

# **ABB BALDOR RELIANCE III**



## **Customer information packet** BSM80C-250AF

BSM80C-250AF T'STAT, ENCODER

**Specifications**

<b>Enclosure</b>	TENV
<b>Nameplate Speed</b>	6000
<b>Agency Approvals</b>	CE CSA TUV UR
<b>Base Indicator</b>	Bracket Mounted
<b>Dimensional Drawing Numbers</b>	S2LYP196
<b>Frame</b>	D100D
<b>Frame Material</b>	Exposed Laminations
<b>Motor Lead Quantity/Wire Size</b>	3 @ 18 AWG
<b>Motor Standards</b>	IEC
<b>Mounting Arrangement</b>	F1
<b>Nameplate Output</b>	1.02KW
<b>Shaft Rotation</b>	Reversible

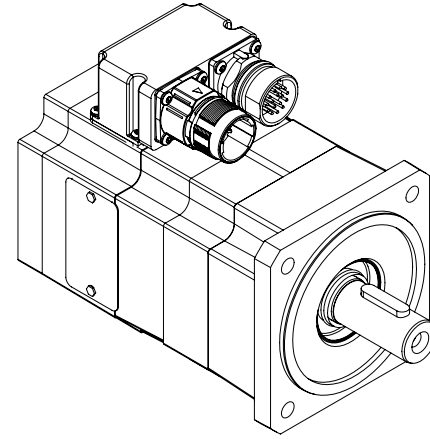
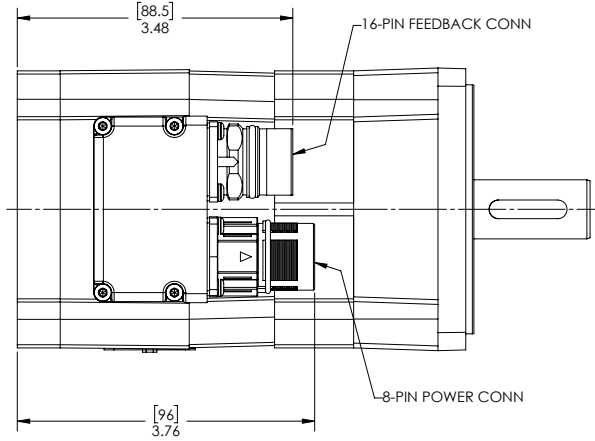
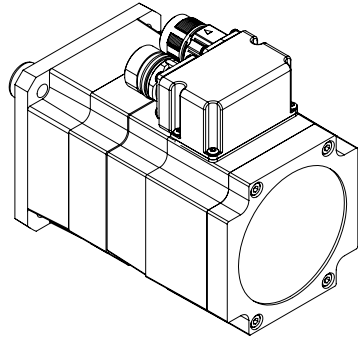
**Part Detail**

<b>Revision</b>	AF
<b>Type</b>	AC
<b>Mech. spec.</b>	S2P196
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	S2WGW054
<b>Layout</b>	S2LYP196
<b>Eff. date</b>	07-16-2025
<b>CD Diagram</b>	CD0006A02
<b>Poles</b>	04
<b>Leads</b>	3#18
<b>Proprietary</b>	False
<b>Created date</b>	01-01-0001

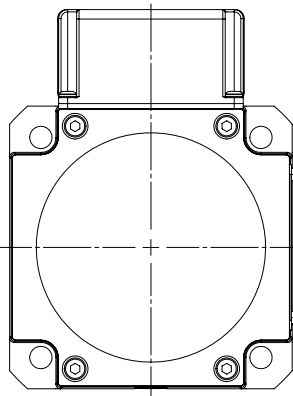
**Nameplate**

<b>NP2864L</b>									
<b>CAT.NO.</b>									
<b>BLANK</b>									
<b>SPEC.</b>	S2P196W054								
<b>MFG.NO.</b>									
<b>TORQ CONT STALL</b>	2.4 NM								
<b>CUR CONT STALL/A RMS</b>	5.22								
<b>POWER</b>	1.02KW								
<b>RATED SPEED/RPM(1/MIN)</b>	6000								
<b>RATED BUS VOLTS</b>	320								
<b>PEAK CUR/A RMS</b>	15.6								
<b>MAX SPEED/RPM(1/MIN)</b>	7000			<b>AMB.</b>	25				
<b>CLASS</b>	F	<b>IP</b>	54	<b>IC</b>	410		<b>MOTOR MASS</b>	5.4	

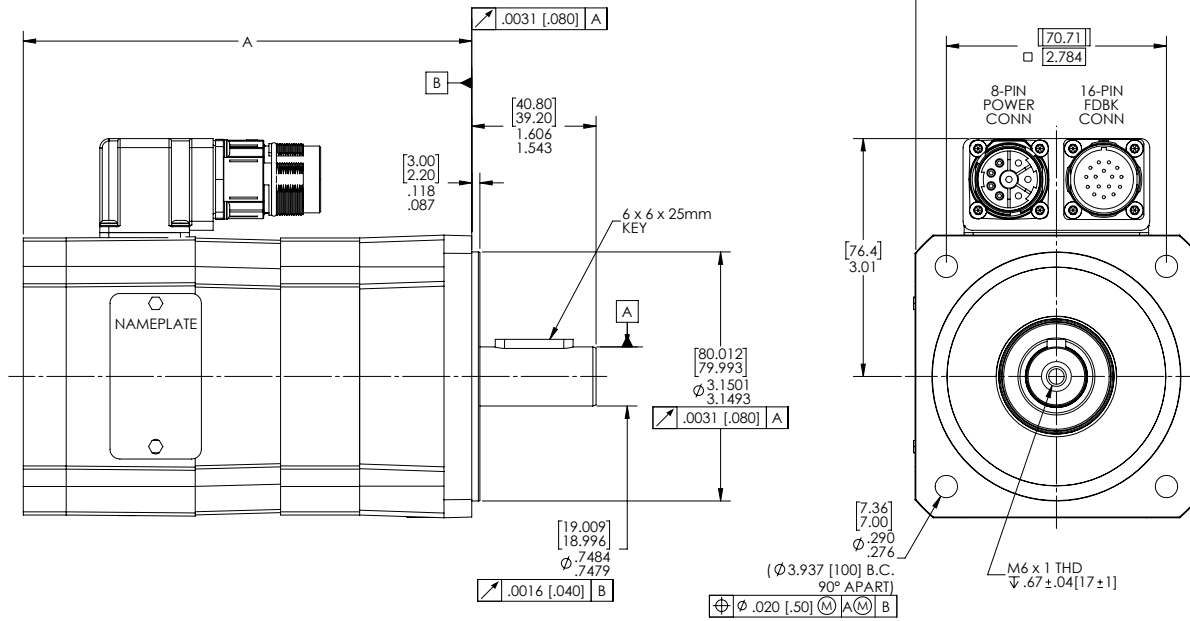
S2LYP196



REFERENCE	CODE	A
BSM80C-1	08	5.67 [144.0]
BSM80C-2	16	6.67 [169.4]
BSM80C-3	24	7.67 [194.8]
BSM80C-4	32	8.67 [220.2]



TOL UNLESS SPEC.  
2 PLC INCH DEC. =  
± .06" [1.5mm]  
ANGLES ± 0.5°



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: LOAD TO SOLIDWORKS	VERSION: 04	REVISED: 04-04-05 02/16/2018	TDR: 000001061021
MODEL NO. S2LYP196	BY: ENJEFFD0	REF: -	

**BALDOR**  
BSM80C, D56M19D100, ENCODER, RING MAGNET

9614ATCS

9614ATCS

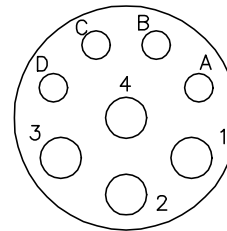
CD1297A04

**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

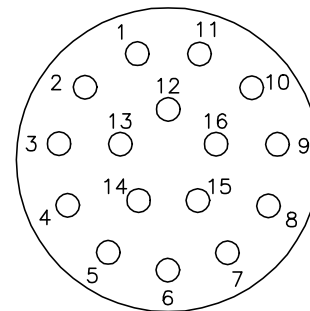
\*WHEN REQUIRED

\*\*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®**

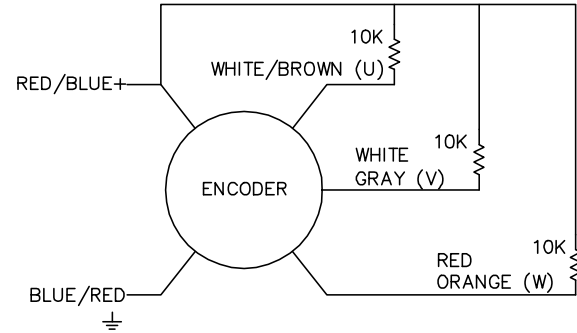
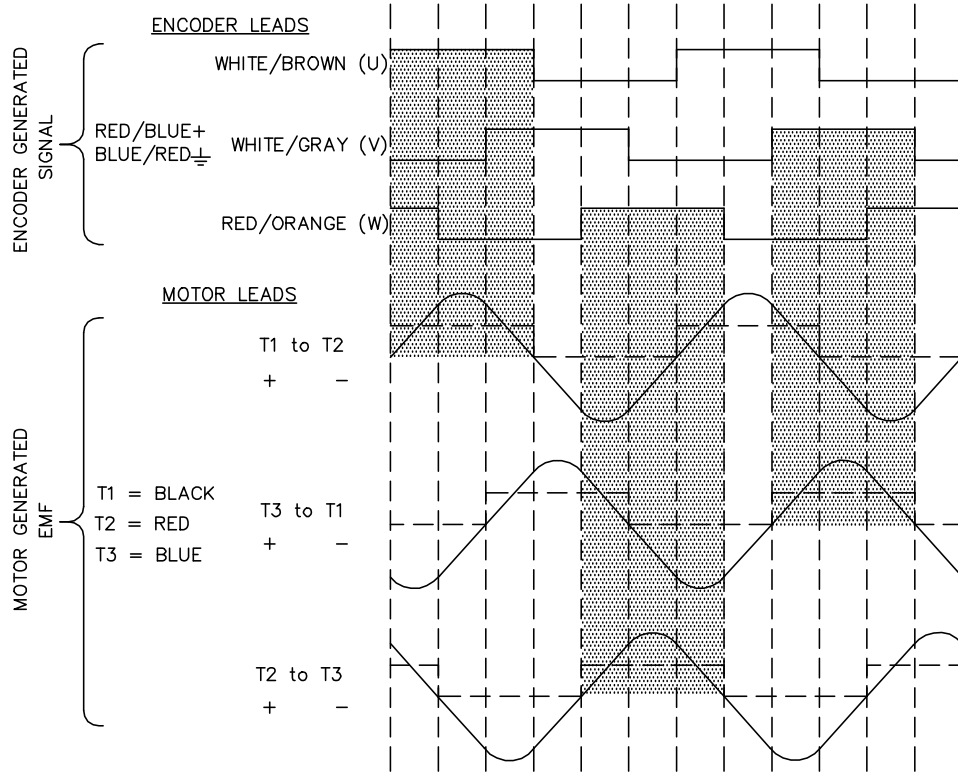
KOYO ENCODER (CHANNELS TO MATCH TMGW/SUMTAK OUTPUT)

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