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# Customer information packet

## VEL11303

.5HP, 3450RPM, 1PH, 60HZ, 56C, 3413LC, OPEN, F1

Class - None

Division - Not Applicable

## Specifications

|                                |  |
|--------------------------------|--|
| Enclosure                      | OPEN                                   |
| Frame                          | 56C                                    |
| Frame Material                 | Steel                                  |
| Frequency                      | 60.00 Hz                               |
| Haz Area Class and Group       | None                                   |
| Haz Area Division              | Not Applicable                         |
| Motor Letter Type              | Cap Start, Cap Run                     |
| Output @ Frequency             | .500 HP @ 60 HZ                        |
| Phase                          | 1                                      |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                       |
| Voltage @ Frequency            | 115.0 V @ 60 HZ<br>230.0 V @ 60 HZ     |
| Agency Approvals               | CURUSEEV                               |
| Ambient Temperature            | 40 °C                                  |
| Auxillary Box                  | No Auxillary Box                       |
| Auxillary Box Lead Termination | None                                   |
| Base Indicator                 | No Mounting                            |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                |
| Blower                         | None                                   |
| Current @ Voltage              | 2.500 A @ 230.0 V<br>4.900 A @ 115.0 V |
| Design Code                    | N                                      |
| Drip Cover                     | Drip Cover                             |
| Duty Rating                    | CONT                                   |
| Efficiency @ 100% Load         | 72.4 %                                 |
| Electrically Isolated Bearing  | Not Electrically Isolated              |
| Feedback Device                | NO FEEDBACK                            |
| Front Face Code                | Drip Cover Mounting                    |
| Front Shaft Indicator          | None                                   |
| Heater Indicator               | No Heater                              |
| High Voltage Full Load Amps    | 2.5 a                                  |
| Insulation Class               | B                                      |

## Part detail

|              |            |
|--------------|------------|
| Revision     | H          |
| Type         | AC         |
| Mech. spec.  | 34F534     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR142   |
| Layout       | 34LYF534   |
| Eff. date    | 05-16-2024 |
| CD Diagram   | CD0055     |
| Poles        | 02         |
| Leads        | 6#18       |
| Proprietary  | False      |
| Created date | 09-26-2014 |

|                               |                     |
|-------------------------------|---------------------|
| Inverter Code                 | Not Inverter        |
| KVA Code                      | L                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Exit               | Ko Box              |
| Motor Lead Quantity/Wire Size | 6 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3413LC              |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 2                   |
| Overall Length                | 11.85 IN            |
| Power Factor                  | 91                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | C-Face              |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| RoHS Status                   | ROHS COMPLIANT      |
| Service Factor                | 1.25                |
| 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                         | 3450 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             | None                |
| Winding Thermal 2             | None                |

**Nameplate**

| <b>NP3155L</b>        |              |             |            |            |   |           |   |  |  |
|-----------------------|--------------|-------------|------------|------------|---|-----------|---|--|--|
| <b>CAT.NO.</b>        | VEL11303     |             |            |            |   |           |   |  |  |
| <b>SPEC.</b>          | 34F534R142G1 |             |            |            |   |           |   |  |  |
| <b>HP</b>             | .5           |             |            |            |   |           |   |  |  |
| <b>VOLTS</b>          | 115/230      |             |            |            |   |           |   |  |  |
| <b>AMP</b>            | 4.9/2.5      |             |            |            |   |           |   |  |  |
| <b>RPM</b>            | 3450         |             |            |            |   |           |   |  |  |
| <b>FRAME</b>          | 56C          |             | <b>HZ</b>  | 60         |   | <b>PH</b> | 1 |  |  |
| <b>SER.F.</b>         | 1.25         | <b>CODE</b> | L          | <b>DES</b> | N | <b>CL</b> | B |  |  |
| <b>F.L. AVG. EFF.</b> | 72.4         | <b>PF</b>   | 91         |            |   |           |   |  |  |
| <b>RATING</b>         | 40C AMB-CONT |             |            |            |   |           |   |  |  |
| <b>CC</b>             |              |             |            |            |   |           |   |  |  |
| <b>DE</b>             | 6203         |             | <b>ODE</b> | 6203       |   |           |   |  |  |
| <b>ENCL</b>           | OPEN         | <b>SN</b>   |            |            |   |           |   |  |  |
|                       | SFA 5.8/2.9  |             |            |            |   |           |   |  |  |

**AC Induction Motor Performance Data**

Record # 47426

Typical performance - not guaranteed values

| Winding: 34WGR142-R002 |              | Type: 3413LC        |   | Enclosure: OPEN       |                                |
|------------------------|--------------|---------------------|---|-----------------------|--------------------------------|
| <b>Nameplate Data</b>  |              |                     | <b>115 V, 60 Hz:<br/>Low Voltage Connection</b> |                       |                                |
| Rated Output (HP)      | .5           | Full Load Torque    | 0.755 LB-FT                                     |                       |                                |
| Volts                  | 115/230      | Start Configuration | direct on line                                  |                       |                                |
| Full Load Amps         | 4.9/2.5      | Breakdown Torque    | 2.5 LB-FT                                       |                       |                                |
| R.P.M.                 | 3450         | Pull-up Torque      | 1.78 LB-FT                                      |                       |                                |
| Hz                     | 60 Phase     | 1                   | Locked-rotor Torque                             | 2.47 LB-FT            |                                |
| NEMA Design Code       | N            | KVA Code            | L   | Starting Current      | 38 A                           |
| Service Factor (S.F.)  | 1.25         |                     | No-load Current                                 | 2.28 A                |                                |
| NEMA Nom. Eff.         | 72.4         | Power Factor        | 91  | Line-line Res. @ 25°C | 1.1337 Ω A Ph<br>4.8491 Ω B Ph |
| Rating - Duty          | 40C AMB-CONT |                     | Temp. Rise @ Rated Load                         | 21°C                  |                                |
| S.F. Amps              | 5.8/2.9      |                     | Temp. Rise @ S.F. Load                          | 27°C                  |                                |

**Load Characteristics 115 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25     | 50   | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|------|--------|--------|--------|--------|------|
| Power Factor    | 70     | 82   | 88     | 91     | 93     | 94     | 93   |
| Efficiency      | 42.8   | 59.4 | 69.9   | 73.5   | 73     | 73.2   | 73   |
| Speed           | 3561.5 | 3535 | 3512.3 | 3480.9 | 3435.5 | 3401.6 | 3436 |
| Line amperes    | 2.67   | 3.33 | 3.96   | 4.83   | 6      | 7.05   | 6    |

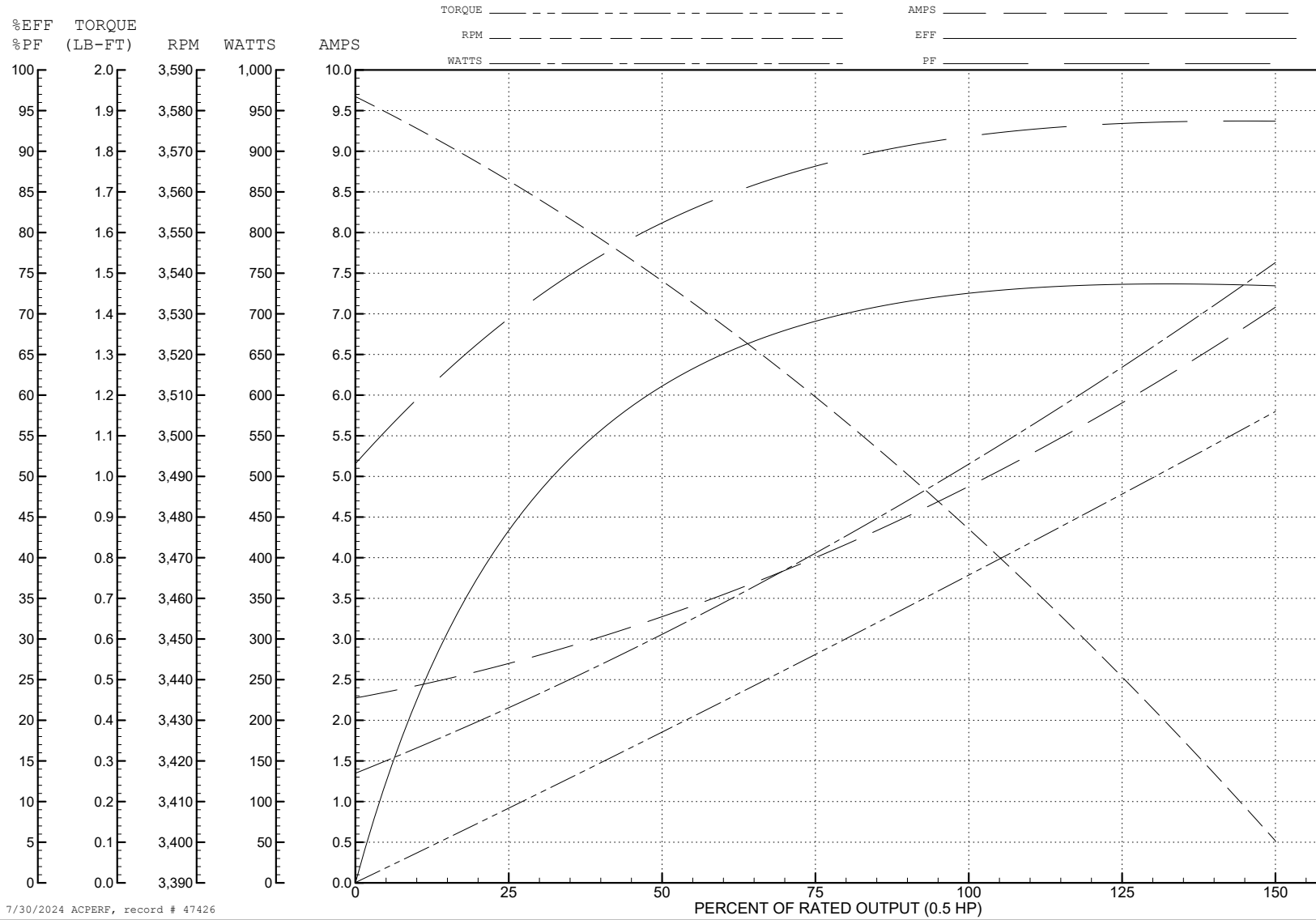
ABB Motors and Mechanical Inc.

WINDING # 34WGR142

0.5 HP 1 PH 60 HZ 3450 RPM 115 V 3413LC

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=2.5 PU=1.78 LR=2.47 LRA=38



7/30/2024 ACPERF, record # 47426

**AC Induction Motor Performance Data**

Record # 49399

Typical performance - not guaranteed values

| <b>Winding: 34WGR142-R002</b> |                          | <b>Type: 3413LC</b>        |  | <b>Enclosure: OPEN</b>     |  |
|-------------------------------|--------------------------|----------------------------|--|----------------------------|--|
| <b>Nameplate Data</b>         |                          |                            | <b>230 V, 60 Hz:<br/>High Voltage Connection</b> |                            |  |
| <b>Rated Output (HP)</b>      | .5                       | <b>Full Load Torque</b>    | 0.755 LB-FT                                      |                            |  |
| <b>Volts</b>                  | 115/230                  | <b>Start Configuration</b> | direct on line                                   |                            |  |
| <b>Full Load Amps</b>         | 4.9/2.5                  | <b>Breakdown Torque</b>    | 2.5 LB-FT  |                            |  |
| <b>R.P.M.</b>                 | 3450                     | <b>Pull-up Torque</b>      | 1.52 LB-FT                                       |                            |  |
| <b>Hz</b>                     | 60 <b>Phase</b>          | 1                          | <b>Locked-rotor Torque</b>                       | 2.11 LB-FT                 |  |
| <b>NEMA Design Code</b>       | N <b>KVA Code</b>        | L                          | <b>Starting Current</b>                          | 18.66 A                    |  |
| <b>Service Factor (S.F.)</b>  | 1.25                     |                            | <b>No-load Current</b>                           | 1.15 A                     |  |
| <b>NEMA Nom. Eff.</b>         | 72.4 <b>Power Factor</b> | 91                         | <b>Line-line Res. @ 25°C</b>                     | 4.36 Ω A Ph<br>4.65 Ω B Ph |  |
| <b>Rating - Duty</b>          | 40C AMB-CONT             |                            | <b>Temp. Rise @ Rated Load</b>                   | 21°C                       |  |
| <b>S.F. Amps</b>              | 5.8/2.9                  |                            | <b>Temp. Rise @ S.F. Load</b>                    | 25°C                       |  |
|                               |                          |                            | <b>Rotor inertia</b>                             | 0.0121 LB-FT <sup>2</sup>  |  |

**Load Characteristics 230 V, 60 Hz, 0.5 HP**

| <b>% of Rated Load</b> | <b>25</b> | <b>50</b> | <b>75</b> | <b>100</b> | <b>125</b> | <b>150</b> | <b>S.F.</b> |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| <b>Power Factor</b>    | 71        | 83        | 88        | 92         | 93         | 94         | 93          |
| <b>Efficiency</b>      | 42.3      | 58.9      | 69.5      | 73.2       | 72.8       | 73.3       | 72.8        |
| <b>Speed</b>           | 3562      | 3535      | 3512      | 3481       | 3436       | 3402       | 3436        |
| <b>Line amperes</b>    | 1.34      | 1.67      | 1.99      | 2.42       | 3.01       | 3.53       | 3.01        |

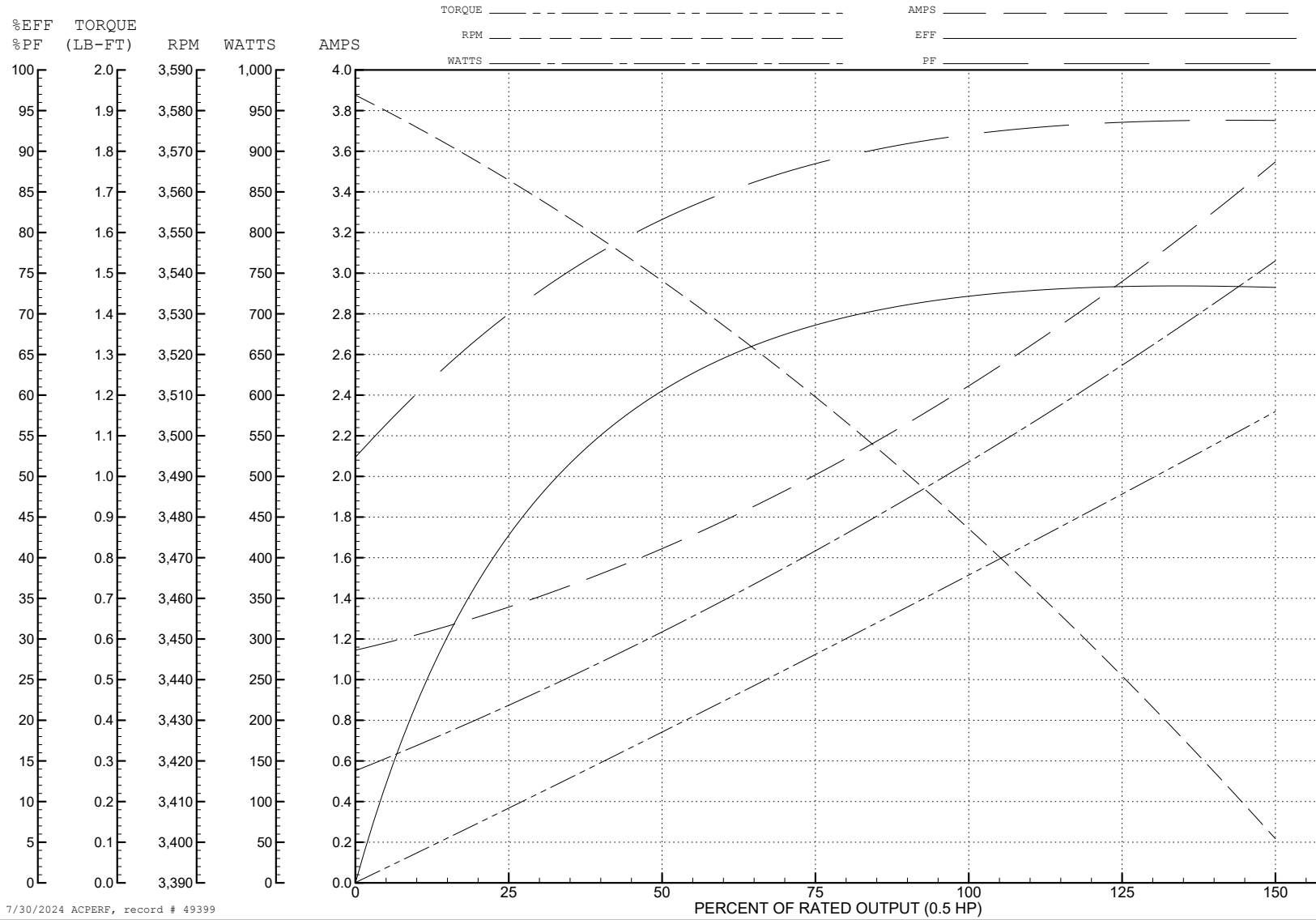
ABB Motors and Mechanical Inc.

WINDING # 34WGR142

0.5 HP 1 PH 60 HZ 3450 RPM 230 V 3413LC

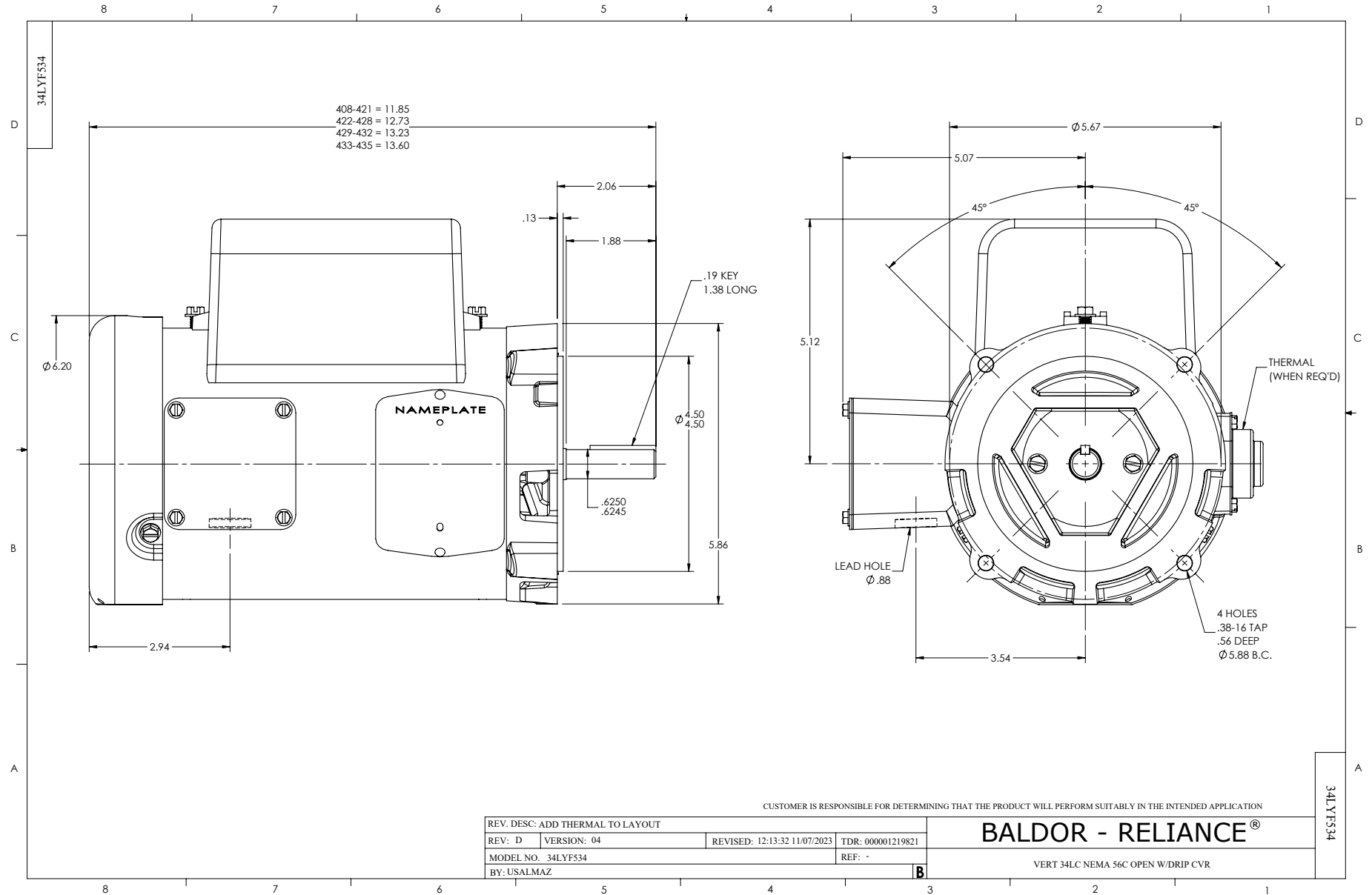
Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=2.5 PU=1.52 LR=2.11 LRA=18.66

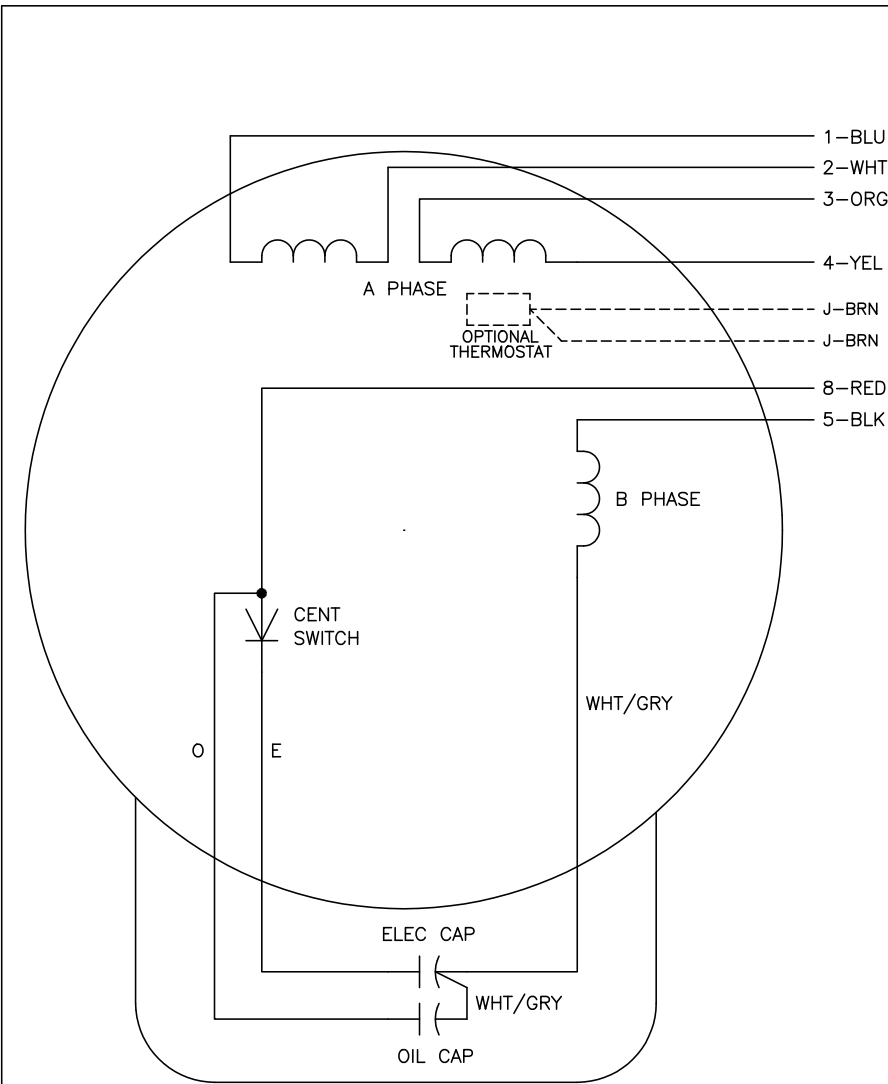


7/30/2024 ACPERF, record # 49399





CD0055



|          | LINE A | LINE B | JOIN  |
|----------|--------|--------|-------|
| HIGH STD | 1      | 4,5    | 2,3,8 |
| HIGH OPP | 1      | 4,8    | 2,3,5 |
| LOW STD  | 1,3,8  | 2,4,5  | -     |
| LOW OPP  | 1,3,5  | 2,4,8  | -     |

NOTES:

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

CD0055

|   |         |                        |              |
|---|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: D                               | BY: JLP | REVISED: 04/08/99 1:17 | TDR: 0178636 |
| C00000                                    |         | FILE: AAA00007414      | MDL: -       |
|   |         | MTL: -                 |              |

BALDOR ELECTRIC Co.

TYPE LC, DV, REV, 6 LEADS