

# **ABB BALDOR RELIANCE III**

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## **Customer information packet** BSM100C-6150AF

BSM100C-6150AF T'STAT, ENCODER

**Specifications**

|                                      |                        |
|--------------------------------------|------------------------|
| <b>Enclosure</b>                     | TENV                   |
| <b>Nameplate Speed</b>               | 2400                   |
| <b>Agency Approvals</b>              | CE<br>CSA<br>TUV<br>UR |
| <b>Base Indicator</b>                | Bracket Mounted        |
| <b>Dimensional Drawing Numbers</b>   | S4LYP158               |
| <b>Frame</b>                         | D165D                  |
| <b>Frame Material</b>                | Exposed Laminations    |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 14 AWG             |
| <b>Motor Standards</b>               | IEC                    |
| <b>Mounting Arrangement</b>          | F1                     |
| <b>Nameplate Output</b>              | 6.68KW                 |
| <b>Shaft Rotation</b>                | Reversible             |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AM         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | S4P158     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | S4WGW116   |
| <b>Layout</b>       | S4LYP158   |
| <b>Eff. date</b>    | 08-18-2025 |
| <b>CD Diagram</b>   | CD0006A02  |
| <b>Poles</b>        | 08         |
| <b>Leads</b>        | 3#12       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-01-0001 |

**Nameplate**

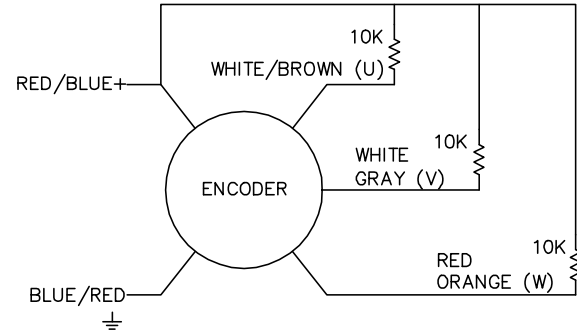
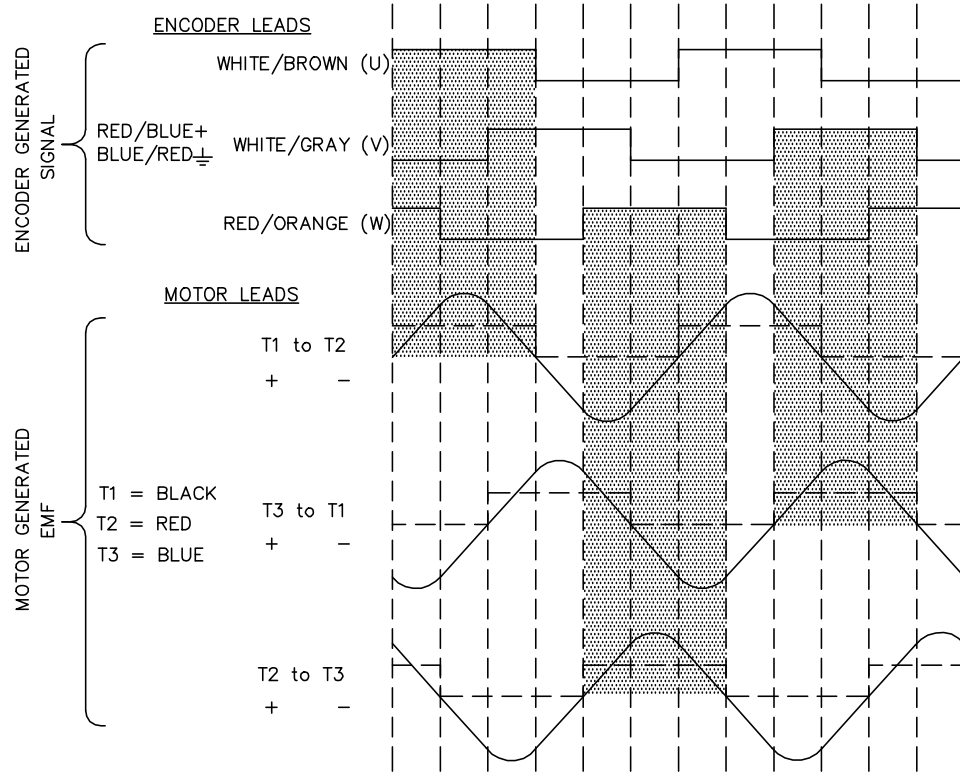
| <b>NP2863L</b>                |                |                  |     |            |    |
|-------------------------------|----------------|------------------|-----|------------|----|
| <b>CAT.NO.</b>                | BSM100C-6150AF |                  |     |            |    |
| <b>SPEC.</b>                  | S4P158W116     |                  |     |            |    |
| <b>MFG.NO.</b>                |                |                  |     |            |    |
| <b>TORQ CONT STALL</b>        | 30 NM          |                  |     |            |    |
| <b>CUR CONT STALL/A RMS</b>   | 24.2           |                  |     |            |    |
| <b>POWER</b>                  | 6.28KW         |                  |     |            |    |
| <b>RATED SPEED/RPM(1/MIN)</b> | 2000           |                  |     |            |    |
| <b>RATED BUS VOLTS</b>        | 320            |                  |     |            |    |
| <b>PEAK CUR/A RMS</b>         | 72.5           |                  |     |            |    |
| <b>MAX SPEED/RPM(1/MIN)</b>   | 6000           |                  |     |            |    |
| <b>IP</b>                     | 54             | <b>IC</b>        | 410 | <b>WT.</b> | 38 |
| <b>CLASS</b>                  | F              | <b>25C RATED</b> |     |            |    |



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.**

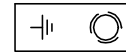
BLDC COMMUTATION KOYO ENC.(CHANNELS TO MATCH TMGW/SUMTAK)

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            |

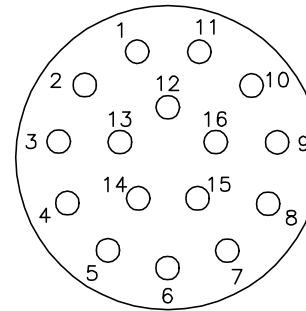
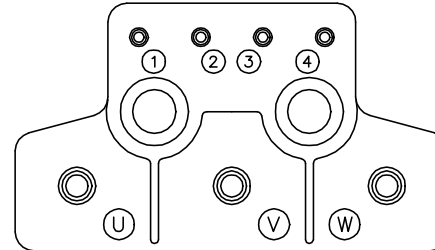
\* WHEN REQUIRED

| 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)

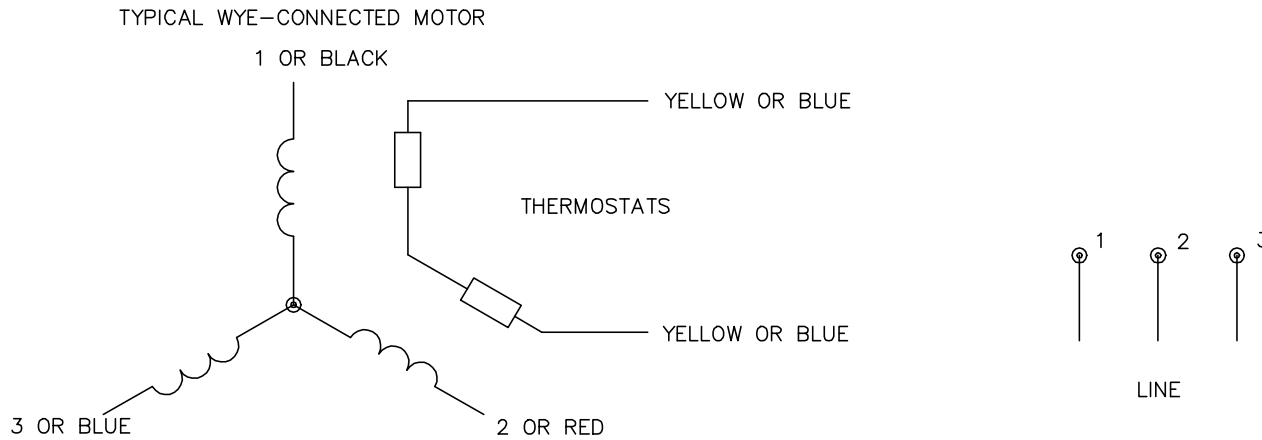
CD1388A02

|                |        |                              |                |
|----------------|--------|------------------------------|----------------|
| 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

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