

# ABB BALDOR RELIANCE III

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## Customer information packet

### BSM90C-3250AF

BSM90C-3250AF T'STAT, ENCODER

**Specifications**

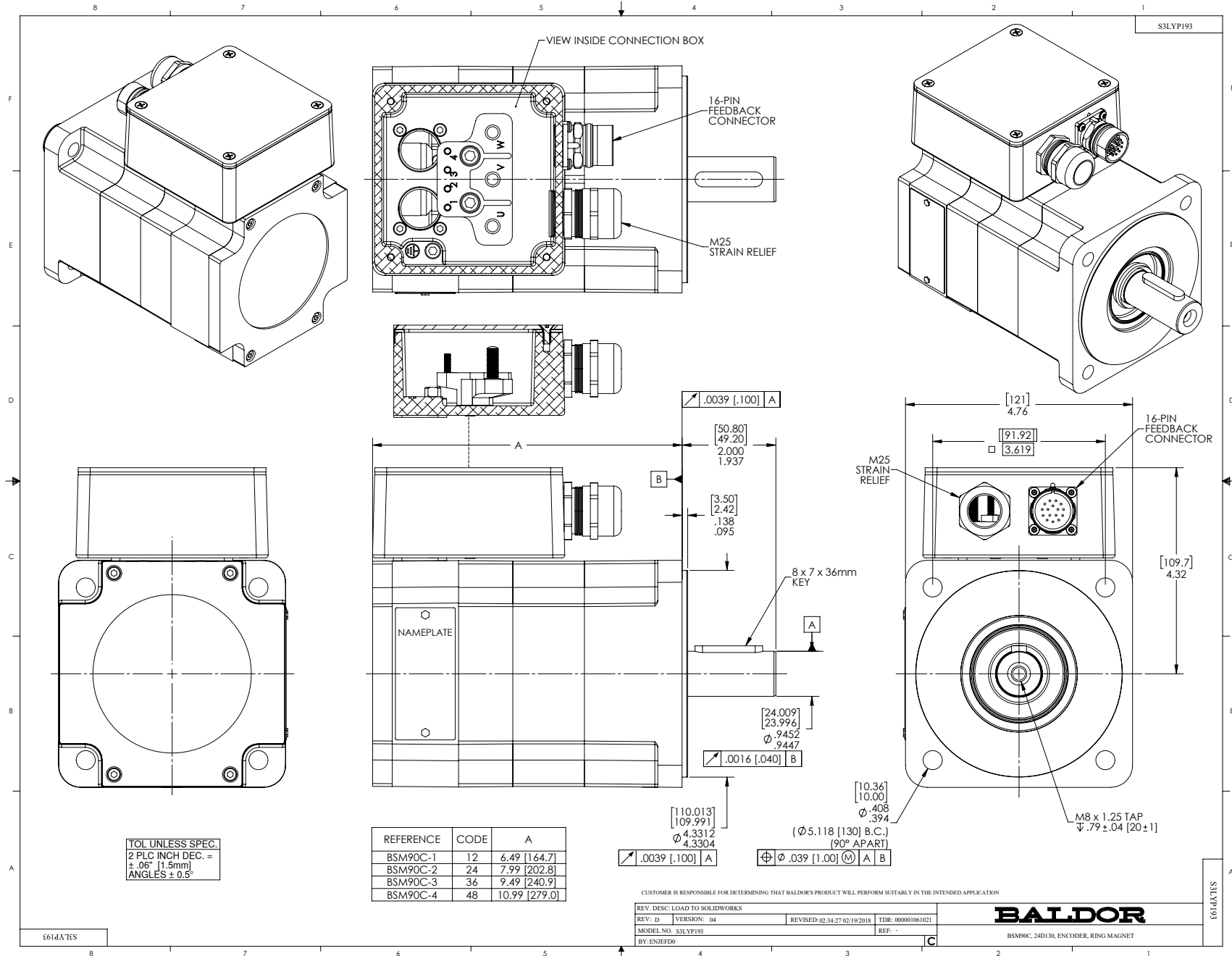
|                                      |                     |
|--------------------------------------|---------------------|
| <b>Enclosure</b>                     | TENV                |
| <b>Nameplate Speed</b>               | 1200                |
| <b>Agency Approvals</b>              | CE                  |
|                                      | CSA                 |
|                                      | TUV                 |
|                                      | UR                  |
| <b>Base Indicator</b>                | Bracket Mounted     |
| <b>Dimensional Drawing Numbers</b>   | S3LYP193            |
| <b>Frame</b>                         | D130D               |
| <b>Frame Material</b>                | Exposed Laminations |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 16 AWG          |
| <b>Motor Standards</b>               | IEC                 |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Nameplate Output</b>              | 0.98KW              |
| <b>Shaft Rotation</b>                | Reversible          |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AN         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | S3P193     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | S3WGW083   |
| <b>Layout</b>       | S3LYP193   |
| <b>Eff. date</b>    | 10-15-2025 |
| <b>CD Diagram</b>   | CD0006A02  |
| <b>Poles</b>        | 08         |
| <b>Leads</b>        | 3#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-01-0001 |

Nameplate

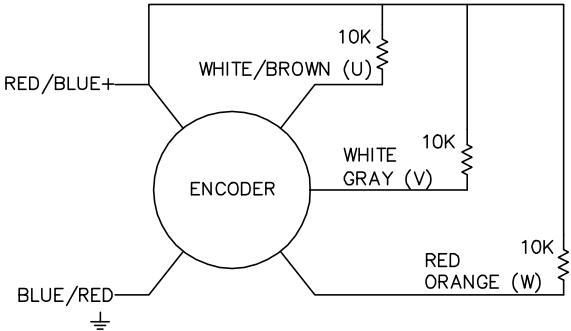
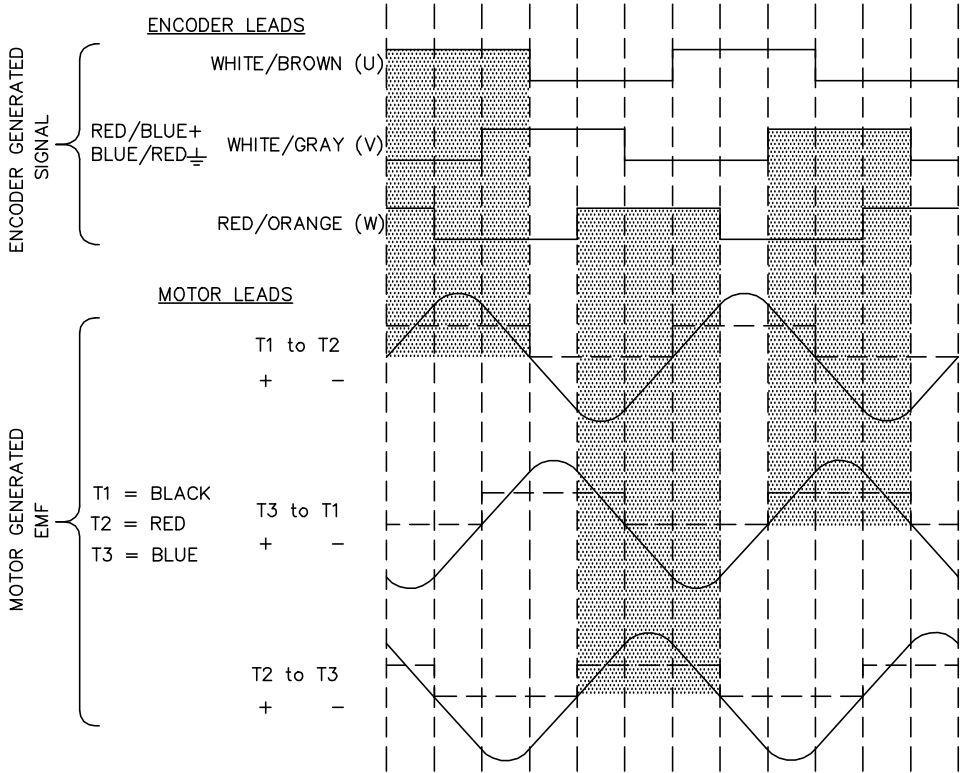
| NP2863L                |            |           |     |     |      |
|------------------------|------------|-----------|-----|-----|------|
| CAT.NO.                |            |           |     |     |      |
| SPEC.                  | S3P193W083 |           |     |     |      |
| MFG.NO.                |            |           |     |     |      |
| TORQ CONT STALL        | 7.8 NM     |           |     |     |      |
| CUR CONT STALL/A RMS   | 3.46       |           |     |     |      |
| POWER                  | 0.98KW     |           |     |     |      |
| RATED SPEED/RPM(1/MIN) | 1200       |           |     |     |      |
| RATED BUS VOLTS        | 320        |           |     |     |      |
| PEAK CUR/A RMS         | 10.4       |           |     |     |      |
| MAX SPEED/RPM(1/MIN)   | 6000       |           |     |     |      |
| IP                     | 54         | IC        | 410 | WT. | 15.8 |
| CLASS                  | F          | 25C RATED |     |     |      |



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 | 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)

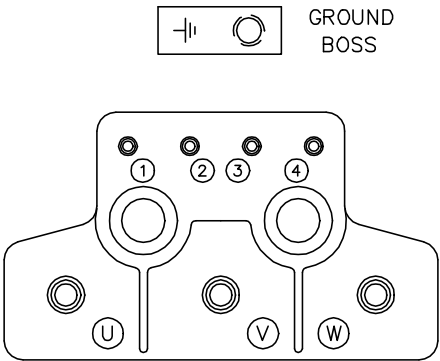
CD1338A01

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            |

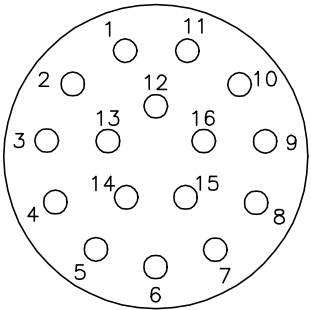
\* WHEN REQUIRED

| 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              | ---         |



GROUND  
BOSS

CD1388A02



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

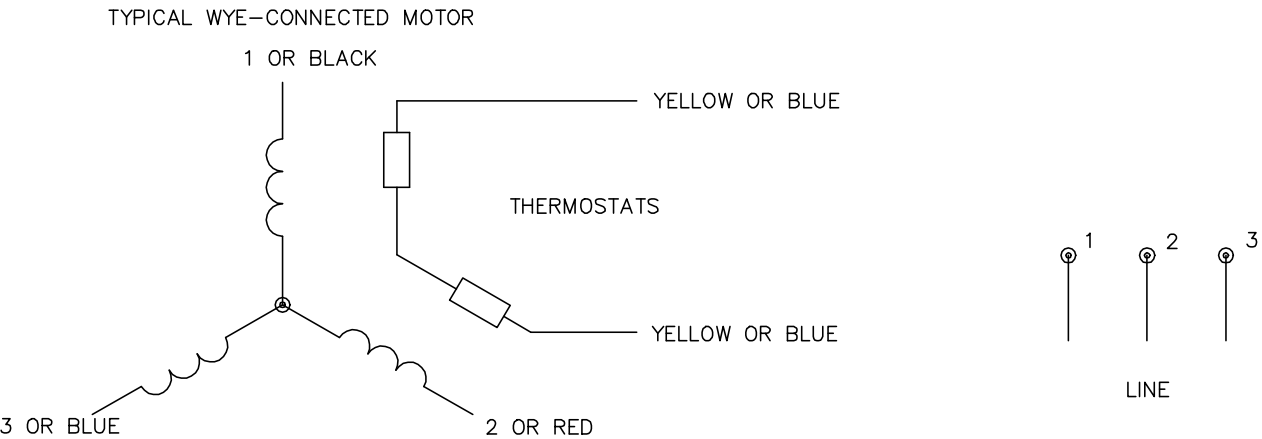
|                |             |        |                               |                |
|----------------|-------------|--------|-------------------------------|----------------|
| REV. DESC: NEW | REV. LTR: - | BY: FN | REVISED: 10: 20:15 03/25/2004 | TDR: 328341    |
| CD1388A02      |             |        | 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 |                      |                              |
| REV. LTR: D                                                   | VERSION: 03          | TDR: 000000414937            |
| CD0006A02                                                     | FILE: \AAA\00068\606 | REVISED: 10:02:28 11/21/2006 |
|                                                               | MTL: -               | BY: ENJEFO                   |

BALDOR ELECTRIC Co.

3PH, SV, 3 LEADS, WYE CONNECTED

CD0006A02