

# ABB BALDOR RELIANCE III

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## Customer information packet

### XM040542A

.5HP, 1725RPM, 3PH, 60HZ, 48, 3416M, XPFC, F1, N

Class - CLI GP D; CLII GP F,G

Division - Division I

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                        |
| <b>Frame</b>                          | 48                                                          |
| <b>Frame Material</b>                 | Steel                                                       |
| <b>Frequency</b>                      | 60.00 Hz                                                    |
| <b>Haz Area Class and Group</b>       | CLI GP D; CLII GP F,G                                       |
| <b>Haz Area Division</b>              | Division I                                                  |
| <b>Motor Letter Type</b>              | Three Phase                                                 |
| <b>Output @ Frequency</b>             | .500 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>208.0 V @ 60 HZ<br>230.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | CSA<br>UL                                                   |
| <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>              | 1.000 A @ 460.0 V<br>2.000 A @ 230.0 V<br>2.100 A @ 208.0 V |
| <b>Design Code</b>                    | B                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 74.0 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |
| <b>Haz Area Temp Code</b>             | T3C                                                         |
| <b>Heater Indicator</b>               | No Heater                                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | D          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 34WG1543   |
| <b>Layout</b>       | 34LY5427   |
| <b>Eff. date</b>    | 10-24-2024 |
| <b>CD Diagram</b>   | CD0007     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 12#18      |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-10-2021 |

|                             |                            |
|-----------------------------|----------------------------|
| High Voltage Full Load Amps | 1.0 a                      |
| Insulation Class            | B                          |
| Inverter Code               | Not Inverter               |
| IP Rating                   | NONE                       |
| KVA Code                    | L                          |
| Lifting Lugs                | No Lifting Lugs            |
| Locked Bearing Indicator    | No Locked Bearing          |
| Motor Lead Termination      | Flying Leads               |
| Motor Standards             | NEMA                       |
| Motor Type                  | 3416M                      |
| Mounting Arrangement        | F1                         |
| Number of Poles             | 4                          |
| Overall Length              | 12.85 IN                   |
| Power Factor                | 63                         |
| Product Family              | Hazardous Location Motor   |
| Pulley Face Code            | Standard                   |
| Rodent Screen               | None                       |
| Service Factor              | 1.00                       |
| Shaft Diameter              | 0.500 IN                   |
| Shaft Ground Indicator      | No Shaft Grounding         |
| Shaft Rotation              | Reversible                 |
| Speed                       | 1725 rpm                   |
| Speed Code                  | Single Speed               |
| Starting Method             | Direct on line             |
| Thermal Device - Bearing    | None                       |
| Thermal Device - Winding    | None                       |
| Vibration Sensor Indicator  | No Vibration Sensor        |
| Winding Thermal 1           | Automatic Thermal Overload |
| Winding Thermal 1 Location  | EP                         |
| Winding Thermal 2           | None                       |

**Nameplate**

| NP0016XPSL |                        |    |               |     |       |   |  |  |    |
|------------|------------------------|----|---------------|-----|-------|---|--|--|----|
| NO.        |                        | CC |               |     |       |   |  |  |    |
| SER. #     |                        |    |               |     |       |   |  |  |    |
| SPEC       | 34-0000-0400           |    |               |     |       |   |  |  |    |
| CAT.NO.    | XM040542A              |    |               |     |       |   |  |  |    |
| H.P.       | .5                     |    | T. CODE       | T3C |       |   |  |  |    |
| VOLTS      | 208-230/460            |    |               |     |       |   |  |  |    |
| AMPS       | 2.1-2/1                |    |               |     |       |   |  |  |    |
| R.P.M.     | 1725                   |    |               |     |       |   |  |  |    |
| HZ         | 60                     |    | PH            | 3   | CLASS | B |  |  |    |
| SER.F.     | 1.00                   |    | DES           | B   | CODE  | L |  |  |    |
| RATING     | 40C AMB-CONT           |    |               |     |       |   |  |  |    |
| FRAME      | 48                     |    | NEMA NOM. EFF |     |       |   |  |  | 74 |
|            |                        | PF | 63            |     |       |   |  |  |    |
| BLANK      | NEMA MG-1 PART 5, IP54 |    |               |     |       |   |  |  |    |

**AC Induction Motor Performance Data**

Record # 6627

Typical performance - not guaranteed values

| Winding: 34WG1543-R002 |          |                 | Type: 3416M                              |  | Enclosure: XPFC |  |
|------------------------|----------|-----------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |          |                 | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | .5              | Full Load Torque                         |  | 1.5 LB-FT       |  |
| Volts                  |          | 208-230/460     | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |          | 2.1-2/1         | Breakdown Torque                         |  | 6.5 LB-FT       |  |
| R.P.M.                 |          | 1725            | Pull-up Torque                           |  | 4.5 LB-FT       |  |
| Hz                     | 60 Phase | 3               | Locked-rotor Torque                      |  | 5.6 LB-FT       |  |
| NEMA Design Code       |          | B KVA Code      | Starting Current                         |  | 6.7 A           |  |
| Service Factor (S.F.)  |          | 1               | No-load Current                          |  | 0.89 A          |  |
| NEMA Nom. Eff.         |          | 74 Power Factor | Line-line Res. @ 25°C                    |  | 33 Ω            |  |
| Rating - Duty          |          | 40C AMB-CONT    | Temp. Rise @ Rated Load                  |  | 59°C            |  |

**Load Characteristics 460 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 27   | 39   | 51   | 60   | 67   | 72   |
| Efficiency      | 49.8 | 65   | 71.7 | 74.5 | 75.6 | 75.5 |
| Speed           | 1785 | 1770 | 1756 | 1737 | 1724 | 1705 |
| Line amperes    | 0.9  | 0.94 | 0.98 | 1    | 1.15 | 1.27 |

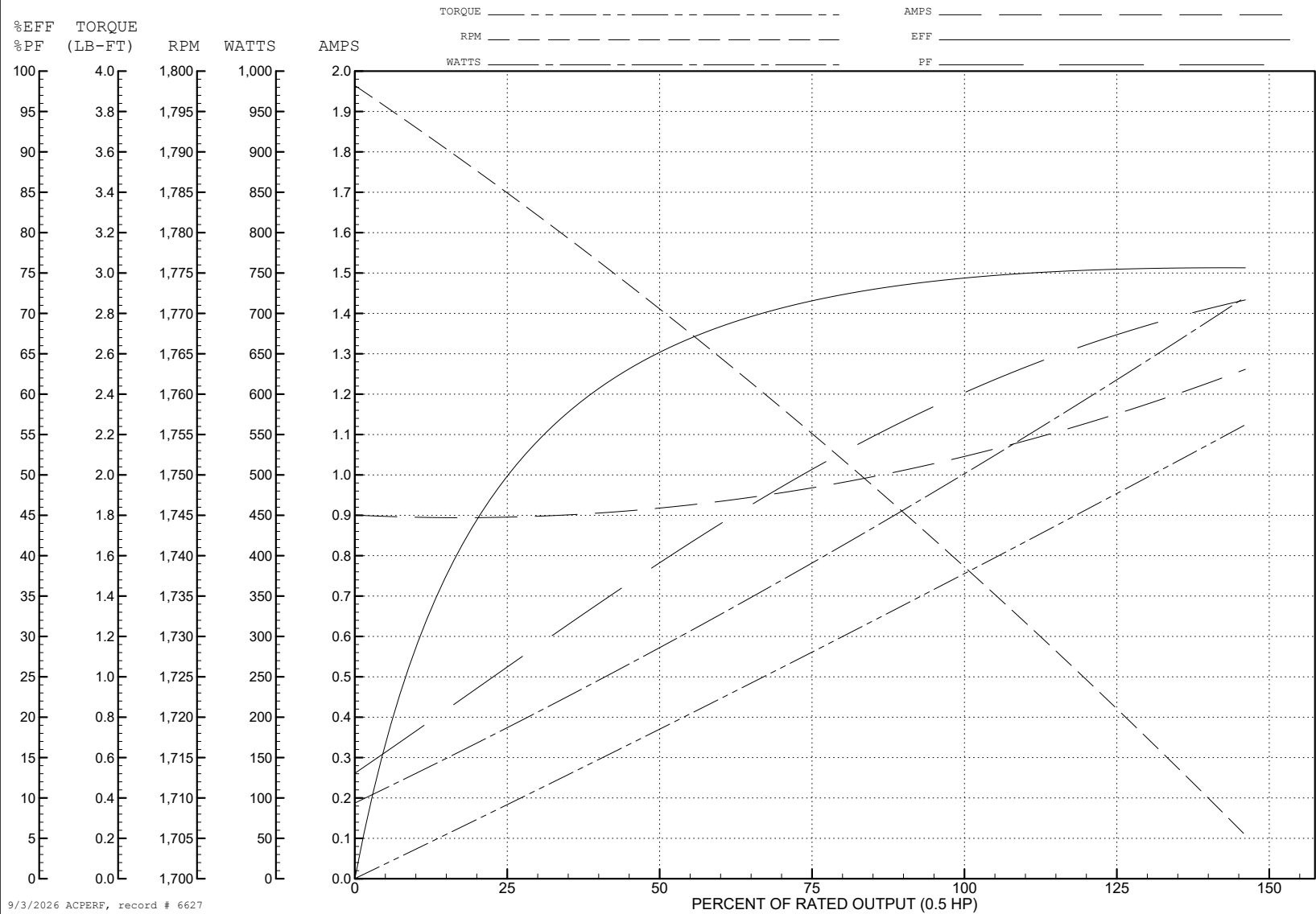
ABB Motors and Mechanical Inc.

WINDING # 34WG1543

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1725 RPM 460 V 3416M

TORQUES (LB-FT): PO=6.5 PU=4.5 LR=5.6 LRA=6.7



**AC Induction Motor Performance Data**

Record # 20790

Typical performance - not guaranteed values

| Winding: 34WG1543-R002 |    |             | Type: 3416M                             |                     | Enclosure: XPFC           |            |               |
|------------------------|----|-------------|-----------------------------------------|---------------------|---------------------------|------------|---------------|
| Nameplate Data         |    |             | 208 V, 60 Hz:<br>Low Voltage Connection |                     |                           |            |               |
| Rated Output (HP)      |    | .5          | Full Load Torque                        |                     | 1.51 LB-FT                |            |               |
| Volts                  |    | 208-230/460 | Start Configuration                     |                     | direct on line            |            |               |
| Full Load Amps         |    | 2.1-2/1     | Breakdown Torque                        |                     | 5.25 LB-FT                |            |               |
| R.P.M.                 |    | 1725        | Pull-up Torque                          |                     | 3.56 LB-FT                |            |               |
| Hz                     | 60 | Phase       | 3                                       | Locked-rotor Torque |                           | 4.43 LB-FT |               |
| NEMA Design Code       |    | B           | KVA Code                                |                     | L                         |            |               |
| Service Factor (S.F.)  |    | 1           | No-load Current                         |                     | 1.39 A                    |            |               |
| NEMA Nom. Eff.         |    | 74          | Power Factor                            |                     | 63                        |            |               |
| Rating - Duty          |    | 40C         | AMB-CONT                                |                     | Temp. Rise @ Rated Load   |            | 50°C          |
|                        |    |             |                                         |                     | Locked-rotor Power Factor |            | 65            |
|                        |    |             |                                         |                     | Rotor inertia             |            | 0.0381 LB-FT2 |

**Load Characteristics 208 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 37   | 52   | 65   | 77   | 79   | 81   |
| Efficiency      | 49.3 | 64.9 | 71.8 | 74.4 | 75.5 | 75.5 |
| Speed           | 1782 | 1765 | 1748 | 1725 | 1707 | 1683 |
| Line amperes    | 1.43 | 1.54 | 1.67 | 1.79 | 2.14 | 2.47 |

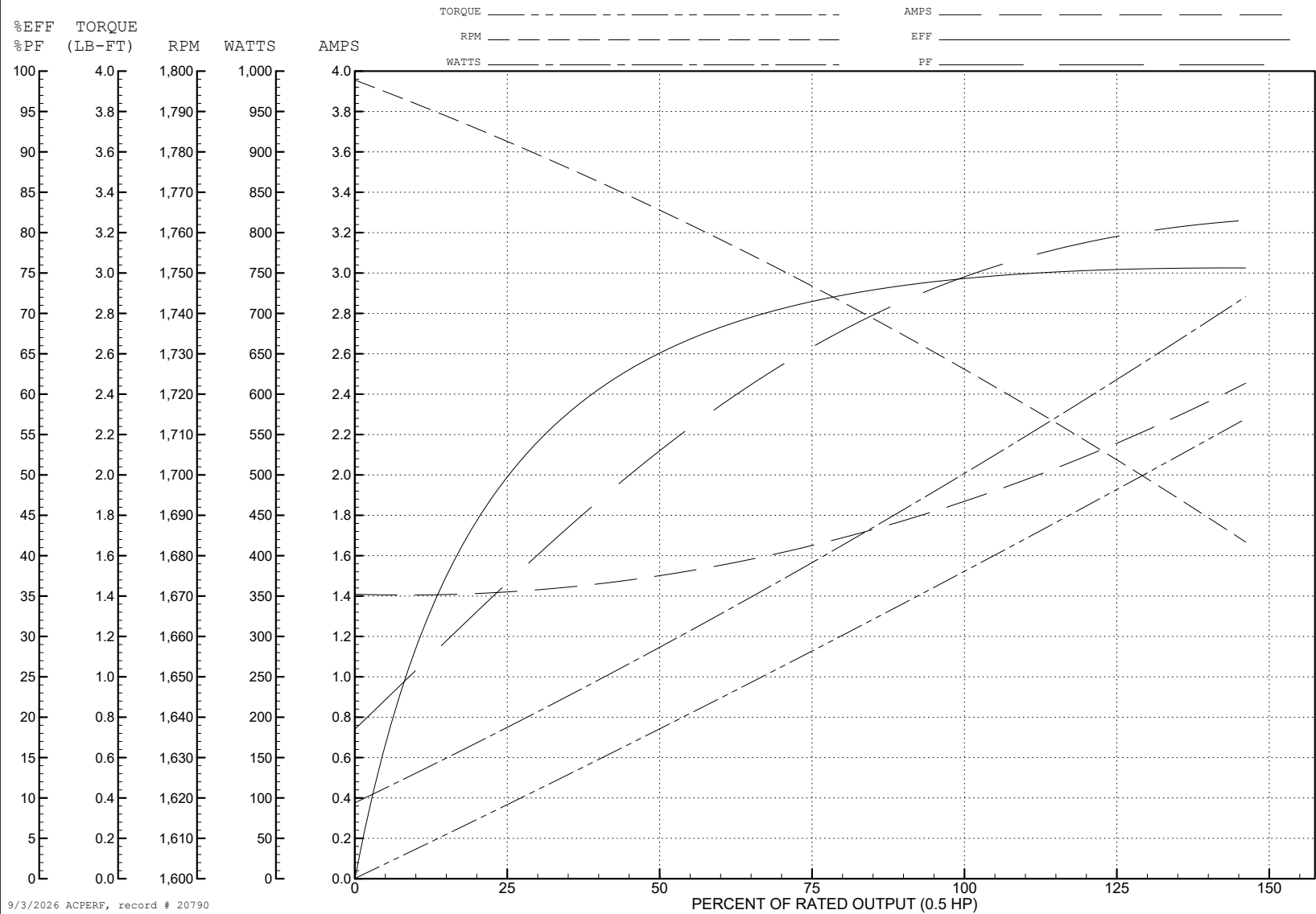
ABB Motors and Mechanical Inc.

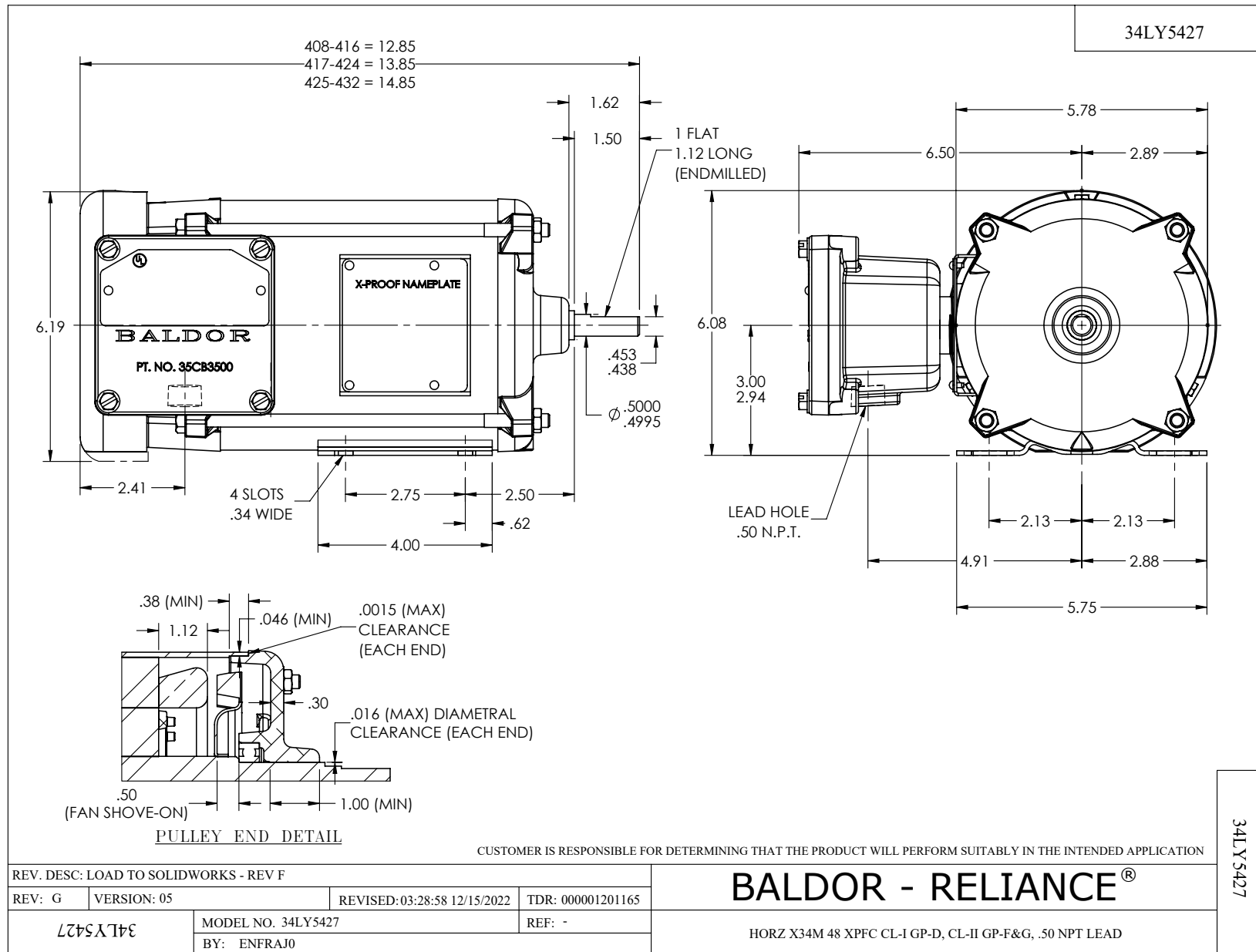
WINDING # 34WG1543

Typical performance - not guaranteed values.

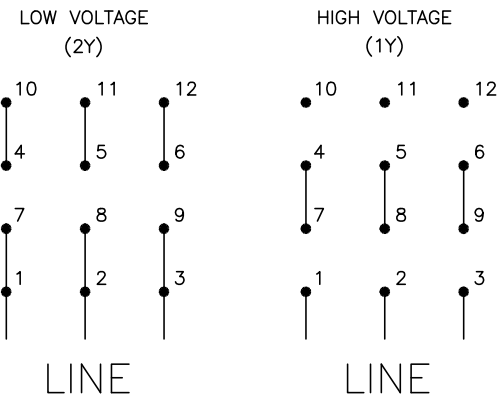
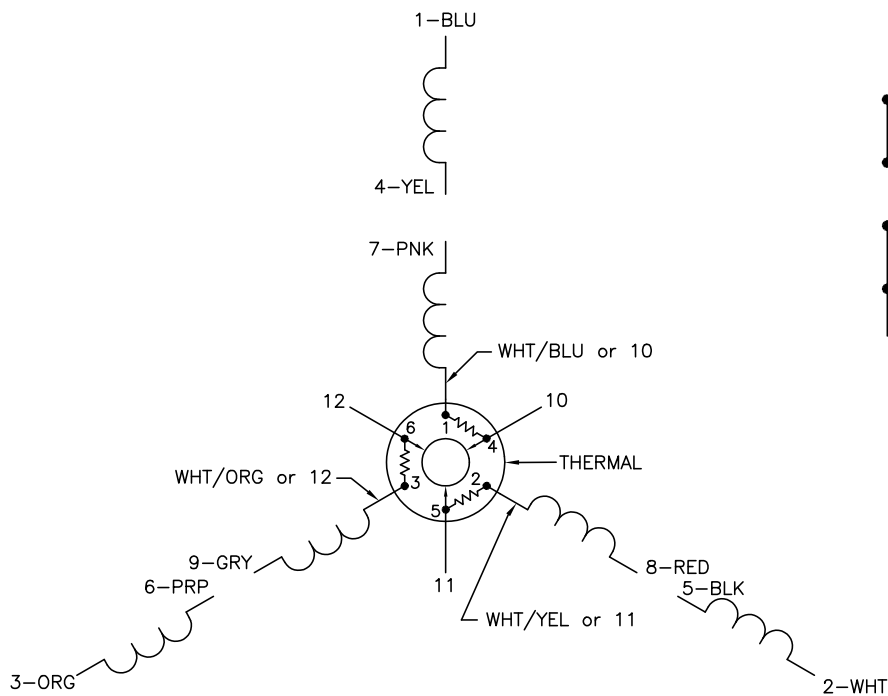
0.5 HP 3 PH 60 HZ 1725 RPM 208 V 3416M

TORQUES (LB-FT): PO=5.25 PU=3.56 LR=4.43 LRA=11.8





CD0007



- NOTES:
1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
  2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
  3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0007

|                                  |         |                        |              |
|----------------------------------|---------|------------------------|--------------|
| REV. DESC: ADDED "CK" PLANT CODE |         |                        |              |
| REV. LTR: E                      | BY: EAH | REVISED: 05/06/99 17:1 | TDR: 0181040 |
| L00000                           |         | FILE: AAA00008370      | MDL: -       |
|                                  |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, DV, THERMAL, 12 LEADS