

**BALDOR • RELIANCE**

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# Customer information packet

## L3509M

1HP, 3450RPM, 1PH, 60HZ, 56/56H, 3524L, TEFC

Class - None

Division - Not Applicable

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4/11/2025 12:57:05 AM

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | TEFC                                    |
| Frame                          | 56/56H                                  |
| Frame Material                 | Steel                                   |
| Frequency                      | 60.00 Hz                                |
| Haz Area Class and Group       | None                                    |
| Haz Area Division              | Not Applicable                          |
| Motor Letter Type              | Cap Start, Induction Run                |
| Output @ Frequency             | 1.000 HP @ 60 HZ                        |
| Phase                          | 1                                       |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                        |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>115.0 V @ 60 HZ      |
| Agency Approvals               | CSA<br>UR                               |
| Ambient Temperature            | 40 °C                                   |
| Auxillary Box                  | No Auxillary Box                        |
| Auxillary Box Lead Termination | None                                    |
| Base Indicator                 | Rigid                                   |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                 |
| Blower                         | None                                    |
| Current @ Voltage              | 6.000 A @ 230.0 V<br>12.000 A @ 115.0 V |
| Design Code                    | N                                       |
| Drip Cover                     | No Drip Cover                           |
| Duty Rating                    | CONT                                    |
| Efficiency @ 100% Load         | 66.0 %                                  |
| Electrically Isolated Bearing  | Not Electrically Isolated               |
| Feedback Device                | NO FEEDBACK                             |
| Front Face Code                | Standard                                |
| Front Shaft Indicator          | None                                    |
| Heater Indicator               | No Heater                               |
| High Voltage Full Load Amps    | 6.0 a                                   |

## Part detail

|              |                              |
|--------------|------------------------------|
| Revision     | AZ                           |
| Type         | AC                           |
| Mech. spec.  | 35J383                       |
| Base         |                              |
| Status       | PRD/A                        |
| Elec. spec.  | 35WG0480                     |
| Layout       | 35LYJ383                     |
| Eff. date    | 05-14-2024                   |
| CD Diagram   | CD0008                       |
| Poles        | 02                           |
| Leads        | 4#16 A&J,2#18 B PH,1#14 #4TH |
| Proprietary  | False                        |
| Created date | 06-22-2007                   |

|                                      |                         |
|--------------------------------------|-------------------------|
| <b>Insulation Class</b>              | B                       |
| <b>Inverter Code</b>                 | Not Inverter            |
| <b>KVA Code</b>                      | K                       |
| <b>Lifting Lugs</b>                  | No Lifting Lugs         |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing       |
| <b>Motor Lead Exit</b>               | Ko Box                  |
| <b>Motor Lead Quantity/Wire Size</b> | 4 @ 16 AWG, A&J         |
| <b>Motor Lead Termination</b>        | Flying Leads            |
| <b>Motor Standards</b>               | NEMA                    |
| <b>Motor Type</b>                    | 3524L                   |
| <b>Mounting Arrangement</b>          | F1                      |
| <b>Number of Poles</b>               | 2                       |
| <b>Overall Length</b>                | 12.91 IN                |
| <b>Power Factor</b>                  | 81                      |
| <b>Product Family</b>                | General Purpose         |
| <b>Pulley End Bearing Type</b>       | Ball                    |
| <b>Pulley Face Code</b>              | Standard                |
| <b>Pulley Shaft Indicator</b>        | Standard                |
| <b>Rodent Screen</b>                 | None                    |
| <b>RoHS Status</b>                   | ROHS COMPLIANT          |
| <b>Service Factor</b>                | 1.25                    |
| <b>Shaft Diameter</b>                | 0.625 IN                |
| <b>Shaft Extension Location</b>      | Pulley End              |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding      |
| <b>Shaft Rotation</b>                | Reversible              |
| <b>Shaft Slinger Indicator</b>       | No Slinger              |
| <b>Speed</b>                         | 3450 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>      | Do Not Use              |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor     |
| <b>Winding Thermal 1</b>             | Manual Thermal Overload |
| <b>Winding Thermal 1 Location</b>    | SB                      |

**Winding Thermal 2**

**None**

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**Nameplate**

| <b>NP1257L</b>      |              |             |      |            |    |           |           |   |  |
|---------------------|--------------|-------------|------|------------|----|-----------|-----------|---|--|
| <b>CAT.NO.</b>      | L3509M       |             |      |            |    |           |           |   |  |
| <b>SPEC.</b>        | 35J383-480   |             |      |            |    |           |           |   |  |
| <b>HP</b>           | 1            |             |      |            |    |           |           |   |  |
| <b>VOLTS</b>        | 115/230      |             |      |            |    |           |           |   |  |
| <b>AMP</b>          | 12/6         |             |      |            |    |           |           |   |  |
| <b>RPM</b>          | 3450         |             |      |            |    |           |           |   |  |
| <b>FRAME</b>        | 56/56H       |             |      | <b>HZ</b>  | 60 |           | <b>PH</b> | 1 |  |
| <b>SER.F.</b>       | 1.25         | <b>CODE</b> | K    | <b>DES</b> | N  | <b>CL</b> | B         |   |  |
| <b>NEMA-NOM-EFF</b> | 66           | <b>PF</b>   | 81   |            |    |           |           |   |  |
| <b>RATING</b>       | 40C AMB-CONT |             |      |            |    |           |           |   |  |
| <b>CC</b>           |              |             |      |            |    |           |           |   |  |
| <b>DE</b>           | 6205         | <b>ODE</b>  | 6203 |            |    |           |           |   |  |
| <b>ENCL</b>         | TEFC         | <b>SN</b>   |      |            |    |           |           |   |  |
|                     | SFA 14.4/7.2 |             |      |            |    |           |           |   |  |

**Accessories**

| <b>Part number</b> | <b>Description</b> | <b>Multiplier</b> |
|--------------------|--------------------|-------------------|
| 35-8762            | C FACE KIT         | A8                |
| 35EP1506A01SP      | D-FLANGE KIT       | A8                |

**AC Induction Motor Performance Data**

Record # 8067

Typical performance - not guaranteed values

| Winding: 35WG0480-R001 |                 | Type: 3524L             | Enclosure: TEFC                                  |  |
|------------------------|-----------------|-------------------------|--|--|
| <b>Nameplate Data</b>  |                 |                         | <b>230 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | 1               | Full Load Torque        | 1.5 LB-FT  |  |
| Volts                  | 115/230         | Start Configuration     | direct on line                                   |  |
| Full Load Amps         | 12/6            | Breakdown Torque        | 3.7 LB-FT  |  |
| R.P.M.                 | 3450            | Pull-up Torque          | 3.3 LB-FT  |  |
| Hz                     | 60 Phase        | Locked-rotor Torque     | 4.5 LB-FT  |  |
| NEMA Design Code       | N KVA Code      | Starting Current        | 38 A   |  |
| Service Factor (S.F.)  | 1.25            | No-load Current         | 3.15 A   |  |
| NEMA Nom. Eff.         | 66 Power Factor | Line-line Res. @ 25°C   | 2.37 Ω A Ph<br>1.75 Ω B Ph                       |  |
| Rating - Duty          | 40C AMB-CONT    | Temp. Rise @ Rated Load | 61°C   |  |
| S.F. Amps              | 14.4/7.2        | Temp. Rise @ S.F. Load  | 78°C   |  |

**Load Characteristics 230 V, 60 Hz, 1 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 52   | 67   | 77   | 83   | 86   | 88   | 86   |
| Efficiency      | 44.7 | 59.7 | 66.2 | 68.9 | 69.4 | 68.5 | 69.4 |
| Speed           | 3563 | 3538 | 3511 | 3480 | 3444 | 3400 | 3444 |
| Line amperes    | 3.5  | 4.05 | 4.8  | 5.7  | 6.8  | 8.1  | 6.8  |

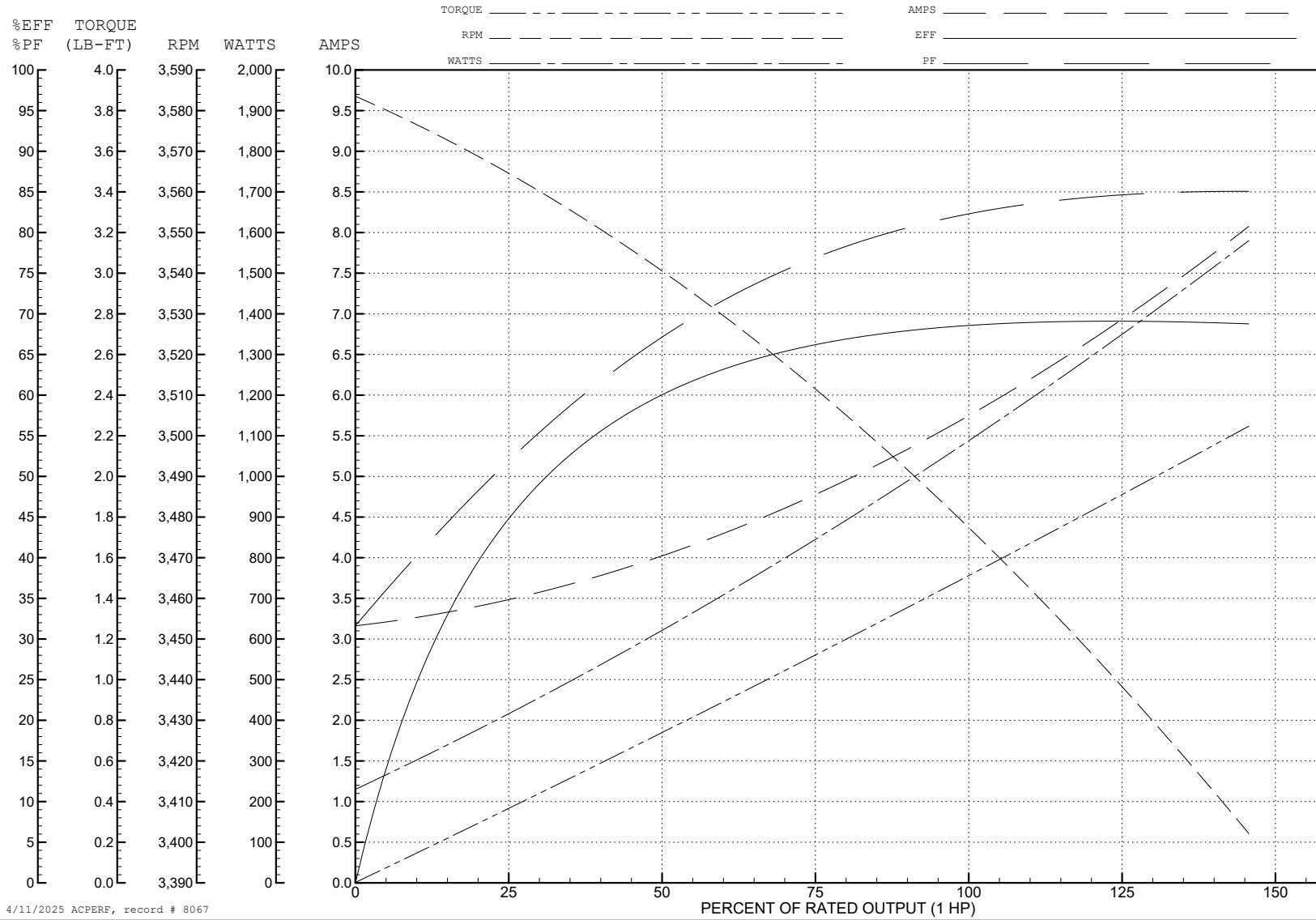
ABB Motors and Mechanical Inc.

WINDING # 35WG0480

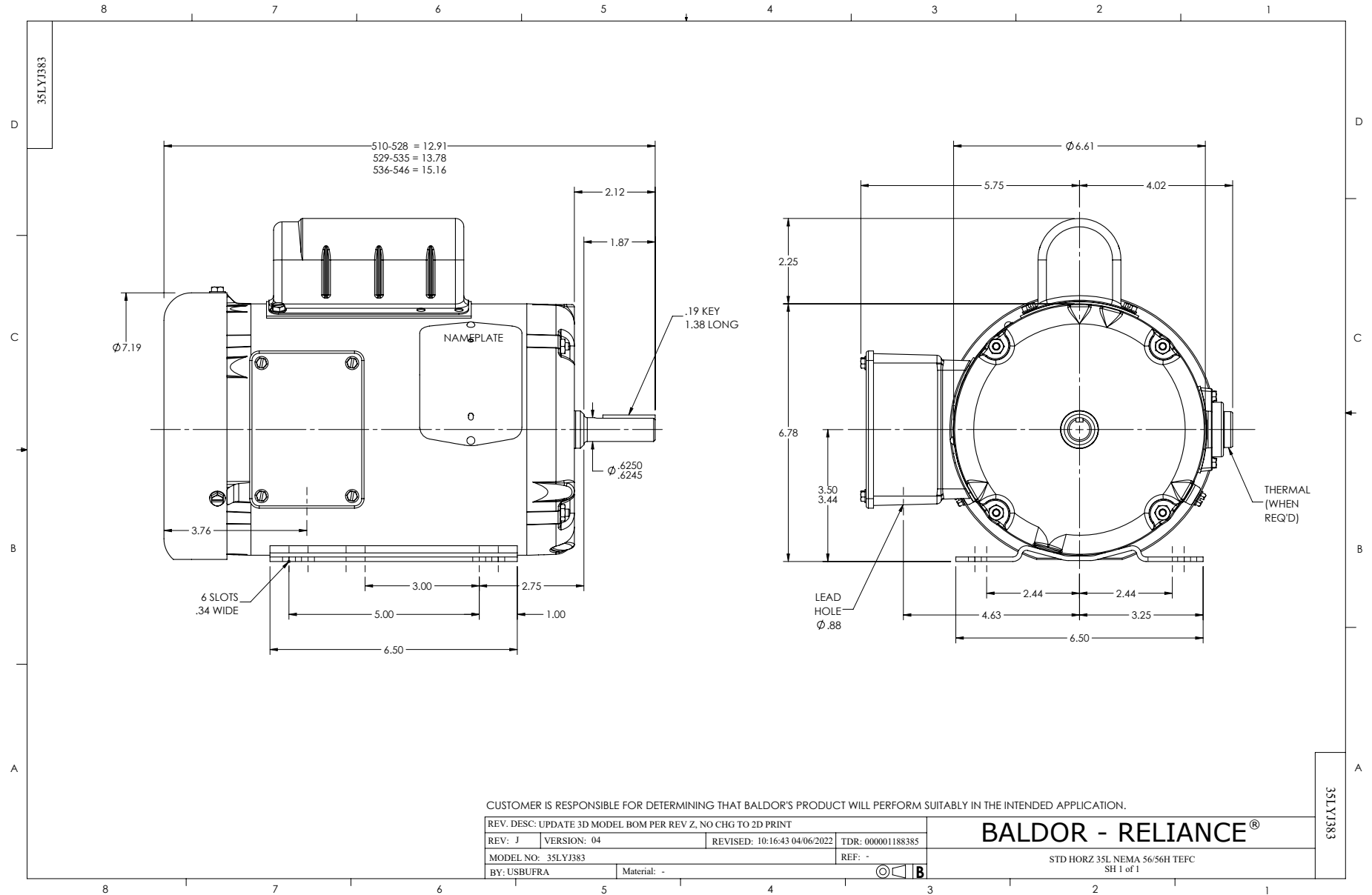
Typical performance - not guaranteed values.

1 HP 1 PH 60 HZ 3450 RPM 230 V 3524L

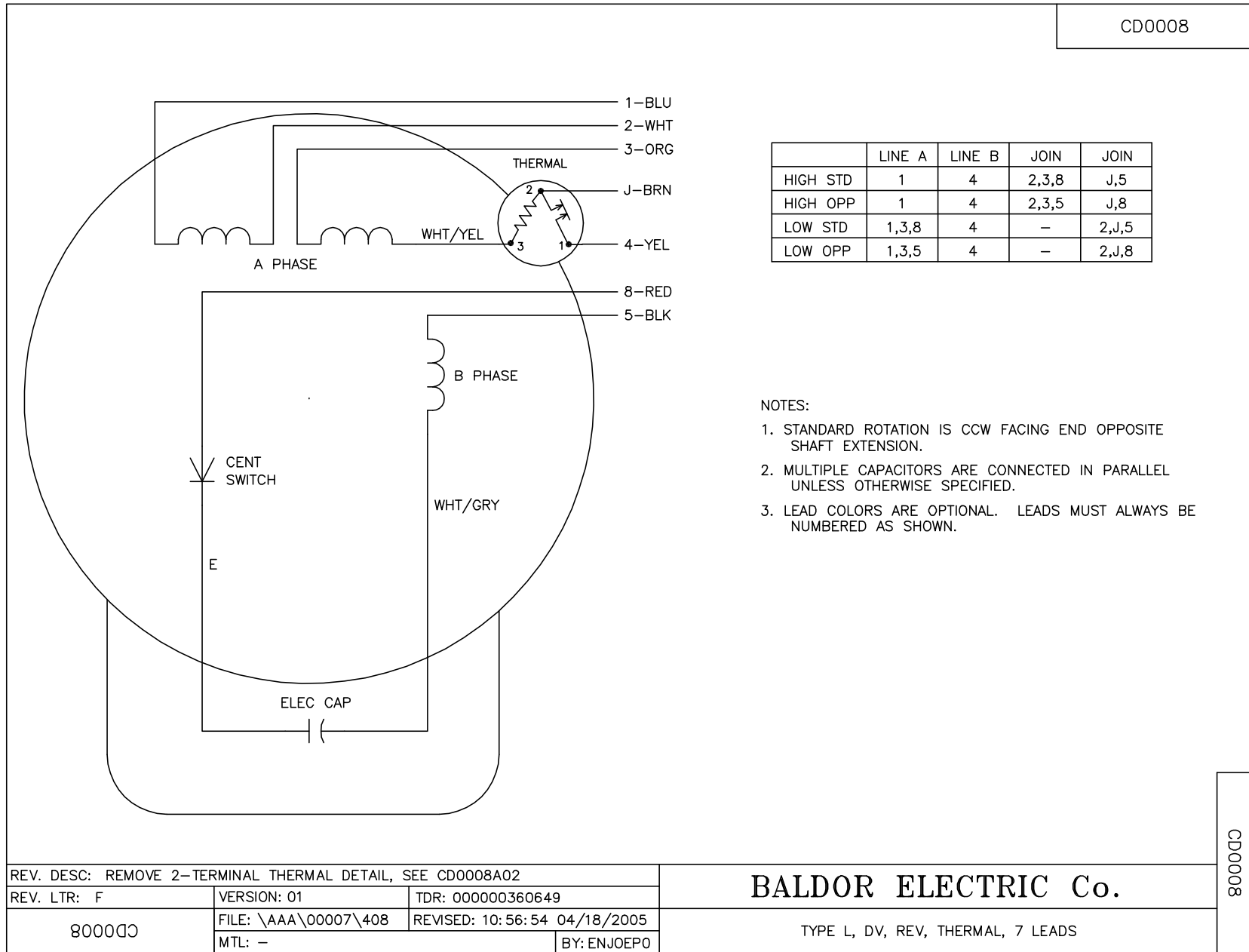
TORQUES (LB-FT): PO=3.7 PU=3.3 LR=4.5 LRA=38



4/11/2025 ACPERF, record # 8067



CD0008



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

NOTES:

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.

|  |                      |                              |
|--|----------------------|------------------------------|
| REV. DESC: REMOVE 2-TERMINAL THERMAL DETAIL, SEE CD0008A02 |                      |                              |
| REV. LTR: F  | VERSION: 01          | TDR: 000000360649            |
| 800000   | FILE: \AAA\00007\408 | REVISED: 10:56:54 04/18/2005 |
|  | MTL: -               | BY: ENJOEPO                  |

**BALDOR ELECTRIC Co.**

TYPE L, DV, REV, THERMAL, 7 LEADS

CD0008