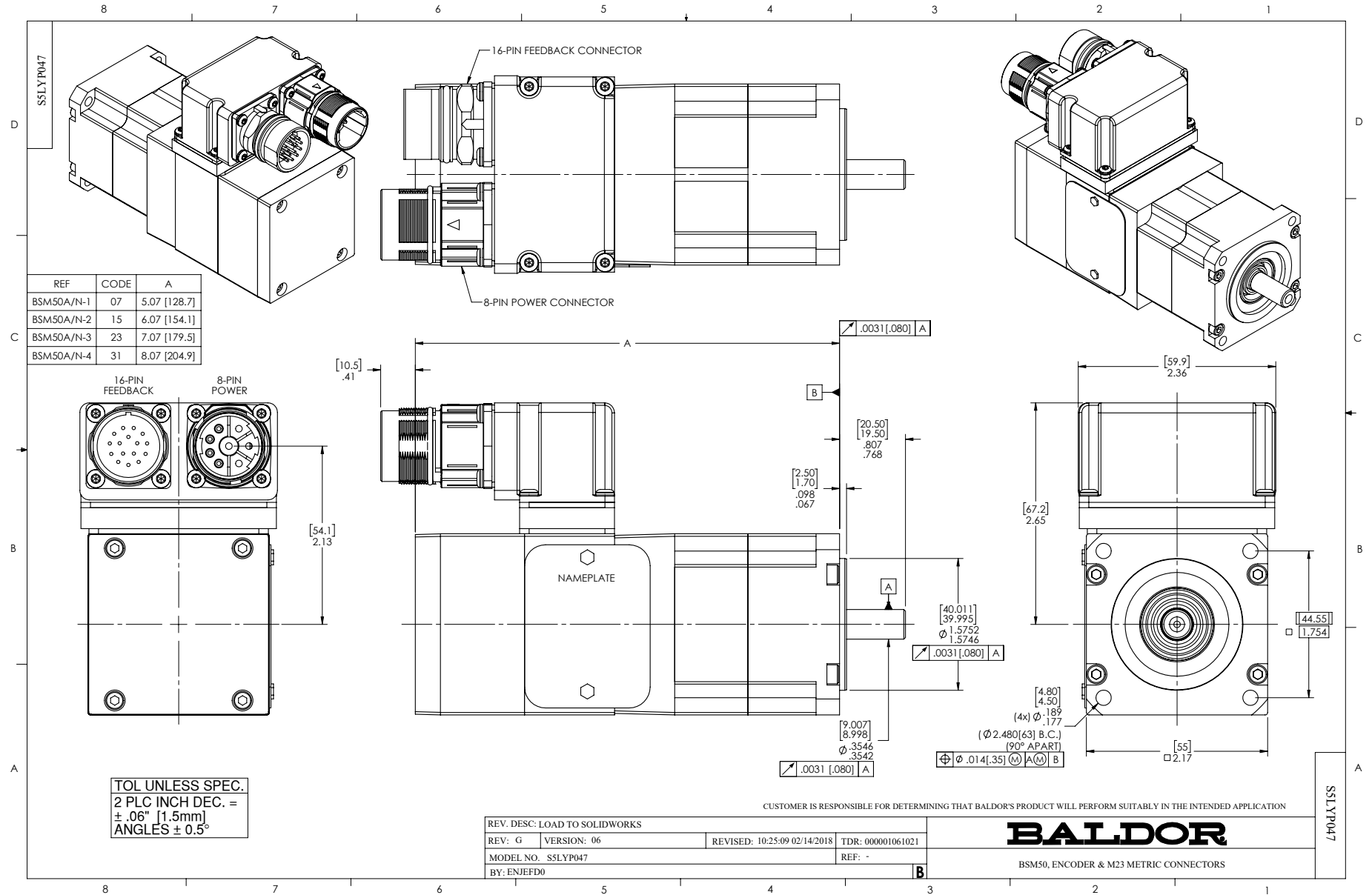
<b>Enclosure</b>	TENV
<b>Nameplate Speed</b>	4000
<b>Agency Approvals</b>	CE CSA TUV UR WEEE
<b>Base Indicator</b>	Bracket Mounted
<b>Dimensional Drawing Numbers</b>	S5LYP047
<b>Frame</b>	D63D
<b>Motor Lead Quantity/Wire Size</b>	3 @ 18 AWG
<b>Motor Standards</b>	IEC
<b>Mounting Arrangement</b>	F1
<b>Nameplate Output</b>	0.36KW
<b>Shaft Rotation</b>	Reversible

**Part Detail**

<b>Revision</b>	AB
<b>Type</b>	AC
<b>Mech. spec.</b>	S5P047
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	S5WGW024
<b>Layout</b>	S5LYP047
<b>Eff. date</b>	06-11-2025
<b>CD Diagram</b>	CD0006A02
<b>Poles</b>	04
<b>Leads</b>	3#18
<b>Proprietary</b>	False
<b>Created date</b>	12-20-2006

**Nameplate**

<b>NP2859L</b>	
<b>CAT.</b>	BSM50N-233AF
<b>SPEC</b>	S5P047W024G4
<b>MFG</b>	
<b>TORQ CONT STALL</b>	0.91 NM
<b>CUR CONT STALL/A RMS</b>	2.87
<b>POWER</b>	0.36KW
<b>RATED SPEED/RPM(1/MIN)</b>	4000
<b>RATED BUS VOLTS</b>	160
<b>PEAK CUR/A RMS</b>	11.5
<b>MAX SPEED/RPM(1/MIN)</b>	10000
	<b>WT.</b> 2.3
<b>CLASS</b>	F IP 54 IC 410 <b>25C RATED</b>



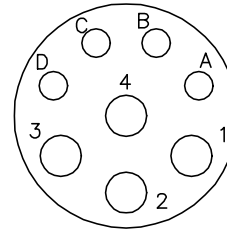
CD1297A04

**MOTOR CONNECTIONS**

PIN	FUNCTION	INTERNAL WIRE COLOR
A	*THERMAL SWITCH	YELLOW
B	*THERMAL SWITCH	YELLOW
C	*BRAKE	BLACK
D	*BRAKE	BLACK
1	U	BLACK
2	GROUND	GREEN OR **GREEN/YELLOW
3	W	BLUE
4	V	RED

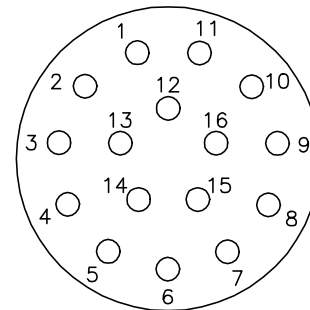
\*WHEN REQUIRED

\*\*CE MOTORS REQUIRE GREEN/YELLOW GROUND



8 PIN MOTOR CONNECTOR  
THREADED CRIMP PIN STYLE

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



16 PIN CONNECTOR  
THREADED CRIMP PIN STYLE

16- #20 CONTACT SIZE  
(CRIMP SIDE)

CD1297A04

REV. DESC: ADD CE NOTE AND GREEN/YELLOW GROUND

REV. LTR: A

VERSION: 01

TDR: 000001192301

FILE: \AAA\00115\154

REVISED: 02:31:08 06/13/2022

BY: ENDANDO

MTL: -



**BALDOR - RELIANCE®**

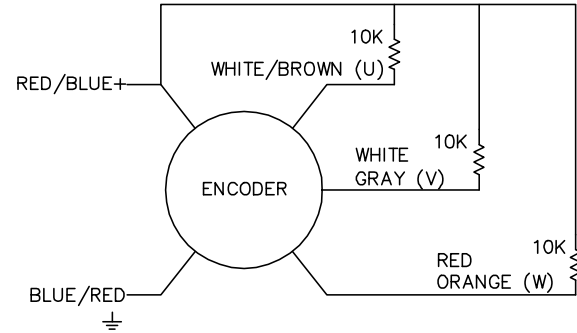
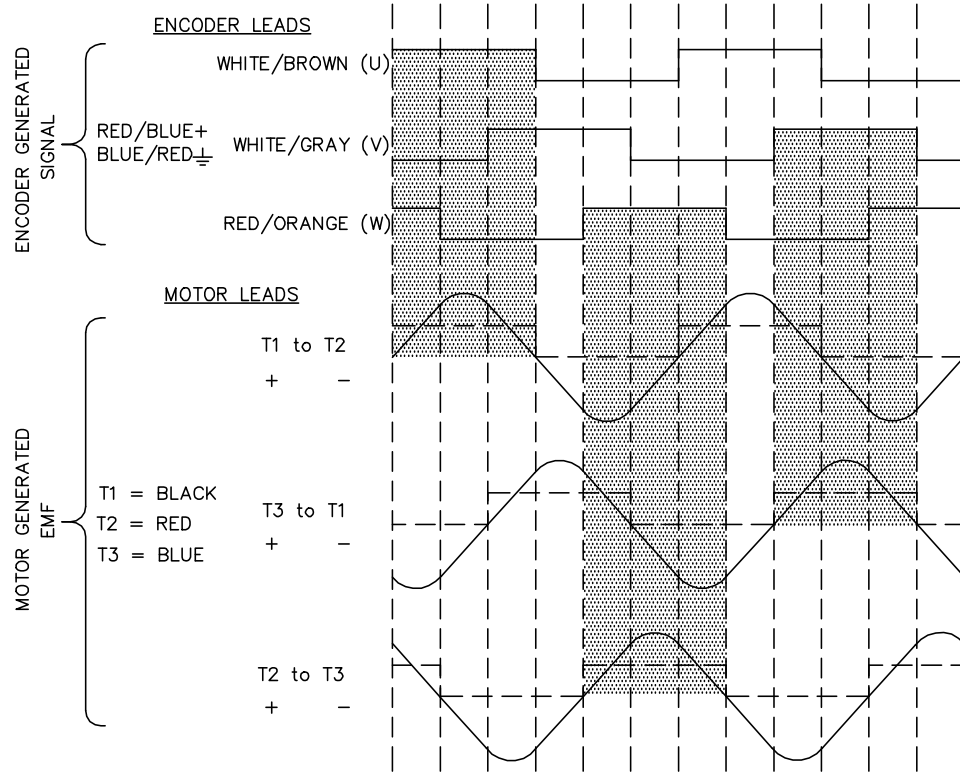
KOYO ENCODER (CHANNELS TO MATCH TMGW/SUMTAK OUTPUT)

SH 1 of 1

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

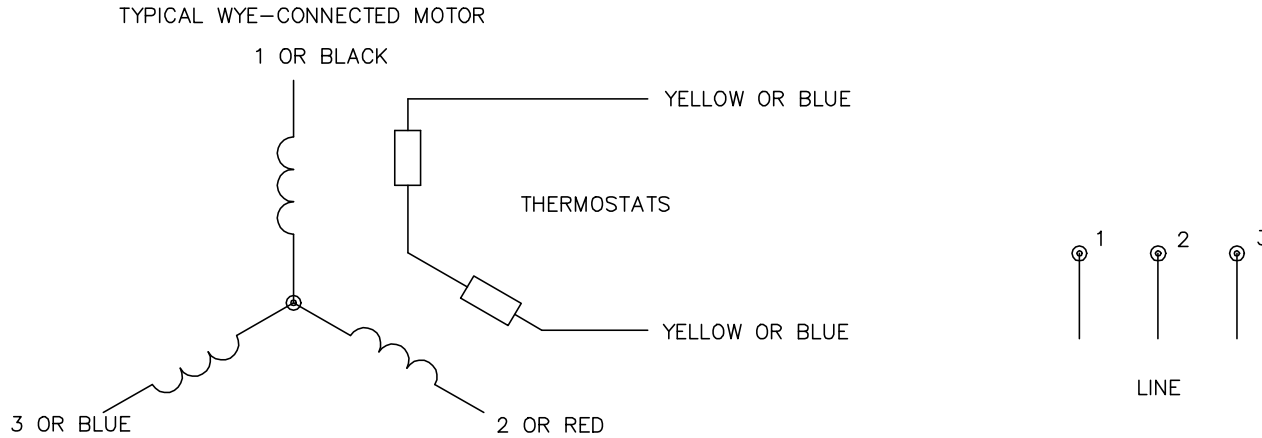
CD1338A01

REV. DESC: NEW			
REV. LTR: -	BY: FN	REVISED: 11:22:25 03/24/2004	TDR: 328266
CD1338A01		FILE: AAA00115153	REF: CD1338A01
		MTL: -	

**BALDOR ELECTRIC Co.**

BLDC COMMUTATION KOYO ENC.(CHANNELS TO MATCH TMGW/SUMTAK)

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		
REV. LTR: D	VERSION: 03	TDR: 000000414937
CD0006A02	FILE: \AAA\00068\606	REVISED: 10:02:28 11/21/2006
	MTL: -	BY: ENJFDO

**BALDOR ELECTRIC Co.**

3PH, SV, 3 LEADS, WYE CONNECTED

CD0006A02