

# ABB BALDOR RELIANCE III

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## Customer information packet

### CDP3585

2HP, 1750RPM, DC, 145TC, 3548P, 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>                         | 145TC                     |
| <b>Frame Material</b>                | Steel                     |
| <b>Haz Area Class and Group</b>      | None                      |
| <b>Output Power</b>                  | 2.000 HP                  |
| <b>Agency Approvals</b>              | CE<br>CSA<br>UR           |
| <b>Ambient Temperature</b>           | 40 °C                     |
| <b>Armature Current</b>              | 9.6 a                     |
| <b>Armature Inertia</b>              | 40.456 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>                  | 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>               | NEMA                      |
| <b>Mounting Arrangement</b>          | F1                        |
| <b>Overall Length</b>                | 17.38 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>                | 0.875 IN                  |
| <b>Shaft Extension Location</b>      | Pulley End                |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AL         |
| <b>Type</b>         | DC         |
| <b>Mech. spec.</b>  | 35P432     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGZ170   |
| <b>Layout</b>       | 35LYP432   |
| <b>Eff. date</b>    | 07-08-2025 |
| <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 Ground Indicator  | No Shaft Grounding |
| Shaft Rotation          | Reversible         |
| Shaft Slinger Indicator | No Slinger         |

**Nameplate**

| NP0891L |             |          |   |         |   |
|---------|-------------|----------|---|---------|---|
| CAT.NO. | CDP3585     |          |   |         |   |
| SPEC.   | 35P432Z170  |          |   |         |   |
| HP      | 2/KW1.5     | ENCL     |   | TEFC    |   |
| RPM     | 1750 1/MIN  |          |   |         |   |
| FRAME   | 145TC       | TYPE     |   | 3548P   |   |
| ARM V   | 180         | ARM A    |   | 9.6     |   |
| FLD V   |             | FLD A    |   |         |   |
| INSUL   | F           | AMB.     |   | 40      |   |
| DUTY    | S1 CONT     | SUPPLY   |   | K       |   |
| BRG/DE  | 6205        | BRG/ODE  |   | 6205    |   |
| BRUSHES | 2/BP5000T15 |          |   |         |   |
|         |             | BLANK    |   | IP44    |   |
| SER.    |             |          |   |         |   |
| BLANK   | IC411 KG33  |          |   |         |   |
| APRV-CE | Y           | APRV-CSA | Y | APRV-UL | Y |

**Parts List**

| <b>Part number</b> | <b>Description</b>                       | <b>Quantity</b> |
|--------------------|------------------------------------------|-----------------|
| SA005504           | SA 35P432Z170                            | 1.000 ea        |
| AA003153           | AA 35P432Z170                            | 1.000 ea        |
| BP5000T15          | CARBON BRUSH-35P,180VOLTS                | 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        |
| 35EP3110A02        | FR ENDPLATE, MACH                        | 1.000 ea        |
| HW5100A05          | WVY WSHR F/205 & 304 BRGS                | 1.000 ea        |
| 35EP3301A01        | PU ENDPLATE, MACH                        | 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        |
| HW2501D13          | KEY, 3/16 SQ X 1.375                     | 1.000 ea        |
| HA7000A01          | KEY RETAINER 7/8" DIA SHAFT              | 1.000 ea        |
| 51XN1032A20        | 10-32 X 1 1/4 HX WS SL SR                | 2.000 ea        |
| MG1050G01          | CELEROL MEDIUM CHARCOAL METALLIC GRAY    | 0.017 ga        |
| 85XU0407S04        | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea        |
| HA3101A25          | THRUBOLT 1/4-20 X 11.000 OHIO ROD        | 4.000 ea        |
| MN416A01           | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea        |
| LB1624             | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea        |
| LC0194             | CONNECTION LABEL                         | 1.000 ea        |
| NP0891L            | NP STD LASER ENGRAVED DC MTRS, UL CSA CE | 1.000 ea        |
| 35PA1007           | PKG GRP, PRINT PK1034A07                 | 1.000 ea        |

PK4000C01

WAFERBOARD 10.50 X 13.375

1.000 ea

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**Accessories**

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

**DC Motor Performance Data**

Record # 2081

Typical performance - not guaranteed values

| Winding: 35WGZ170-R001 |              | Type: 3548P                   | Enclosure: TEFC        |
|------------------------|--------------|-------------------------------|------------------------|
| Nameplate Data         |              | General Characteristics       |                        |
| Rated Output (HP)      | 2            | Armature Resistance<br>@ 25°C | 0.8093 Ω               |
| R.P.M.                 | 1750         |                               |                        |
| Armature Volts         | 180          | Voltage Constant              | 98.25 v/krpm           |
| Armature Amps          | 9.6          |                               |                        |
| Field Volts            |              | Armature Inductance           | 11.508 mH              |
| Field Amps             |              | Armature Inertia              | 40.456 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    | 0.2  | 2.4  | 4.7  | 6.8  | 9    | 11.3 | 13.5 |
| R.P.M.           | 1806 | 1796 | 1770 | 1741 | 1707 | 1671 | 1663 |
| Torque ( LB-FT ) | 0    | 1.5  | 3    | 4.5  | 6    | 7.5  | 9    |

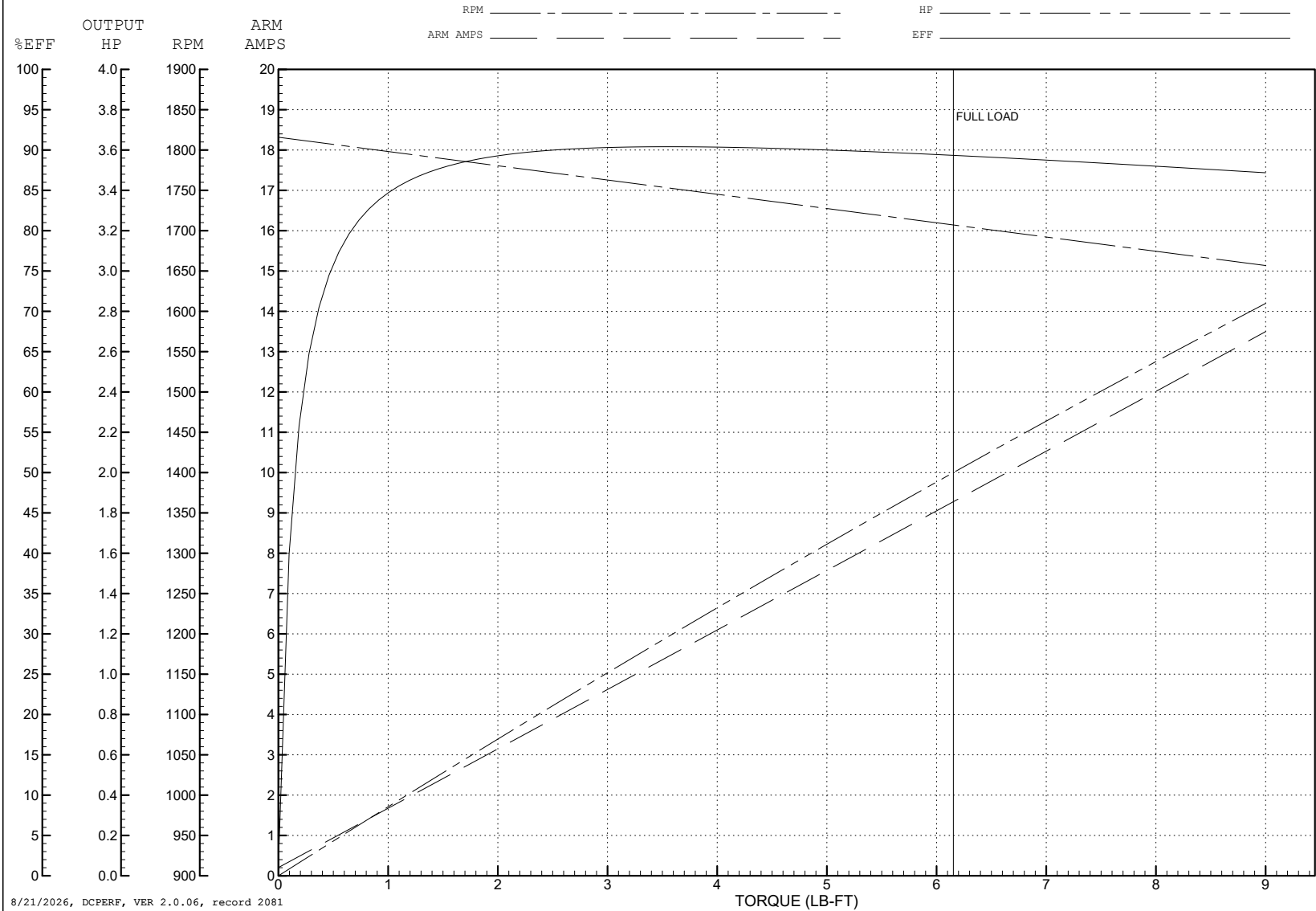
ABB Motors and Mechanical Inc.

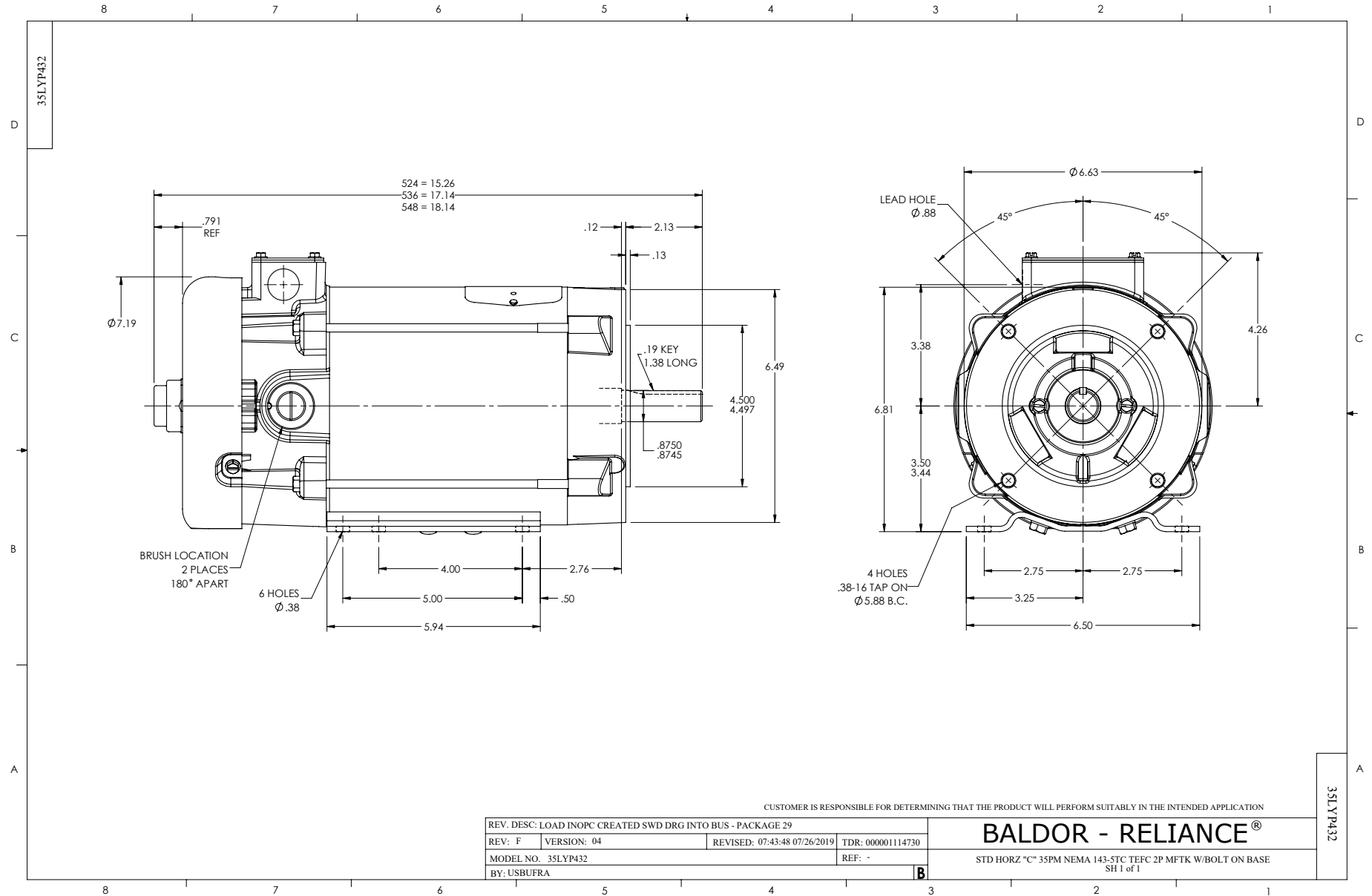
WINDING # 35WGZ170

Typical performance - not guaranteed values.

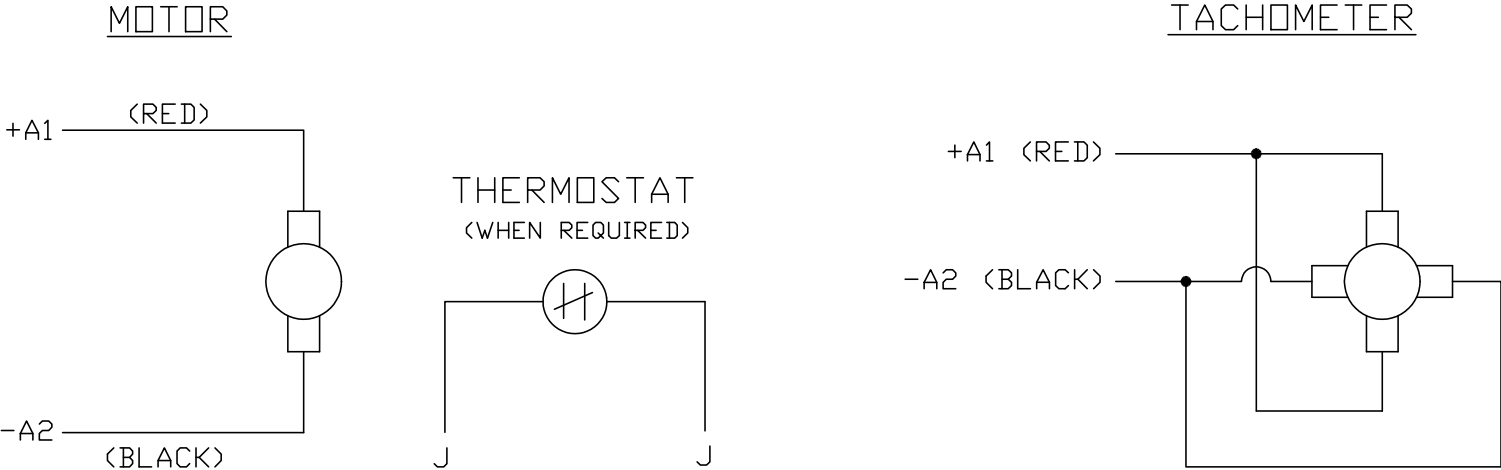
2 HP DC 1750 RPM 180 V 3548P

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

REVISED: 07/28/95

FILE: AAA00004503

TDR: 0078737

**BALDOR ELECTRIC Co.**

CD TYPE P DC PERMANENT MAGNET MOTORS AND TACHOMETERS

CD0194