

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEM3615T-BG

5HP, 1750RPM, 3PH, 60HZ, 184TC, 3642M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                          |
| <b>Frame</b>                          | 184TC                                                         |
| <b>Frame Material</b>                 | Steel                                                         |
| <b>Frequency</b>                      | 60.00 Hz                                                      |
| <b>Haz Area Class and Group</b>       | None                                                          |
| <b>Haz Area Division</b>              | Not Applicable                                                |
| <b>Motor Letter Type</b>              | Three Phase                                                   |
| <b>Output @ Frequency</b>             | 5.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                             |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                              |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                            |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<br>UR                                          |
| <b>Ambient Temperature</b>            | 40 °C                                                         |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                              |
| <b>Auxiliary Box Lead Termination</b> | None                                                          |
| <b>Base Indicator</b>                 | Rigid                                                         |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                       |
| <b>Blower</b>                         | None                                                          |
| <b>Current @ Voltage</b>              | 13.900 A @ 208.0 V<br>6.700 A @ 460.0 V<br>13.400 A @ 230.0 V |
| <b>Design Code</b>                    | B                                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                                 |
| <b>Duty Rating</b>                    | CONT                                                          |
| <b>Efficiency @ 100% Load</b>         | 89.5 %                                                        |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                     |
| <b>Feedback Device</b>                | NO FEEDBACK                                                   |
| <b>Front Face Code</b>                | Standard                                                      |
| <b>Front Shaft Indicator</b>          | None                                                          |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | P          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36Q160     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGS268   |
| <b>Layout</b>       | 36LYQ160   |
| <b>Eff. date</b>    | 03-16-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-10-2013 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Heater Indicator</b>              | No Heater           |
| <b>High Voltage Full Load Amps</b>   | 6.7 a               |
| <b>Insulation Class</b>              | H                   |
| <b>Inverter Code</b>                 | Inverter Ready      |
| <b>KVA Code</b>                      | J                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <b>Motor Lead Exit</b>               | Ko Box              |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 16 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3642M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 18.05 IN            |
| <b>Power Factor</b>                  | 78                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | C-Face              |
| <b>Pulley Shaft Indicator</b>        | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>Service Factor</b>                | 1.15                |
| <b>Shaft Diameter</b>                | 1.125 IN            |
| <b>Shaft Extension Location</b>      | Pulley End          |
| <b>Shaft Ground Indicator</b>        | Shaft Grounding     |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 1750 rpm            |
| <b>Speed Code</b>                    | Single Speed        |
| <b>Starting Method</b>               | Direct on line      |
| <b>Thermal Device - Bearing</b>      | None                |
| <b>Thermal Device - Winding</b>      | None                |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor |
| <b>Winding Thermal 1</b>             | None                |

Winding Thermal 2

None

**Nameplate**

| NP3441LUA                        |                             |             |            |            |   |              |   |       |  |
|----------------------------------|-----------------------------|-------------|------------|------------|---|--------------|---|-------|--|
| <b>CAT.NO.</b>                   | CEM3615T-BG                 |             |            |            |   |              |   |       |  |
| <b>SPEC</b>                      | 36Q160S268G1                |             |            |            |   |              |   |       |  |
| <b>HP</b>                        | 5                           |             |            |            |   |              |   |       |  |
| <b>VOLTS</b>                     | 230/460                     |             |            |            |   |              |   |       |  |
| <b>AMPS</b>                      | 13.4/6.7                    |             |            |            |   |              |   |       |  |
| <b>RPM</b>                       | 1750                        |             |            |            |   |              |   |       |  |
| <b>FRAME</b>                     | 184TC                       |             | <b>HZ</b>  | 60         |   | <b>PH</b>    | 3 |       |  |
| <b>SF</b>                        | 1.15                        | <b>CODE</b> | J          | <b>DES</b> | B | <b>CLASS</b> | H |       |  |
| <b>NEMA NOM. EFF</b>             | 89.5                        | <b>PF</b>   | 78         |            |   |              |   |       |  |
| <b>RATING</b>                    | 40C AMB-CONT                |             |            |            |   |              |   |       |  |
| <b>CC</b>                        | 010A                        |             |            |            |   |              |   |       |  |
| <b>ENCL</b>                      | TEFC                        | <b>SER</b>  |            |            |   |              |   |       |  |
| <b>DE</b>                        | 6206                        |             | <b>ODE</b> | 6205       |   |              |   |       |  |
| <b>VPWM INVERTER READY</b>       |                             |             |            |            |   |              |   |       |  |
| <b>CT6-60H(10:1)VT3-60H(20:1</b> |                             |             |            |            |   |              |   |       |  |
|                                  | 50Hz 5HP 190/380V 15.6/7.8A |             |            |            |   |              |   | SF1.0 |  |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA273495      | SA 36Q160S268G1                          | 1.000 ea |
| RA260091      | RA 36Q160S268G1                          | 1.000 ea |
| 36FN3000C01SP | EXFN, PLASTIC, 5.25 OD, .912 ID          | 1.000 ea |
| 36CB3004      | 36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0 | 1.000 ea |
| 36GS1000SP    | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 ea |
| 51XB1016A08   | 10-16X 1/2HXWSSLD SERTYB                 | 2.000 ea |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HW3001B01     | BRASS CUP WASHER, FOR #10 SCREW          | 1.000 ea |
| 36EP3104A01   | FREP MACH W/GRSR, RAISED FH PADS         | 1.000 ea |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| HW5100A05     | WVY WSHR F/205 & 304 BRGS                | 1.000 ea |
| 36EP3301A23   | PUEP ASSEMBLY FOR ROUTING PURPOSES       | 1.000 ea |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 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 |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| 36FH4009A102  | IEC FH GREASER PRIMED                    | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 36CB4516      | 750LIPPED CB LID - GALVANNEAL            | 1.000 ea |
| 37GS1001SP    | GASKET, CONDUIT BOX LID, .06 THICK LEXID | 1.000 ea |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| HW2501E16     | KEY, 1/4 SQ X 1.750                      | 1.000 ea |
| HA7000A02     | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 ea |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| LB1508        | LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81 | 1.000 ea |
| HW3200A01     | 3/8-16X3/4 EYEBOLT WELDED F/S            | 1.000 ea |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| MG1050Y01     | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.022 ga |
| HA3101A28     | THRUBOLT 1/4-20 X 12.500 OHIO ROD        | 4.000 ea |
| LC0005        | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea |
| MN416A01      | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |

|            |                                          |          |
|------------|------------------------------------------|----------|
| NP3441LUA  | AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM | 1.000 ea |
| GOPA1000   | PKG GRP, PRINT PK1026A06                 | 1.000 ea |
| LB1624     | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| FE-0000001 | ZRTG FE ASSEMBLY                         | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 52962

Typical performance - not guaranteed values

| Winding: 36WGS268-R078 |    |          | Type: 3642M                              |                     | Enclosure: TEFC           |            |              |
|------------------------|----|----------|------------------------------------------|---------------------|---------------------------|------------|--------------|
| Nameplate Data         |    |          | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |              |
| Rated Output (HP)      |    | 5        | Full Load Torque                         |                     | 14.9 LB-FT                |            |              |
| Volts                  |    | 230/460  | Start Configuration                      |                     | direct on line            |            |              |
| Full Load Amps         |    | 13.4/6.7 | Breakdown Torque                         |                     | 52.2 LB-FT                |            |              |
| R.P.M.                 |    | 1750     | Pull-up Torque                           |                     | 31.5 LB-FT                |            |              |
| Hz                     | 60 | Phase    | 3                                        | Locked-rotor Torque |                           | 34.9 LB-FT |              |
| NEMA Design Code       |    | B        | KVA Code                                 | J                   | Starting Current          |            | 49.1 A       |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                     | 3.24 A                    |            |              |
| NEMA Nom. Eff.         |    | 89.5     | Power Factor                             | 78                  | Line-line Res. @ 25°C     |            | 2.27 Ω       |
| Rating - Duty          |    | 40C      | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 71°C         |
| S.F. Amps              |    |          |                                          |                     | Temp. Rise @ S.F. Load    |            | 86°C         |
|                        |    |          |                                          |                     | Locked-rotor Power Factor |            | 39.8         |
|                        |    |          |                                          |                     | Rotor inertia             |            | 0.391 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 39   | 60   | 72   | 78   | 83   | 83   | 81   |
| Efficiency      | 85   | 89.7 | 90.6 | 89.6 | 88.6 | 87   | 89   |
| Speed           | 1789 | 1776 | 1762 | 1750 | 1733 | 1714 | 1740 |
| Line amperes    | 3.55 | 4.31 | 5.43 | 6.65 | 7.94 | 9.64 | 7.42 |

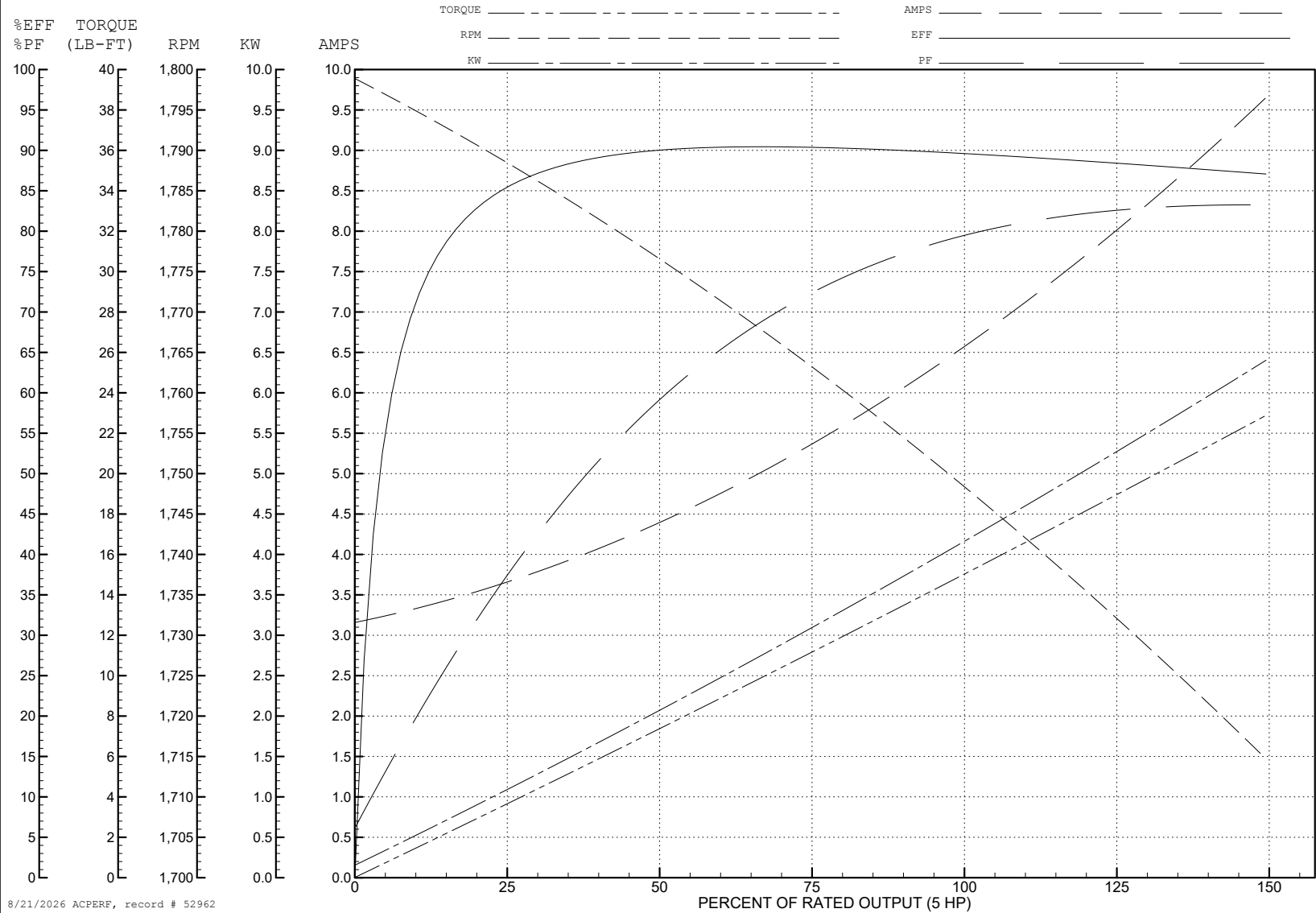
ABB Motors and Mechanical Inc.

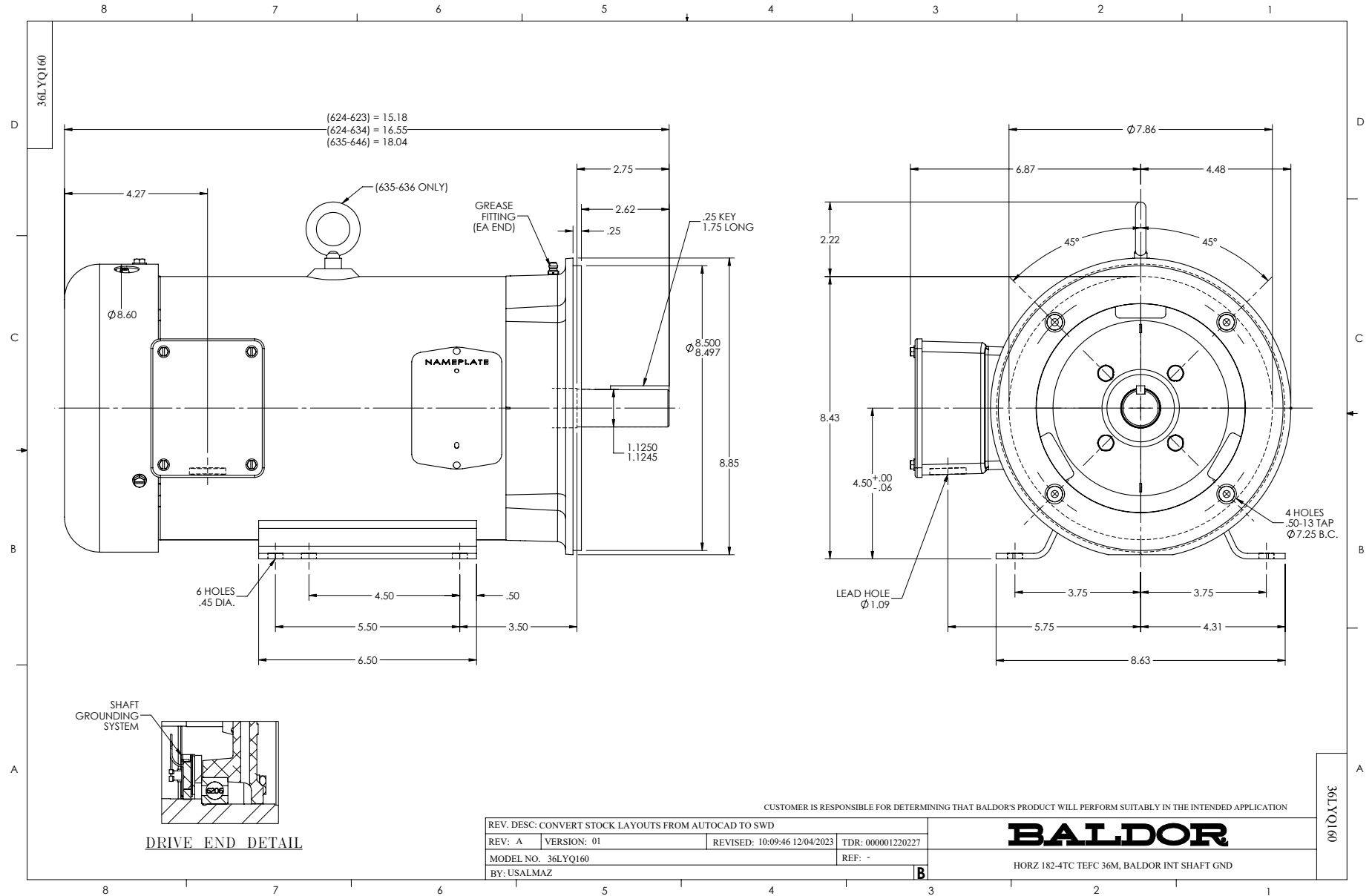
WINDING # 36WGS268

Typical performance - not guaranteed values.

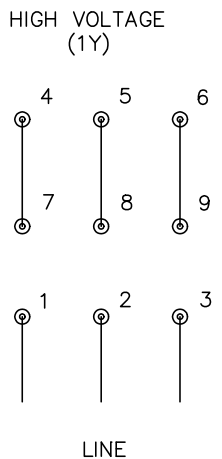
5 HP 3 PH 60 HZ 1750 RPM 460 V 3642M

TORQUES (LB-FT): PO=52.2 PU=31.5 LR=34.9 LRA=49.1





CD0005



- NOTES:
- 1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
  - 2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
  - 3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
  - 4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

|                                           |         |                         |              |
|-------------------------------------------|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000                                    |         | FILE: AAA00005140       | MDL: -       |
|                                           |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005