ABB BALDOR RELIANCE

# Customer information packet

D2003R

3HP, 1750RPM, DC, 189ATCZ, DPG,

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/15/2026 10:15:41 PM

## Specifications

| | |
|---|---|
| **Armature Voltage** | 240 V |
| **Base Speed** | 1750 rpm |
| **Enclosure** | DP |
| **Field Voltage** | 150 V |
| **Frame** | DC0189ATCZ |
| **Output Power** | 3.000 HP |
| **Agency Approvals** | CCSA US |
| **Ambient Temperature** | 40 °C |
| **Armature Current** | 11.0 a |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Feedback Device** | NO FEEDBACK |
| **Field Winding Type** | STAB SHUNT |
| **Frame Prefix** | DC |
| **Heater Indicator** | No Heater |
| **Insulation Class** | F |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Motor Standards** | NEMA |
| **Mounting Arrangement** | F3 |
| **Overall Length** | 21.82 IN |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 1.125 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Slinger Indicator** | No Slinger |
| **Thermal Device - Bearing** | None |

## Part Detail

| | |
|---|---|
| **Revision** | - |
| **Type** | DC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | G4630A A |
| **Layout** | 609980-503 |
| **Eff. date** | 01-02-2020 |
| **CD Diagram** | 406770-001 |
| **Poles** | 00 |
| **Leads** | |
| **Proprietary** | False |
| **Created date** | 12-27-2019 |

**Nameplate**

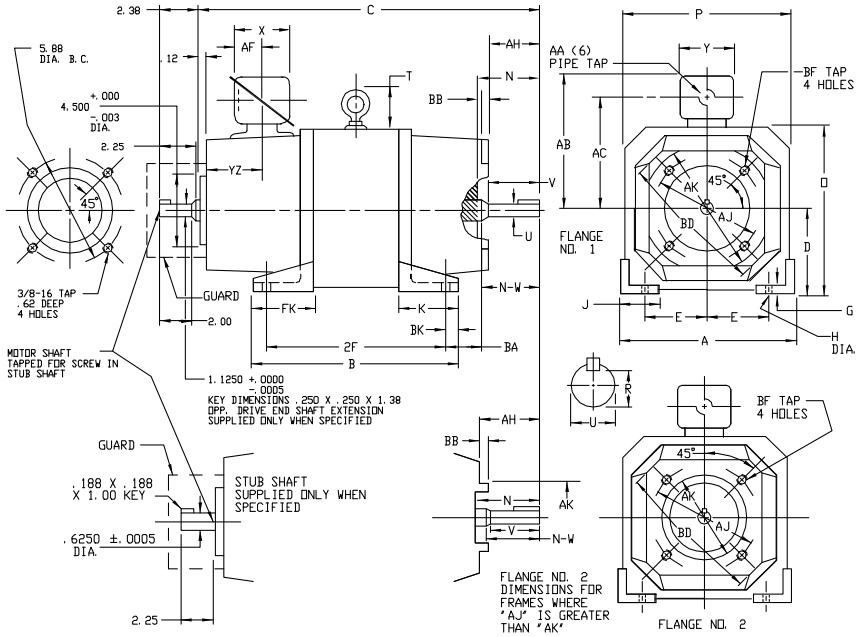
| 000613006HP | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | D2003R | | **SPEC NO.** | T18S1127 | | | | | |
| **FR** | DC0189ATCZ | **HP** | 3 | | **DUTY** | CONT | | | |
| **ENCL.** | DP | **RPM** | 1750/2300 | | **S.F.** | 1.0 | | | |
| **ENCL MOD** | GUARDED | **VOLTS** | 240 | | **INSUL** | F | | | |
| **MAX SAFE SPEED** | 04500 | **AMPS** | 11.00 | | **AMB.** | 40 | | | |
| | **FIELD DATA** | **SER.NO.** | | | | | | | |
| **WINDING** | STAB SHUNT | **POWER CODE** | C | | | | | | |
| **VOLTS** | 150 | **D.E. BRG.** | 30BC02JPP30A | | | | | | |
| **MAX AMPS @ 25 C** | 1.52 | **O.D.E. BRG.** | 30BC02JPG30A | | | | | | |
| **HOT AMPS** | 1.13/.62 | **MIN. AMB.** | 0 | | **TYPE** | TR | | | |
| | BRUSH:419904050A | | | | | | | | |
| | SPLASHPROOF | | | | | | | | |

609980-503

# INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE:DRIP-PROOF FULLY-GUARDED, SPLASHPROOF, TOTALLY ENCLOSED
MOUNTING:FOOT,"C" FACE
METHOD OF DRIVE:COUPLED OR BELTED
COOLING:SELF-VENTILATED NON-VENTILATED
ACCESSORIES:PROVISIONS FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

## DC180ATY–DC180ATCZ




DIMENSIONS ARE IN INCHES

| FRAME | FLANGE | A | D(1) | E | G | H | J | K | FK | BK | D | P | T | BA | BB(7) | BD | BF TAP | BF TAP 'DEPTH' | AJ | AK(4) | A.C. SHAFT EXT. REF. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC189ATY | NO. 2 | 9.00 | 4.50 | 3.75 | .31 | .44 | 1.50 | 3.56 | 3.56 | .50 | 8.88 | 8.75 | 1.88 | 2.75 | .12 | 8.75 | 3/8-16 | .62 | 5.88 | 4.500 | 140TC EXT. |
| DC189ATCZ | NO. 1 | 9.00 | 4.50 | 3.75 | .31 | .44 | 1.50 | 3.56 | 3.56 | .50 | 8.88 | 8.75 | 1.88 | 2.75 | .25 | 8.75 | 1/2-13 | .88 | 7.25 | 8.500 | 180TC EXT. |
| DC1810ATY | NO. 2 | 9.00 | 4.50 | 3.75 | .31 | .44 | 1.50 | 3.56 | 3.56 | .50 | 8.88 | 8.75 | 1.88 | 2.75 | .12 | 8.75 | 3/8-16 | .62 | 5.88 | 4.500 | 140TC EXT. |
| DC1810ATCZ | NO. 1 | 9.00 | 4.50 | 3.75 | .31 | .44 | 1.50 | 3.56 | 3.56 | .50 | 8.88 | 8.75 | 1.88 | 2.75 | .25 | 8.75 | 1/2-13 | .88 | 7.25 | 8.500 | 180TC EXT. |
| DC1811ATY | NO. 2 | 9.00 | 4.50 | 3.75 | .31 | .44 | 1.50 | 3.56 | 3.56 | .50 | 8.88 | 8.75 | 1.88 | 2.75 | .12 | 8.75 | 3/8-16 | .62 | 5.88 | 4.500 | 140TC EXT. |
| DC1811ATCZ | NO. 1 | 9.00 | 4.50 | 3.75 | .31 | .44 | 1.50 | 3.56 | 3.56 | .50 | 8.88 | 8.75 | 1.88 | 2.75 | .25 | 8.75 | 1/2-13 | .88 | 7.25 | 8.500 | 180TC EXT. |

| FRAME | FLANGE | C(5) | B | 2F | DRIVE END SHAFT AND KEY | | | | | | | | TERMINAL BOX DIMENSIONS | | | | | | | WT. LBS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | N | N-W | UX(2) | V | AH | R(3) | SQ. | LGTH | AA | AB | AC | AF | X | Y | YZ | |
| DC189ATY | NO. 2 | 18.81 | 11.62 | 10.00 | 2.44 | 2.25 | .8750 | 2.00 | 2.12 | .771 | .188 | 1.38 | 1.00 | 7.30 | 6.11 | 2.19 | 4.38 | 3.75 | 3.25 | 130 |
| DC189ATCZ | NO. 1 | 19.44 | 11.62 | 10.00 | 3.06 | 2.88 | 1.1250 | 2.62 | 2.62 | .986 | .250 | 1.81 | 1.00 | 7.30 | 6.11 | 2.19 | 4.38 | 3.75 | 3.25 | 130 |
| DC1810ATY | NO. 2 | 19.56 | 12.38 | 11.00 | 2.44 | 2.25 | .8750 | 2.00 | 2.12 | .771 | .188 | 1.38 | 1.00 | 7.30 | 6.11 | 2.19 | 4.38 | 3.75 | 3.25 | 155 |
| DC1810ATCZ | NO. 1 | 20.19 | 12.38 | 11.00 | 3.06 | 2.88 | 1.1250 | 2.62 | 2.62 | .986 | .250 | 1.81 | 1.00 | 7.30 | 6.11 | 2.19 | 4.38 | 3.75 | 3.25 | 155 |
| DC1811ATY | NO. 2 | 21.06 | 13.88 | 12.50 | 2.44 | 2.25 | .8750 | 2.00 | 2.12 | .771 | .188 | 1.38 | 1.00 | 7.30 | 6.11 | 2.19 | 4.38 | 3.75 | 3.25 | 185 |
| DC1811ATCZ | NO. 1 | 21.69 | 13.88 | 12.50 | 3.06 | 2.88 | 1.1250 | 2.62 | 2.62 | .986 | .250 | 1.81 | 1.00 | 7.30 | 6.11 | 2.19 | 4.38 | 3.75 | 3.25 | 185 |

(1) 'D' DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES. TOLERANCE +.00/-.06 .
(2) 'U' VARIES +.0000, -.0005.
(3) 'R' VARIES +.000, -.015.
(4) 'AK' VARIES +.000, -.003. FACE RUNOUT AND ECCENTRICITY .004 MAX. T.I.R.
(5) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF OPP. DRIVE END, ADD .25 TO 'C' DIM. FOR BRACKET COVER.
(6) TERMINAL BOX CAN BE ROTATED TO REPOSITION CONDUIT CONNECTION. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED CONSULT FACTORY.
(7) 'BB' OF .25 IS A MINIMUM VALUE.

MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.

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

| | | |
|---|---|---|
| REV. DESC: REVISE "D" DIM TOLERANCE | | |
| REV. LTR: D | VERSION: 04 | TDR: 000001148815 |
| FILE: \RGG\00030\373 | REVISED: 03:18:10 09/15/2020 | BY: RGGNAS |
| MTL: – | | |

BALDOR - RELIANCE®

DIMENSION DRAWING,DC180ATY – DC180ATCZ,DPP,TENV,FOOT MTG.

SH 1 of 1

609980-503

406770-001

# CONNECTION DIAGRAM
## D-C MOTOR - STAB. SHUNT




406770-001

ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS




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 DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ CUSTOMER
ORDER NO. _____ RELIANCE
S.O. NO. _____

| | | |
|---|---|---|
| REV. DESC: DELETED DUPLICATE WORDS FROM NOTE 8 | | |
| REV. LTR: A | VERSION: 01 | TDR: 000000970330 |
| FILE: \RSN\00026\422 | REVISED: 10:19:12 03/11/2016 | BY: RAGTBM |
| MTL: - | | |

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT

SH 1 of 1