

BALDOR® • RELIANCE

Product Information Packet

VEM3770T-5

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0735M, TEFC

| Part Detail | | | | | | | |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision: | L | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Prod. Type: | 0735M | Elec. Spec: | 07WGX817 | CD Diagram: | CD0006 |
| Enclosure: | TEFC | Mfg Plant: | | Mech. Spec: | 07G082 | Layout: | 07LYG082 |
| Frame: | 213TC | Mounting: | F1 | Poles: | 04 | Created Date: | 03-20-2009 |
| Base: | N | Rotation: | R | Insulation: | F | Eff. Date: | 10-16-2015 |
| Leads: | 3#14 | | | | | Replaced By: | |
| Literature: | | Elec. Diagram: | | | | | |

| | | | | | | | |
|----------------------------|--------------|----------------|------|-----|---|----|---|
| Nameplate NP3441L | | | | | | | |
| CAT.NO. | VEM3770T-5 | | | | | | |
| SPEC. | 07G082X817 | | | | | | |
| HP | 7.5 | | | | | | |
| VOLTS | 575 | | | | | | |
| AMP | 7.5 | | | | | | |
| RPM | 1770 | | | | | | |
| FRAME | 213TC | HZ | 60 | PH | 3 | | |
| SER.F. | 1.15 | CODE | J | DES | A | CL | F |
| NEMA-NOM-EFF | 91.7 | PF | 81 | | | | |
| RATING | 40C AMB-CONT | | | | | | |
| CC | 010A | USABLE AT 208V | | | | | |
| DE | 6307 | ODE | 6206 | | | | |
| ENCL | TEFC | SN | | | | | |
| VPWM INVERTER READY | | | | | | | |
| CT6-60H(10:1)VT3-60H(20:1) | | | | | | | |
| | | | | | | | |

| Parts List | | |
|----------------|--|----------|
| Part Number | Description | Quantity |
| SA180782 | SA 07G082X817 | 1.000 EA |
| RA168734 | RA 07G082X817 | 1.000 EA |
| 37FN3002C01 | EXFN, PLASTIC, 6.00 OD, 1.155 ID | 1.000 EA |
| S/P107-000-001 | SUPER E PROC'S-FS, WS & CK PLTS | 1.000 EA |
| HW3201A05 | 3/8-16 EYEBOLT | 1.000 EA |
| 09CB3002SP | CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30 | 1.000 EA |
| 09GS1000SP | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| WD1000B17 | T&B CX35TN TERMINAL | 1.000 EA |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| HW3001B01 | BRASS CUP WASHER, FOR #8 SCREW | 1.000 EA |
| 37FE1100A41 | FR ENDPLATE ASSEMBLY FOR ROUTING | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| HW5100A06 | W2420-025 WVY WSHR (WB) | 1.000 EA |
| 37PE1300A10 | PUEP E-COATING ASSEMBLY FOR ROUTING | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| 10XN2520A30 | HEX HD CAP SCREW-STD THD-.25 X 20 THD PE | 4.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| XY3118A12 | 5/16-18 HEX NUT DIRECTIONAL SERRATION | 4.000 EA |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB | 1.000 EA |
| 07FH4007SP | IEC FH W/GRSR, NOTCH @ 6:00 & 3 FAN CVR | 1.000 EA |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| 09CB3501SP | CONDUIT BOX LID FOR 09CB3001 & 09CB3002 | 1.000 EA |
| 09GS1013SP | 09 GS FOR 09CB3501 LID - LEXIDE | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| HW2501F21 | KEY, 5/16 SQ X 2.375 | 1.000 EA |
| HA7000A02 | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| MJ1000A75 | GREASE, POLYREX EM EXXON (USe 4824-15A) | 0.050 LB |
| HA3104A32 | THRUBOLT- 5/16-18 X12.750 | 4.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.036 GA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0006 | CONNECTION LABEL | 1.000 EA |
| NP3441L | ALUM SUPER-E VPWM INVERTER READY UL | 1.000 EA |
| 07PA1011 | PKG GRP, 07 CAST IRON PK1181 | 1.000 EA |
| 07PA1095 | PKG GRP, VER 07 CAST IRON | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA |

AC Induction Motor Performance Data

Record # 26661 - Typical performance - not guaranteed values

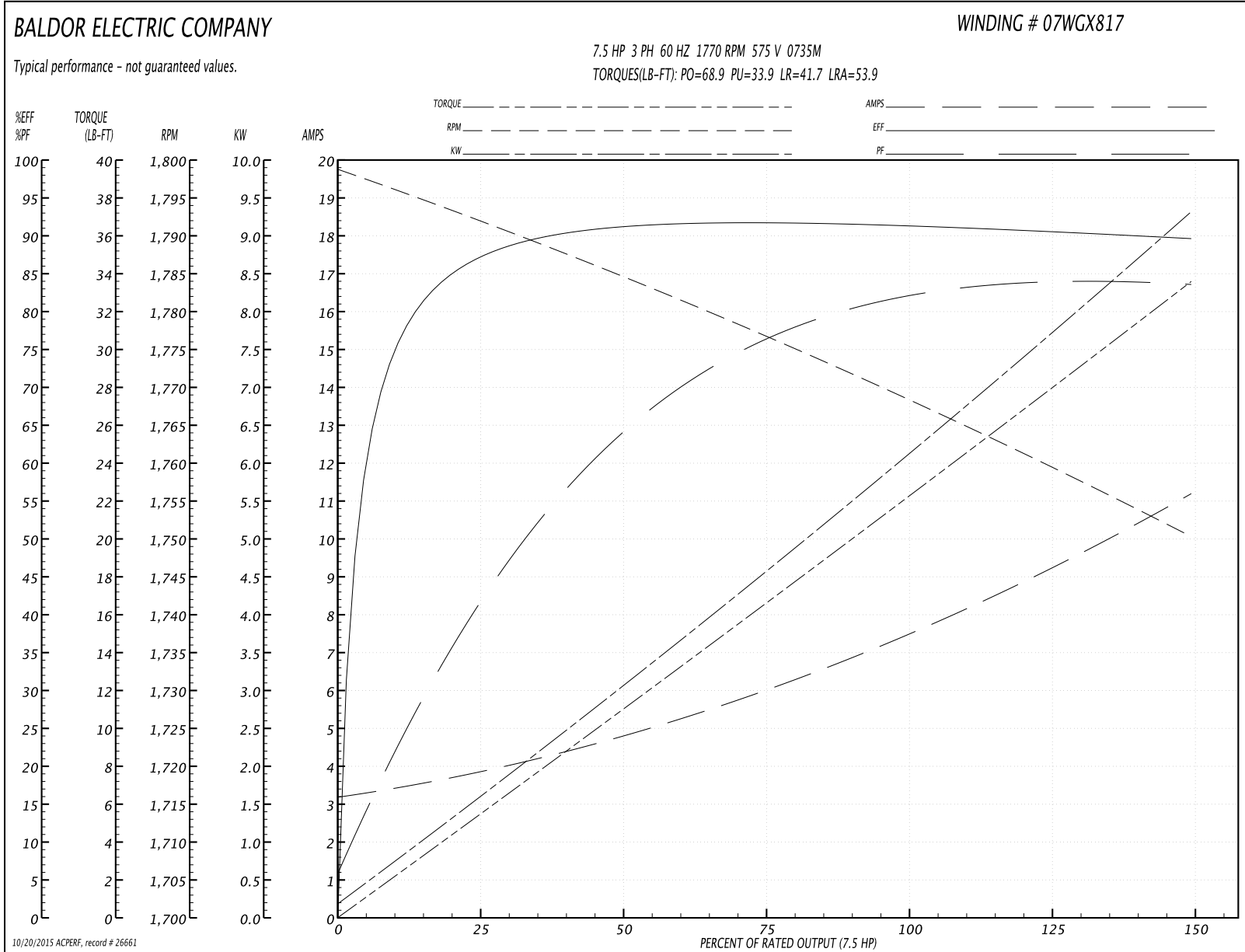
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 07WGX817-R001 | Type: 0735M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 575 V, 60 Hz: Single Voltage Motor | |
|-----------------------|--------------|--------------|----|---------------------------------------|--------------------------|
| Rated Output (HP) | 7.5 | | | Full Load Torque | 22.1 LB-FT |
| Volts | 575 | | | Start Configuration | direct on line |
| Full Load Amps | 7.5 | | | Breakdown Torque | 68.9 LB-FT |
| R.P.M. | 1770 | | | Pull-up Torque | 33.9 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 41.7 LB-FT |
| NEMA Design Code | A | KVA Code | J | Starting Current | 53.9 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 3.3 A |
| NEMA Nom. Eff. | 91.7 | Power Factor | 81 | Line-line Res. @ 25°C | 2.32 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 43°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 53°C |
| | | | | Rotor inertia | 0.861 LB-FT ² |

Load Characteristics 575 V, 60 Hz, 7.5 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 43 | 65 | 76 | 81 | 83 | 84 | 82 |
| Efficiency | 86.8 | 91.2 | 91.8 | 91.3 | 90.7 | 89.6 | 90.9 |
| Speed | 1792 | 1784 | 1777 | 1769 | 1760 | 1750 | 1764 |
| Line amperes | 3.71 | 4.71 | 6 | 7.54 | 9.27 | 11.1 | 8.58 |

Performance Graph at 575V, 60Hz, 7.5HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 44991 - Typical performance - not guaranteed values

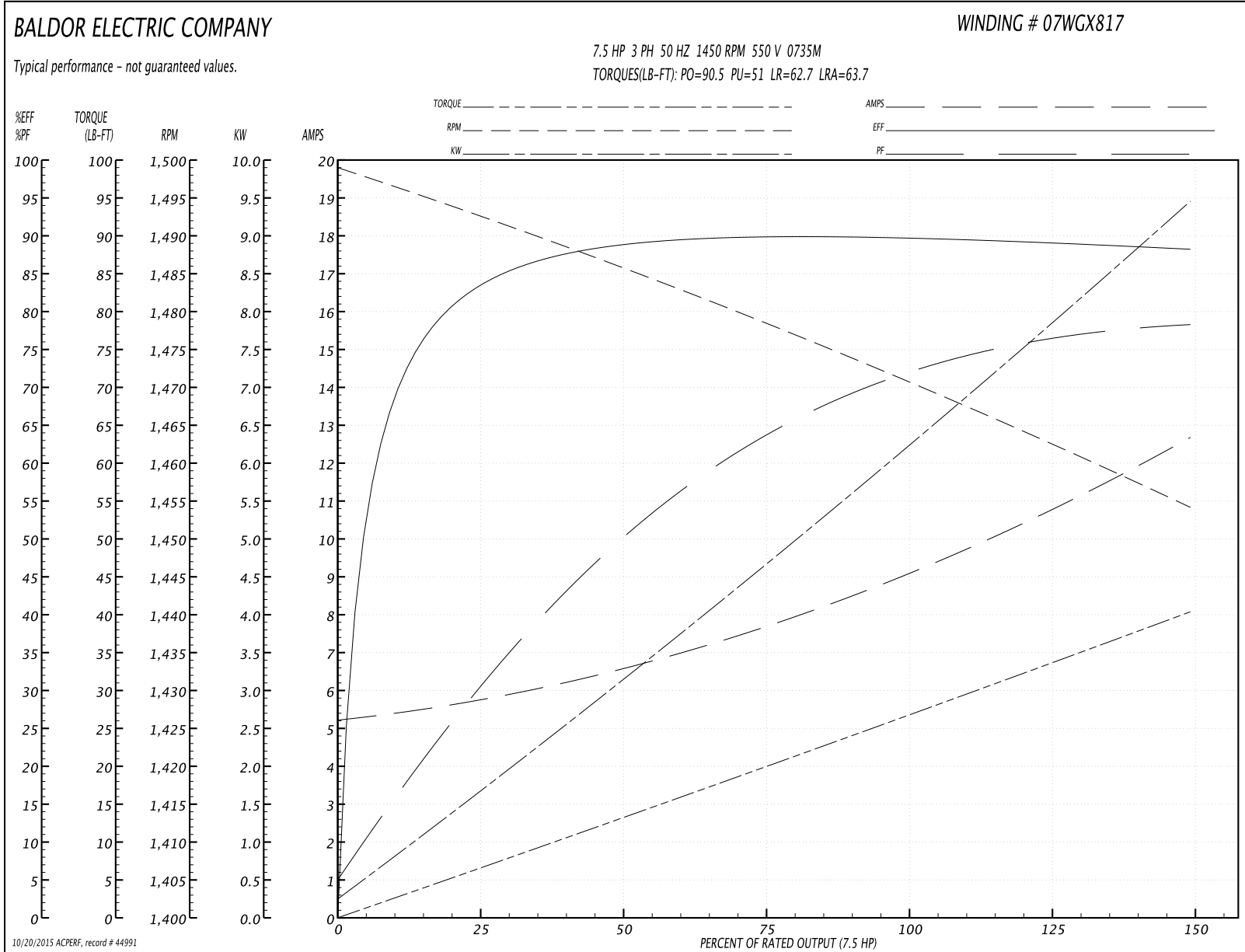
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 07WGX817-R001 | Type: 0735M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 550 V, 50 Hz: Single Voltage Motor | |
|-----------------------|--------------|--------------|----|---------------------------------------|--------------------------|
| Rated Output (HP) | 7.5 | | | Full Load Torque | 26.6 LB-FT |
| Volts | 550 | | | Start Configuration | direct on line |
| Full Load Amps | 9.1 | | | Breakdown Torque | 90.5 LB-FT |
| R.P.M. | 1450 | | | Pull-up Torque | 51 LB-FT |
| Hz | 50 | Phase | 3 | Locked-rotor Torque | 62.7 LB-FT |
| NEMA Design Code | A | KVA Code | K | Starting Current | 63.7 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 5.31 A |
| NEMA Nom. Eff. | 89.5 | Power Factor | 71 | Line-line Res. @ 25°C | 2.31 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 58°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 70°C |
| | | | | Rotor inertia | 0.861 LB-FT ² |

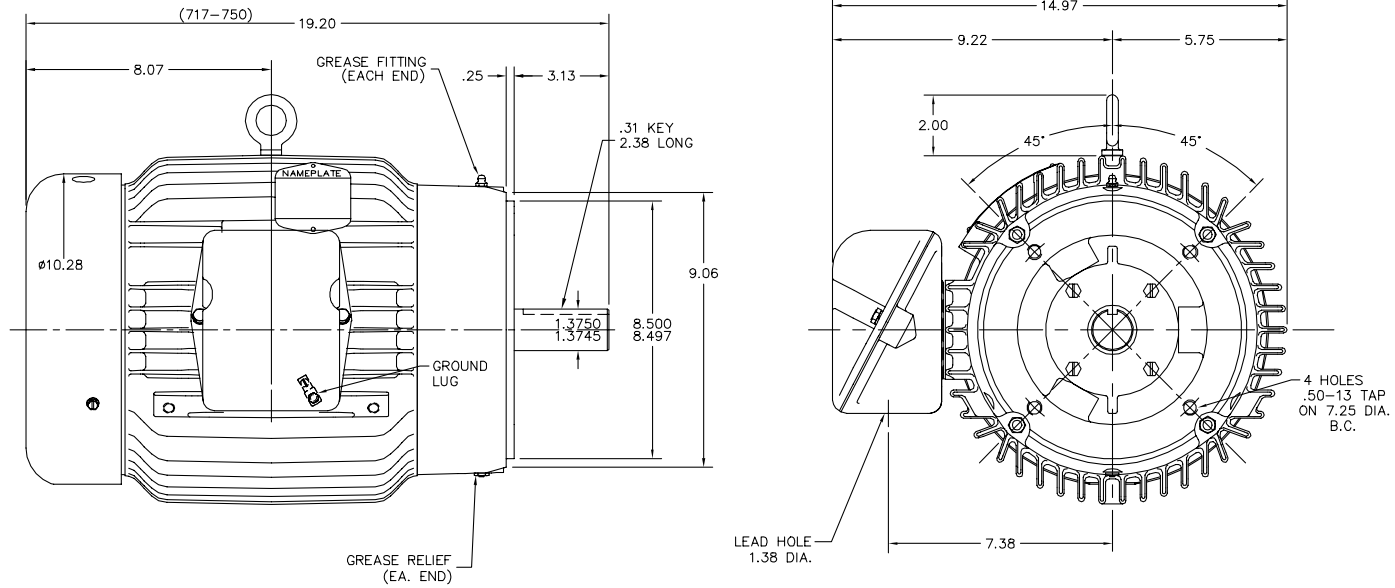
Load Characteristics 550 V, 50 Hz, 7.5 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 31 | 51 | 63 | 71 | 76 | 79 | 74 |
| Efficiency | 83 | 88.8 | 89.8 | 89.8 | 89.2 | 88.2 | 89.4 |
| Speed | 1493 | 1485 | 1479 | 1471 | 1463 | 1454 | 1466 |
| Line amperes | 5.64 | 6.51 | 7.67 | 9.11 | 10.8 | 12.6 | 10.1 |

Performance Graph at 550V, 50Hz, 7.5HP Typical performance - Not guaranteed values



07LYG082



07LYG082

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

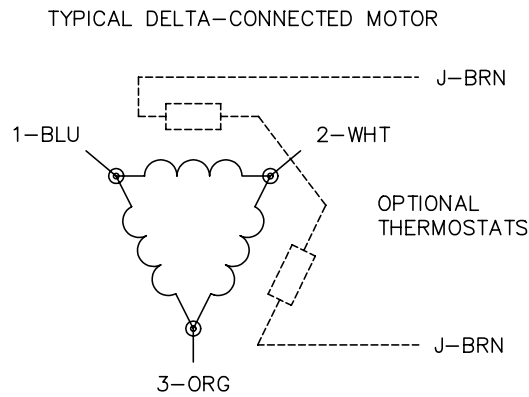
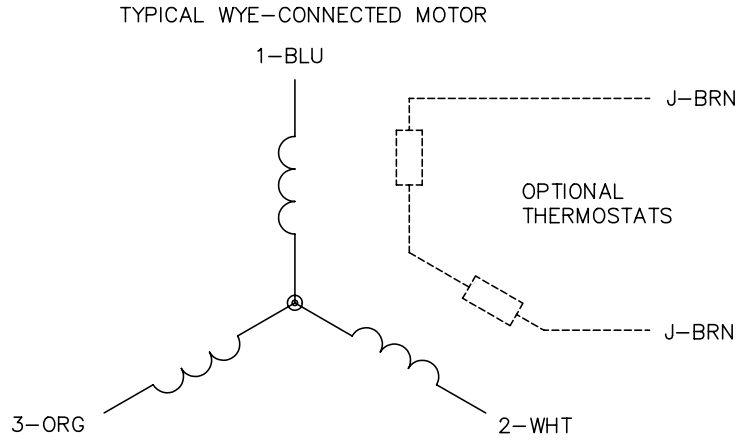
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| FILE: \AAA\00011\406 | | |
| MTL: - | | |

BALDOR

VERT TEFC 307M 213-5TC, HI-EFF

SH 1 of 1

CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

| | | | |
|---|---------|------------------------|--------------|
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| 9000D | | FILE: AAA00005141 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

CD0006