

BALDOR® • RELIANCE

Product Information Packet

VEM3116T

1HP,1760RPM,3PH,60HZ,143TC,3519M,ODP,F1

| Part Detail | | | | | | | |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision: | F | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Prod. Type: | 3520M | Elec. Spec: | 35WGM492 | CD Diagram: | CD0005 |
| Enclosure: | ODP | Mfg Plant: | | Mech. Spec: | 35Z413 | Layout: | 35LYZ413 |
| Frame: | 143TC | Mounting: | F1 | Poles: | 04 | Created Date: | 04-24-2015 |
| Base: | N | Rotation: | R | Insulation: | F | Eff. Date: | 11-09-2016 |
| Leads: | 9#18 | | | | | Replaced By: | |
| Literature: | | Elec. Diagram: | | | | | |

| | | | | | | | | | | | |
|----------------------------|--------------|--|--|-------------|----|------------|-----------------------|---|-----------|-----------|---|
| Nameplate NP3553L | | | | | | | | | | | |
| CAT.NO. | VEM3116T | | | | | | | | | | |
| SPEC. | 35Z413M492G1 | | | | | | | | | | |
| HP | 1 | | | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | | | |
| AMP | 3/1.5 | | | | | | | | | | |
| RPM | 1760 | | | | | | | | | | |
| FRAME | 143TC | | | 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 | ODP | | | SN | | | | | | | |
| VPWM INVERTER READY | | | | | | | | | | | |
| CT30-60(2:1) VT3-60(20:1) | | | | | | | | | | | |
| | | | | | | | | | | | |

| Parts List | | |
|-------------|--|----------|
| Part Number | Description | Quantity |
| SA299826 | SA 35Z413M492G1 | 1.000 EA |
| RA286859 | RA 35Z413M492G1 | 1.000 EA |
| NS2512A01 | INSULATOR, CONDUIT BOX X | 1.000 EA |
| 35CB3009 | 35 CB W/1.09 DIA. LEAD HOLE @ 6: | 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 |
| 35EP3201A85 | 35 FREP W/DRIP COVER & GREASER | 1.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| HW5100A03SP | WAVY WASHER (W1543-017) | 1.000 EA |
| 35EP3400A14 | SPL FACE MTD END PLATE - OPEN-143-5TC-05 | 1.000 EA |
| 35AD2000 | AIR BAFFLE | 1.000 EA |
| 60XW0632A06 | 6-32 X 3/8 TORX HEAD SCREW TAPTITE II | 4.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| 51XN1032A20 | 10-32 X 1 1/4 HX WS SL SR | 2.000 EA |
| 35FH4006A09 | DRIP COVER W/FLAT, W/ PRIMER | 1.000 EA |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 2.000 EA |
| 35CB4521 | 35 LIPPED CB LID (GALV & PHOSPH) | 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 |
| MJ1000A02 | GREASE, POLYREX EM EXXON (USe 4824-15A) | 0.050 LB |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.017 GA |
| HA3100A12 | THRUBOLT 10-32 X 7.375 | 4.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| LC0005E01 | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| NP3553L | ALUM SUPER-E VPWM INVERTER READY UL | 1.000 EA |
| 35PA1066 | PKG GRP, PRINT PK1008A06 | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA |

AC Induction Motor Performance Data

Record # 53095 - Typical performance - not guaranteed values

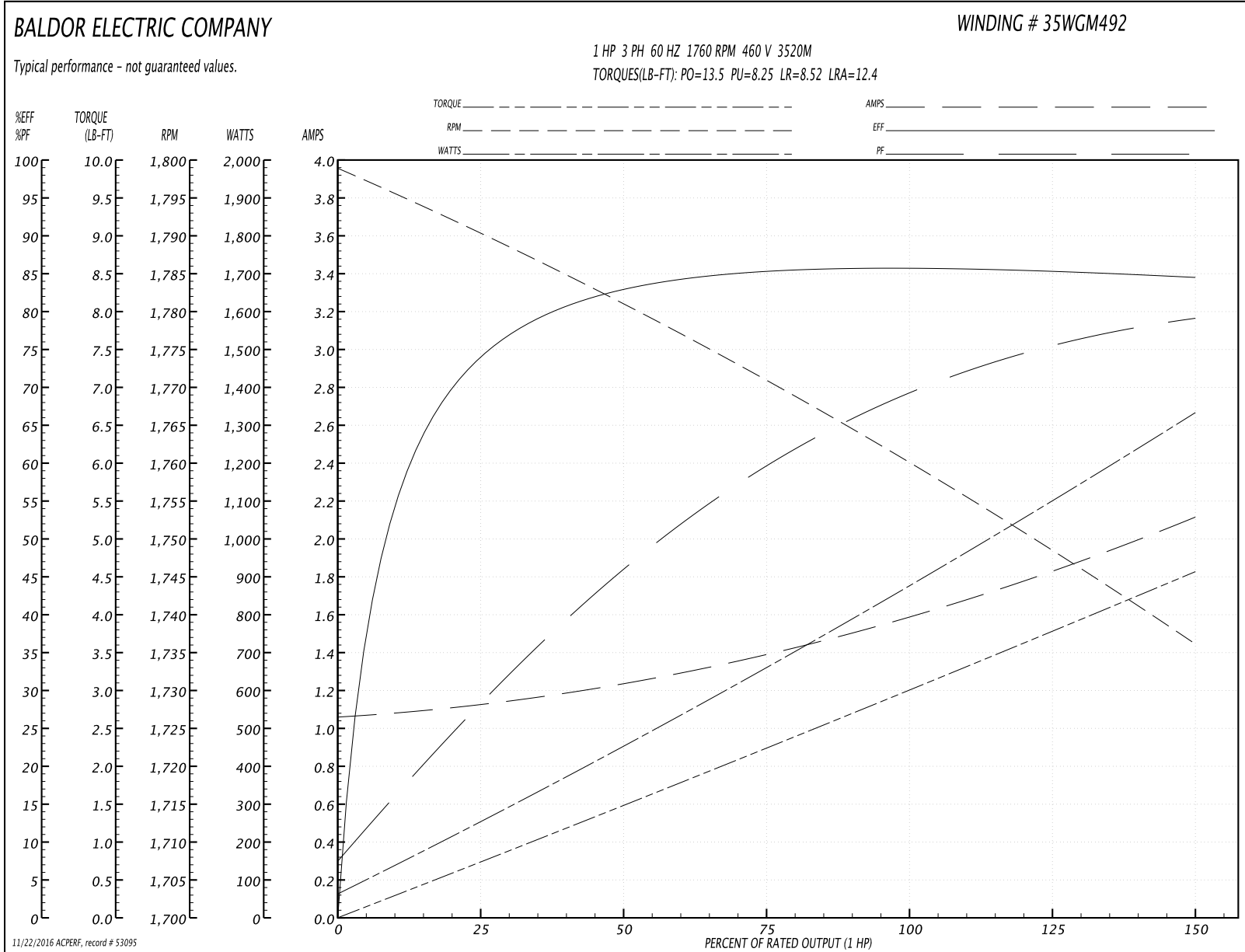
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 35WGM492-R050 | Type: 3520M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| 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

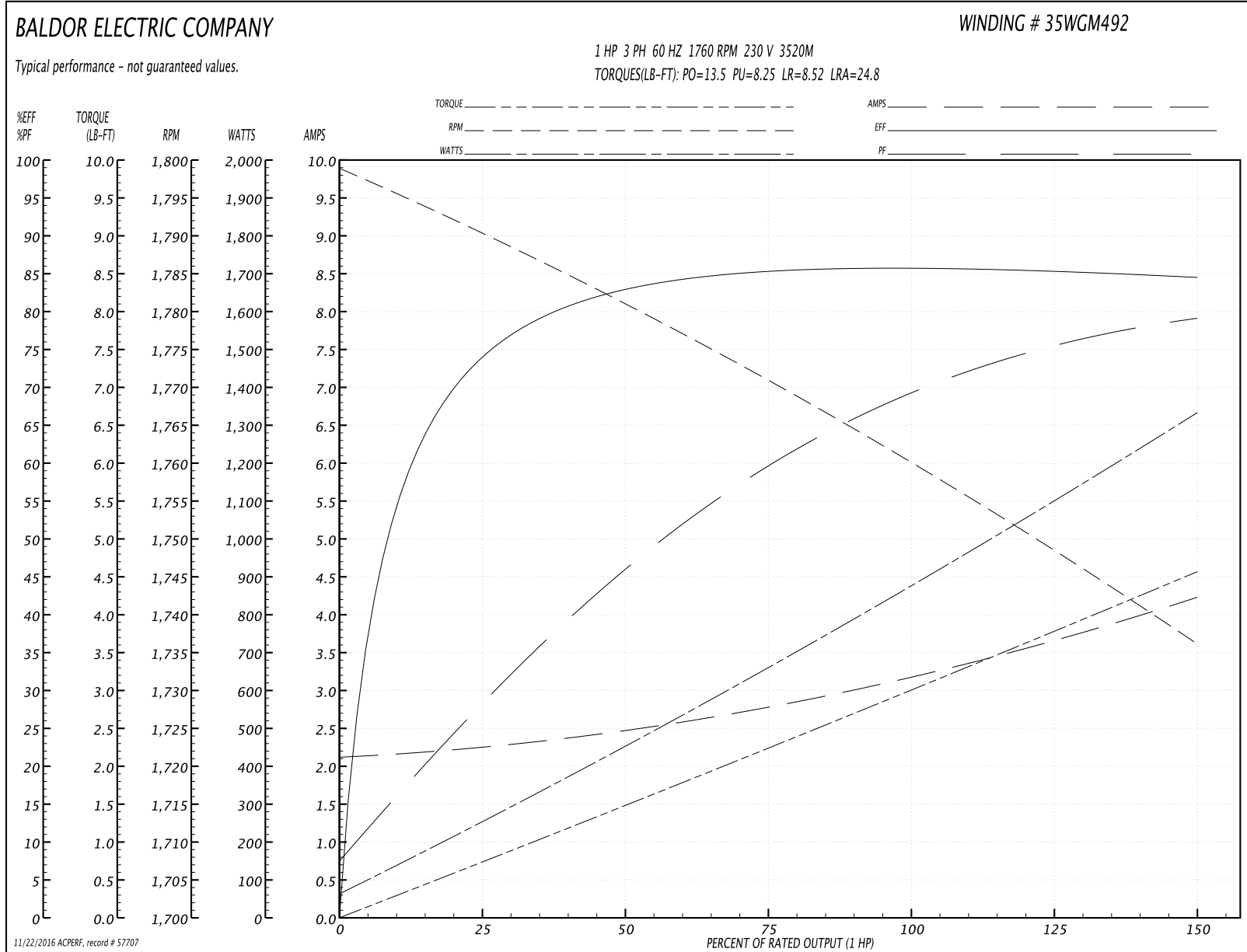
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 35WGM492-R050 | Type: 3520M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

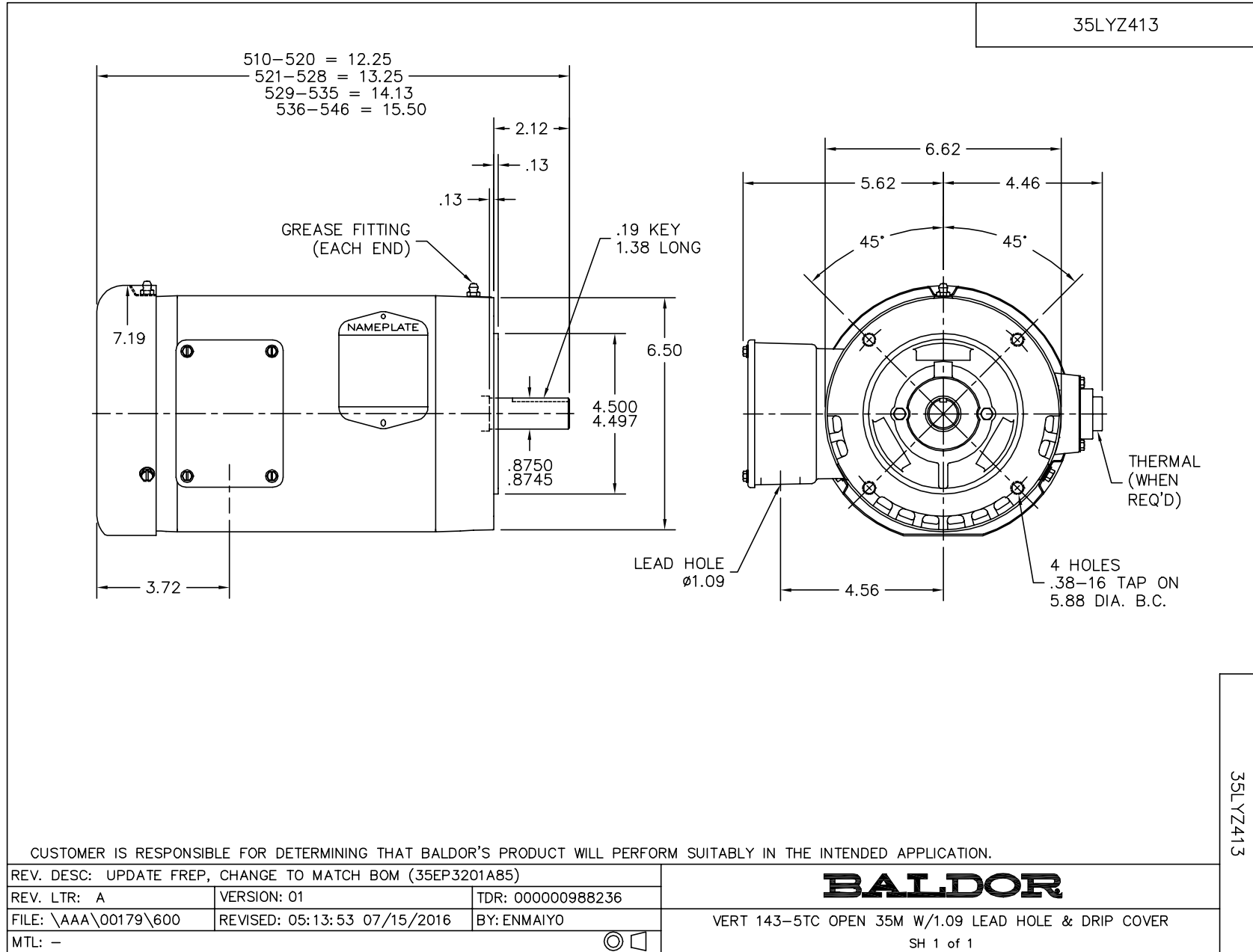
| Nameplate Data | | | | 230 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|--------------------------|
| Rated Output (HP) | 1 | | | Full Load Torque | 2.99 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 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

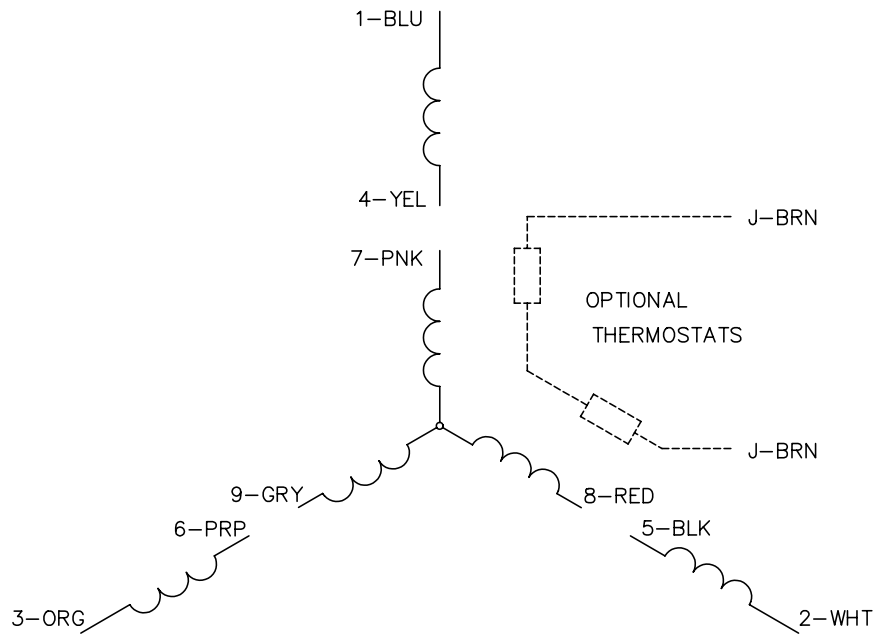
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 29 | 46 | 60 | 69 | 75 | 79 | 74 |
| Efficiency | 74.2 | 82.9 | 85.4 | 85.8 | 85.4 | 84.5 | 85.6 |
| Speed | 1790 | 1781 | 1771 | 1760 | 1749 | 1736 | 1754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

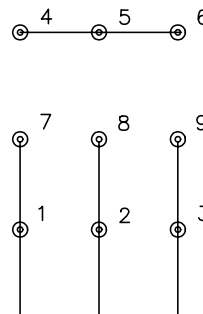




CD0005

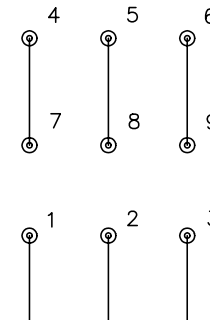


LOW VOLTAGE
(2Y)



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 |
| 9000D | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005