

**BALDOR® • RELIANCE** 

**Product Information Packet**

**L3505**

**.5HP, 1140RPM, 1PH, 60HZ, 56H, 3528L, TEFC, F1**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | K      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 35WGN457   | CD Diagram: | CD0001 | Mfg Plant:    |            |
| Mech. Spec: | 35J383 | Layout:     | 35LYJ383   | Poles:      | 06     | Created Date: | 03-29-2012 |
| Base:       | RG     | Eff. Date:  | 03-06-2018 | Leads:      | 6#18   |               |            |

| Specs                           |                         |                                |                    |
|---------------------------------|-------------------------|--------------------------------|--------------------|
| Catalog Number:                 | L3505                   | Insulation Class:              | F                  |
| Enclosure:                      | TEFC                    | Inverter Code:                 | Not Inverter       |
| Frame:                          | 56H                     | KVA Code:                      | L                  |
| Frame Material:                 | Steel                   | Lifting Lugs:                  | No Lifting Lugs    |
| Output @ Frequency:             | .500 HP @ 60 HZ         | Locked Bearing Indicator:      | No Locked Bearing  |
| Synchronous Speed @ Frequency:  | 1200 RPM @ 60 HZ        | Motor Lead Quantity/Wire Size: | 6 @ 18 AWG         |
| Voltage @ Frequency:            | 230.0 V @ 60 HZ         | Motor Lead Exit:               | Ko Box             |
|                                 | 115.0 V @ 60 HZ         | Motor Lead Termination:        | Flying Leads       |
| XP Class and Group:             | None                    | Motor Type:                    | 3528L              |
| XP Division:                    | Not Applicable          | Mounting Arrangement:          | F1                 |
| Agency Approvals:               | CSA                     | Power Factor:                  | 65                 |
|                                 | UR                      | Product Family:                | General Purpose    |
| Auxillary Box:                  | No Auxillary Box        | Pulley End Bearing Type:       | Ball               |
| Auxillary Box Lead Termination: | None                    | Pulley Face Code:              | Standard           |
| Base Indicator:                 | Rigid                   | Pulley Shaft Indicator:        | Standard           |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | Rodent Screen:                 | None               |
| Blower:                         | None                    | Shaft Extension Location:      | Pulley End         |
| Current @ Voltage:              | 3.900 A @ 230.0 V       | Shaft Ground Indicator:        | No Shaft Grounding |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
|                                       | 4.500 A @ 208.0 V         | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 7.800 A @ 115.0 V         | <b>Shaft Slinger Indicator:</b>    | No Slinger          |
| <b>Design Code:</b>                   | N                         | <b>Speed Code:</b>                 | Single Speed        |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Motor Standards:</b>            | NEMA                |
| <b>Duty Rating:</b>                   | CONT                      | <b>Starting Method:</b>            | Direct on line      |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Thermal Device - Bearing:</b>   | NONE (OLD)          |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Face Code:</b>               | Standard                  | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Winding Thermal 1:</b>          | None                |
| <b>Heater Indicator:</b>              | No Heater                 | <b>Winding Thermal 2:</b>          | None                |

| Nameplate NP1256L |              |  |      |     |      |    |  |                |     |   |
|-------------------|--------------|--|------|-----|------|----|--|----------------|-----|---|
| CAT.NO.           | L3505        |  |      |     |      |    |  |                |     |   |
| SPEC.             | 35J383N457G1 |  |      |     |      |    |  |                |     |   |
| HP                | .5           |  |      |     |      |    |  |                |     |   |
| VOLTS             | 115/230      |  |      |     |      |    |  |                |     |   |
| AMP               | 7.8/3.9      |  |      |     |      |    |  |                |     |   |
| RPM               | 1140         |  |      |     |      |    |  |                |     |   |
| FRAME             | 56H          |  |      |     | HZ   | 60 |  |                | PH  | 1 |
| SER.F.            | 1.25         |  | CODE | L   | DES  | N  |  | CLASS          | F   |   |
| NEMA-NOM-EFF      | 62.5         |  | PF   | 65  |      |    |  |                |     |   |
| RATING            | 40C AMB-CONT |  |      |     |      |    |  |                |     |   |
| CC                |              |  |      |     |      |    |  | USABLE AT 208V | 4.5 |   |
| DE                | 6205         |  |      | ODE | 6203 |    |  |                |     |   |
| ENCL              | TEFC         |  | SN   |     |      |    |  |                |     |   |
|                   | SFA 9/4.5    |  |      |     |      |    |  |                |     |   |

| Parts List    |  |          |
|---------------|--|----------|
| Part Number   | Description                              | Quantity |
| SA241735      | SA 35J383N457G1                          | 1.000 EA |
| RA228654      | RA 35J383N457G1                          | 1.000 EA |
| EC1460A05SP   | ELEC CAP, 460-552 MFD, 125V, 2.06D X 3.  | 1.000 EA |
| NS2512A01     | INSULATOR, CONDUIT BOX X                 | 1.000 EA |
| 35CB3007      | 35 CB CASTING W/.88 DIA. LEAD HOLE       | 1.000 EA |
| 36GS1000SP    | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 EA |
| 51XB1016A07   | 10-16 X 7/16 HXWSSLD SERTYB              | 2.000 EA |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 2.000 EA |
| 35EP3122K00   | MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG | 1.000 EA |
| 35CB4802A02SP | CAPACITOR COVER, STAMPED X               | 1.000 EA |
| 35GS3001A02   | GASKET, CA.COVER, 5.38 LONG .06 CS301    | 1.000 EA |
| 51XB1016A05   | 10-16X5/16HX WA SL SR TYB (F/S)          | 2.000 EA |
| HW5100A03     | WAVY WASHER (W1543-017)                  | 1.000 EA |
| 35EP3123A00   | MASTER DE,205 BRG,.998SH,#26 DRN         | 1.000 EA |
| XY1032A02     | 10-32 HEX NUT DIRECTIONAL SERRATION      | 4.000 EA |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 EA |
| 35FH4005A32SP | IEC FH NO GR SR W/3 HOLES - PRIMED       | 1.000 EA |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 35CB4521GX    | CONDUIT BOX LID KIT **ORDER INDIV PARTS  | 1.000 EA |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 EA |
| HW2501D13     | KEY, 3/16 SQ X 1.375                     | 1.000 EA |
| HA7000A04     | KEY RETAINER 0.625 DIA SHAFTS            | 1.000 EA |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| WD1000A15                     | 3-520132-2 AMP FLAG (4M/RL NON-CANC/NON- | 2.000 EA        |
| MJ1000A02                     | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB        |
| 35FN3002A05SP                 | EXFN, PLASTIC, 6.376 OD, .638 ID         | 1.000 EA        |
| MG1000G27                     | MED CHARCOAL METALLIC GREY 400-0096      | 0.017 GA        |
| HA3100A18                     | THRUBOLT 10-32 X 9.250                   | 4.000 EA        |
| SP5051A24                     | MODEL 35 TORQ STATIONARY SWITCH FOR "L"  | 1.000 EA        |
| LC0001A01                     | CONN LABEL / WARNING LABEL (LC0001 / LB1 | 1.000 EA        |
| NP1256L                       | ALUM UL CSA CC INDUSTRIAL MOTOR A60      | 1.000 EA        |
| 35PA1066                      | PKG GRP, PRINT PK1008A06                 | 1.000 EA        |
| MN416A01                      | TAG-INSTAL-MAINT no wire (1200/bx) 5/18  | 1.000 EA        |
| PE-0000001                    | ZRTG PE ASSEMBLY                         | 1.000 EA        |
| FE-0000001                    | ZRTG FE ASSEMBLY                         | 1.000 EA        |

| <b>Accessories</b> |                    |                   |
|--------------------|--------------------|-------------------|
| <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 # 38799 - Typical performance - not guaranteed values

|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 35WGN457-R001 | <b>Type:</b> 3528L | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

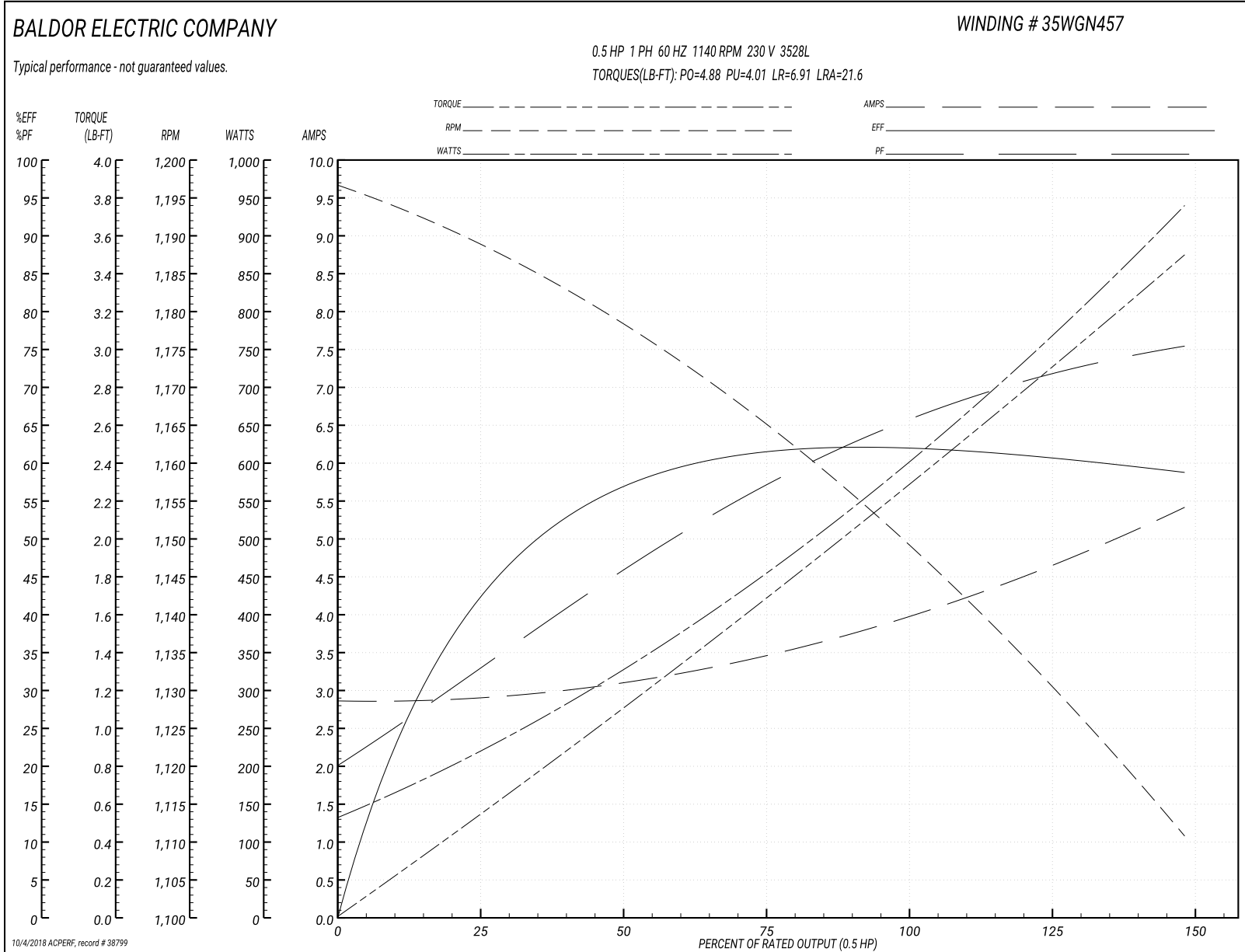
| Nameplate Data        |              |              |    | 230 V, 60 Hz:<br>High Voltage Connection |                                |
|-----------------------|--------------|--------------|----|--|--------------------------------|
| Rated Output (HP)     | .5           |              |    | Full Load Torque                         | 2.24 LB-FT                     |
| Volts                 | 115/230      |              |    | Start Configuration                      | direct on line                 |
| Full Load Amps        | 7.8/3.9      |              |    | Breakdown Torque                         | 4.88 LB-FT                     |
| R.P.M.                | 1140         |              |    | Pull-up Torque                           | 4.01 LB-FT                     |
| Hz                    | 60           | Phase        | 1  | Locked-rotor Torque                      | 6.91 LB-FT                     |
| NEMA Design Code      | N            | KVA Code     | L  | Starting Current                         | 21.6 A                         |
| Service Factor (S.F.) | 1.25         |              |    | No-load Current                          | 2.84 A                         |
| NEMA Nom. Eff.        | 62.5         | Power Factor | 65 | Line-line Res. @ 25°C                    | 4.9379 Ω A Ph<br>2.7993 Ω B Ph |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 65°C                           |
| S.F. Amps             | 9/4.5        |              |    | Temp. Rise @ S.F. Load                   | 91°C                           |

Load Characteristics 230 V, 60 Hz, 0.5 HP

| % of Rated Load | 25     | 50     | 75     | 100    | 125  | 150    | S.F. |
|-----------------|--------|--------|--------|--------|------|--------|------|
| Power Factor    | 33     | 46     | 57     | 65     | 72   | 76     | 72   |
| Efficiency      | 39.6   | 54.5   | 61.1   | 62.7   | 61.8 | 58.1   | 61.8 |
| Speed           | 1187.5 | 1177.3 | 1165.8 | 1152.4 | 1135 | 1108.2 | 1135 |
| Line amperes    | 2.9    | 3.12   | 3.44   | 3.91   | 4.54 | 5.46   | 4.54 |



Performance Graph at 230V, 60Hz, 0.5HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 44451 - Typical performance - not guaranteed values

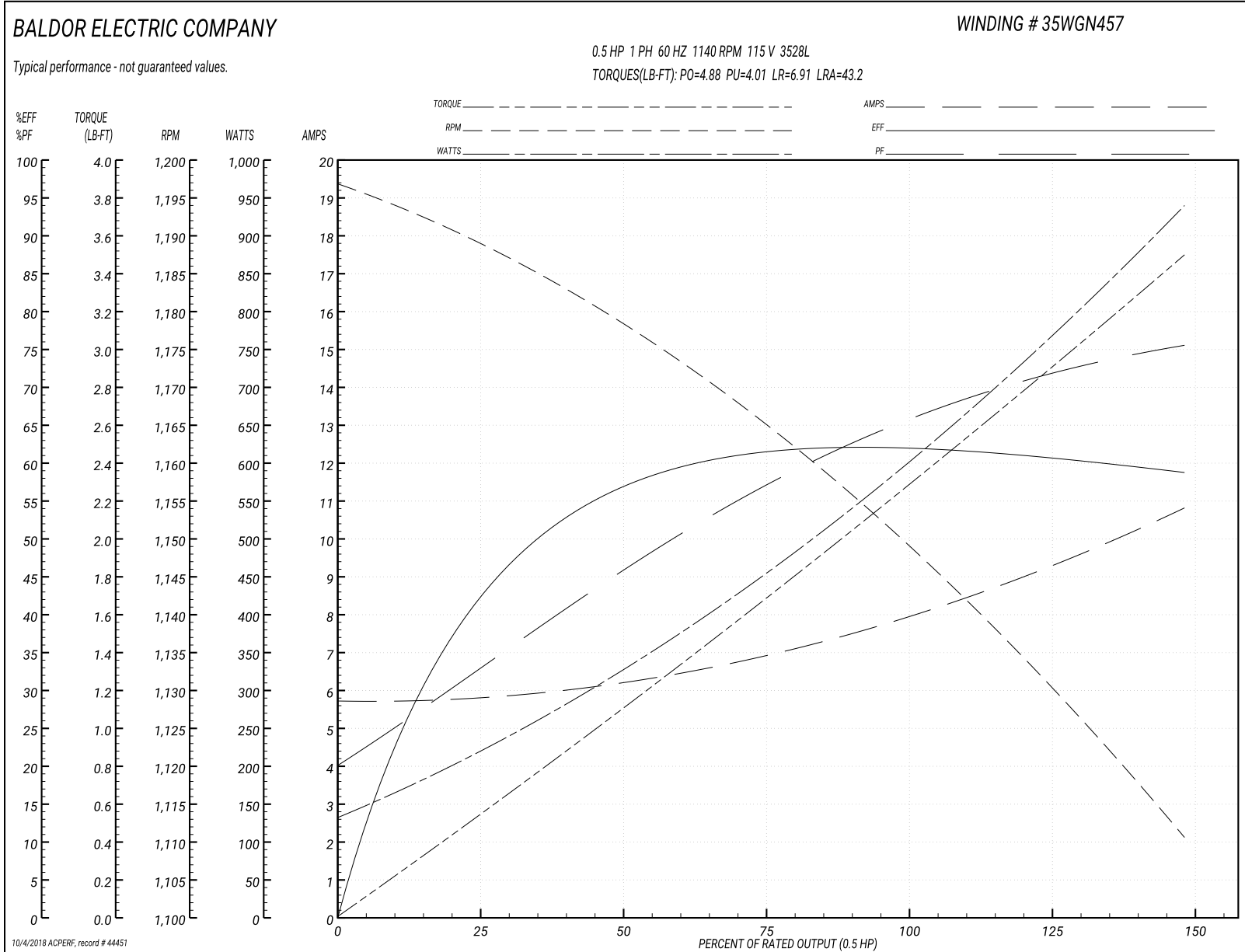
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 35WGN457-R001 | <b>Type:</b> 3528L | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

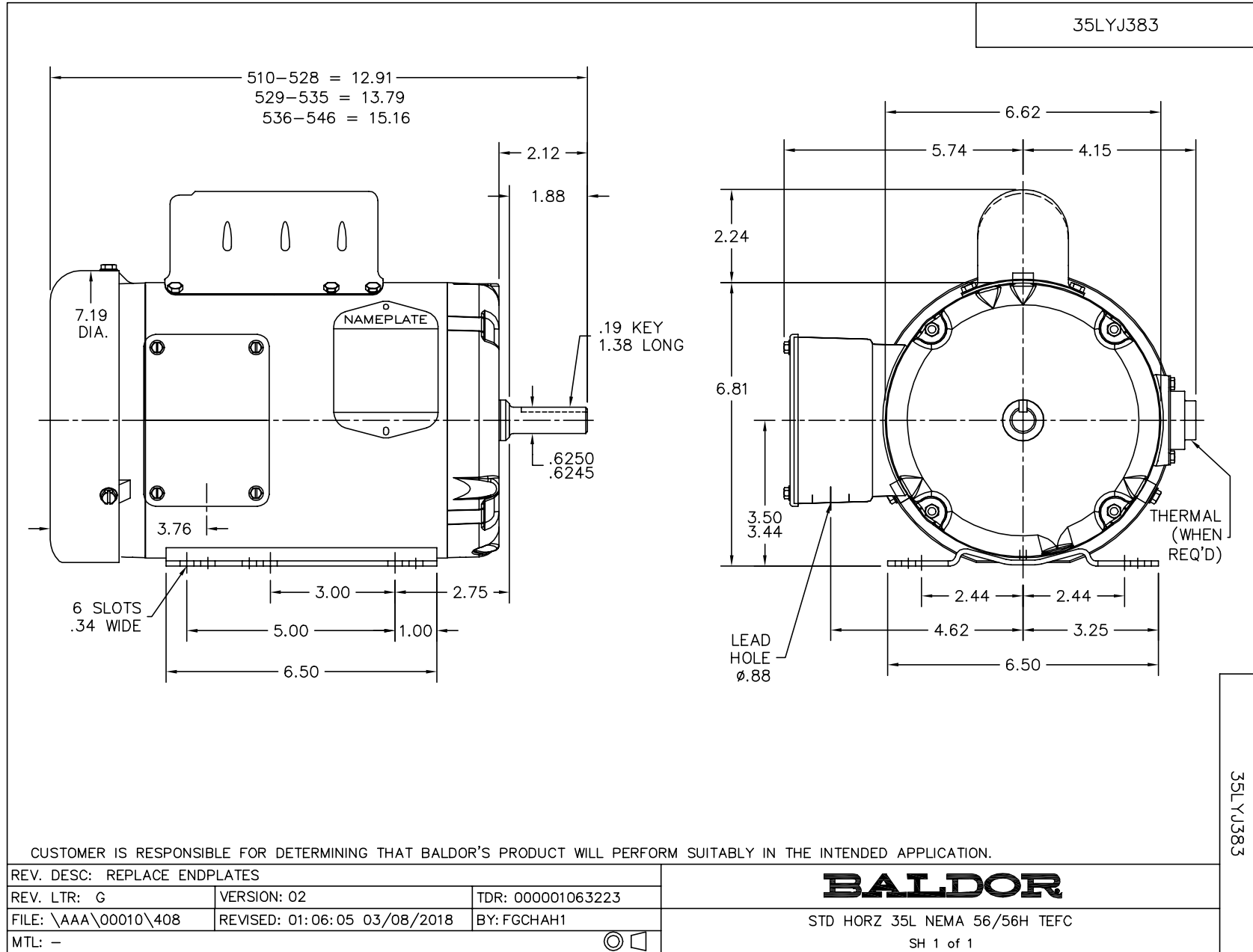
| Nameplate Data        |              |              |    | 115 V, 60 Hz:<br>Low Voltage Connection |                            |
|-----------------------|--------------|--------------|----|---|----------------------------|
| Rated Output (HP)     | .5           |              |    | Full Load Torque                        | 2.24 LB-FT                 |
| Volts                 | 115/230      |              |    | Start Configuration                     | direct on line             |
| Full Load Amps        | 7.8/3.9      |              |    | Breakdown Torque                        | 4.88 LB-FT                 |
| R.P.M.                | 1140         |              |    | Pull-up Torque                          | 4.01 LB-FT                 |
| Hz                    | 60           | Phase        | 1  | Locked-rotor Torque                     | 6.91 LB-FT                 |
| NEMA Design Code      | N            | KVA Code     | L  | Starting Current                        | 43.2 A                     |
| Service Factor (S.F.) | 1.25         |              |    | No-load Current                         | 5.68 A                     |
| NEMA Nom. Eff.        | 62.5         | Power Factor | 65 | Line-line Res. @ 25°C                   | 1.23 Ω A Ph<br>2.86 Ω B Ph |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                 | 65°C                       |
| S.F. Amps             | 9/4.5        |              |    | Temp. Rise @ S.F. Load                  | 79°C                       |
|                       |              |              |    | Rotor inertia                           | 0.166 LB-FT <sup>2</sup>   |

Load Characteristics 115 V, 60 Hz, 0.5 HP

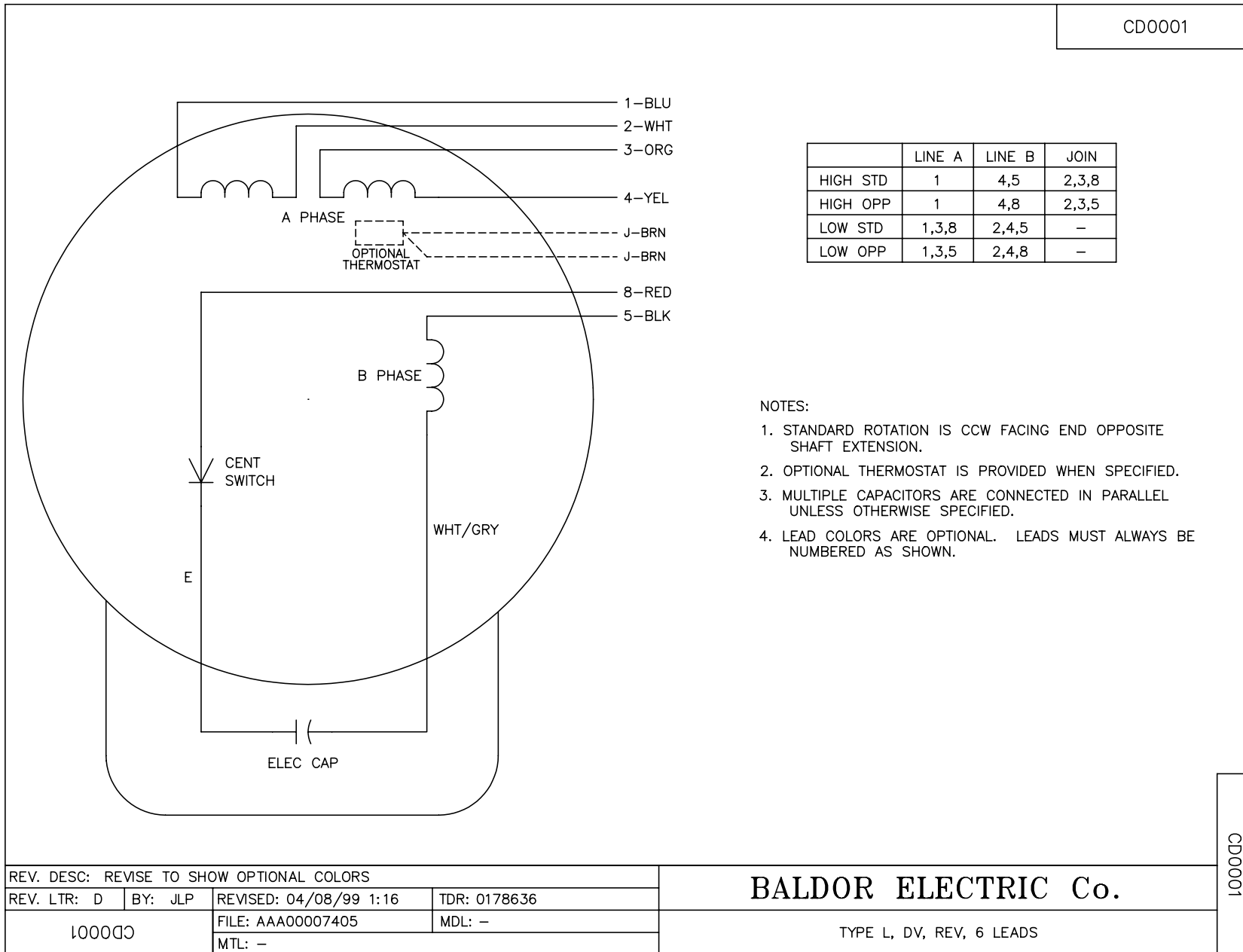
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 32   | 46   | 56   | 65   | 71   | 76   | 80   |
| Efficiency      | 39.7 | 54.6 | 60.9 | 62.8 | 61.9 | 58.2 | 82.4 |
| Speed           | 1188 | 1177 | 1166 | 1152 | 1135 | 1108 | 1442 |
| Line amperes    | 5.8  | 6.24 | 6.88 | 7.82 | 9.08 | 10.9 | 2.95 |

Performance Graph at 115V, 60Hz, 0.5HP Typical performance - Not guaranteed values





CD0001



|          | 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.

|   |         |                        |              |
|---|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: D                               | BY: JLP | REVISED: 04/08/99 1:16 | TDR: 0178636 |
| 100000                                    |         | FILE: AAA00007405      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

TYPE L, DV, REV, 6 LEADS

CD0001