

BALDOR® • **RELIANCE**

Product Information Packet

ECP4106T-5

20HP,3510RPM,3PH,60HZ,256T,0954M,TEFC,F1

| Part Detail | | | | | | | |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision: | H | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Prod. Type: | 0954M | Elec. Spec: | 09WGT123 | CD Diagram: | CD0006 |
| Enclosure: | TEFC | Mfg Plant: | | Mech. Spec: | 09J371 | Layout: | 09LYJ371 |
| Frame: | 256T | Mounting: | F1 | Poles: | 02 | Created Date: | 12-24-2014 |
| Base: | RG | Rotation: | R | Insulation: | F | Eff. Date: | 10-26-2016 |
| Leads: | 3#12 | | | | | Replaced By: | |
| Literature: | | Elec. Diagram: | | | | | |

| Nameplate NP3241 | | | | | | | | | | | |
|------------------|--------------|--------------------|------|-----------|------------|-------------------------|------|------------|------|----------|----|
| CAT.NO. | ECP4106T-5 | P/N | | ENCLOSURE | TEFC | | | | | | |
| SPEC. | 09J371T123G1 | CC | 010A | FRAME | 256T | S/N | | | | | |
| HP | 20 | CLASS | F | HZ | 60 | DES | B | | | | |
| RPM | 3510 | RPM MAX | 5400 | PH | 3 | KVA-CODE | G | | | | |
| VOLT | 575 | MOTOR WEIGHT | 310 | | | | | | | | |
| AMP | 17.9 | SER.F. | 1.15 | PF | 91 | ODE BRG | 6309 | DE BRG | 6309 | | |
| RATING | 40C AMB-CONT | NEMA-NOM-EFF | 91.7 | GREASE | POLYREX EM | | | | | | |
| | | | | INV.TYPE | PWM | | | | | | |
| TEMP CODE | T3 | INVERTER-TEMP-CODE | 200 | | | | | | | | |
| TEMP = | 200 | C HP FR | 60 | C HP TO | 90 | | | | | | |
| CT HZ FROM | 6 | CT HZ TO | 60 | | | | | | | | |
| HTR-VOLTS | | HTR-AMPS | | HTR-WATTS | | MAX. SPACE HEATER TEMP. | | VT HZ FROM | 3 | VT HZ TO | 60 |

| Parts List | | |
|--------------|--|----------|
| Part Number | Description | Quantity |
| SA291597 | SA 09J371T123G1 | 1.000 EA |
| RA277720 | RA 09J371T123G1 | 1.000 EA |
| 37FN3002C02 | EXFN, PLASTIC, 6.00 OD, 1.500 ID | 1.000 EA |
| 09CB1002A12P | KOBX W/1.25 NPT LEAD HOLE & 2.38 MTG HOL | 1.000 EA |
| 09GS1010 | GASKET, DWG, LEADWIRE SEPERATOR | 1.000 EA |
| 10XN2520K12 | 1/4-20 X.75 GRD 5 | 4.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| WD1000B16 | T&B CX70TN TERMINAL | 1.000 EA |
| 10XN2520K08 | 1/4-20 X .50 GRADE #5, STL, ZINC PLATE | 1.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 1.000 EA |
| HA3400A39 | STUD- 3/8-16 X 6.19 OAL HEX WELKER | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW4600B44 | V-RING SLINGER 1.500 X 1.810 X .28 VITON | 1.000 EA |
| HW4600B44 | V-RING SLINGER 1.500 X 1.810 X .28 VITON | 1.000 EA |
| HA4017A08 | .125X3.50 GREASER EXTEN. | 1.000 EA |
| HA4017A02 | .125X2.50 GREASER EXTENS.F/S | 1.000 EA |
| HW4019A01 | PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |
| HW5100A11 | W3917-042 WVY WSHR (WB) | 1.000 EA |
| 10XN2520K36 | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| 09EP1118A38P | PUEP MACH,309 BRG,PLS GRSR,RLF,EPOXY PRI | 1.000 EA |
| 10XN3816K28 | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5 | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |

| Parts List (continued) | | |
|------------------------|--|----------|
| Part Number | Description | Quantity |
| 10XN2520K36 | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| 09FH1000 | FAN COVER,CAST W/E-COAT | 1.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| XY3816A12 | 3/8-16 FINISHED NUT | 4.000 EA |
| 12CB1503A01P | KOLD MACH, W/LIP & EPOXY PRIMER | 1.000 EA |
| 12GS1002 | GASKET, CONDUIT BOX LID, NEOP | 1.000 EA |
| 10XN3118K16 | 5/16-18 X 1' GRADE #5, STL, ZINC PLATE | 2.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 EA |
| HW2501G25 | KEY, 3/8 SQ X 2.875 | 1.000 EA |
| MJ5001A27 | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL | 0.031 QT |
| MJ5001A14 | DYNAPRO SEAL, CP MOTORS VC#2508050 (603 | 0.033 EA |
| 09EP1118A37GP6 | FREP MACH, 309 BRG. EPOXY PRIMER | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HW4500A21 | 1618BALEMITE FITTING 825 UNIVERSAL | 1.000 EA |
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| MJ1000A02 | GREASE, POLYREX EM EXXON (USe 4824-15A) | 0.080 LB |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW2500A25 | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB | 1.000 EA |
| MG1025N19 | WILKOFASST, 778.50, RELIANCE BLUE-GREEN | 0.050 GA |

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|-------------|--|----------|
| MJ5002A01 | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.025 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 4.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0006 | CONNECTION LABEL | 1.000 EA |
| NP3241 | SS SUPER-E INV UL CSA-EEV PREM CC | 1.000 EA |
| 40PA1005 | PACKAGING GROUP, 09 STD | 1.000 EA |
| LB1449 | DIV-2/NEC WARNING LABEL | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA |

AC Induction Motor Performance Data

Record # 47326 - Typical performance - not guaranteed values

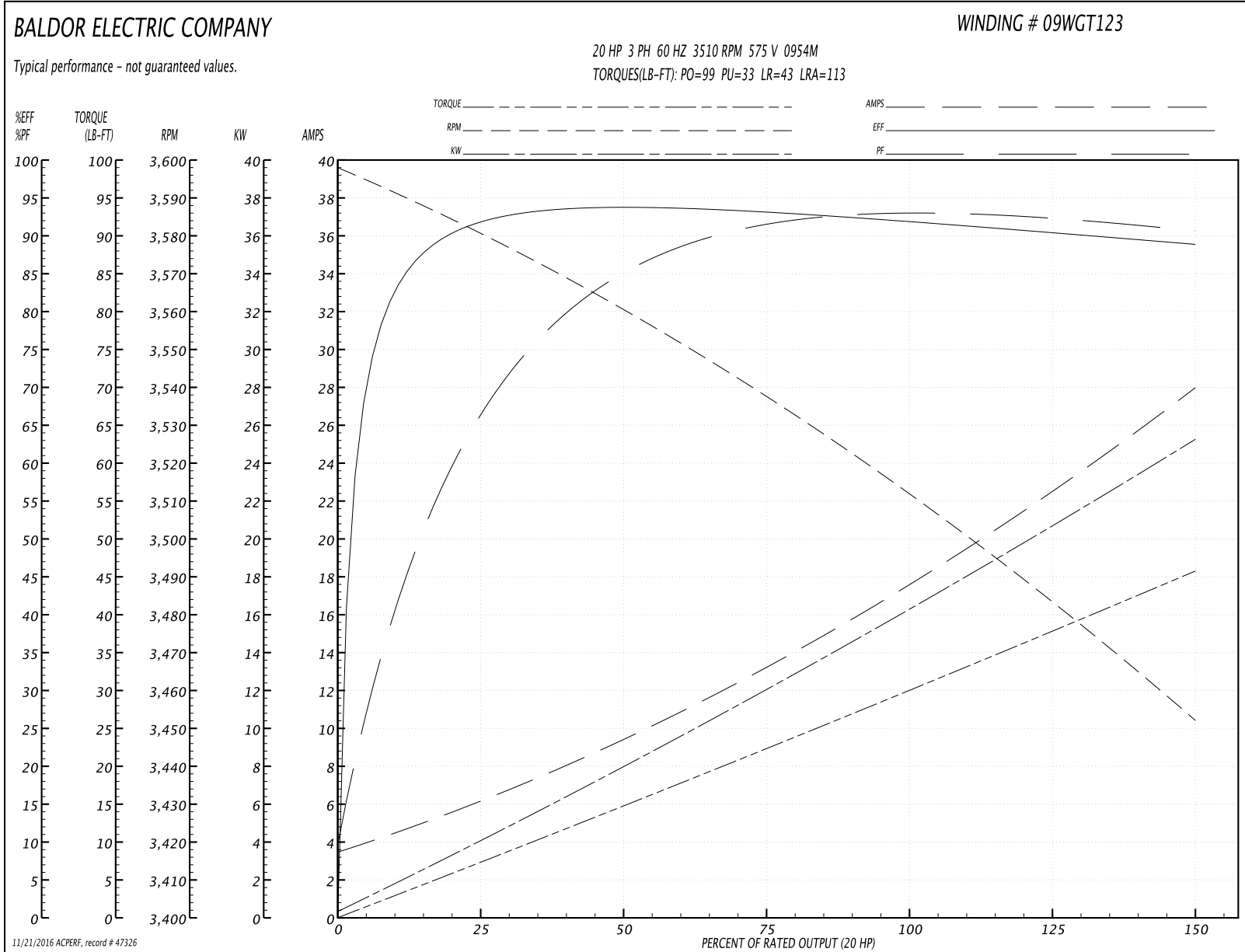
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 09WGT123-R001 | Type: 0954M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 575 V, 60 Hz: Single Voltage Motor | |
|-----------------------|--------------|--------------|----|---------------------------------------|-------------------------|
| Rated Output (HP) | 20 | | | Full Load Torque | 30.1 LB-FT |
| Volts | 575 | | | Start Configuration | direct on line |
| Full Load Amps | 17.9 | | | Breakdown Torque | 99 LB-FT |
| R.P.M. | 3510 | | | Pull-up Torque | 33 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 43 LB-FT |
| NEMA Design Code | B | KVA Code | G | Starting Current | 113 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 3.75 A |
| NEMA Nom. Eff. | 91.7 | Power Factor | 91 | Line-line Res. @ 25°C | 0.683 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 68°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 86°C |
| | | | | Locked-rotor Power Factor | 26.6 |
| | | | | Rotor inertia | 1.38 LB-FT ² |

Load Characteristics 575 V, 60 Hz, 20 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 73 | 87 | 91 | 91 | 92 | 91 | 93 |
| Efficiency | 91.4 | 93.4 | 93 | 92.1 | 90.6 | 88.8 | 91.6 |
| Speed | 3579 | 3559 | 3537 | 3513 | 3484 | 3451 | 3520 |
| Line amperes | 5.87 | 9.39 | 13.3 | 17.9 | 22.7 | 27.8 | 20.3 |

Performance Graph at 575V, 60Hz, 20.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 50588 - Typical performance - not guaranteed values

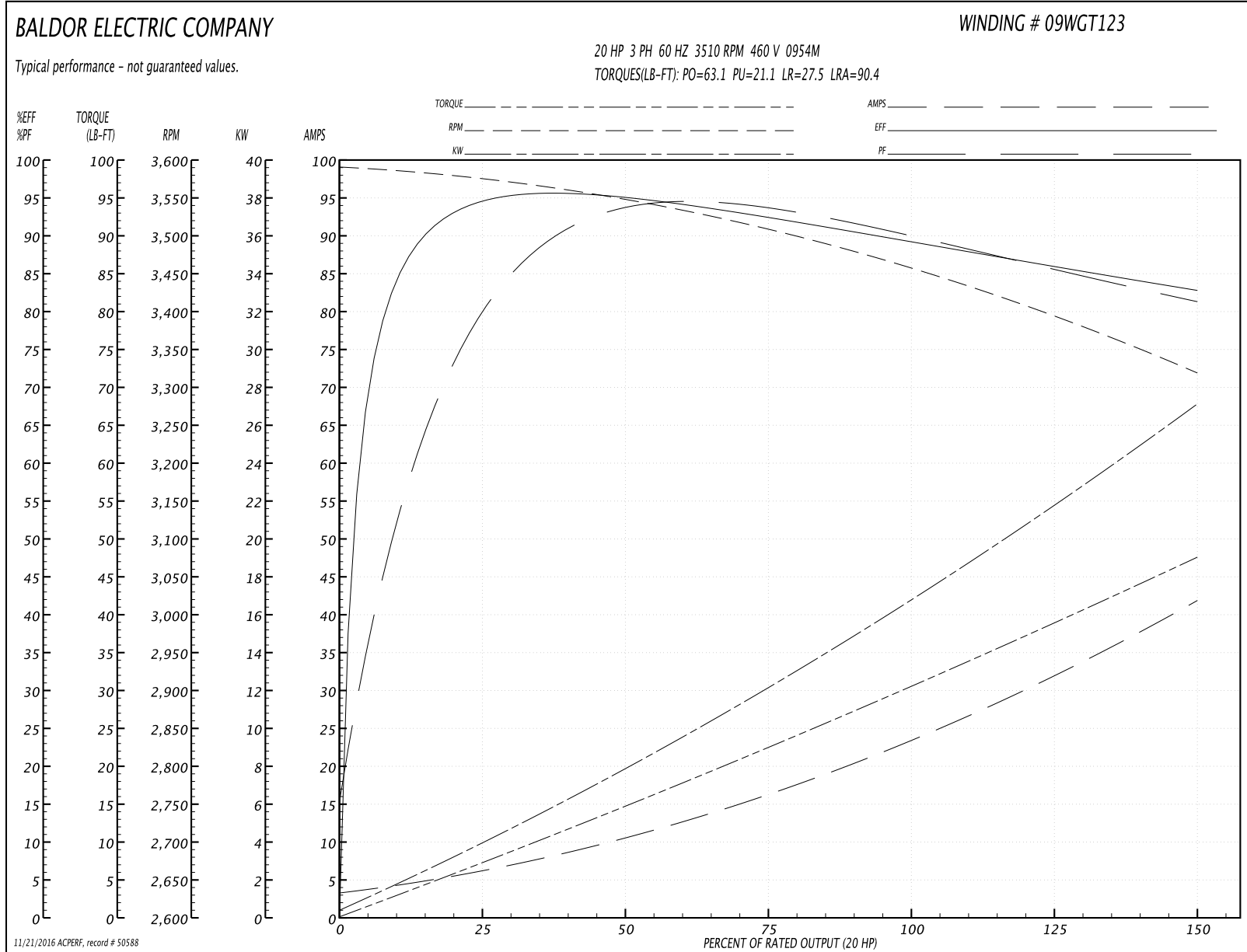
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 09WGT123-R001 | Type: 0954M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 460 V, 60 Hz: Single Voltage Motor | |
|-----------------------|--------------|--------------|----|---------------------------------------|-------------------------|
| Rated Output (HP) | 20 | | | Full Load Torque | 30.5 LB-FT |
| Volts | 575 | | | Start Configuration | direct on line |
| Full Load Amps | 17.9 | | | Breakdown Torque | 63.1 LB-FT |
| R.P.M. | 3510 | | | Pull-up Torque | 21.1 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 27.5 LB-FT |
| NEMA Design Code | B | KVA Code | G | Starting Current | 90.4 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 3.02 A |
| NEMA Nom. Eff. | 91.7 | Power Factor | 91 | Line-line Res. @ 25°C | 0.683 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 95°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 130°C |
| | | | | Locked-rotor Power Factor | 26.6 |
| | | | | Rotor inertia | 1.38 LB-FT ² |

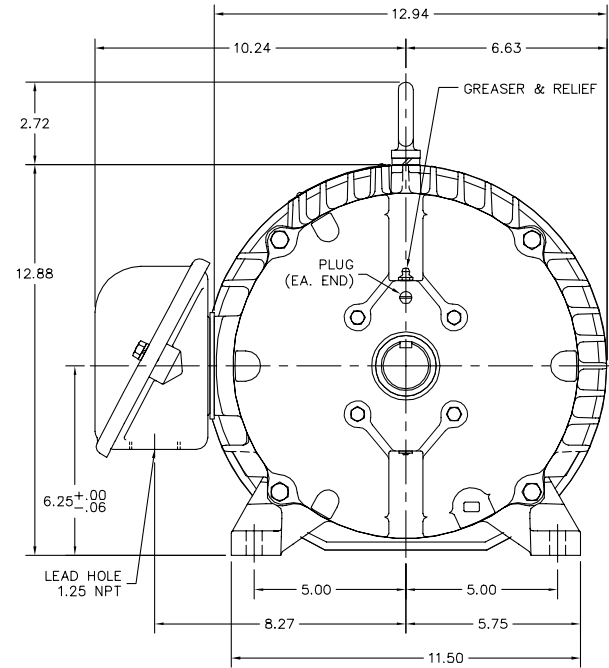
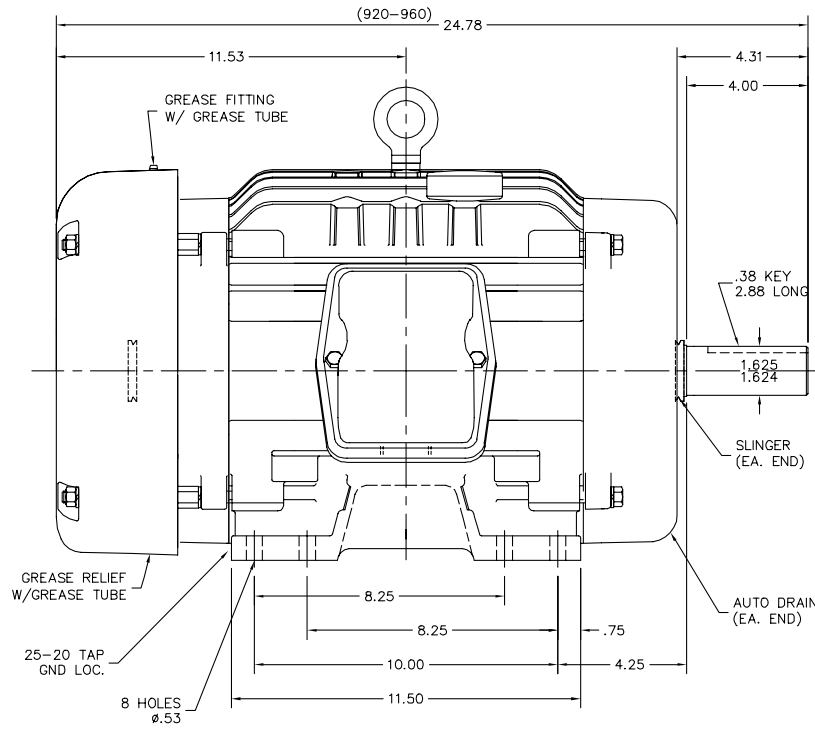
Load Characteristics 460 V, 60 Hz, 20 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 83 | 91 | 92 | 90 | 87 | 81 | 88 |
| Efficiency | 92.3 | 93.3 | 91.8 | 90 | 87.1 | 82.2 | 88.3 |
| Speed | 3569 | 3539 | 3505 | 3464 | 3408 | 3308 | 3430 |
| Line amperes | 6.32 | 11.2 | 16.7 | 23.2 | 30.9 | 42.6 | 27.8 |

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values



09LYJ371



09LYJ371

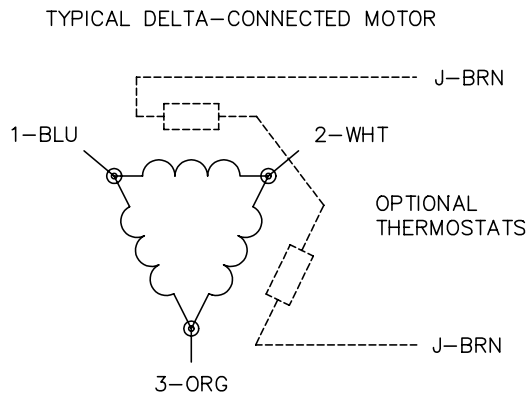
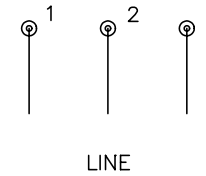
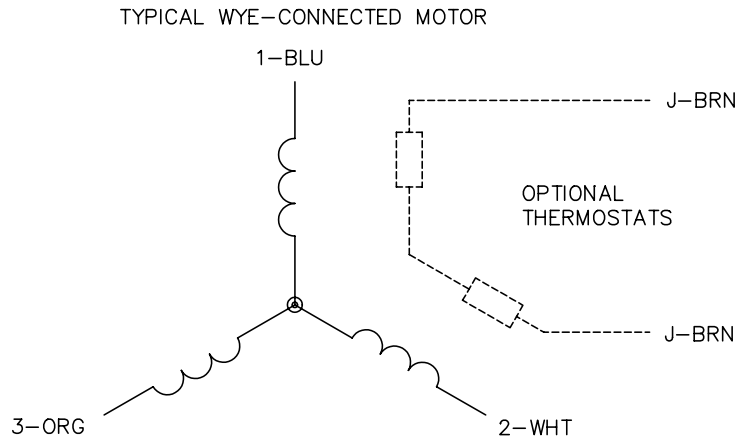
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

| | | |
|------------------------------------|------------------------------|-------------------|
| REV. DESC: ADDED GND HOLE TAP SIZE | VERSION: 07 | TDR: 000000954909 |
| REV. LTR: G | | |
| FILE: \AAA\00174\539 | REVISED: 12:56:55 12/07/2015 | BY: ENNINDO |
| MTL: - | | |

BALDOR

HORZ TEFC 254-6T ECP W/309 BRGS, PLS GREASING
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.

| | | | |
|---|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | |
| REV. LTR: D | BY: JLP | REVISED: 01/21/99 4:02 | TDR: 0171435 |
| 9000D | | FILE: AAA00005141 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

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

CD0006

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