

# ABB BALDOR RELIANCE III

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## Customer information packet

### VP3575D

1.1/1.5HP, 1750RPM, DC, D90D, 3536P, TEFC, F2

Class - None

Division -

**Specifications**

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Armature Voltage</b>              | 180 V                     |
| <b>Base Speed</b>                    | 1750 rpm                  |
| <b>Enclosure</b>                     | TEFC                      |
| <b>Frame</b>                         | D90D                      |
| <b>Frame Material</b>                | Steel                     |
| <b>Haz Area Class and Group</b>      | None                      |
| <b>Output Power</b>                  | 1.500 HP                  |
| <b>Agency Approvals</b>              | CE<br>CSA<br>UR           |
| <b>Ambient Temperature</b>           | 40 °C                     |
| <b>Armature Current</b>              | 7.7 a                     |
| <b>Armature Inertia</b>              | 30.342 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>Frame Prefix</b>                  | D                         |
| <b>Heater Indicator</b>              | No Heater                 |
| <b>Lifting Lugs</b>                  | No Lifting Lugs           |
| <b>Motor Lead Exit</b>               | Ko Box                    |
| <b>Motor Lead Quantity/Wire Size</b> | 2 @ 14 AWG, A             |
| <b>Motor Lead Termination</b>        | Flying Leads              |
| <b>Motor Standards</b>               | IEC                       |
| <b>Mounting Arrangement</b>          | B35                       |
| <b>Overall Length</b>                | 17.88 IN                  |
| <b>Product Family</b>                | General Purpose           |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing            |
| <b>RoHS Status</b>                   | ROHS COMPLIANT            |
| <b>Service Factor</b>                | 1.00                      |
| <b>Shaft Diameter</b>                | 0.945 IN                  |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AH         |
| <b>Type</b>         | DC         |
| <b>Mech. spec.</b>  | 35P466     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGZ164   |
| <b>Layout</b>       | 35LYP466   |
| <b>Eff. date</b>    | 10-28-2024 |
| <b>CD Diagram</b>   | CD0194     |
| <b>Poles</b>        | 00         |
| <b>Leads</b>        | 2#14 A Y   |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-01-0001 |

|                          |                    |
|--------------------------|--------------------|
| Shaft Extension Location | Pulley End         |
| Shaft Ground Indicator   | No Shaft Grounding |
| Shaft Rotation           | Reversible         |
| Shaft Slinger Indicator  | No Slinger         |

**Nameplate**

| NP1049L   |                          |          |        |         |
|-----------|--------------------------|----------|--------|---------|
| CAT.NO.   | VP3575D                  |          |        |         |
| SPEC.     | 35P466Z164               |          |        |         |
| KW/HP     | 1.1/1.5 TE               |          | I.P.   | 54      |
| RPM       | 1750 TE 1/MIN IC411 31KG |          |        |         |
| IEC FRAME | D90D                     | TYPE     | 3536P  |         |
| ARM V     | 180                      |          | ARM A  | 7.7     |
| FLD V     |                          |          | FLD A  |         |
| INSUL     | F                        | AMB.     | 40     |         |
| DUTY      | CONT                     |          | SUPPLY | K       |
| BRG/DE    | 6206                     | BRG/ODE  | 6205   |         |
| BRUSHES   | 2/BP5000T15              |          |        |         |
|           |                          |          | BLANK  |         |
| SER.      |                          |          |        |         |
| BLANK     | IEC60034-1;-5            |          |        |         |
| APRV-CE   |                          | APRV-CSA |        | APRV-UL |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA005529      | SA 35P466Z164                            | 1.000 ea |
| AA003178      | AA 35P466Z164                            | 1.000 ea |
| 35EP3110A04   | STD FR EP TEFC F2 MTG FOR EXT T'BOLT 35P | 1.000 ea |
| HW5100A05     | WVY WSHR F/205 & 304 BRGS                | 1.000 ea |
| 35EP2500A02   | PU ENDPLATE 35DC-PM IEC 165 FLG D80 & D9 | 1.000 ea |
| 10XN2520A24   | 1/4-20X 1 1/2 HEX HD X                   | 2.000 ea |
| HW4600H12     | SEAL 1.156 X 1.874 X 0.250 SINGLE LIP DB | 1.000 ea |
| BP5201A14SP   | BRUSH HOLDER ASSY                        | 1.000 ea |
| 80XN1032J03   | 10-32 X 3/16 SET SCREW, HEX SOC, CUP PT  | 2.000 ea |
| MJ5004A05     | #242-21 LOCTITE GENERAL PURPOSE MED. STR | 0.001 ea |
| 35FN3002A05SP | EXFN, PLASTIC, 6.376 OD, .638 ID         | 1.000 ea |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| 35FH5001A10SP | FAN COVER ASS'Y TEFC HORZ                | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| WD4102A01     | SR-6L-1 HEYCO STRN RELIEF OR 23MPO6L10 M | 1.000 ea |
| WD4100A17     | PLUG STIMPSON D4036                      | 1.000 ea |
| 35CB4506      | CONDUIT BOX LID, STAMPED                 | 1.000 ea |
| 35GS1010      | CONDUIT BOX LID, GASKET                  | 1.000 ea |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 2.000 ea |
| HW2505A14     | KEY, 8 X 7 MM 1.50 INCHES                | 1.000 ea |
| HA7000A12     | KEY RETAINER 0.945-1.00 DIA SHAFTS       | 1.000 ea |
| MJ5001A27     | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 qt |
| HW3001B02     | BRASS CUP WASHER W/GROUND SYMBOL TAB,    | 1.000 ea |
| MG1050G01     | CELEROL MEDIUM CHARCOAL METALLIC GRAY    | 0.017 ga |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| BP5000T15     | CARBON BRUSH-35P,180VOLTS                | 2.000 ea |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HA3101A46     | THRUBOLT 1/4-20 X 10.00                  | 4.000 ea |
| LB1624        | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0194        | CONNECTION LABEL                         | 1.000 ea |
| MN416A01      | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |

|          |                                         |          |
|----------|-----------------------------------------|----------|
| NP1049L  | NP STD LASER ENGRAVED IEC DC MOTORS, UL | 1.000 ea |
| 35PA1007 | PKG GRP, PRINT PK1034A07                | 1.000 ea |

**Accessories**

| Part number |  | Description              | Multiplier |
|-------------|--|--------------------------|------------|
| TK3500      |  | TACHO MOUTING KIT TK3500 | A8         |

**DC Motor Performance Data**

Record # 388

Typical performance - not guaranteed values

| Winding: 35WGZ164-R001 |              | Type: 3536P                   | Enclosure: TEFC        |
|------------------------|--------------|-------------------------------|------------------------|
| Nameplate Data         |              | General Characteristics       |                        |
| Rated Output (HP)      | 1.5          | Armature Resistance<br>@ 25°C | 0.965 Ω                |
| R.P.M.                 | 1750         |                               |                        |
| Armature Volts         | 180          | Voltage Constant              | 97.47 v/krpm           |
| Armature Amps          | 7.7          |                               |                        |
| Field Volts            |              | Armature Inductance           | 12.959 mH              |
| Field Amps             |              | Armature Inertia              | 30.342 LI <sup>2</sup> |
| 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    | 0.5  | 3.6  | 5.4   | 7    | 8.5   | 10.2 | 12    |
| R.P.M.           | 1819 | 1762 | 1727  | 1701 | 1682  | 1661 | 1632  |
| Torque ( LB-FT ) | 0    | 2.25 | 3.375 | 4.5  | 5.625 | 6.75 | 7.875 |

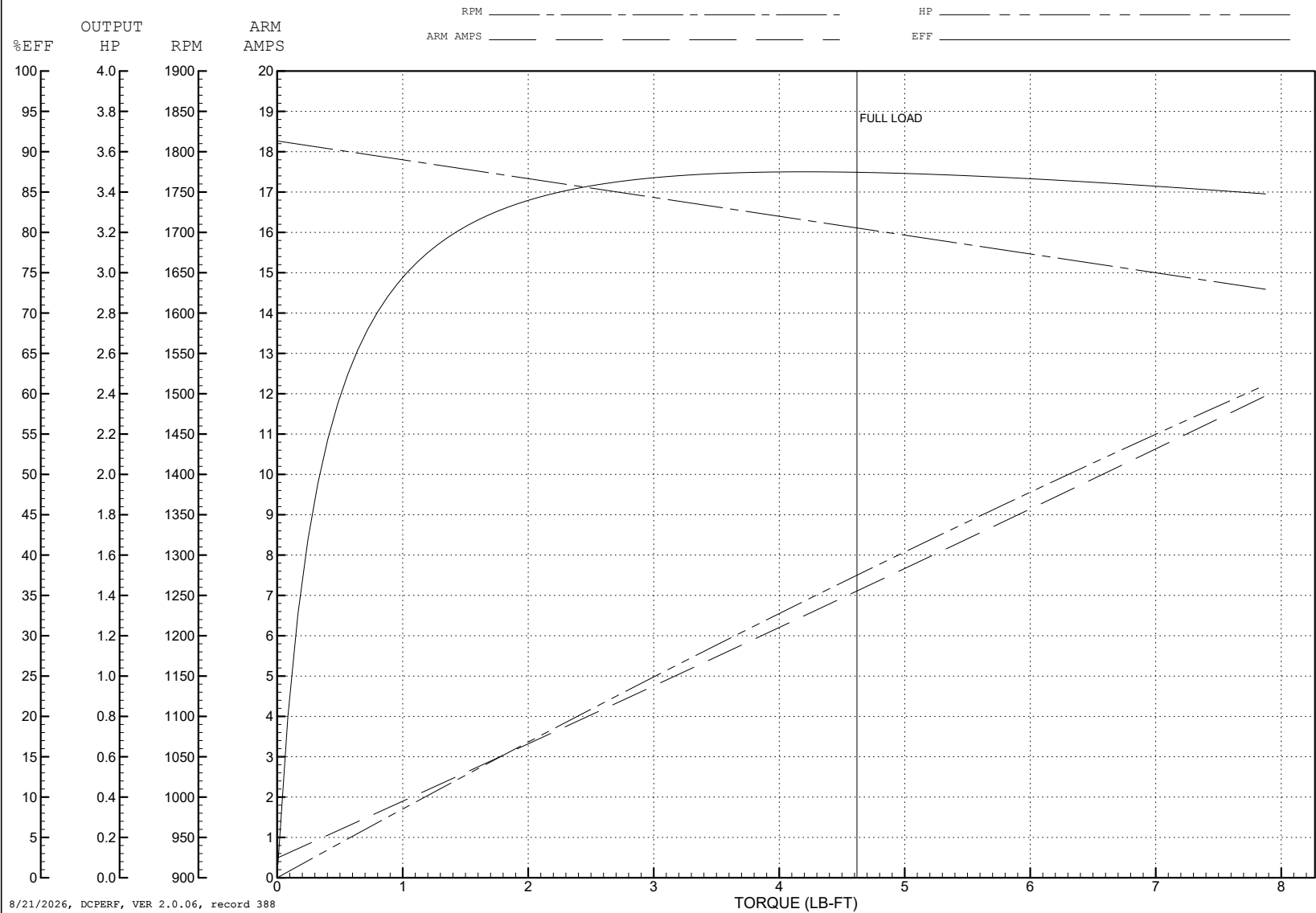
ABB Motors and Mechanical Inc.

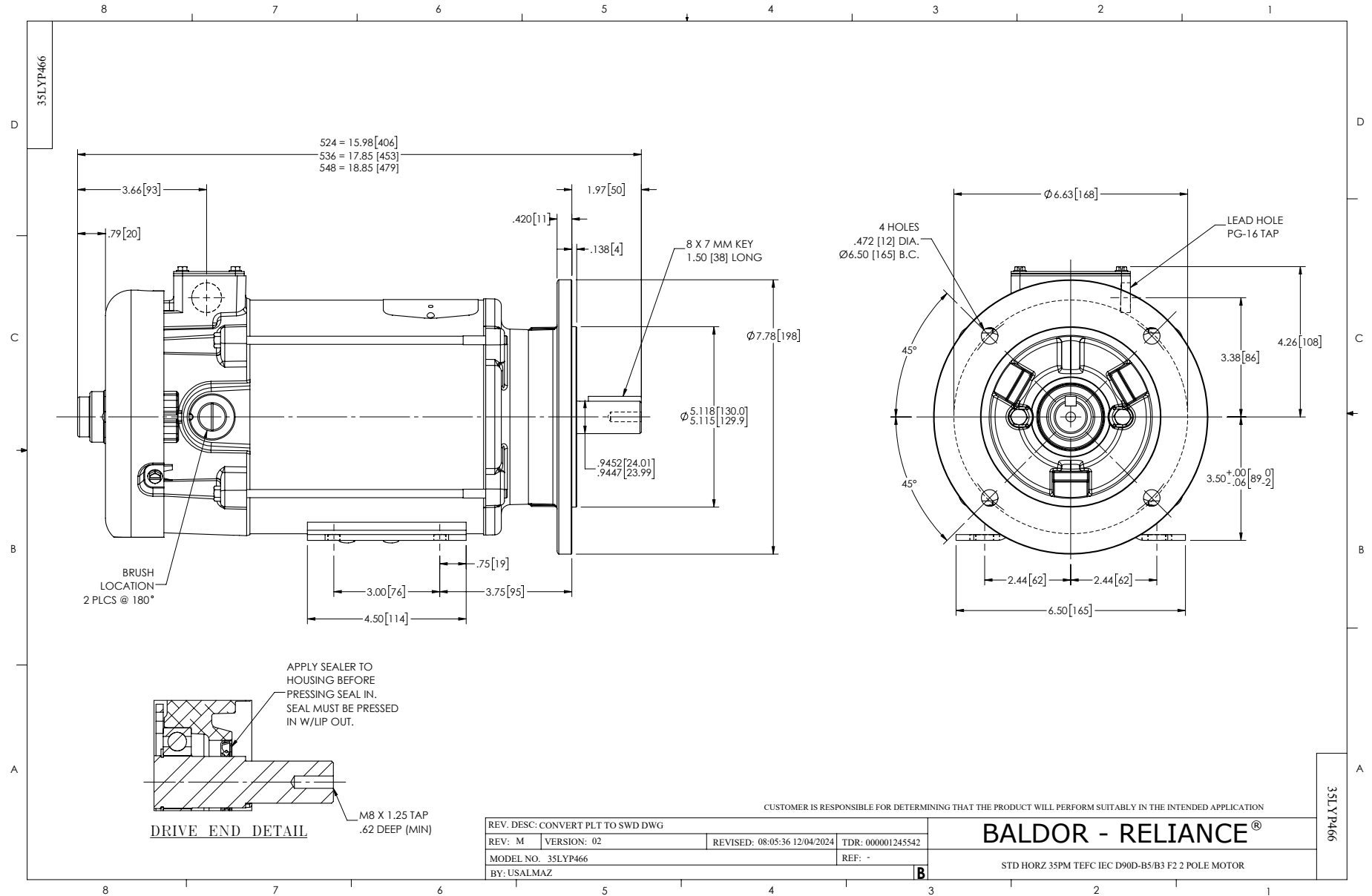
WINDING # 35WGZ164

Typical performance - not guaranteed values.

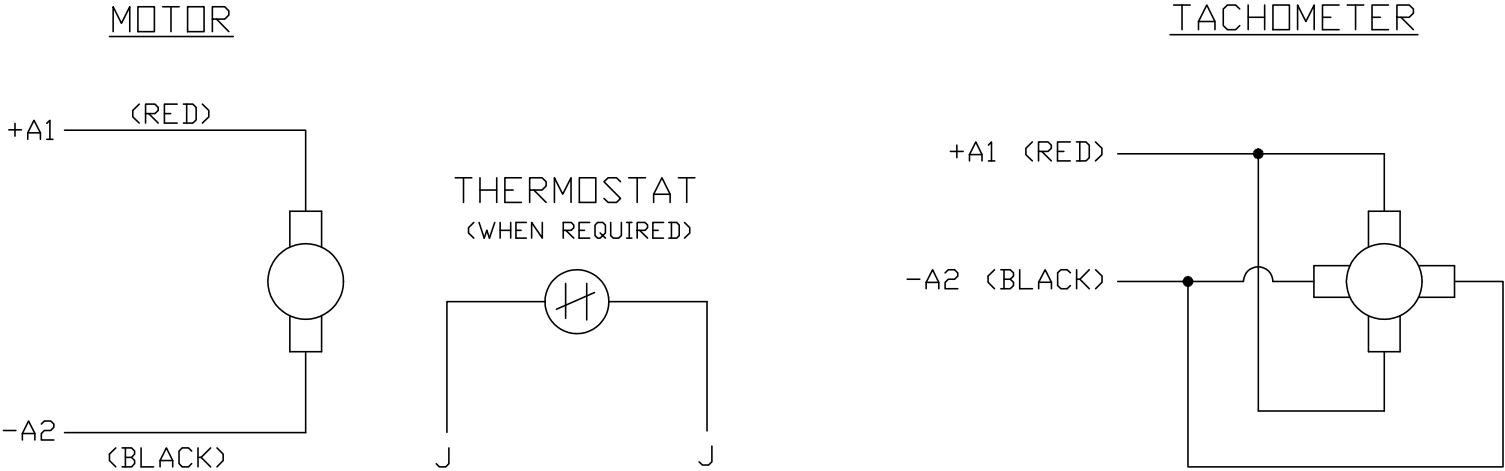
1.5 HP DC 1750 RPM 180 V 3536P

ENCL: TEFC DUTY: CONT CL: F





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