

# ABB BALDOR RELIANCE III

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## Customer information packet

### KM3454-57

.25HP, IP54, 1425RPM, 3PH, 50HZ, 56C, 3410M

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                        |
|---------------------------------------|----------------------------------------|
| <b>Enclosure</b>                      | TEFC                                   |
| <b>Frame</b>                          | 56C                                    |
| <b>Frame Material</b>                 | Steel                                  |
| <b>Frequency</b>                      | 50.00 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>             | .250 HP @ 50 HZ                        |
| <b>Phase</b>                          | 3                                      |
| <b>Synchronous Speed @ Frequency</b>  | 1500 RPM @ 50 HZ                       |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 50 HZ<br>400.0 V @ 50 HZ     |
| <b>Agency Approvals</b>               | C UR US<br>CE<br>CURUS<br>UKCA<br>WEEE |
| <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>              | 1.200 A @ 230.0 V<br>.700 A @ 400.0 V  |
| <b>Design Code</b>                    | B                                      |
| <b>Drip Cover</b>                     | No Drip Cover                          |
| <b>Duty Rating</b>                    | CONT                                   |
| <b>Efficiency @ 100% Load</b>         | 64.0 %                                 |
| <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>     | Q          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 34A063     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 34WGS886   |
| <b>Layout</b>       | 34LYA063   |
| <b>Eff. date</b>    | 02-10-2025 |
| <b>CD Diagram</b>   | CD0022     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 6#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-02-2011 |

|                               |                    |
|-------------------------------|--------------------|
| Front Shaft Indicator         | None               |
| Heater Indicator              | No Heater          |
| High Voltage Full Load Amps   | 0.7 a              |
| Insulation Class              | B                  |
| 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                    | 3410M              |
| Mounting Arrangement          | F1                 |
| Number of Poles               | 4                  |
| Overall Length                | 11.35 IN           |
| Power Factor                  | 59                 |
| 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                         | 1425 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

| NP1372L        |                        |      |                |     |     |      |    |   |   |
|----------------|------------------------|------|----------------|-----|-----|------|----|---|---|
| CAT.NO.        | KM3454-57              |      |                |     |     |      |    |   |   |
| SPEC.          | 34A063S886G1           |      |                |     |     |      |    |   |   |
| HP             | .25/KW .18             |      |                |     |     |      |    |   |   |
| VOLTS          | 230/400                |      |                |     |     |      |    |   |   |
| AMP            | 1.2/.7 SFA 1.3/.75     |      |                |     |     |      |    |   |   |
| R.P.M. (1/MIN) | 1425                   |      |                |     |     |      |    |   |   |
| FRAME          | 56C                    |      | HZ             |     | 50  |      | PH |   | 3 |
| SER.F.         | 1.25                   | CODE |                | L   | DES | B    | CL | B |   |
| NEMA-NOM-EFF   | 64                     | PF   |                | 59  |     |      |    |   |   |
| RATING         | 40C AMB-S1 CONT        |      |                |     |     |      |    |   |   |
| CC             |                        |      | IP44 KG9 IC411 |     |     |      |    |   |   |
| DE             | 6203                   |      |                | ODE |     | 6203 |    |   |   |
| ENCL           | TEFC                   | SN   |                |     |     |      |    |   |   |
|                | IE2-61.9(75%)53.7(50%) |      |                |     |     |      |    |   |   |

**AC Induction Motor Performance Data**

Record # 35108

Typical performance - not guaranteed values

| Winding: 34WGS886-R001 |          |                 | Type: 3410M                              |  | Enclosure: TEFC |  |
|------------------------|----------|-----------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |          |                 | 400 V, 50 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | .25             | Full Load Torque                         |  | 0.901 LB-FT     |  |
| Volts                  |          | 230/400         | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |          | 1.2/.7          | Breakdown Torque                         |  | 2.93 LB-FT      |  |
| R.P.M.                 |          | 1425            | Pull-up Torque                           |  | 1.97 LB-FT      |  |
| Hz                     | 50 Phase | 3               | Locked-rotor Torque                      |  | 2.16 LB-FT      |  |
| NEMA Design Code       |          | B KVA Code      | Starting Current                         |  | 2.75 A          |  |
| Service Factor (S.F.)  |          | 1.25            | No-load Current                          |  | 0.59 A          |  |
| NEMA Nom. Eff.         |          | 64 Power Factor | Line-line Res. @ 25°C                    |  | 72 Ω            |  |
| Rating - Duty          |          | 40C AMB-CONT    | Temp. Rise @ Rated Load                  |  | 53°C            |  |
| S.F. Amps              |          | 1.3/.75         | Temp. Rise @ S.F. Load                   |  | 60°C            |  |
|                        |          |                 | Locked-rotor Power Factor                |  | 80              |  |
|                        |          |                 | Rotor inertia                            |  | 0.0238 LB-FT2   |  |

**Load Characteristics 400 V, 50 Hz, 0.25 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150   | S.F.  |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Power Factor    | 30    | 42    | 51    | 59    | 67    | 74    | 67    |
| Efficiency      | 37.9  | 53.7  | 61.9  | 66.1  | 68.2  | 68.2  | 68.2  |
| Speed           | 1483  | 1470  | 1456  | 1440  | 1423  | 1404  | 1423  |
| Line amperes    | 0.592 | 0.603 | 0.635 | 0.678 | 0.723 | 0.769 | 0.723 |

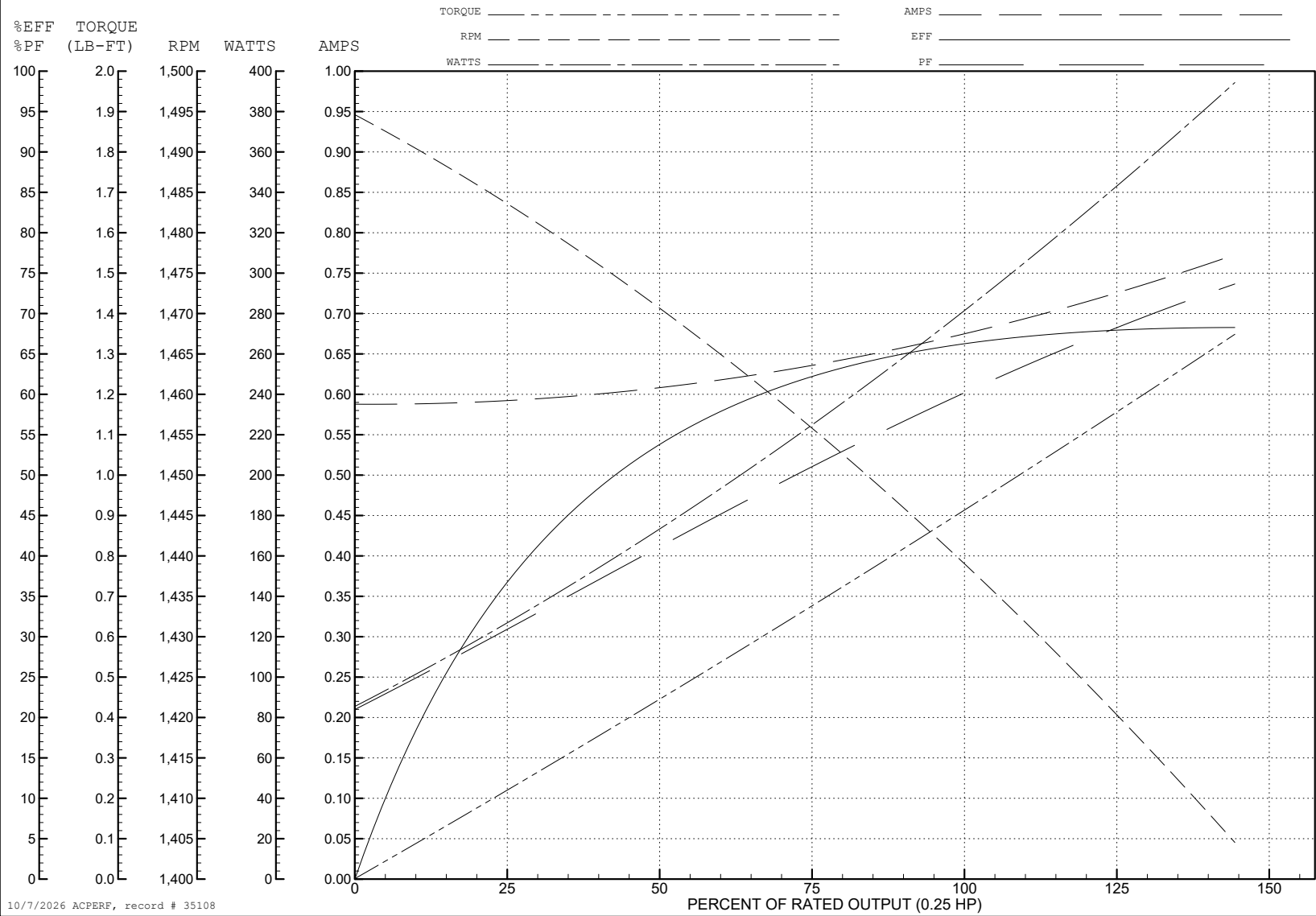
ABB Motors and Mechanical Inc.

WINDING # 34WGS886

Typical performance - not guaranteed values.

0.25 HP 3 PH 50 HZ 1425 RPM 400 V 3410M

TORQUES (LB-FT) : PO=2.93 PU=1.97 LR=2.16 LRA=2.75



**AC Induction Motor Performance Data**

Record # 46459

Typical performance - not guaranteed values

| Winding: 34WGS886-R001 |          |                 | Type: 3410M                             |  | Enclosure: TEFC |  |
|------------------------|----------|-----------------|-----------------------------------------|--|-----------------|--|
| Nameplate Data         |          |                 | 230 V, 50 Hz:<br>Low Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | .25             | Full Load Torque                        |  | 0.901 LB-FT     |  |
| Volts                  |          | 230/400         | Start Configuration                     |  | direct on line  |  |
| Full Load Amps         |          | 1.2/.7          | Breakdown Torque                        |  | 2.91 LB-FT      |  |
| R.P.M.                 |          | 1425            | Pull-up Torque                          |  | 1.95 LB-FT      |  |
| Hz                     | 50 Phase | 3               | Locked-rotor Torque                     |  | 2.14 LB-FT      |  |
| NEMA Design Code       |          | B KVA Code      | Starting Current                        |  | 4.74 A          |  |
| Service Factor (S.F.)  |          | 1.25            | No-load Current                         |  | 1.01 A          |  |
| NEMA Nom. Eff.         |          | 64 Power Factor | Line-line Res. @ 25°C                   |  | 24.1 Ω          |  |
| Rating - Duty          |          | 40C AMB-CONT    | Temp. Rise @ Rated Load                 |  | 52°C            |  |
| S.F. Amps              |          | 1.3/.75         | Temp. Rise @ S.F. Load                  |  | 59°C            |  |
|                        |          |                 | Locked-rotor Power Factor               |  | 80              |  |
|                        |          |                 | Rotor inertia                           |  | 0.0238 LB-FT2   |  |

**Load Characteristics 230 V, 50 Hz, 0.25 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 30   | 42   | 52   | 60   | 68   | 74   | 68   |
| Efficiency      | 38.4 | 54.1 | 62.3 | 66.3 | 68.4 | 68.3 | 68.4 |
| Speed           | 1483 | 1470 | 1456 | 1440 | 1422 | 1403 | 1422 |
| Line amperes    | 1.02 | 1.04 | 1.09 | 1.17 | 1.24 | 1.33 | 1.24 |

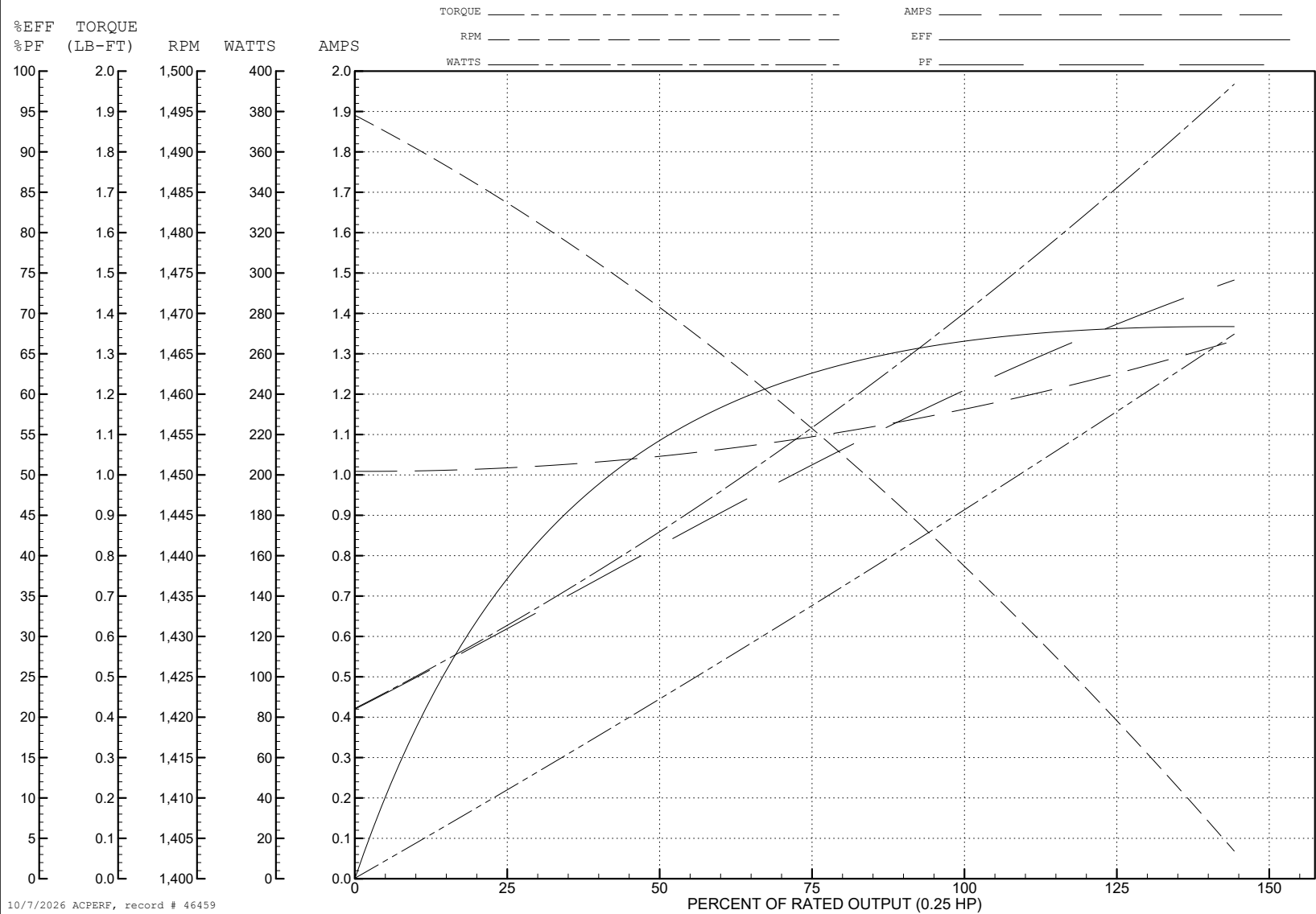
ABB Motors and Mechanical Inc.

WINDING # 34WGS886

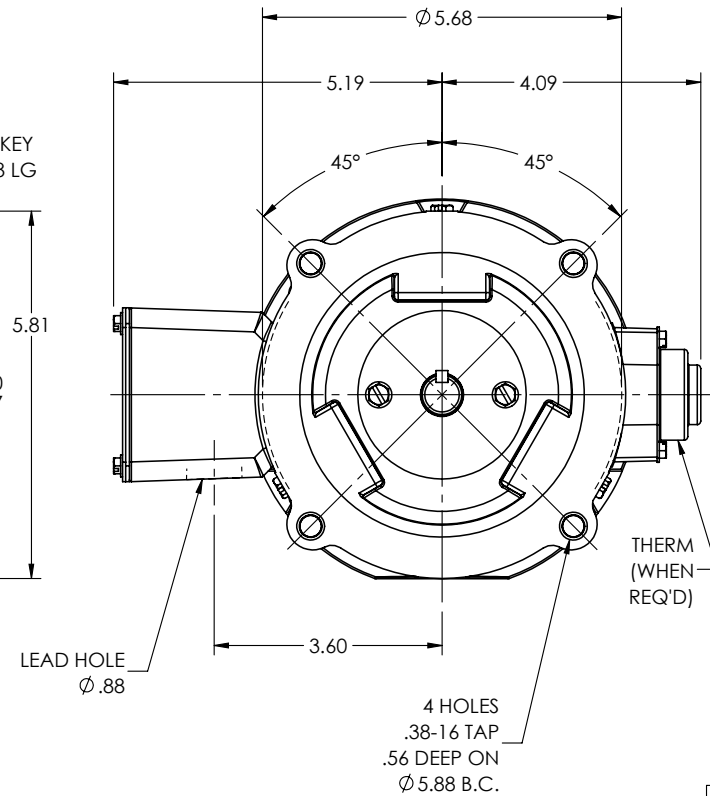
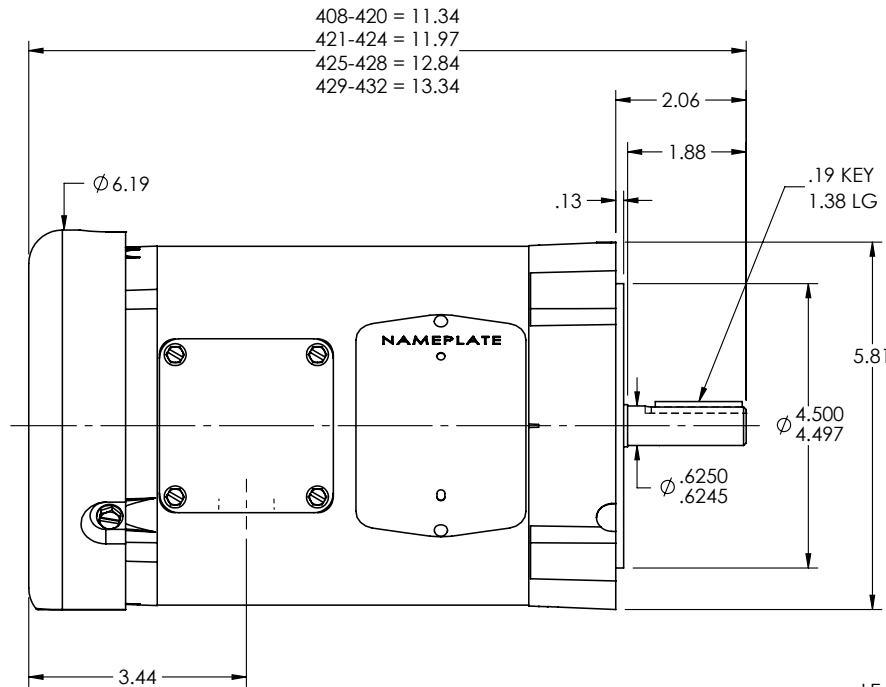
Typical performance - not guaranteed values.

0.25 HP 3 PH 50 HZ 1425 RPM 230 V 3410M

TORQUES (LB-FT) : PO=2.91 PU=1.95 LR=2.14 LRA=4.74



34LYA063



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: CLEAN UP DIMENSIONING

REV: P VERSION: 05 REVISED: 08:51:08 10/31/2024 TDR: 000001243684

34LYA063

MODEL NO. 34LYA063

BY: ENJEFD0

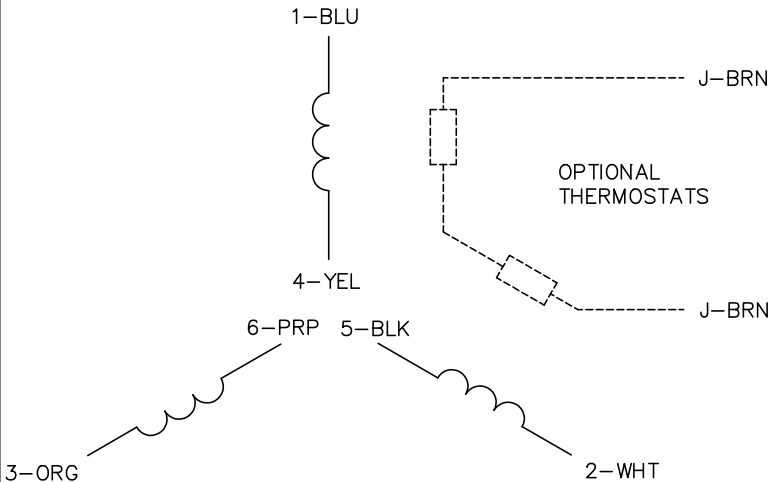
REF: -

**BALDOR - RELIANCE®**

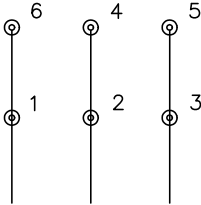
STD VERT 34M NEMA 56C TEFC

34LYA063

CD0022

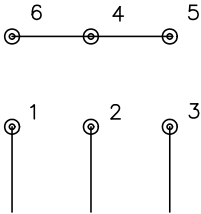


LOW VOLTAGE  
(1D)



LINE

HIGH VOLTAGE  
(1Y)



LINE

- 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: F                               | BY: JLP | REVISED: 01/21/99 3:54 | TDR: 0171435 |
| CD0022                                    |         | FILE: AAA00005144      | MDL: -       |
|                                           |         | MTL: -                 |              |

|                                        |  |
|----------------------------------------|--|
| BALDOR ELECTRIC Co.                    |  |
| 3PH, DV, 6 LEADS, DELTA/WYE CONNECTION |  |

CD0022