

# ABB BALDOR RELIANCE III

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## Customer information packet D5005R

C1811ATZ, 5HP, 1750RPM, 500, 300, DPG, F1

**Specifications**

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Armature Voltage</b>         | 500 V                 |
| <b>Base Speed</b>               | 1750 rpm              |
| <b>Enclosure</b>                | DP                    |
| <b>Field Voltage</b>            | 300 V                 |
| <b>Frame</b>                    | C1811ATZ              |
| <b>Output Power</b>             | 5.000 HP              |
| <b>Agency Approvals</b>         | CCSA US               |
| <b>Ambient Temperature</b>      | 40 °C                 |
| <b>Armature Current</b>         | 9.0 a                 |
| <b>Drip Cover</b>               | No Drip Cover         |
| <b>Duty Rating</b>              | CONT                  |
| <b>Feedback Device</b>          | NO FEEDBACK           |
| <b>Field Winding Type</b>       | STR SHUNT             |
| <b>Frame Prefix</b>             | C                     |
| <b>Heater Indicator</b>         | No Heater             |
| <b>Insulation Class</b>         | F                     |
| <b>Lifting Lugs</b>             | Standard Lifting Lugs |
| <b>Motor Standards</b>          | NEMA                  |
| <b>Mounting Arrangement</b>     | F1                    |
| <b>Overall Length</b>           | 26.38 IN              |
| <b>Service Factor</b>           | 1.00                  |
| <b>Shaft Diameter</b>           | 1.375 IN              |
| <b>Shaft Ground Indicator</b>   | No Shaft Grounding    |
| <b>Shaft Slinger Indicator</b>  | No Slinger            |
| <b>Thermal Device - Bearing</b> | None                  |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | -          |
| <b>Type</b>         | DC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | G2112D B   |
| <b>Layout</b>       | 609980-001 |
| <b>Eff. date</b>    | 12-18-2019 |
| <b>CD Diagram</b>   | 406770-006 |
| <b>Poles</b>        | 00         |
| <b>Leads</b>        |            |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-17-2019 |

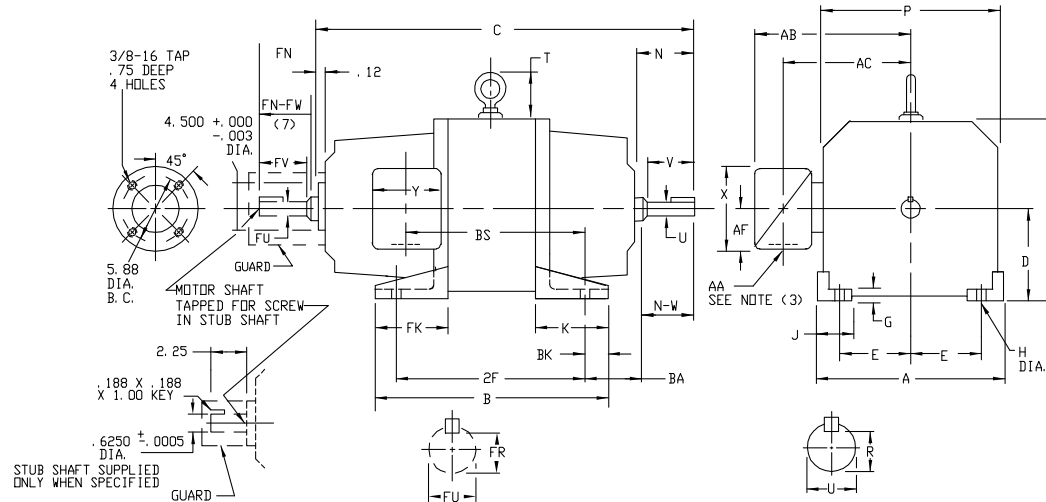
**Nameplate**

| 000613006HP      |           |         |             |  |            |       |      |   |    |
|------------------|-----------|---------|-------------|--|------------|-------|------|---|----|
| CAT.NO.          |           |         | SPEC NO.    |  | T18S1334   |       |      |   |    |
| FR               | C1811ATZ  | HP      | 5           |  | DUTY       |       | CONT |   |    |
| ENCL.            | DP        | RPM     | 1750/2300   |  |            | S.F.  | 1.0  |   |    |
| ENCL MOD         | GUARDED   | VOLTS   | 500         |  |            | INSUL |      | F |    |
| MAX SAFE SPEED   | 04500     | AMPS    | 9.00        |  |            | AMB.  | 40   |   |    |
| FIELD DATA       |           | SER.NO. |             |  |            |       |      |   |    |
| WINDING          | STR SHUNT |         | POWER CODE  |  | D          |       |      |   |    |
| VOLTS            | 300       |         | D.E. BRG.   |  | 40BC02J30X |       |      |   |    |
| MAX AMPS @ 25 C  | 1.01      |         | O.D.E. BRG. |  | 30BC02J30X |       |      |   |    |
| HOT AMPS         | .72/.47   |         | MIN. AMB.   |  | 0          |       | TYPE |   | TR |
| BRUSH:419904051E |           |         |             |  |            |       |      |   |    |

609980-001

INDUSTRIAL DIRECT CURRENT MOTORS  
AND GENERATORS - RPM IIIMOUNTING: FOOT  
METHOD OF DRIVE: COUPLED OR BELTEDENCLOSURE: DRIP-PROOF FULLY-GUARDED  
SPLASHPROOF, TOTALLY ENCLOSEDCOOLING: SELF-VENTILATED  
NON-VENTILATEDACCESSORIES: PROVISION FOR  
TACHOMETER MOUNTING  
ONLY WHEN SPECIFIED

## FRAMES C180ATZ



- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.  
(2) "U" AND "FU" VARY +.0000 - .0005  
(3) TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.  
FOR "X/P" TERMINAL BOX DIMENSIONS SEE 609989-1.  
FOR MILL TYPE TERMINAL BOX DIMENSIONS SEE 609989-2.  
(4) "R" AND "FR" VARY +.000, -.015.  
(5) AA CONDUIT, TERMINAL BOX PROVIDED WITH DOUBLE KNOCKOUT.  
(6) AA PIPE TAP  
(7) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.  
(8) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPG, DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.  
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-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.

DIMENSIONS ARE IN INCHES

| FRAME             | A    | B(1) | E    | G   | H   | J    | D    | P    | T    | BA   | K    | FK   | BK  |
|-------------------|------|------|------|-----|-----|------|------|------|------|------|------|------|-----|
| C1811ATZ-C1812ATZ | 9.00 | 4.50 | 3.75 | .31 | .44 | 1.50 | 8.88 | 8.75 | 1.88 | 2.75 | 4.38 | 4.38 | .50 |

| FRAME    | C(8)  | B     | BS    | 2F    | N    | N-W  | UC(2)  | V    | R(4)  | SG   | LGTH | FN   | FN-FW | FUC(2) | FV   | FR(4) | SG   | LGTH | WT. |
|----------|-------|-------|-------|-------|------|------|--------|------|-------|------|------|------|-------|--------|------|-------|------|------|-----|
| C1811ATZ | 23.94 | 14.00 | 11.00 | 12.50 | 3.00 | 2.75 | 1.3750 | 2.50 | 1.201 | .312 | 1.75 | 2.44 | 2.25  | 1.1250 | 2.00 | .986  | .250 | 1.38 | 175 |
| C1812ATZ | 25.44 | 15.50 | 12.50 | 14.00 | 3.00 | 2.75 | 1.3750 | 2.50 | 1.201 | .312 | 1.75 | 2.44 | 2.25  | 1.1250 | 2.00 | .986  | .250 | 1.38 | 210 |

## STEEL TERMINAL BOX DIMENSIONS

| FRAME   | MAX.<br>AMPS | STANDARD SIZE |  |      |      |      |      | PART<br>NUMBER | ONE SIZE LARGER |               |  |      |      |      | PART<br>NUMBER |      |            |
|---------|--------------|---------------|--|------|------|------|------|----------------|-----------------|---------------|--|------|------|------|----------------|------|------------|
|         |              | AA(5)         |  | AB   | AC   | AF   | X    |                | Y               | AA(5)         |  | AB   | AC   | AF   |                | X    | Y          |
| C180ATZ | 40           | 3/4 & 1"      |  | 7.31 | 5.75 | 1.94 | 4.38 | 5.00           | 705028-1-R      | 1-1/4 & 1-1/2 |  | 8.31 | 6.31 | 2.50 | 5.50           | 6.12 | 705029-1-R |
|         | 96           | 1-1/4 & 1-1/2 |  | 8.31 | 6.31 | 2.50 | 5.50 | 6.12           | 705029-1-R      | 2" & 2-1/2    |  | 9.44 | 6.69 | 3.19 | 7.00           | 7.62 | 705030-1-R |

## CAST IRON TERMINAL BOX DIMENSIONS

| FRAME   | MAX<br>AMPS | STANDARD SIZE |       |      |      |      | PART<br>NUMBER | ONE SIZE LARGER |       |       |      |      | PART<br>NUMBER |      |            |
|---------|-------------|---------------|-------|------|------|------|----------------|-----------------|-------|-------|------|------|----------------|------|------------|
|         |             | AA(6)         | AB    | AC   | AF   | X    |                | Y               | AA(6) | AB    | AC   | AF   |                | X    | Y          |
| C180ATZ | 18          | 3/4           | 9.38  | 7.38 | 2.50 | 5.00 | 5.75           | 705028-2-S      | 1     | 9.38  | 7.38 | 2.50 | 5.00           | 5.75 | 705028-2-T |
|         | 40          | 1             | 9.38  | 7.38 | 2.50 | 5.00 | 5.75           | 705028-2-T      | 1-1/2 | 10.31 | 7.88 | 3.00 | 6.00           | 7.00 | 705029-2-R |
|         | 96          | 1-1/2         | 10.31 | 7.88 | 3.00 | 6.00 | 7.00           | 705029-2-R      | 2     | 10.31 | 7.88 | 3.00 | 6.00           | 7.00 | 705029-2-S |

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

|                                     |                      |                              |
|-------------------------------------|----------------------|------------------------------|
| REV. DESC: REVISE "D" DIM TOLERANCE | VERSION: 02          | TDR: 000001158210            |
| REV. LTR: B                         | FILE: \RGG\00031\202 | REVISED: 01:10:53 01/13/2021 |
| MTL: -                              | BY: RGGNAS           |                              |

BALDOR - RELIANCE®

DIMENSION DRAWING, C180ATZ, DPG, TENV, FOOT MTG.

SH 1 of 1

609980-001

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                |            |  |                   |
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| 406770-006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |                                                                                                | 406770-006 |  |                   |
| <div>CONNECTION DIAGRAM<br/>D-C MOTOR - STRAIGHT SHUNT</div> <div><div><div><div><div>W1</div><div>&lt;NOTE 6&gt;</div></div><div><div>H1</div><div>H2</div></div></div><div><div><div>SHUNT FIELD</div><div>INTER-COIL</div><div>ARMATURE</div></div><div><div>F1</div><div>A1</div><div>AX2</div><div>A2</div><div>F2</div></div></div><div><div>&lt;NOTE 3&gt;</div><div>&lt;CAUTION-SEE NOTE 1&gt;</div><div>&lt;NOTE 4&gt;</div></div></div><div><div>THREE WIRE RTD</div><div><div>TD1</div><div>TD2</div><div>TD3</div></div><div>&lt;NOTE 5&gt;</div></div></div> <div><div>ARMATURE AND FIELD EXTERNAL CONNECTIONS</div><div>WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS</div><div><div><div>A1</div><div>A2</div><div>F1</div><div>F2</div></div><div><div>CCW</div><div>ROTATION</div></div><div><div>A1</div><div>A2</div><div>F1</div><div>F2</div></div><div><div>CW</div><div>ROTATION</div></div></div><div>ROTATION FACING COMMUTATOR END</div></div> <div><div>1. CAUTION — ARMATURE MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.</div><div>2. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.</div><div>3. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.</div><div>4. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.</div><div>5. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, &amp; TD3.</div><div>6. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.</div><div>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 MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.</div></div> <div><div>CUSTOMER</div><div>CUSTOMER ORDER NO.</div><div>RELIANCE</div><div>S.D. NO.</div></div> |                               |                                                                                                |            |  |                   |
| REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               | <div>BALDOR</div> <div>D-C MOTOR CONNECTION DIAGRAM, STRAIGHT SHUNT</div> <div>SH 1 of 1</div> |            |  |                   |
| REV. LTR: -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | VERSION: 00                   |                                                                                                |            |  | TDR: 000000781086 |
| FILE: \RSN\00026\515                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | REVISED: 02: 41:08 02/01/2013 |                                                                                                |            |  |                   |
| MTL: -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BY: MGHPC                     |                                                                                                |            |  |                   |