

BALDOR® • RELIANCE 

Product Information Packet

FDEM3546T

1HP,1760RPM,3PH,60HZ,143T,3520M,TEFC,F1

| Part Detail | | | | | | | |
|-------------|---------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | H | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 35WGM492 | CD Diagram: | CD0005 | Mfg Plant: | |
| Mech. Spec: | 35E2354 | Layout: | 35LYE2354 | Poles: | 04 | Created Date: | 11-20-2014 |
| Base: | RG | Eff. Date: | 05-22-2018 | Leads: | 9#18 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-------------------|
| Catalog Number: | FDEM3546T | Insulation Class: | F |
| Enclosure: | TEFC | Inverter Code: | Inverter Ready |
| Frame: | 143T | KVA Code: | L |
| Frame Material: | Steel | Lifting Lugs: | No Lifting Lugs |
| Output @ Frequency: | 1.000 HP @ 60 HZ | Locked Bearing Indicator: | No Locked Bearing |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 18 AWG |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| | 230.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| XP Class and Group: | None | Motor Type: | 3520M |
| XP Division: | Not Applicable | Mounting Arrangement: | F1 |
| Agency Approvals: | UR | Power Factor: | 71 |
| | CSA EEV | Product Family: | General Purpose |
| | CSA | Pulley End Bearing Type: | Sealed Bearing |
| Auxillary Box: | No Auxillary Box | Pulley Face Code: | Standard |
| Auxillary Box Lead Termination: | None | Pulley Shaft Indicator: | Standard |
| Base Indicator: | Rigid | Rodent Screen: | None |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | RoHS Status: | ROHS COMPLIANT |
| Blower: | None | Shaft Extension Location: | Pulley End |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Current @ Voltage: | 1.500 A @ 460.0 V | Shaft Ground Indicator: | No Shaft Grounding |
| | 3.000 A @ 230.0 V | Shaft Rotation: | Reversible |
| | 3.100 A @ 208.0 V | Shaft Slinger Indicator: | Shaft Slinger |
| Design Code: | B | Speed Code: | Single Speed |
| Drip Cover: | No Drip Cover | Motor Standards: | NEMA |
| Duty Rating: | CONT | Starting Method: | Direct on line |
| Electrically Isolated Bearing: | Not Electrically Isolated | Thermal Device - Bearing: | None |
| Feedback Device: | NO FEEDBACK | Thermal Device - Winding: | None |
| Front Face Code: | Standard | Vibration Sensor Indicator: | No Vibration Sensor |
| Front Shaft Indicator: | None | Winding Thermal 1: | None |
| Heater Indicator: | No Heater | Winding Thermal 2: | None |

| Nameplate NP3126L | | | | | | | | | | | | | |
|-------------------|---------------|--|--|--|--|------|------|--|-----|----------------|-----|----|---|
| CAT.NO. | FDEM3546T | | | | | | | | | | | | |
| SPEC. | 35E2354M492G1 | | | | | | | | | | | | |
| HP | 1 | | | | | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | | | | | |
| AMP | 3/1.5 | | | | | | | | | | | | |
| RPM | 1760 | | | | | | | | | | | | |
| FRAME | 143T | | | | | HZ | 60 | | | PH | 3 | | |
| SER.F. | 1.15 | | | | | CODE | L | | DES | B | | CL | F |
| NEMA-NOM-EFF | 85.5 | | | | | PF | 71 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | | | | | |
| CC | 010A | | | | | | | | | USABLE AT 208V | 3.1 | | |
| DE | 6205 | | | | | ODE | 6203 | | | | | | |
| ENCL | TEFC | | | | | SN | | | | | | | |
| | | | | | | | | | | | | | |

| Parts List | | |
|---------------|--|----------|
| Part Number | Description | Quantity |
| SA290171 | SA 35E2354M492G1 | 1.000 EA |
| RA276333 | RA 35E2354M492G1 | 1.000 EA |
| 34FN3002B01 | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/ | 1.000 EA |
| NS2512A01 | INSULATOR, CONDUIT BOX X | 1.000 EA |
| 35CB3009 | 35 CB W/1.09 DIA. LEAD HOLE @ 6: | 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 |
| 35EP3122K00 | MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG | 1.000 EA |
| HW5100A03 | WAVY WASHER (W1543-017) | 1.000 EA |
| 35EP3123G00 | MASTER DE,205 BRG,1.623SH,#26 DRN | 1.000 EA |
| HW4600B49 | SEAL 0.938 X 1.624 X 0.250 SINGLE LIP DB | 1.000 EA |
| HW4600B32SP | V-RING SLINGER 1.000 X 1.540 X .24 VITON | 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 GRSR 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 |
| HA7000A01 | KEY RETAINER 7/8" DIA SHAFT | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| MJ5001A27 | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL | 0.001 QT |
| MJ1000A02 | GREASE, POLYREX EM EXXON (USe 4824-15A) | 0.050 LB |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| MG1025C02 | WILKOFAST SG, 787.105, TAN | 0.017 GA |
| HA3100A15 | THRUBOLT 10-32 X 8.375 | 4.000 EA |
| LC0005E01 | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 5/18 | 1.000 EA |
| NP3126L | ALUM FARM DUTY SUPER-E UL CSA-EEV PREM | 1.000 EA |
| 36PA1000 | PKG GRP, PRINT PK1016A06 | 1.000 EA |
| PE-0000002 | ZRTG PE ASSEMBLY | 1.000 EA |
| FE-0000001 | ZRTG FE ASSEMBLY | 1.000 EA |

AC Induction Motor Performance Data

Record # 53095 - Typical performance - not guaranteed values

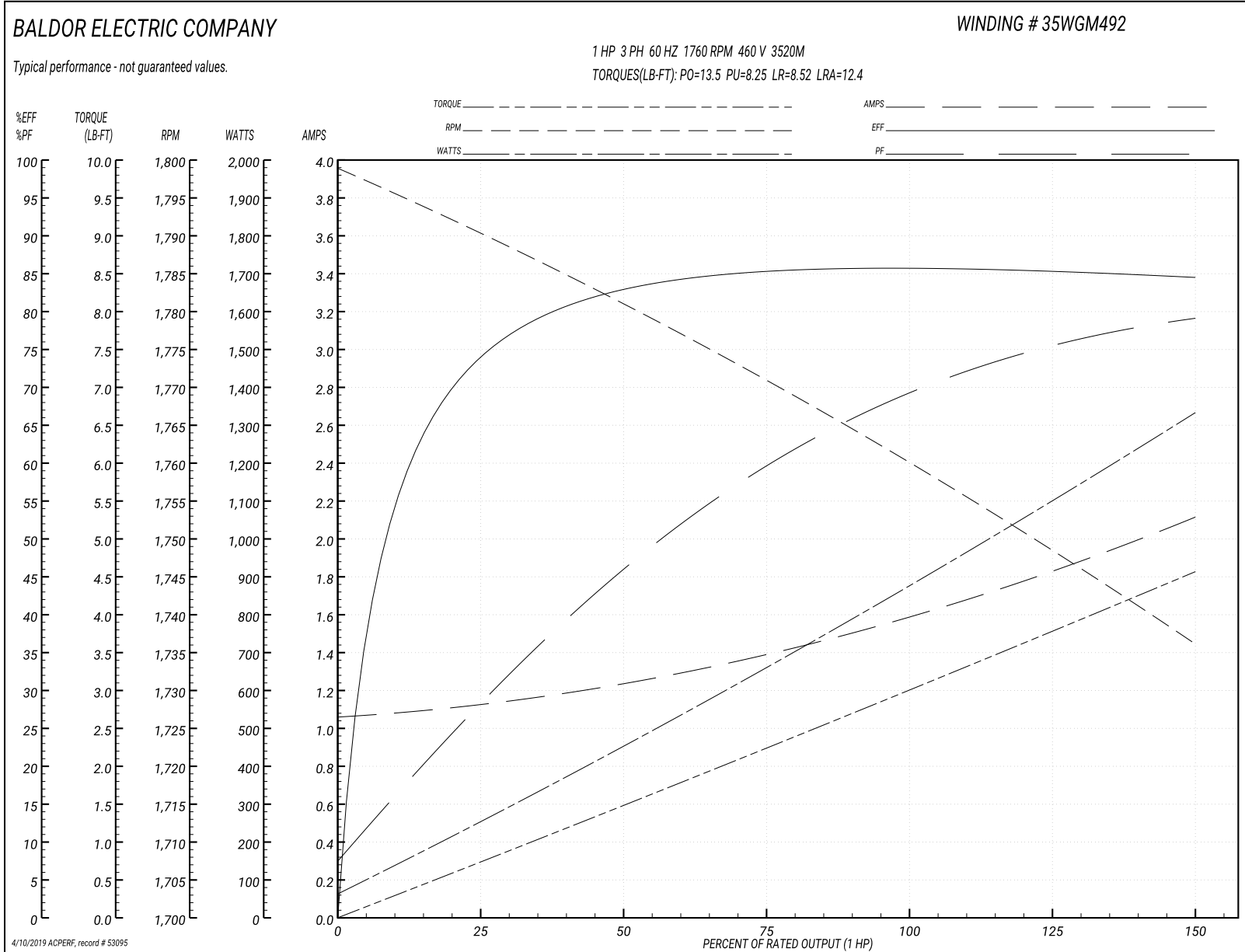
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 35WGM492-R050 | Type: 3520M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|--------------------------|
| Rated Output (HP) | 1 | | | Full Load Torque | 2.99 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 3/1.5 | | | Breakdown Torque | 13.5 LB-FT |
| R.P.M. | 1760 | | | Pull-up Torque | 8.25 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 8.52 LB-FT |
| NEMA Design Code | B | KVA Code | L | Starting Current | 12.4 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 1.07 A |
| NEMA Nom. Eff. | 85.5 | Power Factor | 71 | Line-line Res. @ 25°C | 15 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 36°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 42°C |
| | | | | Locked-rotor Power Factor | 53.8 |
| | | | | Rotor inertia | 0.118 LB-FT ² |

Load Characteristics 460 V, 60 Hz, 1 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 29 | 46 | 60 | 69 | 75 | 79 | 75 |
| Efficiency | 74.2 | 82.9 | 85.4 | 85.8 | 85.4 | 84.5 | 85.4 |
| Speed | 1790 | 1781 | 1771 | 1760 | 1749 | 1736 | 1754 |
| Line amperes | 1.11 | 1.24 | 1.39 | 1.59 | 1.83 | 2.11 | 1.69 |

Performance Graph at 460V, 60Hz, 1.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 57707 - Typical performance - not guaranteed values

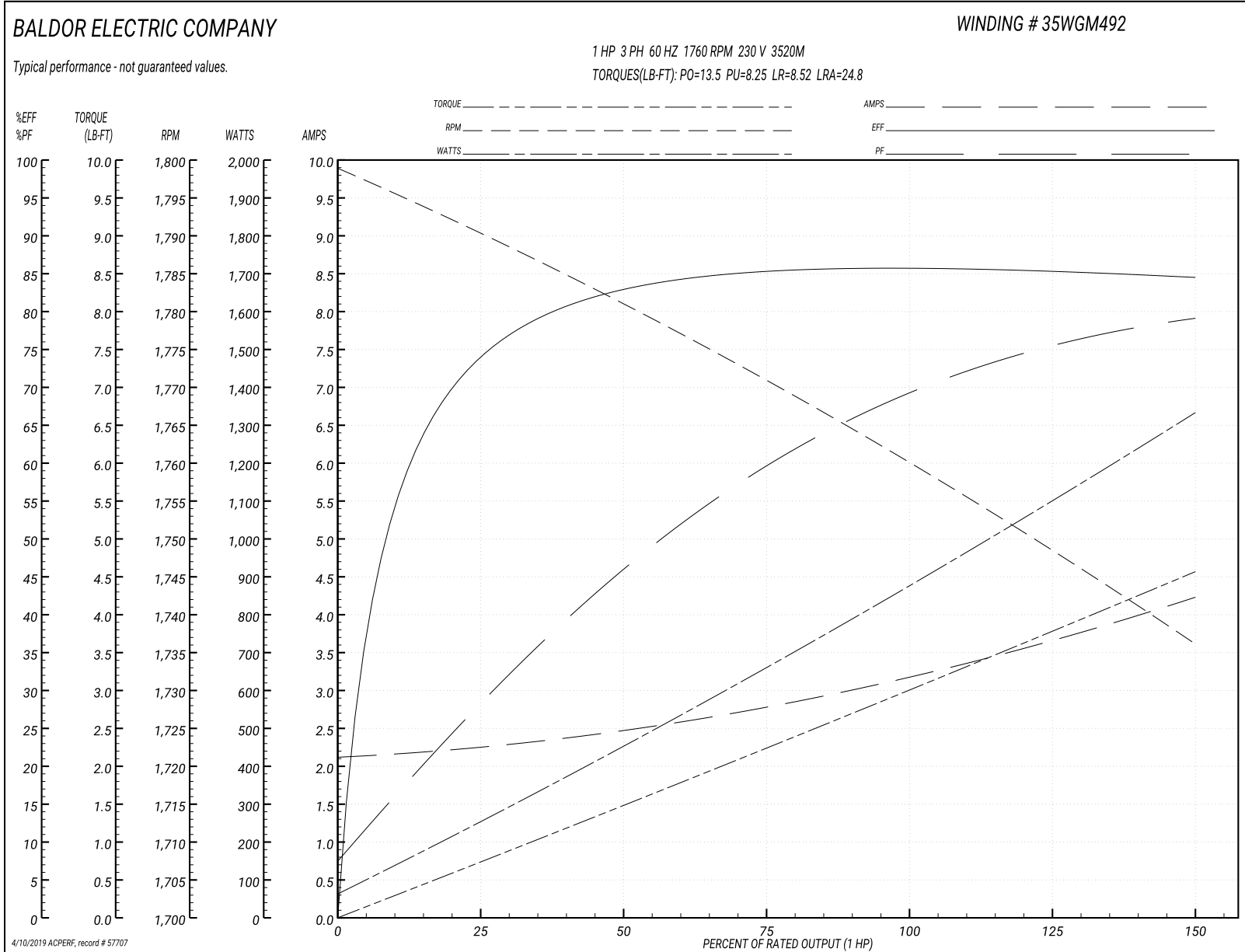
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|-------------------------------|--------------------|------------------------|
| Winding: 35WGM492-R050 | Type: 3520M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

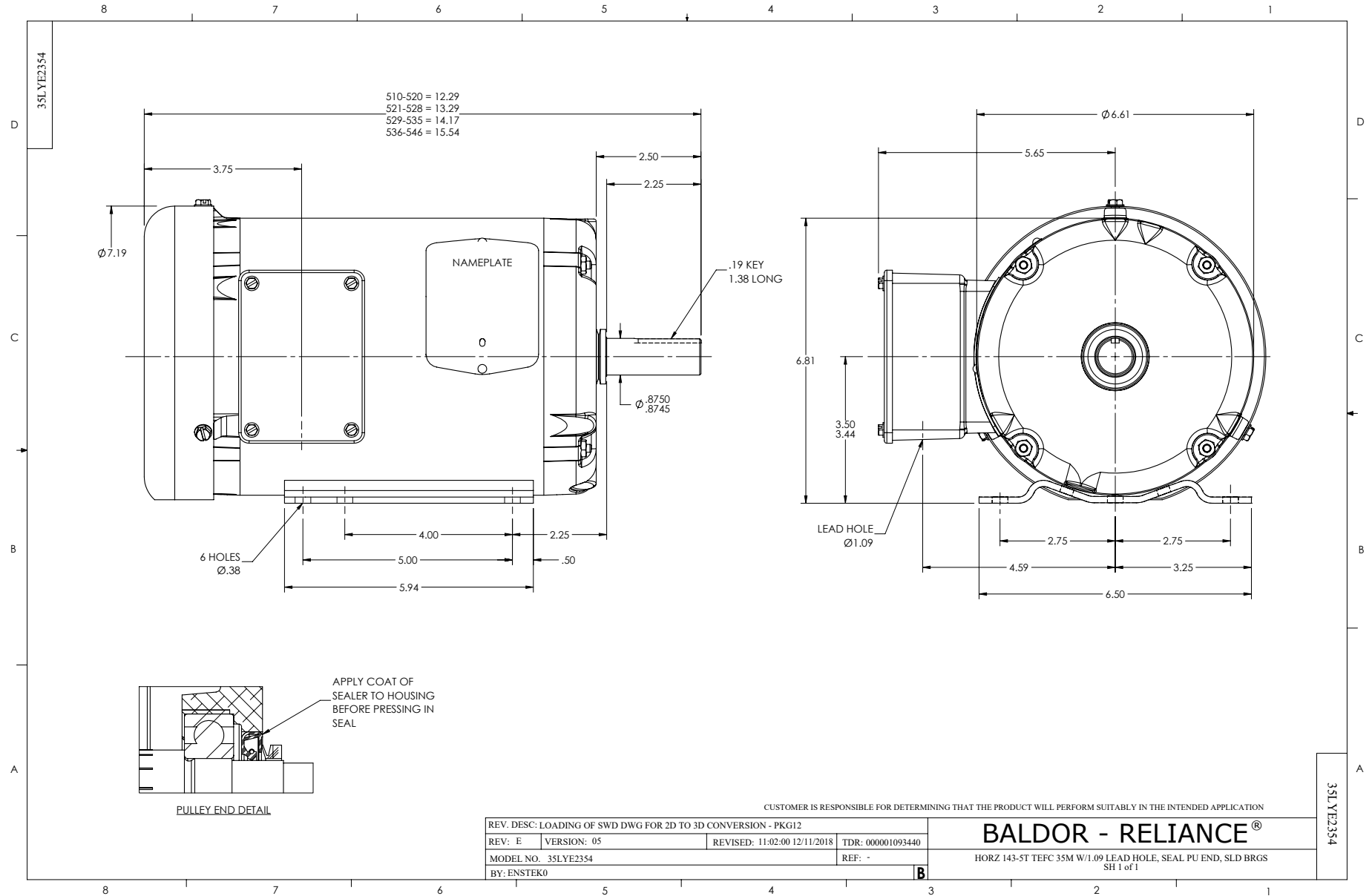
| Nameplate Data | | | | 230 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|--------------------------|
| Rated Output (HP) | 1 | | | Full Load Torque | 2.99 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 3/1.5 | | | Breakdown Torque | 13.5 LB-FT |
| R.P.M. | 1760 | | | Pull-up Torque | 8.25 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 8.52 LB-FT |
| NEMA Design Code | B | KVA Code | L | Starting Current | 24.8 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 2.14 A |
| NEMA Nom. Eff. | 85.5 | Power Factor | 71 | Line-line Res. @ 25°C | 3.75 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 36°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 42°C |
| | | | | Locked-rotor Power Factor | 53.8 |
| | | | | Rotor inertia | 0.118 LB-FT ² |

Load Characteristics 230 V, 60 Hz, 1 HP

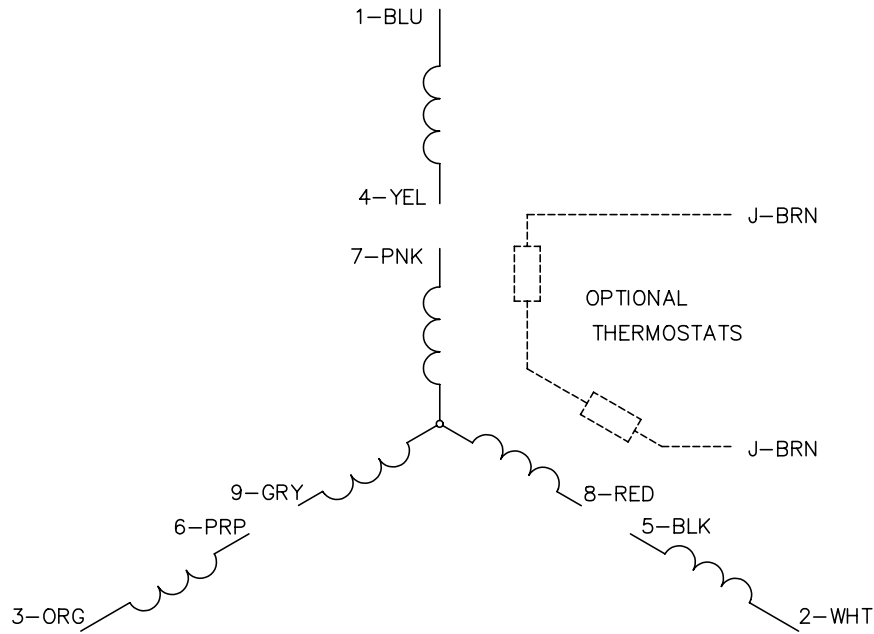
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 29 | 46 | 60 | 69 | 75 | 79 | 74 |
| Efficiency | 74.2 | 82.9 | 85.4 | 85.8 | 85.4 | 84.5 | 85.6 |
| Speed | 1790 | 1781 | 1771 | 1760 | 1749 | 1736 | 1754 |
| Line amperes | 2.22 | 2.48 | 2.78 | 3.18 | 3.66 | 4.22 | 1.69 |

Performance Graph at 230V, 60Hz, 1.0HP Typical performance - Not guaranteed values

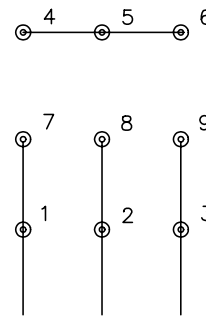




CD0005

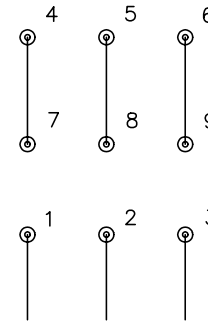


LOW VOLTAGE
(2Y)



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: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000 | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005