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# Customer information packet

## D5525R

25 1750/2300 MC2812ATZ TEFC 500V

## Specifications

|                          |                         |
|--------------------------|-------------------------|
| Enclosure                | TEFC                    |
| Frame                    | MC2812ATZ               |
| Frame Material           | Exposed Laminations     |
| Output Power             | 25.000 HP               |
| Agency Approvals         | CCSA US                 |
| Ambient Temperature      | 40 °C                   |
| Bearing Grease Type      | Polyrex EM (-20F +300F) |
| Drip Cover               | No Drip Cover           |
| Feedback Device          | NO FEEDBACK             |
| Field Winding Type       | STAB SHUNT              |
| Frame Prefix             | MC                      |
| Heater Indicator         | No Heater               |
| Lifting Lugs             | Standard Lifting Lugs   |
| Motor Standards          | NEMA                    |
| Mounting Arrangement     | F1                      |
| Overall Length           | 41.62 IN                |
| Shaft Extension Location | Pulley End              |
| Shaft Ground Indicator   | No Shaft Grounding      |
| Shaft Slinger Indicator  | No Slinger              |

## Part detail

|              |            |
|--------------|------------|
| Revision     | -          |
| Type         | DC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | G6316A A   |
| Layout       | 609951-013 |
| Eff. date    | 04-13-2015 |
| CD Diagram   | 406770-002 |
| Poles        | 00         |
| Leads        |            |
| Proprietary  | False      |
| Created date | 04-10-2015 |

## Nameplate

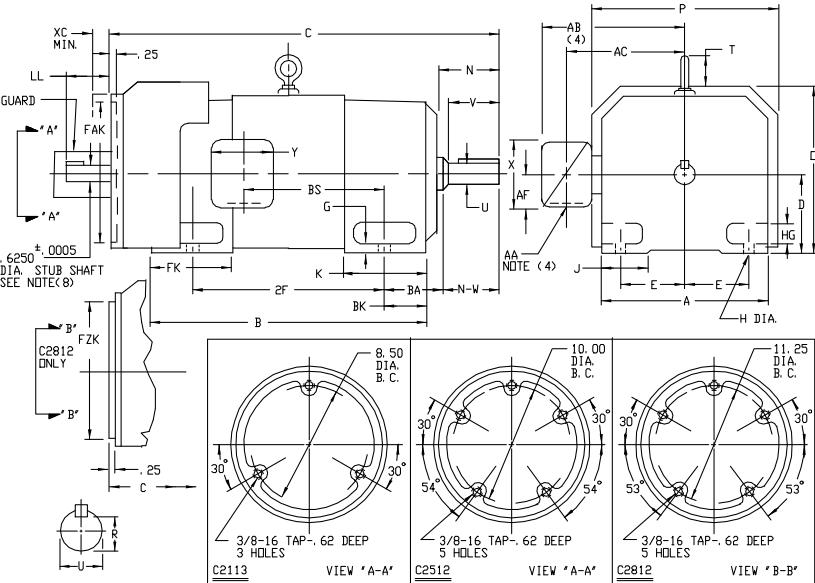
| 000613006HP     |            |          |             |                              |            |       |      |   |    |
|-----------------|------------|----------|-------------|------------------------------|------------|-------|------|---|----|
| CAT.NO.         | D5525R     | SPEC NO. |             | T28S0302                     |            |       |      |   |    |
| FR              | MC 2812ATZ | HP       | 25          |                              | DUTY       |       | CONT |   |    |
| ENCL.           | TEFC       | RPM      | 1750/ 2300  |                              | S.F.       |       | 1.0  |   |    |
| ENCL MOD        |            | VOLTS    |             | 500                          |            | INSUL |      | F |    |
| MAX SAFE SPEED  | 4500       | AMPS     | 41.00       |                              | AMB.       |       | 40   |   |    |
| FIELD DATA      |            | SER.NO.  |             |                              |            |       |      |   |    |
| WINDING         | STAB SHUNT |          | POWER CODE  |                              | C          |       |      |   |    |
| VOLTS           | 300        |          | D.E. BRG.   |                              | 65BC03J30X |       |      |   |    |
| MAX AMPS @ 25 C | 2.23       |          | O.D.E. BRG. |                              | 55BC02J30X |       |      |   |    |
| HOT AMPS        | 1.50/ 1.10 |          | MIN. AMB.   |                              | 0          |       | TYPE |   | TR |
|                 |            |          |             | BRUSH:419904051AB; FLD. DATA |            |       |      |   |    |
|                 |            |          |             | FOR HIGH VOLTS; F.V. 150/300 |            |       |      |   |    |

609951-013

INDUSTRIAL DIRECT CURRENT MOTORS  
AND GENERATORS - RPM III

ENCLOSURE: TOTALLY ENCLOSED  
MOUNTING: FOOT  
METHOD OF DRIVE: COUPLED OR BELTED  
COOLING: FAN COOLED  
ACCESSORIES: PROVISION FOR  
TACHOMETER MOUNTING  
ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



| DIMENSIONS ARE IN INCHES |       |        |      |     |     |      |      |       |       |      |      |      |      |      |         |         |
|--------------------------|-------|--------|------|-----|-----|------|------|-------|-------|------|------|------|------|------|---------|---------|
| FRAME                    | A     | BC (1) | E    | G   | H   | HG   | J    | D     | P     | T    | BA   | K    | FK   | BK   | FAK (6) | FZK (7) |
| SC2113ATZ-LC2113ATZ      | 10.25 | 5.25   | 4.25 | .44 | .44 | 1.38 | 1.75 | 11.62 | 12.75 | 1.38 | 3.50 | 5.19 | 6.81 | 2.38 | 9.750   | N/A     |
| SC2512ATZ-LC2512ATZ      | 12.31 | 6.25   | 5.00 | .50 | .56 | 1.62 | 2.00 | 13.62 | 14.75 | 1.94 | 4.25 | 6.06 | 8.00 | 3.00 | 11.250  | N/A     |
| MC2812ATZ-LC2812ATZ      | 13.78 | 7.00   | 5.50 | .62 | .56 | 1.88 | 2.75 | 15.06 | 16.12 | 2.31 | 4.75 | 6.75 | 9.19 | 3.50 | N/A     | 12.500  |

| FRAME     | C     | B     | BS    | 2F    | DRIVE END SHAFT AND KEY |      |       |      |       |     | WT. LBS. |
|-----------|-------|-------|-------|-------|-------------------------|------|-------|------|-------|-----|----------|
|           |       |       |       |       | N                       | N-V  | U(2)  | V    | R(3)  | SR  |          |
| SC2113ATZ | 32.19 | 22.50 | 11.38 | 18.00 | 4.00                    | 3.75 | 1.875 | 3.50 | 1.591 | 500 | 2.50 355 |
| MC2113ATZ | 33.44 | 23.75 | 12.62 | 18.00 | 4.00                    | 3.75 | 1.875 | 3.50 | 1.591 | 500 | 2.50 380 |
| LC2113ATZ | 35.06 | 25.38 | 14.25 | 18.00 | 4.00                    | 3.75 | 1.875 | 3.50 | 1.591 | 500 | 2.50 410 |
| SC2512ATZ | 35.94 | 25.06 | 12.06 | 20.00 | 4.50                    | 4.25 | 2.125 | 4.00 | 1.845 | 500 | 3.00 555 |
| MC2512ATZ | 37.44 | 26.56 | 13.56 | 20.00 | 4.50                    | 4.25 | 2.125 | 4.00 | 1.845 | 500 | 3.00 590 |
| LC2512ATZ | 38.94 | 28.06 | 15.06 | 20.00 | 4.50                    | 4.25 | 2.125 | 4.00 | 1.845 | 500 | 3.00 630 |
| MC2812ATZ | 41.62 | 29.94 | 14.25 | 22.00 | 5.00                    | 4.75 | 2.375 | 4.50 | 2.021 | 625 | 3.50 835 |
| LC2812ATZ | 43.88 | 32.19 | 16.50 | 22.00 | 5.00                    | 4.75 | 2.375 | 4.50 | 2.021 | 625 | 3.50 900 |

- (1) "B" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.  
(2) "U" VARIES-----+ .000 - .001  
(3) "2F" VARIES-----+ .000 - .015  
(4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". SEE DRAWING NUMBER 609959-1.  
(5) WALLS OR OBSTRUCTIONS MUST NOT ENCRDACH ON AIR INLET SPACE "XC".  
(6) "FAK" VARIES + .005 - .000-----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.  
(7) "FZK" VARIES + .005 - .000-----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.  
(8) STUB SHAFT SUPPLIED ONLY WHEN SPECIFIED. KEY SIZE .188 X .188 X 1.00  
(9) FOR RE-045 OR SPY PROVISIONS ON "C2812" ADD 1.00 TO "LL" DIMENSION.  
TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.  
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.  
MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.  
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

| TACHOMETER  | LL                 |
|-------------|--------------------|
| BC-42       | 4.25               |
| BC-46       |                    |
| RD-11       |                    |
| RD-12       |                    |
| RD-51       |                    |
| RD-61       | 3.80<br>1.12       |
| RE-62       |                    |
| M627, M628  |                    |
| M727, M737  | SEE<br>NOTE<br>(9) |
| M738        |                    |
| DYNAPAR 74S | SEE<br>NOTE<br>(9) |
| RE-045      |                    |
| SPY         |                    |

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

|                          |                              |                   |
|--------------------------|------------------------------|-------------------|
| REV. DESC: LOADED TO BUS | VERSION: 00                  | TDR: 000000577407 |
| REV. LTR: -              | REVISED: 11:02:01 01/26/2011 | BY: CONNAS        |
| FILE: \RGG\00015\557     |                              |                   |
| MTL: -                   |                              |                   |

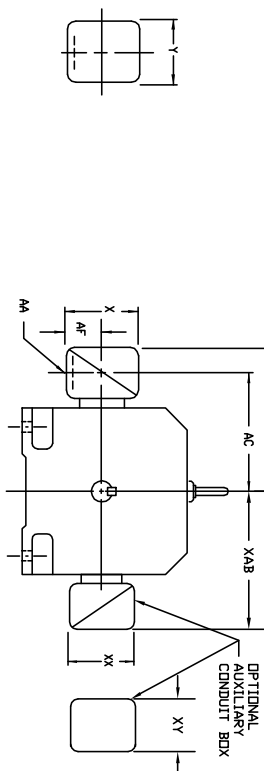
**BALDOR**  
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, TEFC, FOOT MTG  
SH 1 of 1

609951-013

609959-001

# INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III TERMINAL BOX DIMENSIONS STANDARD SIZE AND ONE SIZE LARGER FRAMES C2113ATZ THRU C2815ATZ

DIMENSIONS ARE IN INCHES



| FRAME SIZE | MAX. AMPS | STANDARD SIZE |       |       |      |       |      | STEEL TERMINAL BOX DIMENSIONS |               |       |       |      |       | ONE SIZE LARGER |            |               |       |       |      |
|------------|-----------|---------------|-------|-------|------|-------|------|-------------------------------|---------------|-------|-------|------|-------|-----------------|------------|---------------|-------|-------|------|
|            |           | AK(1)         | AB    | AC    | AF   | X     | Y    | NUMBER                        | AK(1)         | AB    | AC    | AF   | X     | Y               | NUMBER     | AK(1)         | AB    | AC    | AF   |
| C2113ATZ   | 40        | 3/4 & 1"      | 8.97  | 7.47  | 1.94 | 4.38  | 5.00 | 705028-1-R                    | 1-1/4 & 1-1/2 | 10.03 | 8.03  | 2.50 | 5.50  | 6.12            | 705029-1-R | 1-1/4 & 1-1/2 | 10.03 | 8.03  | 2.50 |
| C2115ATZ   | 96        | 1-1/4 & 1-1/2 | 10.03 | 8.03  | 2.50 | 5.50  | 6.12 | 705029-1-R                    | 2" & 2-1/2    | 11.16 | 8.41  | 3.19 | 7.00  | 7.62            | 705030-1-R | 2" & 2-1/2    | 11.16 | 8.41  | 3.19 |
| (2)        | 208       | 2" & 2-1/2    | 11.16 | 8.41  | 3.19 | 7.00  | 7.62 | 705030-1-R                    | 2" & 2-1/2    | 11.16 | 8.41  | 3.19 | 7.00  | 7.62            | 705030-1-R | 2" & 2-1/2    | 11.16 | 8.41  | 3.19 |
| C2514ATZ   | 40        | 3/4 & 1"      | 10.03 | 8.53  | 1.94 | 4.38  | 5.00 | 705028-1-R                    | 1-1/4 & 1-1/2 | 11.09 | 9.09  | 2.50 | 5.50  | 6.12            | 705029-1-R | 1-1/4 & 1-1/2 | 11.09 | 9.09  | 2.50 |
| C2514ATZ   | 96        | 1-1/4 & 1-1/2 | 11.09 | 9.09  | 2.50 | 5.50  | 6.12 | 705029-1-R                    | 2" & 2-1/2    | 12.22 | 9.47  | 3.19 | 7.00  | 7.62            | 705030-1-R | 2" & 2-1/2    | 12.22 | 9.47  | 3.19 |
| (2)        | 208       | 2" & 2-1/2    | 12.22 | 9.47  | 3.19 | 7.00  | 7.62 | 705030-1-R                    | 2" & 2-1/2    | 12.22 | 9.47  | 3.19 | 7.00  | 7.62            | 705030-1-R | 2" & 2-1/2    | 12.22 | 9.47  | 3.19 |
| C2815ATZ   | 155       | 3"            | 14.03 | 10.53 | 4.23 | 8.44  | 7.23 | 74874-R                       | 3"            | 14.47 | 11.22 | 4.23 | 8.44  | 7.23            | 74874-R    | 3"            | 14.47 | 11.22 | 4.23 |
| C2815ATZ   | 259       | 4"            | 15.91 | 11.82 | 4.23 | 10.56 | 9.00 | 706308-3-R                    | 5" (4)        | 18.72 | 13.47 | 7.00 | 12.75 | 15.00           | 706589-1-C | 5" (4)        | 18.72 | 13.47 | 7.00 |

| FRAME SIZE | MAX. AMPS | STANDARD SIZE |       |       |      |      |       | CAST IRON TERMINAL BOX DIMENSIONS |        |       |       |      |       | ONE SIZE LARGER |            |        |       |       |      |
|------------|-----------|---------------|-------|-------|------|------|-------|-----------------------------------|--------|-------|-------|------|-------|-----------------|------------|--------|-------|-------|------|
|            |           | AK(3)         | AB    | AC    | AF   | X    | Y     | NUMBER                            | AK(3)  | AB    | AC    | AF   | X     | Y               | NUMBER     | AK(3)  | AB    | AC    | AF   |
| C2113ATZ   | 18        | 3/4           | 10.03 | 8.03  | 2.50 | 5.00 | 5.75  | 705028-2-S                        | 1"     | 10.03 | 8.03  | 2.50 | 5.00  | 5.75            | 705028-2-T | 1"     | 10.03 | 8.03  | 2.50 |
| C2115ATZ   | 40        | 1"            | 10.03 | 8.03  | 2.50 | 5.00 | 5.75  | 705028-2-T                        | 1-1/2  | 10.97 | 8.53  | 3.00 | 6.00  | 7.00            | 705029-2-R | 1-1/2  | 10.97 | 8.53  | 3.00 |
| C2115ATZ   | 96        | 1-1/2         | 10.97 | 8.53  | 3.00 | 6.00 | 7.00  | 705029-2-R                        | 2"     | 12.66 | 8.91  | 3.62 | 7.88  | 9.25            | 705030-2-R | 2-1/2  | 12.66 | 8.91  | 3.62 |
| (2)        | 208       | 2"            | 10.97 | 8.53  | 3.00 | 6.00 | 7.00  | 705029-2-S                        | 2-1/2  | 11.09 | 9.09  | 2.50 | 5.00  | 5.75            | 705028-2-T | 2-1/2  | 11.09 | 9.09  | 2.50 |
| C2514ATZ   | 18        | 3/4           | 11.09 | 9.09  | 2.50 | 5.00 | 5.75  | 705028-2-S                        | 1"     | 12.03 | 9.59  | 3.00 | 6.00  | 7.00            | 705029-2-R | 1-1/2  | 12.03 | 9.59  | 3.00 |
| C2514ATZ   | 96        | 1-1/2         | 12.03 | 9.59  | 3.00 | 6.00 | 7.00  | 705029-2-R                        | 2"     | 13.72 | 9.97  | 3.62 | 7.88  | 9.25            | 705030-2-R | 2-1/2  | 13.72 | 9.97  | 3.62 |
| C2514ATZ   | 208       | 2"            | 12.03 | 9.59  | 3.00 | 6.00 | 7.00  | 705029-2-S                        | 2-1/2  | 14.47 | 10.72 | 3.62 | 7.88  | 9.25            | 705030-2-R | 3"     | 14.47 | 10.72 | 3.62 |
| C2813ATZ   | 155       | 3"            | 14.47 | 10.72 | 3.62 | 7.88 | 9.25  | 76700-R                           | 4"     | 15.78 | 11.59 | 4.12 | 9.50  | 10.50           | 76708-R    | 5"     | 18.59 | 13.34 | 7.00 |
| C2815ATZ   | 259       | 4"            | 15.78 | 11.59 | 4.12 | 9.50 | 10.50 | 76708-R                           | 5" (4) | 18.59 | 13.34 | 7.00 | 12.75 | 15.00           | 76870-S    | 5" (4) | 18.59 | 13.34 | 7.00 |

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

| FRAME SIZE | AMPS | STANDARD SIZE |       |      |       |     |       | ONE SIZE LARGER |       |      |       |     |       |
|------------|------|---------------|-------|------|-------|-----|-------|-----------------|-------|------|-------|-----|-------|
|            |      | AB            | AC    | AF   | X     | AA  | Y     | AB              | AC    | AF   | X     | Y   | AA    |
| C210       | 100  | 10.71         | 8.98  | 2.72 | 7.48  | --- | 7.48  | 10.71           | 8.98  | 2.72 | 7.48  | --- | 7.48  |
|            | 200  | 11.66         | 9.23  | 3.33 | 8.82  | --- | 8.82  | 11.66           | 9.23  | 3.33 | 8.82  | --- | 8.82  |
|            | 400  | 11.30         | 9.57  | 2.72 | 7.48  | --- | 7.48  | 11.30           | 9.57  | 2.72 | 7.48  | --- | 7.48  |
| C250       | 200  | 11.85         | 9.84  | 3.35 | 8.82  | --- | 8.82  | 11.85           | 9.84  | 3.35 | 8.82  | --- | 8.82  |
|            | 400  | 17.48         | 12.75 | 6.20 | 14.39 | --- | 14.39 | 17.48           | 12.75 | 6.20 | 14.39 | --- | 14.39 |
|            | 800  | 17.48         | 12.75 | 6.20 | 14.39 | --- | 14.39 | 17.48           | 12.75 | 6.20 | 14.39 | --- | 14.39 |
|            | 200  | 12.60         | 10.59 | 3.76 | 8.82  | --- | 8.82  | 12.60           | 10.59 | 3.76 | 8.82  | --- | 8.82  |
|            | 400  | 18.27         | 13.54 | 6.20 | 14.39 | --- | 14.39 | 18.27           | 13.54 | 6.20 | 14.39 | --- | 14.39 |
|            | 800  | 18.27         | 13.54 | 6.20 | 14.39 | --- | 14.39 | 18.27           | 13.54 | 6.20 | 14.39 | --- | 14.39 |
| C280       | 1600 | 18.27         | 13.54 | 7.68 | 15.35 | --- | 15.35 | 18.27           | 13.54 | 7.68 | 15.35 | --- | 15.35 |

| FRAME SIZE | XAB  | OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM) |      |             |            |       |      |
|------------|------|-----------------------------------------------------|------|-------------|------------|-------|------|
|            |      | XX                                                  | YY   | PART NUMBER | FRAME SIZE | XX    | YY   |
| C210       | 7.38 | 4.25                                                | 4.25 | 602007-26-A | C210       | 10.88 | 8.00 |
| C250       | 8.44 | 4.25                                                | 4.25 | 602007-26-A | C250       | 11.88 | 8.00 |
| C280       | 9.12 | 4.25                                                | 4.25 | 602007-26-A | C280       | 12.62 | 8.00 |

(1) 1/4" CONDUIT.  
(2) RACEWAYS PROVIDED WITH DOUBLE KNUCKLE.  
(3) 1/4" PIPE LAP.

(4) TERMINAL BOX 76870-S AND 76870-98 EXTENDS BELOW MOTOR FEET.  
TERMINAL BOX 76870-S AND 76870-98 EXTENDS BELOW MOTOR FEET.  
DR - C-1 MOUNTING IS SPECIFIED. BOX LOCATED IN TOP WHEN SPECIFIED.  
FOR "X" TERMINAL BOX DIMENSIONS SEE 609959-2.  
FOR MILL TYPE TERMINAL BOX DIMENSIONS SEE 609959-3.

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

REV. DESC: ADD 706310-63G C/BOX TO C250 AND C280 FRAMES

REV. LTR: A

VERSION: 01

TDR: 000000816512

FILE: \RGG\00021\153

REVISED: 03: 09: 09 09/06/2013

MTL: -

BY: RGGWT

BALDOR

DIMENSION SHEET

SH 1 of 1

609959-001

406770-002

406770-002

CONNECTION DIAGRAM  
D-C MOTOR - STAB. SHUNT  
DUAL VOLTAGE FIELD

W1

(NOTE 7)

SHUNT FIELD

F2

INTER-COIL

ARMATURE

AX2

A2 S1

FIELD

S2 S3

FIELD

S4 F22 P1 P2

TD1

TD2

TD3

(NOTE 6)

THREE WIRE RTD

TD

(NOTE 4)

(CAUTION-SEE NOTE 1)

(NOTE 2)

(NOTE 5)

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

LOW VOLTAGE FIELD CONNECTION

CW ROTATION

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

ROTATION FACING COMMUTATOR END

1. CAUTION — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.

2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4. FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.

3. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.

4. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.

5. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.

6. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3

7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.

8. WARNING — MOTOR MUST BE GROUNDED TO PREVENT SERIOUS INJURIES TO PERSONNEL. GROUND THE MOTOR PER IEC, NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL ELECTRICAL CODES. A TAPPED HOLE IS PROVIDED IN THE CONDUIT BOX, ON THE FOOT, FRAME BRACE OR OPPOSITE OPPOSITE DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER

CUSTOMER

ORDER NO.

S.D. NO.

RELIANCE

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS

REV. LTR: -

VERSION: 00

TDR: 000000781086

FILE: \RSN\00026\434

REVISED: 02: 35: 07 02/01/2013

MTL: -

BY: MGHPC

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD

SH 1 of 1