

# ABB BALDOR RELIANCE III

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## Customer information packet

### CDP3605

5HP, 1750RPM, DC, 1810ATC, 3681P, TEFC, F1

Class - None

Division -

**Specifications**

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Armature Voltage</b>              | 180 V                      |
| <b>Base Speed</b>                    | 1750 rpm                   |
| <b>Enclosure</b>                     | TEFC                       |
| <b>Frame</b>                         | 1810ATC                    |
| <b>Frame Material</b>                | Steel                      |
| <b>Haz Area Class and Group</b>      | None                       |
| <b>Output Power</b>                  | 5.000 HP                   |
| <b>Agency Approvals</b>              | CE<br>CSA<br>UR            |
| <b>Ambient Temperature</b>           | 40 °C                      |
| <b>Armature Current</b>              | 21.6 a                     |
| <b>Armature Inertia</b>              | 192.361 lb-ft <sup>2</sup> |
| <b>Base Indicator</b>                | Rigid                      |
| <b>Bearing Grease Type</b>           | Polyrex EM (-20F +300F)    |
| <b>Drip Cover</b>                    | No Drip Cover              |
| <b>Duty Rating</b>                   | CONT                       |
| <b>Feedback Device</b>               | NO FEEDBACK                |
| <b>Heater Indicator</b>              | No Heater                  |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs      |
| <b>Motor Lead Exit</b>               | Ko Box                     |
| <b>Motor Lead Quantity/Wire Size</b> | 2 @ 12 AWG                 |
| <b>Motor Lead Termination</b>        | Flying Leads               |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Overall Length</b>                | 27.83 IN                   |
| <b>Product Family</b>                | General Purpose            |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing             |
| <b>Service Factor</b>                | 1.00                       |
| <b>Shaft Diameter</b>                | 1.125 IN                   |
| <b>Shaft Extension Location</b>      | Pulley End                 |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding         |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AH         |
| <b>Type</b>         | DC         |
| <b>Mech. spec.</b>  | 36P179     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGZ543   |
| <b>Layout</b>       | 36LYP179   |
| <b>Eff. date</b>    | 03-19-2026 |
| <b>CD Diagram</b>   | CD0194     |
| <b>Poles</b>        | 00         |
| <b>Leads</b>        |            |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-01-0001 |

|                         |            |
|-------------------------|------------|
| Shaft Rotation          | Reversible |
| Shaft Slinger Indicator | No Slinger |

**Nameplate**

| NP0891L        |                       |                 |       |
|----------------|-----------------------|-----------------|-------|
| <b>CAT.NO.</b> | CDP3605               |                 |       |
| <b>SPEC.</b>   | 36P179Z543            |                 |       |
| <b>HP</b>      | 5/3.7 KW              | <b>ENCL</b>     | TEFC  |
| <b>RPM</b>     | 1750 1/MIN IC411 73KG |                 |       |
| <b>FRAME</b>   | 1810ATC               | <b>TYPE</b>     | 3688P |
| <b>ARM V</b>   | 180                   | <b>ARM A</b>    | 21.6  |
| <b>FLD V</b>   |                       | <b>FLD A</b>    |       |
| <b>INSUL</b>   | H                     | <b>AMB.</b>     | 40    |
| <b>DUTY</b>    | CONT                  | <b>SUPPLY</b>   | K     |
| <b>BRG/DE</b>  | 6206                  | <b>BRG/ODE</b>  | 6206  |
| <b>BRUSHES</b> | 2/BP5027A01           |                 |       |
|                |                       | <b>BLANK</b>    | IP44  |
| <b>SER.</b>    |                       |                 |       |
| <b>BLANK</b>   |                       |                 |       |
| <b>APRV-CE</b> | Y                     | <b>APRV-CSA</b> | Y     |
|                |                       | <b>APRV-UL</b>  | Y     |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA113919      | SA 36P179Z543                            | 1.000 ea |
| AA010195      | AA 36P179Z543                            | 1.000 ea |
| HW3201A05     | 3/8-16 EYEBOLT                           | 1.000 ea |
| HW1000A38     | WASHER, 3/8" FLAT, SAE Z/P               | 2.000 ea |
| 19XW3118A08   | .31-18 X .50 HEX WASHER HEAD TAPTITE II  | 8.000 ea |
| 36CB3000SP    | CONDUIT BOX, CAST                        | 1.000 ea |
| 36GS1000SP    | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 ea |
| 51XB1016A07   | 10-16 X 7/16 HXWSSLD SERTYB              | 2.000 ea |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HW3001B02     | BRASS CUP WASHER W/GROUND SYMBOL TAB,    | 1.000 ea |
| 36EP3402A03   | SPL FR. E.P. MACH'G 36PM FOR (681P) STAC | 1.000 ea |
| 26XW1032A08   | 10-32 X 1/2 PHILLIPS HEAD TAPTITE-II (SI | 4.000 ea |
| WD1000D04     | T&B C26M,NON-INS RING, 12-10 GA, #10 BOL | 2.000 ea |
| HW5100A06     | W2420-025 WVY WSHR (WB)                  | 1.000 ea |
| 36EP3302A01   | STD PU ENDPLATE #206 BRG 182TC-184TC 36P | 1.000 ea |
| 10XN2520A28   | 1/4-20X 1 3/4 HEX HD                     | 4.000 ea |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| MJ5001A27     | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 qt |
| 36FN3000A01SP | EXFN, PLASTIC, 7.00 OD, .912 ID          | 1.000 ea |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 35CB4514      | 35 LIPPED CB LID                         | 1.000 ea |
| 36GS1001A08   | GASKET, CONDUIT BOX LID WHITE NON-CONduc | 1.000 ea |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| 36CB4500SP    | CONDUIT BOX LID, STAMPED                 | 2.000 ea |
| 36GS1001A08   | GASKET, CONDUIT BOX LID WHITE NON-CONduc | 2.000 ea |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 8.000 ea |
| HA7000A02     | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 ea |
| MG1050G01     | CELEROL MEDIUM CHARCOAL METALLIC GRAY    | 0.019 ga |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| 36FH5000A11   | FAN COVER/TACH. ACC. ASSY.08 45823107    | 1.000 ea |

|             |                                          |           |
|-------------|------------------------------------------|-----------|
| HW2501E18   | KEY, 1/4 SQ X 2.000                      | 1.000 ea  |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea  |
| NP0891L     | NP STD LASER ENGRAVED DC MTRS, UL CSA CE | 1.000 ea  |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea  |
| MG5010A01   | TRICKLE VARNISH (PEDIGREE 600 S)         | 0.005 ga  |
| MG5010Z01   | 488 (TPB) CATALYST                       | 0.001 lb  |
| 36RK5008A01 | ROCKERARM ASSY-GRADE E45                 | 1.000 ea  |
| HA3101A48   | THRUBOLT- 1/4-20 X 16.75                 | 4.000 ea  |
| LC0194      | CONNECTION LABEL                         | 1.000 ea  |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea  |
| 37PA1039    | PALLET PACK GROUP, BLANK PK1148          | 1.000 ea  |
| ML14A1B12   | 12 AWG,A1,BLACK                          | 13.000 in |
| ML14A2B12   | 12 AWG,A2,BLACK                          | 13.000 in |
| MJ5004A92   | ADHESIVE                                 | 0.031 ea  |

**Accessories**

| Part number | Description                     | Multiplier |
|-------------|---------------------------------|------------|
| TK3600PM    | TACHO MOUNTING KIT FOR TK3600PM | A8         |

**DC Motor Performance Data**

Record # 1441

Typical performance - not guaranteed values

| Winding: 36WGZ543-R001 |              | Type: 3688P                   | Enclosure: TEFC |
|------------------------|--------------|-------------------------------|-----------------|
| Nameplate Data         |              | General Characteristics       |                 |
| Rated Output (HP)      | 5            | Armature Resistance<br>@ 25°C | 0.1532 Ω        |
| R.P.M.                 | 1750         |                               |                 |
| Armature Volts         | 180          |                               |                 |
| Armature Amps          | 21.6         |                               |                 |
| Field Volts            |              | Armature Inductance           | 3.7192 mH       |
| Field Amps             |              |                               |                 |
| Rating - Duty          | 40C AMB-CONT |                               |                 |
| Power Supply Code      | K            |                               |                 |

**Load Characteristics at 180 Armature Volts**

| Load Point       | 1    | 2    | 3    | 4     | 5    | 6     | 7     |
|------------------|------|------|------|-------|------|-------|-------|
| Armature Amps    | 0.88 | 6.23 | 11.5 | 17    | 22.2 | 27.7  | 33.21 |
| R.P.M.           | 1875 | 1860 | 1840 | 1830  | 1812 | 1800  | 1785  |
| Torque ( LB-FT ) | 0    | 3.75 | 7.5  | 11.25 | 15   | 18.75 | 22.5  |

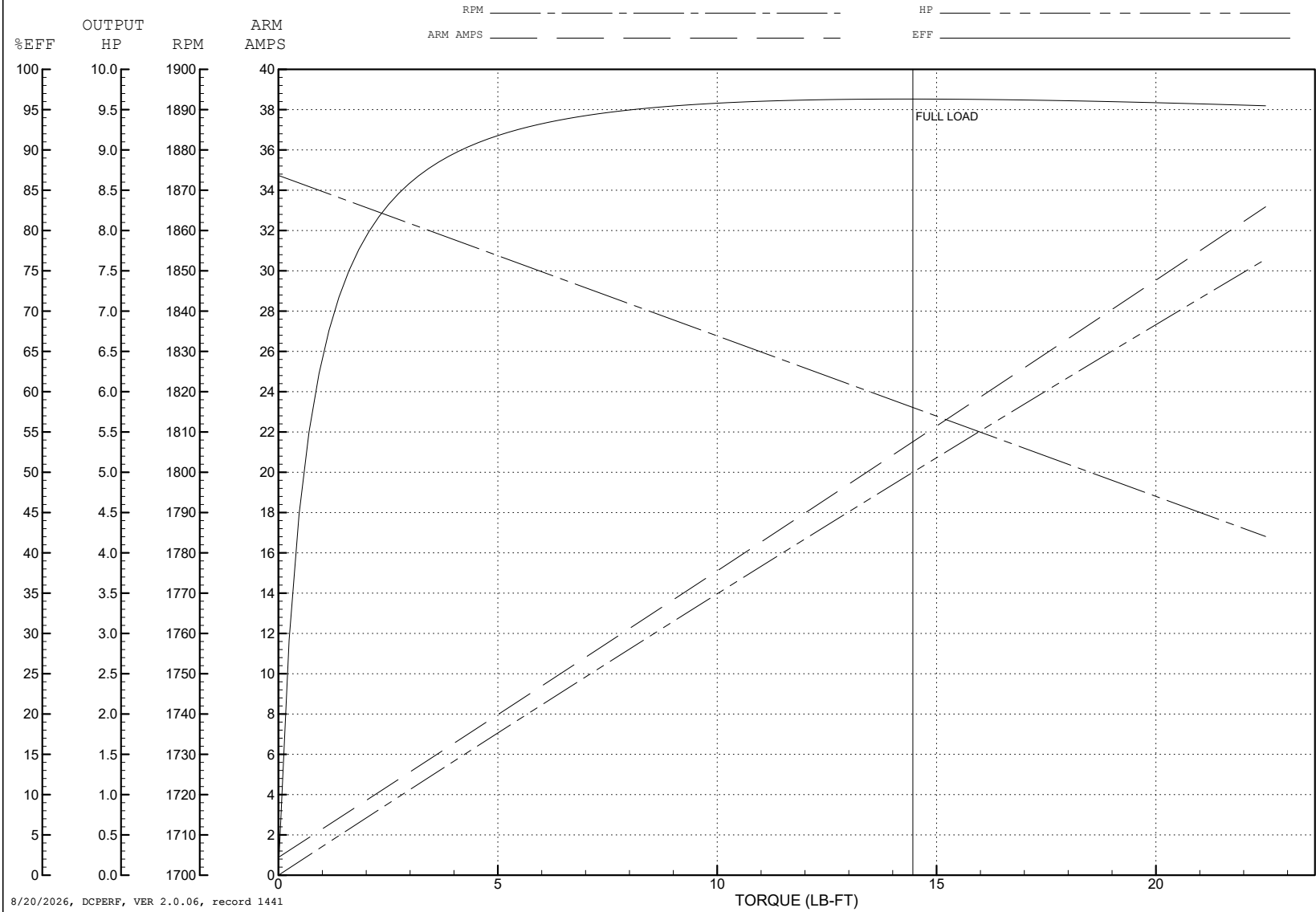
ABB Motors and Mechanical Inc.

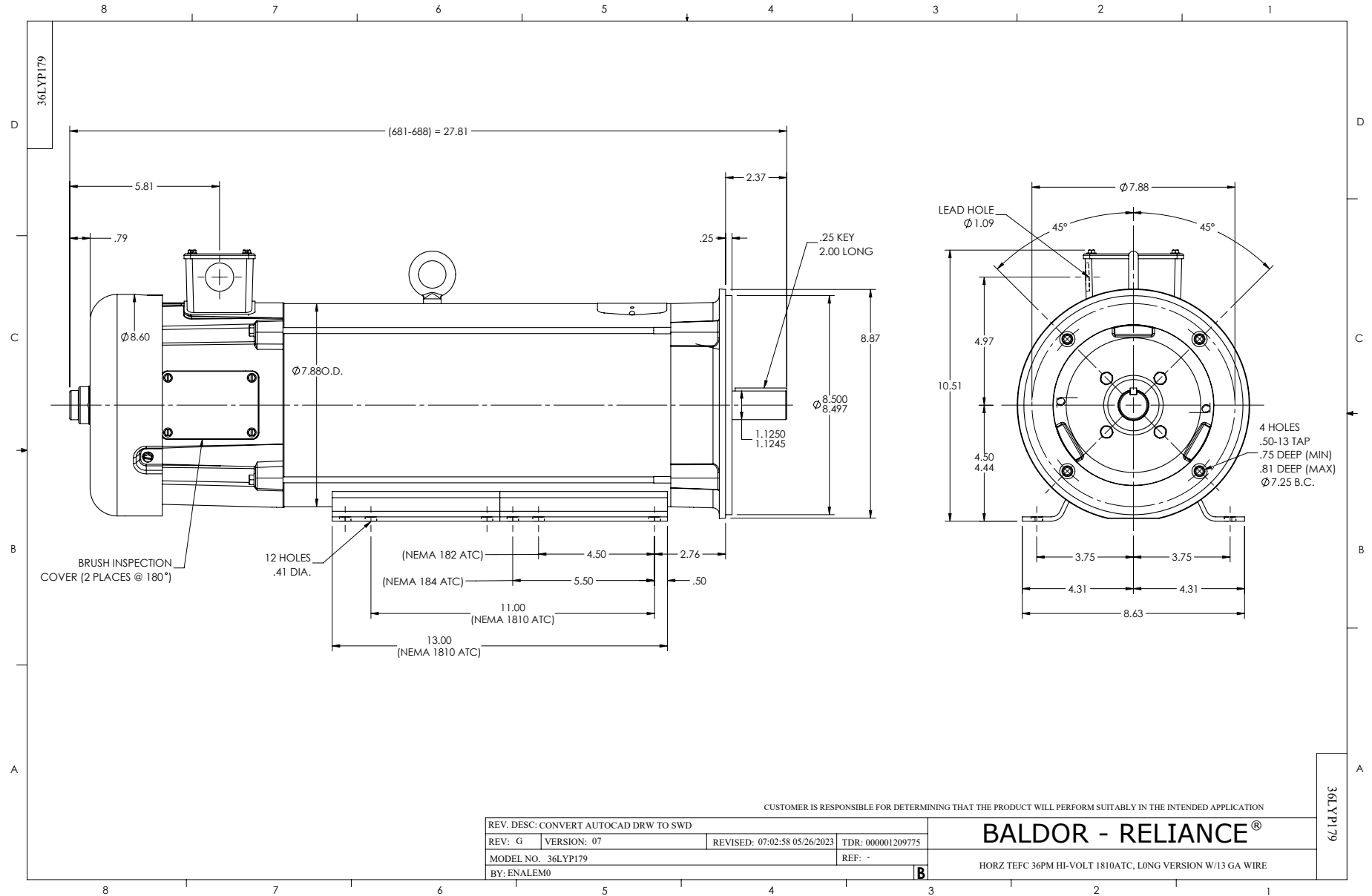
WINDING # 36WGZ543

Typical performance - not guaranteed values.

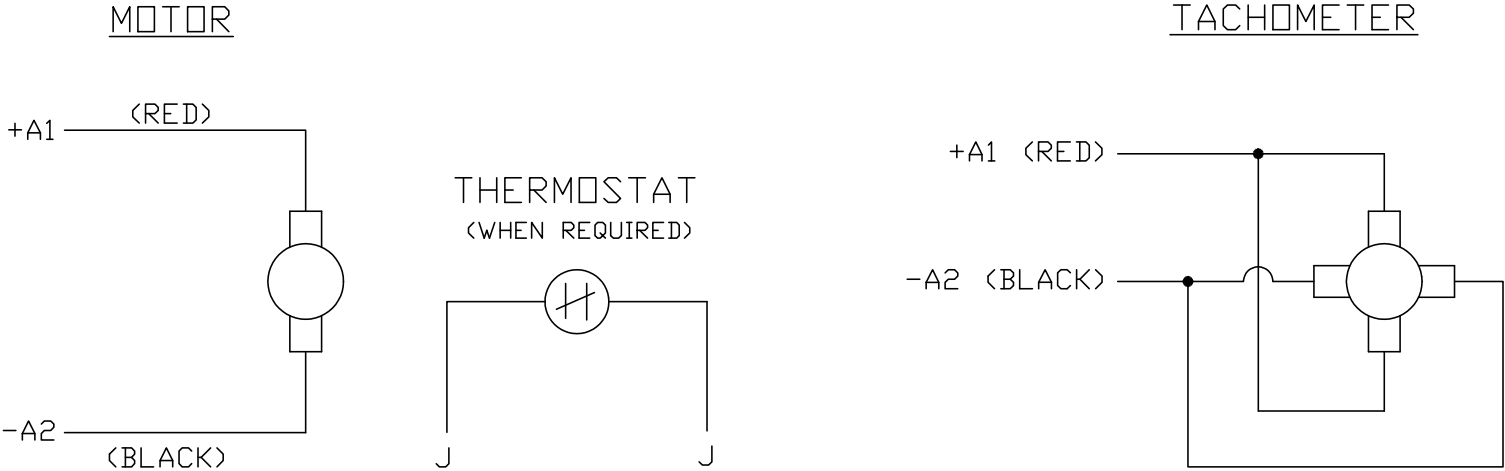
5 HP DC 1750 RPM 180 V 3688P

ENCL: TEFC DUTY: CONT CL: H





CD0194



NOTES:

1. CCW ROTATION AS SHOWN FACING COMMUTATOR END. TO REVERSE MOTOR ROTATION OR TACHOMETER OUTPUT POLARITY INTERCHANGE LEADS A1(RED) & A2(BLACK)
2. LEAD COLORS FOR REFERENCE ONLY & NOT SPECIFIED BY THIS DRAWING. LEAD COLORS SPECIFIED BY LAYOUT DRAWING & BILL OF MATERIAL ONLY.

|         |   |                                                  |              |
|---------|---|--------------------------------------------------|--------------|
| MATL: - |   |                                                  |              |
| REV:    | E | ADDED NOTE "LEAD COLORS FOR REFERENCE ONLY &..." |              |
| CD0194  |   | SCALE: -                                         | BY: CK       |
|         |   | FILE: AAA00004503                                | TDR: 0078737 |

**BALDOR ELECTRIC Co.**

CD TYPE P DC PERMANENT MAGNET MOTORS AND TACHOMETERS

CD0194