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# Customer information packet

## D50125R-BV

125HP, 1750RPM, DC, 2813ATZ, DPG-FV,

## Specifications

|                          |                         |
|--------------------------|-------------------------|
| Enclosure                | DP                      |
| Frame                    | C2813ATZ                |
| Frame Material           | Exposed Laminations     |
| Output Power             | 125.000 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       | STR. SHUNT              |
| Frame Prefix             | C                       |
| Heater Indicator         | No Heater               |
| Lifting Lugs             | Standard Lifting Lugs   |
| Motor Standards          | NEMA                    |
| Mounting Arrangement     | F2                      |
| Overall Length           | 41.50 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.  | G8290A B   |
| Layout       | 616022-001 |
| Eff. date    | 04-13-2015 |
| CD Diagram   | 406770-006 |
| Poles        | 00         |
| Leads        |            |
| Proprietary  | False      |
| Created date | 04-09-2015 |

## Nameplate

| 000613006HP       |            |             |            |            |      |       |      |    |  |
|-------------------|------------|-------------|------------|------------|------|-------|------|----|--|
| CAT.NO.           | D50125R-BV | SPEC NO.    |            | T28T1333   |      |       |      |    |  |
| FR                | C 2813ATZ  | HP          | 125        |            | DUTY |       | CONT |    |  |
| ENCL.             | DP         | RPM         | 1750/ 2000 |            | S.F. |       | 1.00 |    |  |
| ENCL MOD          | FORCE VENT | VOLTS       |            | 500        |      | INSUL |      | F  |  |
| MAX SAFE SPEED    | 4000       | AMPS        | 204.00     |            | AMB. |       | 40   |    |  |
| FIELD DATA        |            | SER.NO.     |            |            |      |       |      |    |  |
| WINDING           | STR. SHUNT | POWER CODE  |            | C          |      |       |      |    |  |
| VOLTS             | 300        | D.E. BRG.   |            | 75BC02J30X |      |       |      |    |  |
| MAX AMPS @ 25 C   | 6.93       | O.D.E. BRG. |            | 55BC02J30X |      |       |      |    |  |
| HOT AMPS          | 4.87/ 4.24 | MIN. AMB.   |            | 0          |      | TYPE  |      | TR |  |
| BRUSH:419904051AF |            |             |            |            |      |       |      |    |  |
|                   |            |             |            |            |      |       |      |    |  |

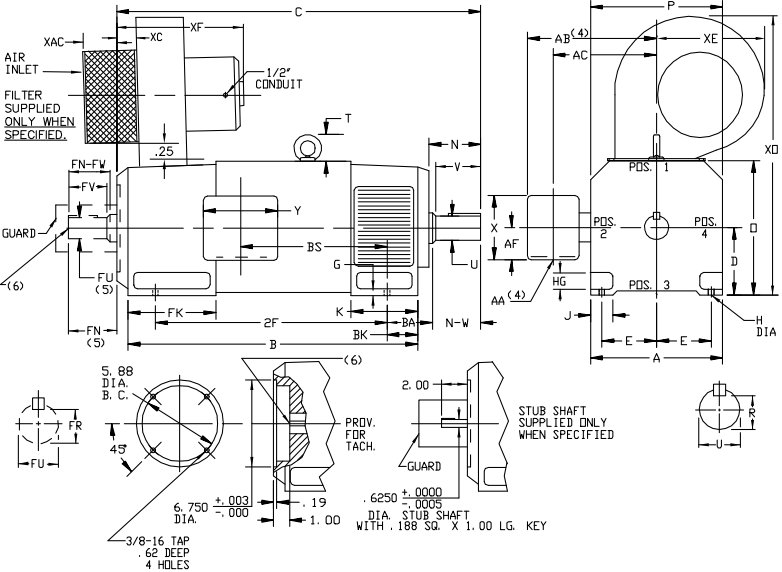
616022-001

INDUSTRIAL DIRECT CURRENT MOTORS  
AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED,  
SPLASHPROOF  
MOUNTING: FOOT

COOLING: FORCE VENTILATED  
WITH INTEGRAL  
BLOWER AND MOTOR

ACCESSORIES: PROVISION FOR  
TACHOMETER MOUNTING  
FRAMES MC2812ATZ THRU UC2815ATZ  
ONLY WHEN SPECIFIED



DIMENSIONS ARE IN INCHES

| FRAME               | XAC  | XC   | XE   | XF    | XO    |
|---------------------|------|------|------|-------|-------|
| MC2812ATZ-UC2815ATZ | 6.38 | 4.00 | 9.25 | 19.00 | 26.25 |

| FRAME               |                 | A     | DK(1) | E     | G     | H                       | HG   | J     | D     | P     | T    | BA    | K                                   | FK    | BK    | WT.  |       |      |       |        |
|---------------------|-----------------|-------|-------|-------|-------|-------------------------|------|-------|-------|-------|------|-------|-------------------------------------|-------|-------|------|-------|------|-------|--------|
| MC2812ATZ-UC2815ATZ |                 | 13.78 | 7.00  | 5.50  | .62   | .56                     | 1.88 | 2.75  | 14.00 | 13.94 | 2.80 | 4.75  | 6.75                                | 9.19  | 3.50  |      |       |      |       |        |
| FRAME               | METHOD OF DRIVE | C(7)  | B     | BS    | 2F    | DRIVE END SHAFT AND KEY |      |       |       |       |      |       | OPPOSITE DRIVE END SHAFT AND KEY(S) |       |       |      |       |      |       | V.LBS. |
|                     |                 |       |       |       |       | N                       | N-W  | UK(2) | V     | R(3)  | SQ   | LGTH. | FN                                  | FN-FW | FK(2) | FV   | FR(3) | SQ   | LGTH. |        |
| MC2812ATZ           | COUPLED         | 37.38 | 29.94 | 14.25 | 22.00 | 5.00                    | 4.75 | 2.375 | 4.50  | 2.021 | .625 | 3.50  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 810    |
| UMC2812ATZ          | BELTED          | 37.88 | 29.94 | 14.25 | 22.00 | 5.50                    | 5.25 | 2.625 | 5.00  | 2.275 | .625 | 4.00  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 815    |
| LC2812ATZ           | COUPLED         | 39.62 | 32.19 | 16.50 | 22.00 | 5.00                    | 4.75 | 2.375 | 4.50  | 2.021 | .625 | 3.50  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 885    |
| ULC2812ATZ          | BELTED          | 40.12 | 32.19 | 16.50 | 22.00 | 5.50                    | 5.25 | 2.625 | 5.00  | 2.275 | .625 | 4.00  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 890    |
| C2813ATZ            | COUPLED         | 41.25 | 33.81 | 18.12 | 25.00 | 5.00                    | 4.75 | 2.375 | 4.50  | 2.021 | .625 | 3.50  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 940    |
| UC2813ATZ           | BELTED          | 41.75 | 33.81 | 18.12 | 25.00 | 5.50                    | 5.25 | 2.625 | 5.00  | 2.275 | .625 | 4.00  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 945    |
| C2815ATZ            | COUPLED         | 46.75 | 39.31 | 23.62 | 32.00 | 5.00                    | 4.75 | 2.375 | 4.50  | 2.021 | .625 | 3.50  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 1125   |
| UC2815ATZ           | BELTED          | 47.25 | 39.31 | 23.62 | 32.00 | 5.50                    | 5.25 | 2.625 | 5.00  | 2.275 | .625 | 4.00  | 4.50                                | 4.25  | 2.125 | 4.00 | 1.845 | .500 | 3.00  | 1130   |

- (1) "B" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
  - (2) "U" AND "FU" VARY----- .000 - .001
  - (3) "R" AND "FR" VARY----- .000 - .015
  - (4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". REFER TO BOX D/S. (STD. 609959-1, "X/P" 609959-2, MILL 609959-3)
  - (5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
  - (6) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT.
  - (7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF COP DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.
- 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. BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4, EXCEPT BLOWER ASSEMBLY AND TERMINAL BOX CAN NOT BE LOCATED AT THE SAME POSITION. MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

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

|                          |                              |                   |
|--------------------------|------------------------------|-------------------|
| REV. DESC: LOADED TO BUS |                              |                   |
| REV. LTR: -              | VERSION: 00                  | TDR: 000000578087 |
| FILE: \RGG\00016\005     | REVISED: 01:13:50 01/28/2011 | BY: CONNAS        |
| MTL: -                   |                              |                   |

**BALDOR**

DIMENSION DRAWING, MC2812ATZ - UC2815ATZ, DPP, FOOT MTG

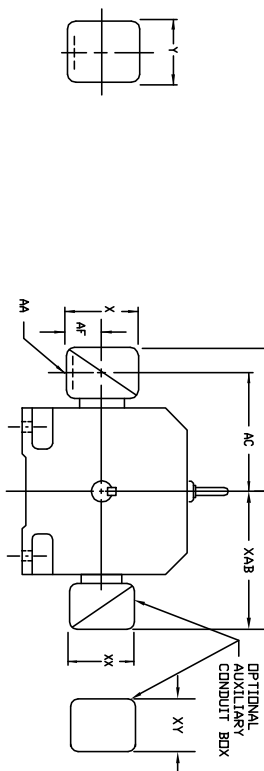
SH 1 of 1

616022-001

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 |
| C215ATZ      | 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 |
| C2513ATZ     | 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 |
| C2515ATZ     | 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 |
| C2515ATZ (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 |
| C2813ATZ     | 128       | 2"            | 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     | 195       | 3"            | 14.47 | 11.22 | 4.23 | 8.44  | 7.23 | 74874-24-R                    | 4"            | 15.91 | 11.84 | 5.38 | 10.56 | 9.00            | 706308-3-R | 4"            | 15.91 | 11.84 | 5.38 |
| C2815ATZ     | 269       | 4"            | 15.91 | 11.84 | 5.38 | 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 |
| C215ATZ    | 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"     | 12.66 | 8.91  | 3.62 |
| C2513ATZ   | 18        | 3/4           | 11.09 | 9.09  | 2.50 | 5.00 | 5.75  | 705028-2-S                        | 1"     | 11.09 | 9.09  | 2.50 | 5.00  | 5.75            | 705028-2-T | 1"     | 11.09 | 9.09  | 2.50 |
| C2515ATZ   | 40        | 1"            | 11.09 | 9.09  | 2.50 | 5.00 | 5.75  | 705028-2-T                        | 1-1/2  | 12.03 | 9.59  | 3.00 | 6.00  | 7.00            | 705029-2-R | 1-1/2  | 12.03 | 9.59  | 3.00 |
| C2515ATZ   | 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"     | 13.72 | 9.97  | 3.62 |
| C2813ATZ   | 128       | 2"            | 12.78 | 10.34 | 3.00 | 6.00 | 7.00  | 75460-T                           | 3"     | 14.47 | 10.72 | 3.62 | 7.88  | 9.25            | 76708-R    | 3"     | 14.47 | 10.72 | 3.62 |
| C2815ATZ   | 195       | 3"            | 14.47 | 10.72 | 3.62 | 7.88 | 9.25  | 76708-R                           | 4"     | 15.78 | 11.59 | 4.12 | 9.50  | 10.50           | 76708-R    | 4"     | 15.78 | 11.59 | 4.12 |
| C2815ATZ   | 269       | 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 | XAB   | 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) RACES 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

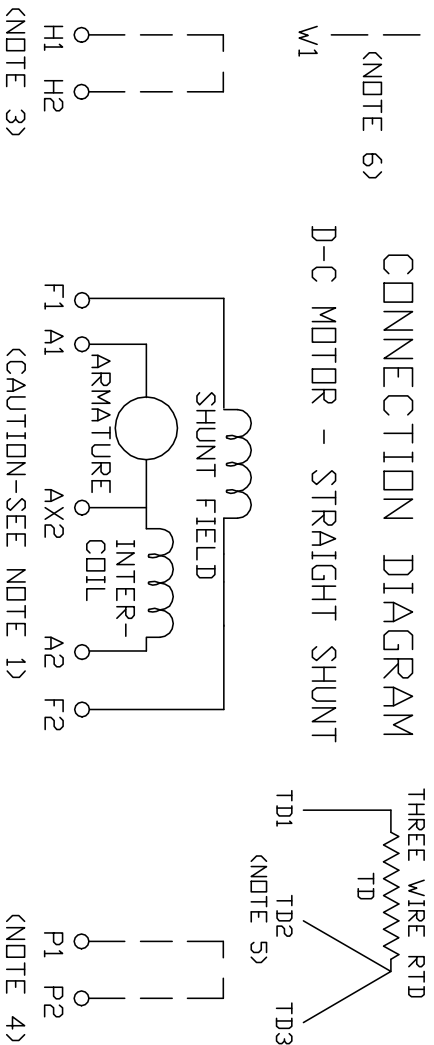
406770-006

## CONNECTION DIAGRAM

--- (NOTE 6)

W1

## D-C MOTOR - STRAIGHT SHUNT



## ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS



ROTATION FACING COMMUTATOR END

1. CAUTION — ARMATURE MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
3. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
4. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
5. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3.
6. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
7. 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 RELIANCE  
ORDER NO. \_\_\_\_\_ S.D. NO. \_\_\_\_\_

406770-006

# BALDOR

### D-C MOTOR CONNECTION DIAGRAM, STRAIGHT SHUNT

SH 1 of 1

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

REV. LTR: -

VERSION: 00

TDR: 000000781086

FILE: \RSN\00026\515

REVISÉ: 02:41:08 02/01/2013

MTL: —

BY: MGHPC