

BALDOR® • RELIANCE 

Product Information Packet

EM3558

2HP, 1755RPM, 3PH, 60HZ, 56, 3528M, TEFC, F1, N

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | L | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 35WGN909 | CD Diagram: | CD0005 | Mfg Plant: | |
| Mech. Spec: | 35A011 | Layout: | 35LYA011 | Poles: | 04 | Created Date: | 06-19-2013 |
| Base: | RG | Eff. Date: | 03-06-2018 | Leads: | 9#18 | | Y |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-------------------|
| Catalog Number: | EM3558 | Heater Indicator: | No Heater |
| Enclosure: | TEFC | Insulation Class: | F |
| Frame: | 56 | Inverter Code: | Inverter Ready |
| Frame Material: | Steel | KVA Code: | L |
| Output @ Frequency: | 2.000 HP @ 60 HZ | Lifting Lugs: | No Lifting Lugs |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Locked Bearing Indicator: | No Locked Bearing |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 18 AWG |
| | 230.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| XP Class and Group: | None | Motor Lead Termination: | Flying Leads |
| XP Division: | Not Applicable | Motor Type: | 3528M |
| Agency Approvals: | UR | Mounting Arrangement: | F1 |
| | CSA EEV | Power Factor: | 75 |
| | CSA | 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: | 2.900 A @ 460.0 V | Shaft Ground Indicator: | No Shaft Grounding |
| | 5.800 A @ 230.0 V | Shaft Rotation: | Reversible |
| | 6.600 A @ 208.0 V | Shaft Slinger Indicator: | No 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 |
| | | Winding Thermal 2: | None |

| | | | | | | | | | |
|-----------------------------------|----------------------------|--|-------------|-----------|----|-----------------------|-----|--------------|-------|
| Nameplate NP3441LUA | | | | | | | | | |
| CAT.NO. | EM3558 | | | | | | | | |
| SPEC | 35A011N909G1 | | | | | | | | |
| HP | 2 | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | |
| AMPS | 5.8/2.9 | | | | | | | | |
| RPM | 1755 | | | | | | | | |
| FRAME | 56 | | | HZ | 60 | | | PH | 3 |
| SF | 1.15 | | CODE | L | | DES | B | CLASS | F |
| NEMA NOM. EFF | 86.5 | | PF | 75 | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | |
| CC | 010A | | | | | USABLE AT 208V | 6.6 | | |
| ENCL | TEFC | | SER | | | | | | |
| DE | 6205 | | ODE | 6203 | | | | | |
| VPWM INVERTER READY | | | | | | | | | |
| CT6-60H(10:1)VT3-60H(20:1) | | | | | | | | | |
| | 50Hz 2HP 190/380V 6.6/3.3A | | | | | | | | SF1.0 |

| Parts List | | |
|---------------|--|----------|
| Part Number | Description | Quantity |
| SA264999 | SA 35A011N909G1 | 1.000 EA |
| RA251704 | RA 35A011N909G1 | 1.000 EA |
| 34FN3002B01 | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/ | 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 |
| 35EP3122K00 | MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG | 1.000 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 |
| MJ1000A02 | GREASE, POLYREX EM EXXON (USe 4824-15A) | 0.050 LB |
| HA3100A18 | THRUBOLT 10-32 X 9.250 | 4.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.017 GA |
| LC0005E01 | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| NP3441LUA | ALUM SUPER-E VPWM INV READY UL CSA-EEV C | 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 |

| Accessories | | |
|--------------------|--------------------|-------------------|
| Part Number | Description | Multiplier |
| 35-8762 | C FACE KIT | A8 |
| 35EP1506A01SP | D-FLANGE KIT | A8 |

AC Induction Motor Performance Data

Record # 53344 - Typical performance - not guaranteed values

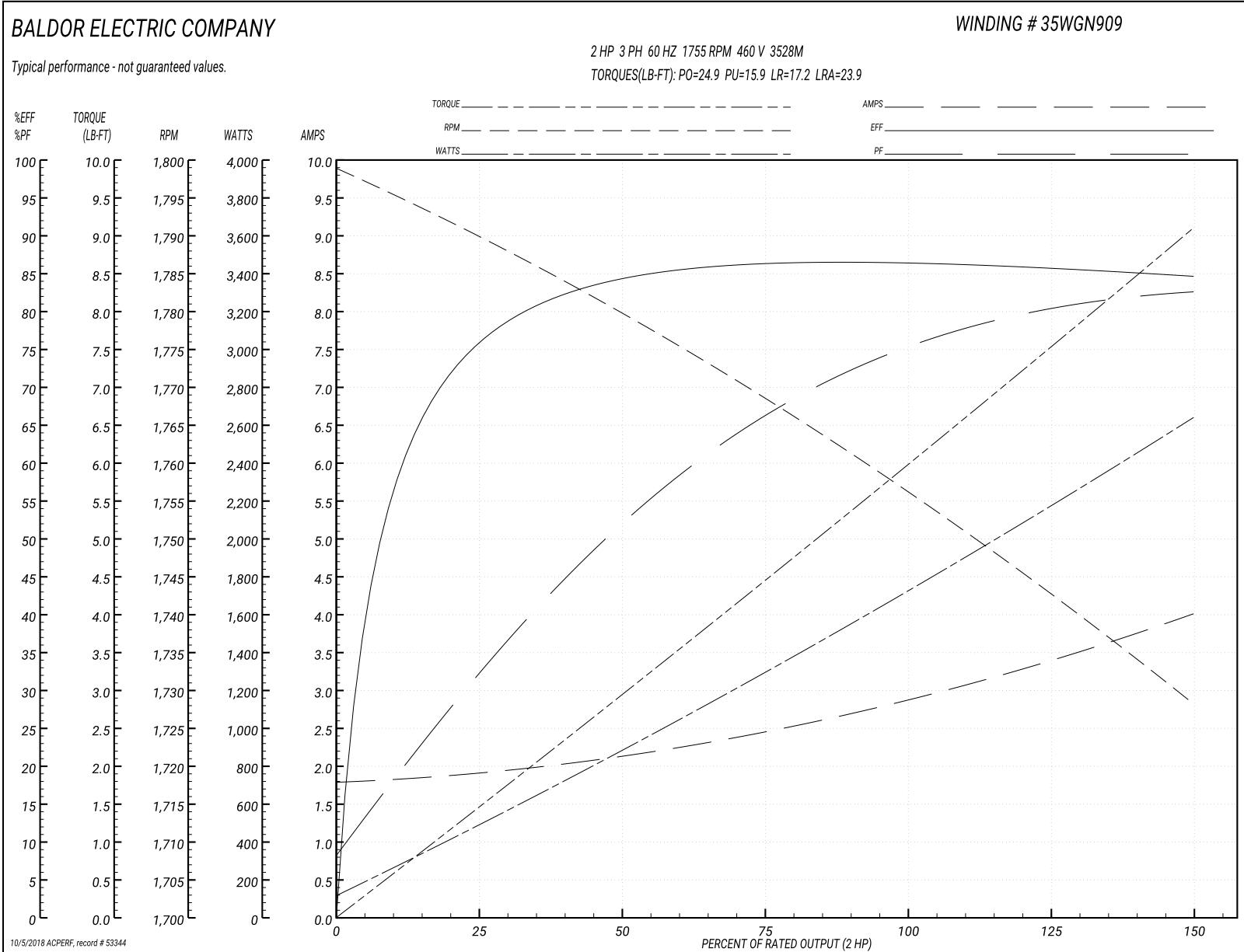
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 35WGN909-R032 | Type: 3528M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|--------------------------|
| Rated Output (HP) | 2 | | | Full Load Torque | 5.99 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 5.8/2.9 | | | Breakdown Torque | 24.9 LB-FT |
| R.P.M. | 1755 | | | Pull-up Torque | 15.9 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 17.2 LB-FT |
| NEMA Design Code | B | KVA Code | L | Starting Current | 23.9 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 1.81 A |
| NEMA Nom. Eff. | 86.5 | Power Factor | 75 | Line-line Res. @ 25°C | 8.02 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 65°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 77°C |
| | | | | Locked-rotor Power Factor | 52.4 |
| | | | | Rotor inertia | 0.165 LB-FT ² |

Load Characteristics 460 V, 60 Hz, 2 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 33 | 53 | 66 | 74 | 80 | 83 | 78 |
| Efficiency | 75.5 | 84 | 86.3 | 86.5 | 85.8 | 84.5 | 86.2 |
| Speed | 1790 | 1779 | 1769 | 1756 | 1743 | 1728 | 1748 |
| Line amperes | 1.89 | 2.11 | 2.46 | 2.91 | 3.4 | 4 | 3.2 |

Performance Graph at 460V, 60Hz, 2.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 57956 - Typical performance - not guaranteed values

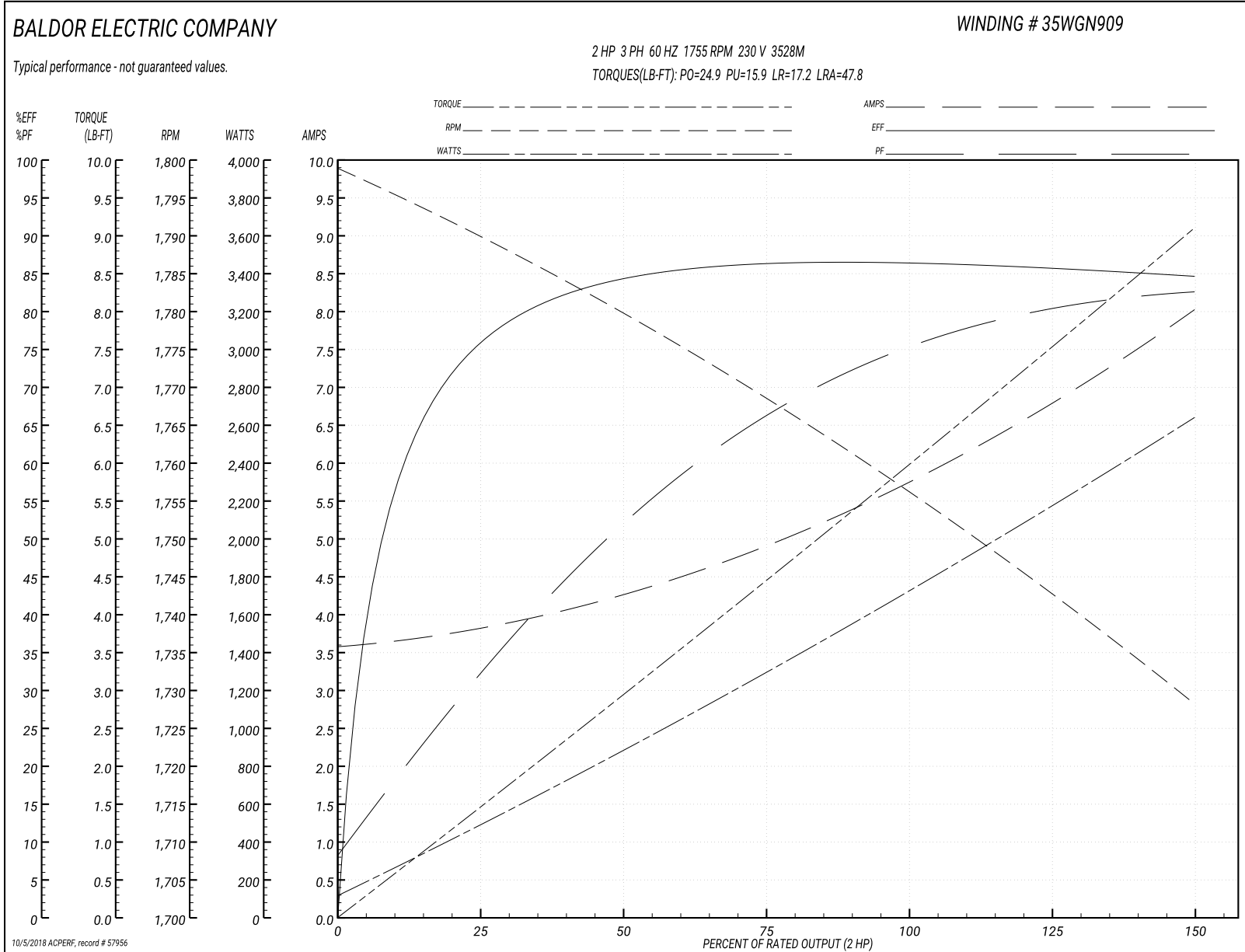
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 35WGN909-R032 | Type: 3528M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

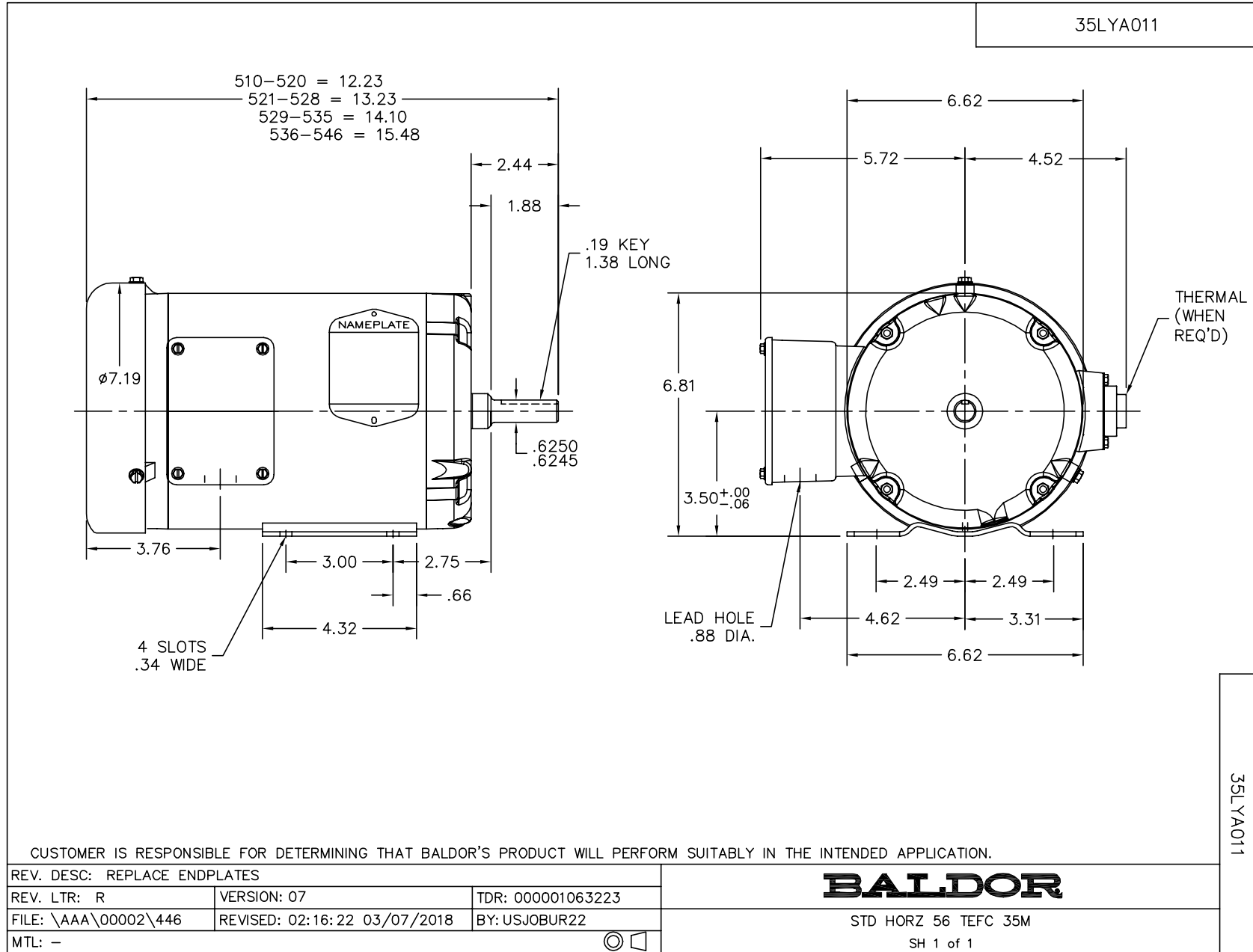
| Nameplate Data | | | | 230 V, 60 Hz: Low Voltage Connection | |
|-----------------------|--------------|--------------|----|---|--------------------------|
| Rated Output (HP) | 2 | | | Full Load Torque | 5.99 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 5.8/2.9 | | | Breakdown Torque | 24.9 LB-FT |
| R.P.M. | 1755 | | | Pull-up Torque | 15.9 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 17.2 LB-FT |
| NEMA Design Code | B | KVA Code | L | Starting Current | 47.8 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 3.62 A |
| NEMA Nom. Eff. | 86.5 | Power Factor | 75 | Line-line Res. @ 25°C | 2 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 65°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 77°C |
| | | | | Locked-rotor Power Factor | 52.4 |
| | | | | Rotor inertia | 0.165 LB-FT ² |

Load Characteristics 230 V, 60 Hz, 2 HP

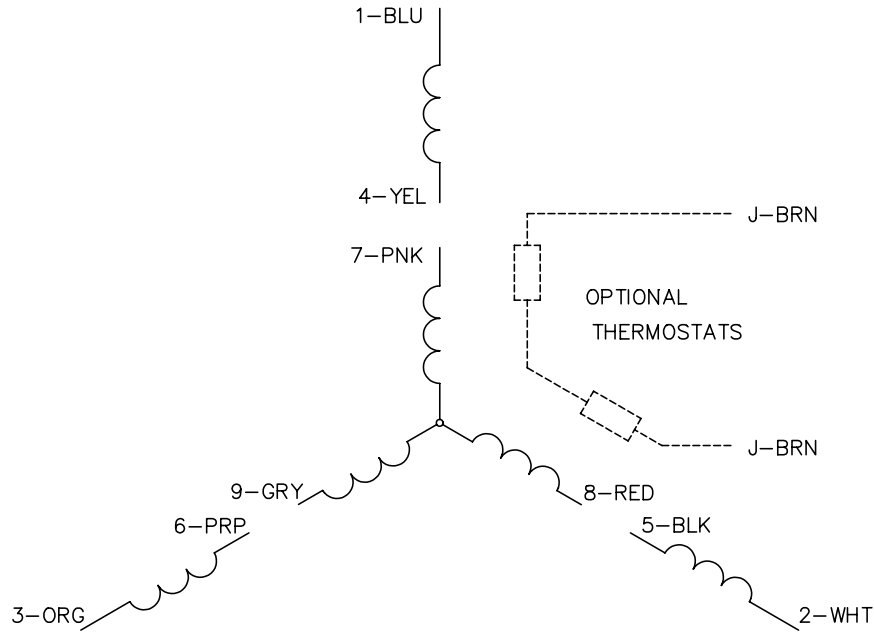
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 33 | 53 | 66 | 74 | 80 | 83 | 78 |
| Efficiency | 75.6 | 84.1 | 86.4 | 86.6 | 85.9 | 84.6 | 86.2 |
| Speed | 1790 | 1779 | 1769 | 1756 | 1743 | 1728 | 1748 |
| Line amperes | 3.78 | 4.22 | 4.92 | 5.82 | 6.8 | 8 | 6.41 |

Performance Graph at 230V, 60Hz, 2.0HP Typical performance - Not guaranteed values

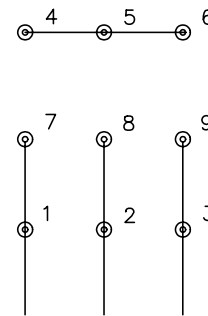




CD0005

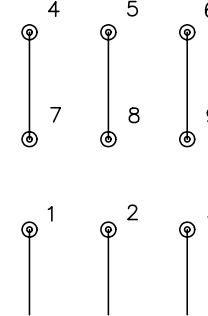


LOW VOLTAGE
(2Y)



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