

# **BALDOR® • RELIANCE**

## **Product Information Packet**

# **CD7502**

**2HP,1750RPM,DC,213C,3646D,TEFC,F1,N**

| Part Detail |       |             |       |                |          |               |            |
|-------------|-------|-------------|-------|----------------|----------|---------------|------------|
| Revision:   | G     | Status:     | PRD/A | Change #:      |          | Proprietary:  | No         |
| Type:       | DC    | Prod. Type: | 3646D | Elec. Spec:    | 36WGZ105 | CD Diagram:   | CD0860C01  |
| Enclosure:  | TEFC  | Mfg Plant:  |       | Mech. Spec:    | 36-5580  | Layout:       | 36LY5580   |
| Frame:      | 213C  | Mounting:   | F1    | Poles:         | 00       | Created Date: | 11-20-2008 |
| Base:       | RG    | Rotation:   | R     | Insulation:    | F        | Eff. Date:    | 02-21-2015 |
| Field Type: | Shunt | Literature: |       | Elec. Diagram: |          | Replaced By:  |            |

| Specs                          |                         |  |  |
|--------------------------------|-------------------------|--|--|
| Enclosure:                     | TEFC                    |  |  |
| Frame:                         | 213C                    |  |  |
| Frame Material:                | Steel                   |  |  |
| XP Class and Group:            | None                    |  |  |
| Agency Approvals:              | CSA                     |  |  |
|                                | UR                      |  |  |
| Base Indicator:                | Rigid                   |  |  |
| Bearing Grease Type:           | Polyrex EM (-20F +300F) |  |  |
| Drip Cover:                    | No Drip Cover           |  |  |
| Duty Rating:                   | CONT                    |  |  |
| Feedback Device:               | NO FEEDBACK             |  |  |
| Field Winding Type:            | SHUNT                   |  |  |
| Heater Indicator:              | No Heater               |  |  |
| Insulation Class:              | F                       |  |  |
| Lifting Lugs:                  | Standard Lifting Lugs   |  |  |
| Motor Lead Quantity/Wire Size: | 2 @ 12 AWG              |  |  |

|                                  |                    |  |  |
|----------------------------------|--------------------|--|--|
|                                  | 4 @ 18 AWG         |  |  |
| <b>Motor Lead Exit:</b>          | Ko Box             |  |  |
| <b>Motor Lead Termination:</b>   | Flying Leads       |  |  |
| <b>Mounting Arrangement:</b>     | F1                 |  |  |
| <b>Product Family:</b>           | General Purpose    |  |  |
| <b>Pulley End Bearing Type:</b>  | Sealed Bearing     |  |  |
| <b>Shaft Extension Location:</b> | Pulley End         |  |  |
| <b>Shaft Ground Indicator:</b>   | No Shaft Grounding |  |  |
| <b>Shaft Rotation:</b>           | Reversible         |  |  |
| <b>Shaft Slinger Indicator:</b>  | No Slinger         |  |  |
| <b>Motor Standards:</b>          | NEMA               |  |  |

| Nameplate NP0111L |                          |         |                          |
|-------------------|--------------------------|---------|--------------------------|
| CAT.NO.           | CD7502                   |         |                          |
| SPEC.             | 36-5580Z105              |         |                          |
| HP                | 2                        | ENCL    | TEFC                     |
| RPM               | 1750                     |         |                          |
| FRAME             | 213C                     | TYPE    | 3646D                    |
| ARM V             | 180                      | ARM A   | 9.5                      |
| FLD V             | 200/100                  | FLD A   | .4/.8                    |
| INSUL             | F                        | AMB.    | 40                       |
| DUTY              | CONT                     | SUPPLY  | K                        |
| BRG/DE            | 6207                     | BRG/ODE | 6205                     |
| BRUSHES           | 2/BP5125A01              |         |                          |
|                   |                          | BLANK   |                          |
| SER.              |                          |         |                          |
| BLANK             |                          |         |                          |
| APRV-CSA          | <input type="checkbox"/> | APRV-UL | <input type="checkbox"/> |

**DC Motor Performance Data**

Record # 306 - Typical performance - not guaranteed values

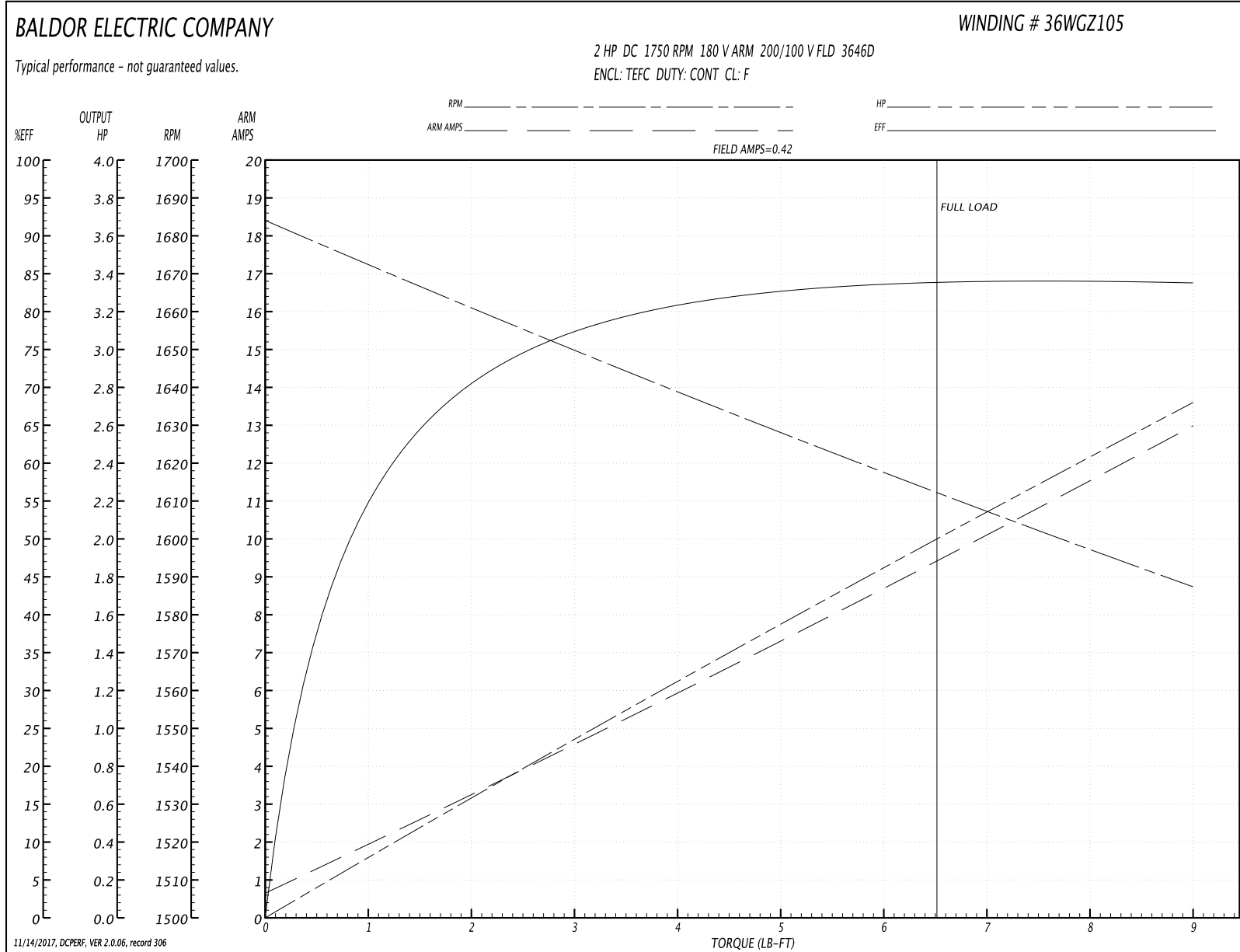
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 36WGZ105-R001 | <b>Type:</b> 3646D | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

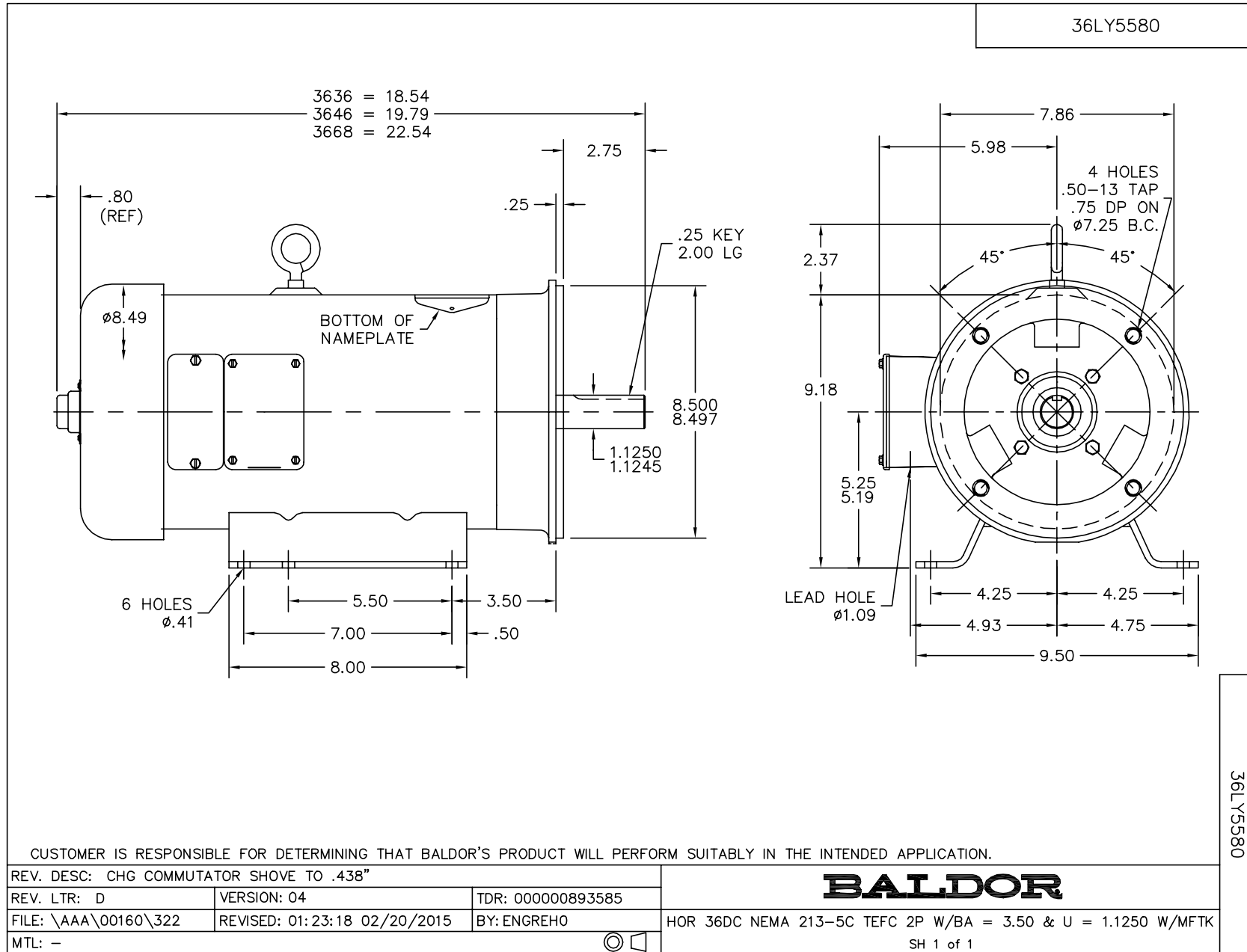
| Nameplate Data    |              | General Characteristics               |                         |
|-------------------|--------------|---------------------------------------|-------------------------|
| Rated Output (HP) | 2            | Armature Resistance @ 25°C            | 0.631 Ω                 |
| R.P.M.            | 1750         | Commutating Winding Resistance @ 25°C | 0.451 Ω                 |
| Armature Volts    | 180          |                                       |                         |
| Armature Amps     | 9.5          | Shunt Winding Resistance @ 25°C       | 428 Ω                   |
| Field Volts       | 200 / 100    |                                       |                         |
| Field Amps        | 0.4 / 0.8    | Armature Inertia                      | 38.7702 LI <sup>2</sup> |
| Rating - Duty     | 40C AMB-CONT |                                       |                         |
| Power Supply Code | K            |                                       |                         |
|                   |              |                                       |                         |

Load Characteristics at 180 Armature Volts, 200 Field Volts, 0.42 Field Amps

| Load Point       | 1    | 2    | 3    | 4    | 5    | 6    | 7    |
|------------------|------|------|------|------|------|------|------|
| Armature Amps    | 0.6  | 2.7  | 4.6  | 6.5  | 8.75 | 10.8 | 13   |
| R.P.M.           | 1683 | 1669 | 1647 | 1637 | 1615 | 1602 | 1588 |
| Torque ( LB-FT ) | 0    | 1.5  | 3    | 4.5  | 6    | 7.5  | 9    |

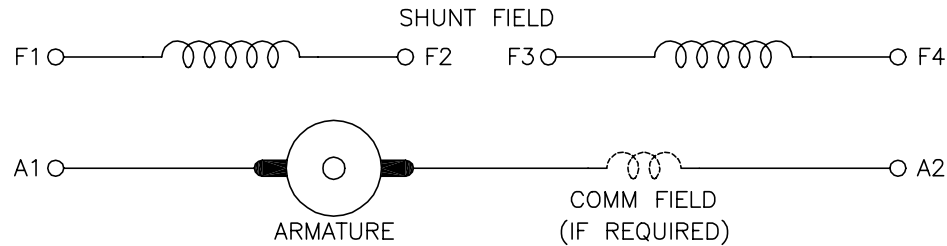
Performance Graph at 180.0 Arm V, 2.0HP Typical performance - Not guaranteed values





# SHUNT WOUND

CD0860C01



| CONNECTION   | DIRECTION OF ROTATION       |               |                             |               |
|--------------|-----------------------------|---------------|-----------------------------|---------------|
|              | CWDE                        |               | CCWDE                       |               |
|              | POS TERM (+)                | NEG TERM (-)  | POS TERM (+)                | NEG TERM (-)  |
| HIGH VOLTAGE | A1<br>F1<br>CONNECT F2 & F3 | A2<br>F4      | A2<br>F1<br>CONNECT F2 & F3 | A1<br>F4      |
| LOW VOLTAGE  | A1<br>F1 & F3               | A2<br>F2 & F4 | A2<br>F1 & F3               | A1<br>F2 & F4 |

**NOTES:**

1. LIMIT STARTING INRUSH CURRENT TO NOT MORE THAN 3 TIMES RATED AMPERES BY ENERGIZING THE FULL SHUNT FIELD BEFORE BRINGING THE ARMATURE VOLTAGE UP SLOWLY OR IN STEPS.
2. OPTIONAL FIELD REOSTAT MAY BE CONNECTED IN SERIES WITH THE SHUNT FIELD.
3. OPTIONAL THERMOSTAT LEADS ARE MARKED J,J.

|                                |         |                              |                |
|--------------------------------|---------|------------------------------|----------------|
| REV. DESC: NEW, REPLACE CD0860 |         |                              |                |
| REV. LTR: -                    | BY: JLP | REVISED: 15:35:22 11/03/2004 | TDR: 347796    |
| 100098000                      |         | FILE: AAA00121477            | REF: CD0860C01 |
|                                |         | MTL: -                       |                |

**BALDOR ELECTRIC Co.**

DC CONNECTION DIAGRAM, SHUNT FIELD, 6 LEAD, DUAL VOLTAGE

CD0860C01