

# ABB BALDOR RELIANCE III

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## Customer information packet

### VL5001A

.33HP, 1725RPM, 1PH, 60HZ, 56C, X3414L, XPFC

Class - CLI GP D; CLII GP F,G

Division - Division I

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                        |
| <b>Frame</b>                          | 56C                                                         |
| <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>              | Cap Start, Induction Run                                    |
| <b>Output @ Frequency</b>             | .330 HP @ 60 HZ                                             |
| <b>Phase</b>                          | 1                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 115.0 V @ 60 HZ<br>208.0 V @ 60 HZ<br>230.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | UL<br>CSA<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>                 | No Mounting                                                 |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 3.000 A @ 230.0 V<br>3.200 A @ 208.0 V<br>6.000 A @ 115.0 V |
| <b>Design Code</b>                    | N                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 60.0 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |
| <b>Front Face Code</b>                | Standard                                                    |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AS         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 34-5335    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 34WG5597   |
| <b>Layout</b>       | 34LY5335   |
| <b>Eff. date</b>    | 09-10-2024 |
| <b>CD Diagram</b>   | CD0565     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 7#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-01-0001 |

|                               |                          |
|-------------------------------|--------------------------|
| Front Shaft Indicator         | None                     |
| Haz Area Temp Code            | T3C                      |
| Heater Indicator              | No Heater                |
| High Voltage Full Load Amps   | 3.0 a                    |
| Insulation Class              | B                        |
| Inverter Code                 | Not Inverter             |
| KVA Code                      | L                        |
| Lifting Lugs                  | No Lifting Lugs          |
| Locked Bearing Indicator      | No Locked Bearing        |
| Motor Lead Exit               | Ko Box                   |
| Motor Lead Quantity/Wire Size | 7 @ 18 AWG               |
| Motor Lead Termination        | Flying Leads             |
| Motor Standards               | NEMA                     |
| Motor Type                    | 3414L                    |
| Mounting Arrangement          | F1                       |
| Number of Poles               | 4                        |
| Overall Length                | 13.22 IN                 |
| Power Factor                  | 60                       |
| Product Family                | Hazardous Location Motor |
| Pulley End Bearing Type       | Ball                     |
| Pulley Face Code              | C-Face                   |
| Pulley Shaft Indicator        | Standard                 |
| Rodent Screen                 | None                     |
| RoHS Status                   | ROHS COMPLIANT           |
| Service Factor                | 1.00                     |
| Shaft Diameter                | 0.625 IN                 |
| Shaft Extension Location      | Pulley End               |
| Shaft Ground Indicator        | No Shaft Grounding       |
| Shaft Rotation                | Reversible               |
| Shaft Slinger Indicator       | No Slinger               |
| 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 | ES                         |

**Nameplate**

| NP0016XPSL |              |    |               |     |  |       |   |    |  |
|------------|--------------|----|---------------|-----|--|-------|---|----|--|
| NO.        |              | CC |               |     |  |       |   |    |  |
| SER. #     |              |    |               |     |  |       |   |    |  |
| SPEC       | 34-5335-5597 |    |               |     |  |       |   |    |  |
| CAT.NO.    | VL5001A      |    |               |     |  |       |   |    |  |
| H.P.       | .33          |    | T. CODE       | T3C |  |       |   |    |  |
| VOLTS      | 115/208-230  |    |               |     |  |       |   |    |  |
| AMPS       | 6/3.2-3      |    |               |     |  |       |   |    |  |
| R.P.M.     | 1725         |    |               |     |  |       |   |    |  |
| HZ         | 60           |    | PH            | 1   |  | CLASS | B |    |  |
| SER.F.     | 1.00         |    | DES           | N   |  | CODE  | L |    |  |
| RATING     | 40C AMB-CONT |    |               |     |  |       |   |    |  |
| FRAME      | 56C          |    | NEMA NOM. EFF |     |  |       |   | 60 |  |
|            |              | PF | 60            |     |  |       |   |    |  |
| BLANK      |              |    |               |     |  |       |   |    |  |

**AC Induction Motor Performance Data**

Record # 6785

Typical performance - not guaranteed values

| Winding: 34WG5597-R002 |    |              | Type: 3414L  |                                          | Enclosure: XPFC |                            |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------|----------------------------|
| Nameplate Data         |    |              |              | 230 V, 60 Hz:<br>High Voltage Connection |                 |                            |
| Rated Output (HP)      |    | .33          |              | Full Load Torque                         |                 | 1 LB-FT                    |
| Volts                  |    | 115/208-230  |              | Start Configuration                      |                 | direct on line             |
| Full Load Amps         |    | 6/3.2-3      |              | Breakdown Torque                         |                 | 2.95 LB-FT                 |
| R.P.M.                 |    | 1725         |              | Pull-up Torque                           |                 | 2.55 LB-FT                 |
| Hz                     | 60 | Phase        | 1            | Locked-rotor Torque                      |                 | 3.6 LB-FT                  |
| NEMA Design Code       |    | N            | KVA Code     | Starting Current                         |                 | 13 A                       |
| Service Factor (S.F.)  |    | 1            |              | No-load Current                          |                 | 2.6 A                      |
| NEMA Nom. Eff.         |    | 60           | Power Factor | Line-line Res. @ 25°C                    |                 | 6.32 Ω A Ph<br>4.93 Ω B Ph |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                 | 59°C                       |

**Load Characteristics 230 V, 60 Hz, 0.33 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 31   | 41   | 52   | 60   | 67   | 73   |
| Efficiency      | 33   | 41   | 52   | 60   | 61.5 | 61.5 |
| Speed           | 1780 | 1760 | 1745 | 1725 | 1705 | 1680 |
| Line amperes    | 2.6  | 2.7  | 2.8  | 3    | 3.3  | 3.7  |

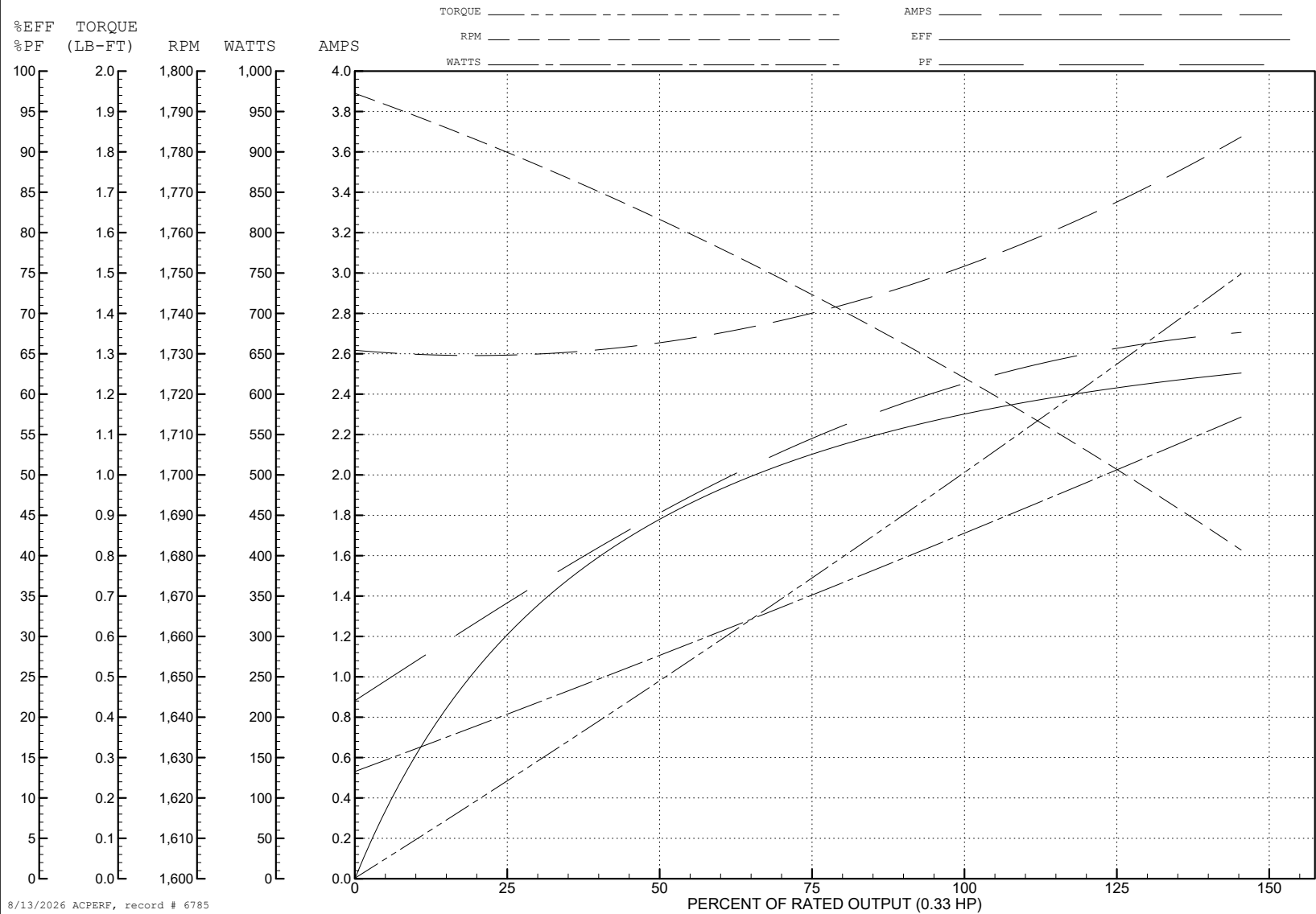
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WINDING # 34WG5597

Typical performance - not guaranteed values.

0.33 HP 1 PH 60 HZ 1725 RPM 230 V 3414L

TORQUES (LB-FT) : PO=2.95 PU=2.55 LR=3.6 LRA=13



**AC Induction Motor Performance Data**

Record # 39599

Typical performance - not guaranteed values

| Winding: 34WG5597-R002 |    |              |              | Type: 3414L                             |  | Enclosure: XPFC           |  |
|------------------------|----|--------------|--------------|-----------------------------------------|--|---------------------------|--|
| Nameplate Data         |    |              |              | 115 V, 60 Hz:<br>Low Voltage Connection |  |                           |  |
| Rated Output (HP)      |    | .33          |              | Full Load Torque                        |  | 1 LB-FT                   |  |
| Volts                  |    | 115/208-230  |              | Start Configuration                     |  | direct on line            |  |
| Full Load Amps         |    | 6/3.2-3      |              | Breakdown Torque                        |  | 2.95 LB-FT                |  |
| R.P.M.                 |    | 1725         |              | Pull-up Torque                          |  | 2.55 LB-FT                |  |
| Hz                     | 60 | Phase        | 1            | Locked-rotor Torque                     |  | 3.6 LB-FT                 |  |
| NEMA Design Code       |    | N            | KVA Code     | Starting Current                        |  | 26 A                      |  |
| Service Factor (S.F.)  |    | 1            |              | No-load Current                         |  | 5.2 A                     |  |
| NEMA Nom. Eff.         |    | 60           | Power Factor | Line-line Res. @ 25°C                   |  | 1.5 Ω A Ph<br>4.81 Ω B Ph |  |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                 |  | 59°C                      |  |

**Load Characteristics 115 V, 60 Hz, 0.33 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 32   | 49   | 55   | 59   | 65   | 68   |
| Efficiency      | 32.9 | 41   | 52.1 | 60.1 | 61.6 | 61.5 |
| Speed           | 1780 | 1760 | 1745 | 1725 | 1705 | 1680 |
| Line amperes    | 5.2  | 5.4  | 5.6  | 6    | 6.6  | 7.4  |

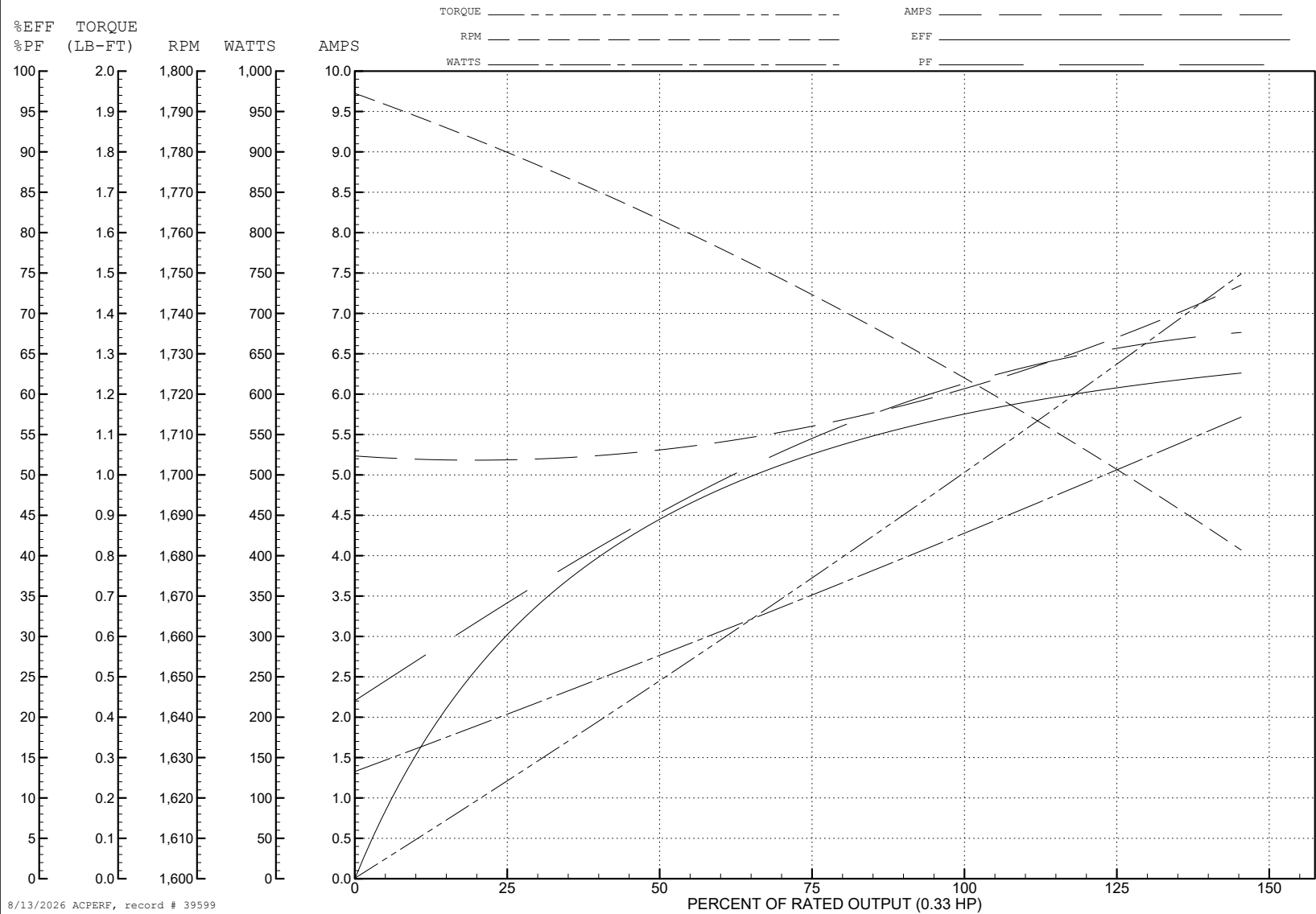
ABB Motors and Mechanical Inc.

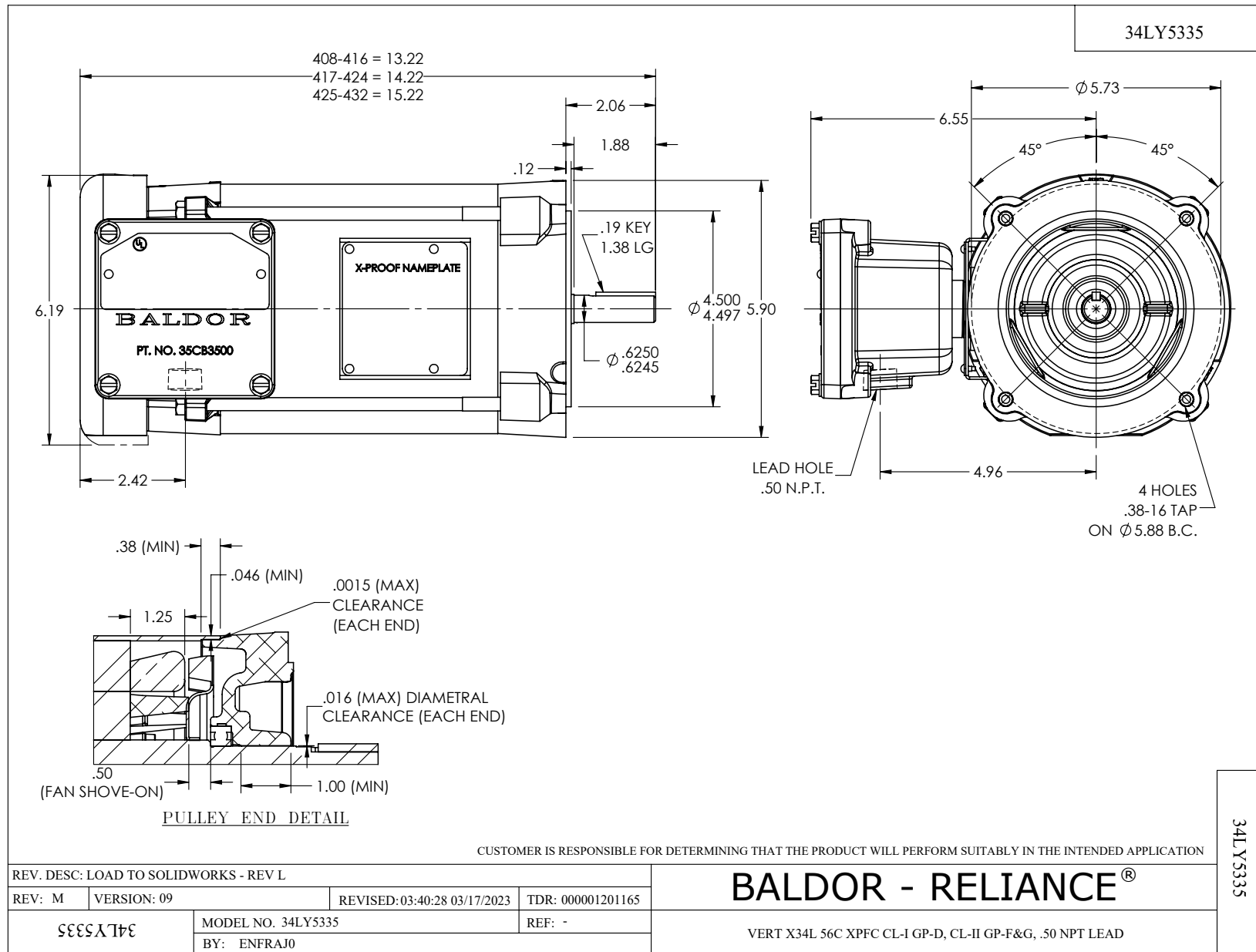
WINDING # 34WG5597

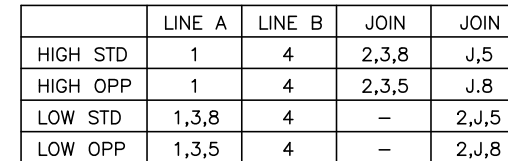
Typical performance - not guaranteed values.

0.33 HP 1 PH 60 HZ 1725 RPM 115 V 3414L

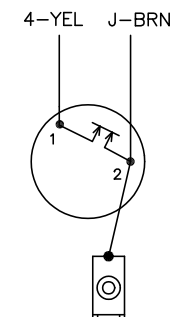
TORQUES (LB-FT) : PO=2.95 PU=2.55 LR=3.6 LRA=26







1. STANDARD ROTATION IS CCW FACING END OPPOSITE SHAFT EXTENSION.
2. MULTIPLE CAPACITORS ARE CONNECTED IN PARALLEL UNLESS OTHERWISE SPECIFIED.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

BALDOR ELECTRIC Co.

TYPE L, DV, REV, THERMAL, 7 LD, 34XP