

BALDOR® • RELIANCE 

Product Information Packet

ECP83581T-4

1HP,1765RPM,3PH,60HZ,143T,0522M,TEFC,F1

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | N | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 05WGX502 | CD Diagram: | CD0006 | Mfg Plant: | |
| Mech. Spec: | 05E811 | Layout: | 05LYE811 | Poles: | 04 | Created Date: | 10-24-2018 |
| Base: | RG | Eff. Date: | 04-01-2022 | Leads: | 3#18 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|--------------------------------|
| Catalog Number: | ECP83581T-4 | Inverter Code: | Inverter Ready |
| Enclosure: | TEFC | KVA Code: | N |
| Frame: | 143T | Lifting Lugs: | Standard Lifting Lugs |
| Frame Material: | Iron | Locked Bearing Indicator: | Locked Bearing |
| Output @ Frequency: | 1.000 HP @ 60 HZ | Motor Lead Quantity/Wire Size: | 3 @ 18 AWG |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Motor Lead Exit: | Ko Box |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| XP Class and Group: | CLI GP A,B,C,D | Motor Type: | 0522M |
| XP Division: | Division II | Mounting Arrangement: | F1 |
| Agency Approvals: | CSA | Power Factor: | 68 |
| | CSA EEV | Product Family: | Chem Process S/P 32-8 IEEE 841 |
| | UR | Pulley End Bearing Type: | Ball |
| 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 |
| Constant Torque Speed Range: | 1.2 | Shaft Ground Indicator: | No Shaft Grounding |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Current @ Voltage: | 1.600 A @ 460.0 V | Shaft Rotation: | Reversible |
| Design Code: | B | Shaft Slinger Indicator: | Shaft Slinger |
| Drip Cover: | No Drip Cover | Speed Code: | Single Speed |
| Duty Rating: | CONT | Motor Standards: | NEMA |
| Electrically Isolated Bearing: | Not Electrically Isolated | Starting Method: | Direct on line |
| Enclosure Modification: | 841 | 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 |
| Insulation Class: | F | XP Temp Code: | T4 |

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|--------------------------|--------------|--------------|-----------------|
| Nameplate NP3235E | | | |
| CAT.NO. | ECP83581T-4 | | |
| SPEC. | 05E811X502G1 | | |
| HP | 1 | TE | IP 56 |
| VOLTS | 460 | | |
| AMPS | 1.6 | | |
| R.P.M. | 1765 | | |
| FRAME | 143T | HZ | 60 |
| SER.F. | 1.15 | CODE | N DES. B |
| RATING | 40C AMB-CONT | | |
| SN | | | |
| DE | 6205 | ODE | 6205 |
| NEMA NOM. EFF. | 85.5 | P.F. | 70 |
| GUAR. MIN. EFF. | 82.5 | CC | 010A |
| T. CODE | T4 | TEMP= | 135 |
| | | PH | 3 |
| | | CLASS | F |

| Nameplate NP3186E | | | |
|-------------------|--------------|-------------|--|
| SPEC. | 05E811X502G1 | | |
| ABMA DE BRG | 25BC02X30X | | |
| ABMA ODE BRG | 25BC02X30X | | |
| GREASE | POLYREX EM | | |
| MOTOR WEIGHT | 58 | ROTOR BARS | 28 |
| MAX. R.P.M. | 2700 | MAX. KVAR | 0.47 |
| | | STATOR BARS | 36 |
| INV. TYPE | PWM | | |
| T= | 135 | TO | 90 |
| CHP | 60 | TO | 60 |
| CT | 1.2 | TO | 60 |
| VT | 0- | | |
| HTR-VOLTS | | HTR-AMPS | |
| HTR-WATTS | | | MAX. SPACE HEATER TEMP. <input type="text"/> |

| Parts List | | |
|--------------|--|----------|
| Part Number | Description | Quantity |
| SA362262 | SA 05E811X502G1 | 1.000 EA |
| RA351480 | RA 05E811X502G1 | 1.000 EA |
| 34FN3002B01 | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/ | 1.000 EA |
| HW3201A05 | 3/8-16 EYEBOLT | 1.000 EA |
| 06CB1001A01G | CONDUIT BOX, MACH GRAY | 1.000 EA |
| RM1016 | LEAD SEPARATOR GASKET - 305/306 C.P.MOTO | 1.000 EA |
| 51XW2520A12 | SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75 | 2.000 EA |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| HW3001B01 | BRASS CUP WASHER, FOR #10 SCREW | 1.000 EA |
| 10XN2520S06 | 1/4 20X3/8 HX HD CAP S.S. | 2.000 EA |
| WD1000B16 | T&B CX70TN OR L70P TERMINAL LUG | 1.000 EA |
| 51XN1032A20 | 10-32 X 1 1/4 HX WS SL SR | 2.000 EA |
| 05EP1100A02G | FREP TEFC 205,GRSR,RLF,DRAIN FITTING,INP | 1.000 EA |
| HW4601B22 | INPRO SEAL, 205 BRG, MINI66 | 1.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HA4010A01 | T-DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .0 | 1.000 EA |
| HW5100A05 | WVY WSHR F/205 & 304 BRGS | 1.000 EA |
| 05EP1100A01G | PUEP ENCL 205,BRG RET,GRSR,RLF,DRAIN FIT | 1.000 EA |
| HW4601B22 | INPRO SEAL, 205 BRG, MINI66 | 1.000 EA |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |

| Parts List (continued) | | |
|------------------------|--|----------|
| Part Number | Description | Quantity |
| HA4010A01 | T-DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .0 | 1.000 EA |
| 51XN1032A20 | 10-32 X 1 1/4 HX WS SL SR | 2.000 EA |
| HA3100A37 | THRUBOLT 10-32 X 8.500 | 4.000 EA |
| XY1032A02 | 10-32 HEX NUT DIRECTIONAL SERRATION | 4.000 EA |
| 35FH1000A19G | 35FH1000A19 W/GRAY FLUIDIZ | 1.000 EA |
| 10XN2520A16 | 1/4-20 X 1 HEX HEAD CAP SCR, ZINC PLATED | 3.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 3.000 EA |
| MJ5001A14 | DYNAPRO SEALANT, CP MTR VC#2508050 (603 | 0.010 EA |
| WD4100A03 | DE-750 HEYCO PLUG 62MP0750 MICRO PLASTIC | 1.000 EA |
| 06CB1503A01G | LIPPED CONDUIT BOX LID, MACH GRAY EPOXY | 1.000 EA |
| 06GS1009 | GASKET, KOBX LID, 1/8" THICK BLACK NEOPR | 1.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| HW2501D13 | KEY, 3/16 SQ X 1.375 | 1.000 EA |
| HA7000A01 | KEY RETAINER 7/8" DIA SHAFT | 1.000 EA |
| MJ5001A27 | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL | 0.001 QT |
| MJ1000A73 | INPRO P-80 ASSEMBLY LUB./ 1 QT. CONTAIN | 0.001 QT |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 4.000 EA |
| LB1002N | LABEL,MARINE DUTY (ON ROLLS) | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| LT0019A00 | MOTOR NO-LOAD PERFORMANCE DATA SHEET | 1.000 EA |
| WD1000D21 | TRM,T&B #B71M,RING,18-14,.25,NON-INSL | 3.000 EA |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.050 LB |
| 51XB1214A16 | 12-14X1.00 HXWSSLD SERTYB | 1.000 EA |
| MG1025N19 | WILKOFAS, 778.50, RELIANCE BLUE-GREEN | 0.022 GA |

| | | |
|-------------|---|----------|
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0006 | CONNECTION LABEL | 1.000 EA |
| LB1449 | DIV-2/NEC WARNING LABEL | 1.000 EA |
| NP3235E | SS IEEE841 DIV-2 UL CSA-C US EEV PREM | 1.000 EA |
| NP3186E | SS IEEE841 INV AUX DATA INFORMATION | 1.000 EA |
| 36PA1000 | PKG GRP, PRINT PK1016A06 | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (2100/bx) 4/22 | 1.000 EA |
| 10XN2520A12 | 1/4-20 X 3/4 HEX HEAD CAP | 2.000 EA |

AC Induction Motor Performance Data

Record # 84194

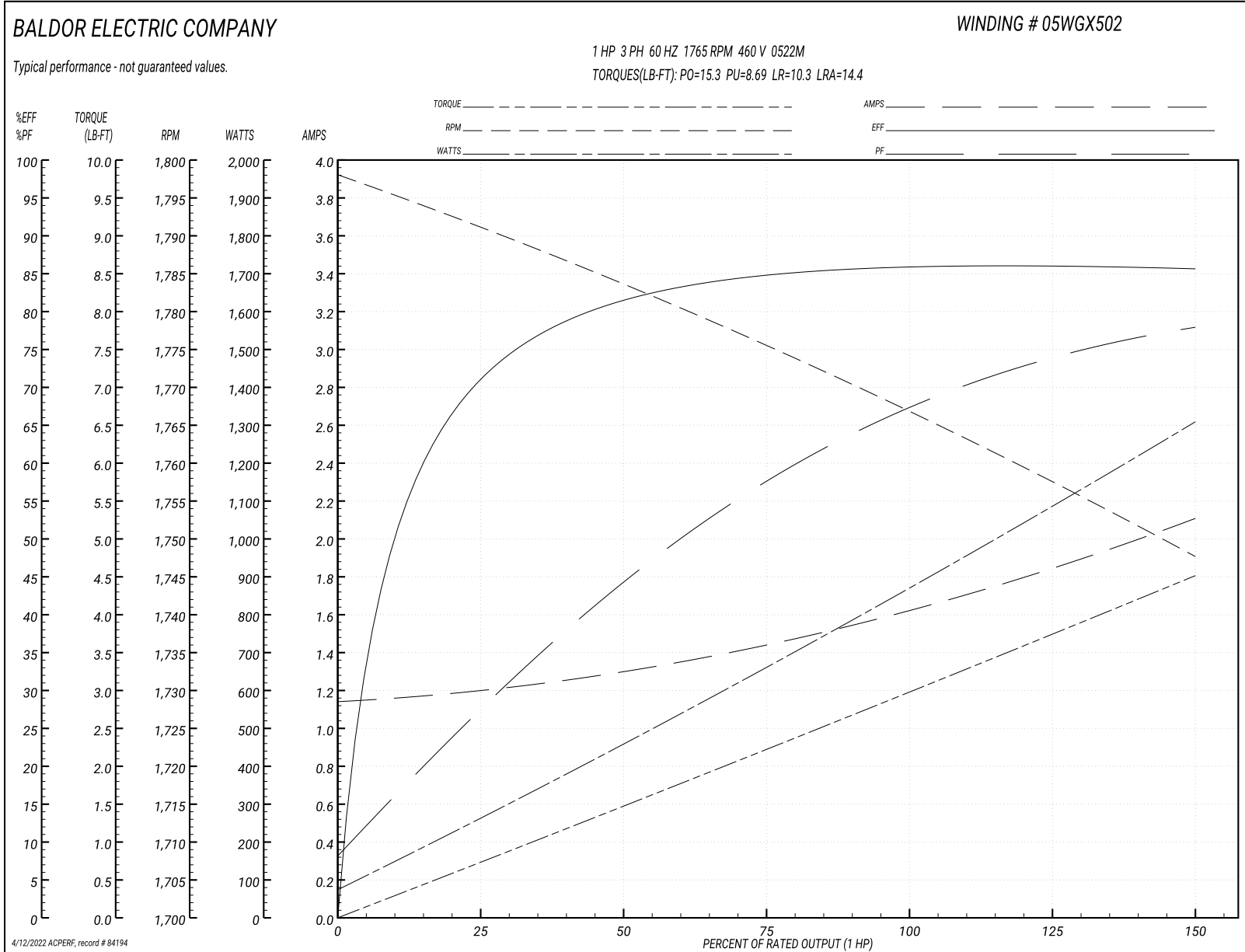
Typical performance - not guaranteed values

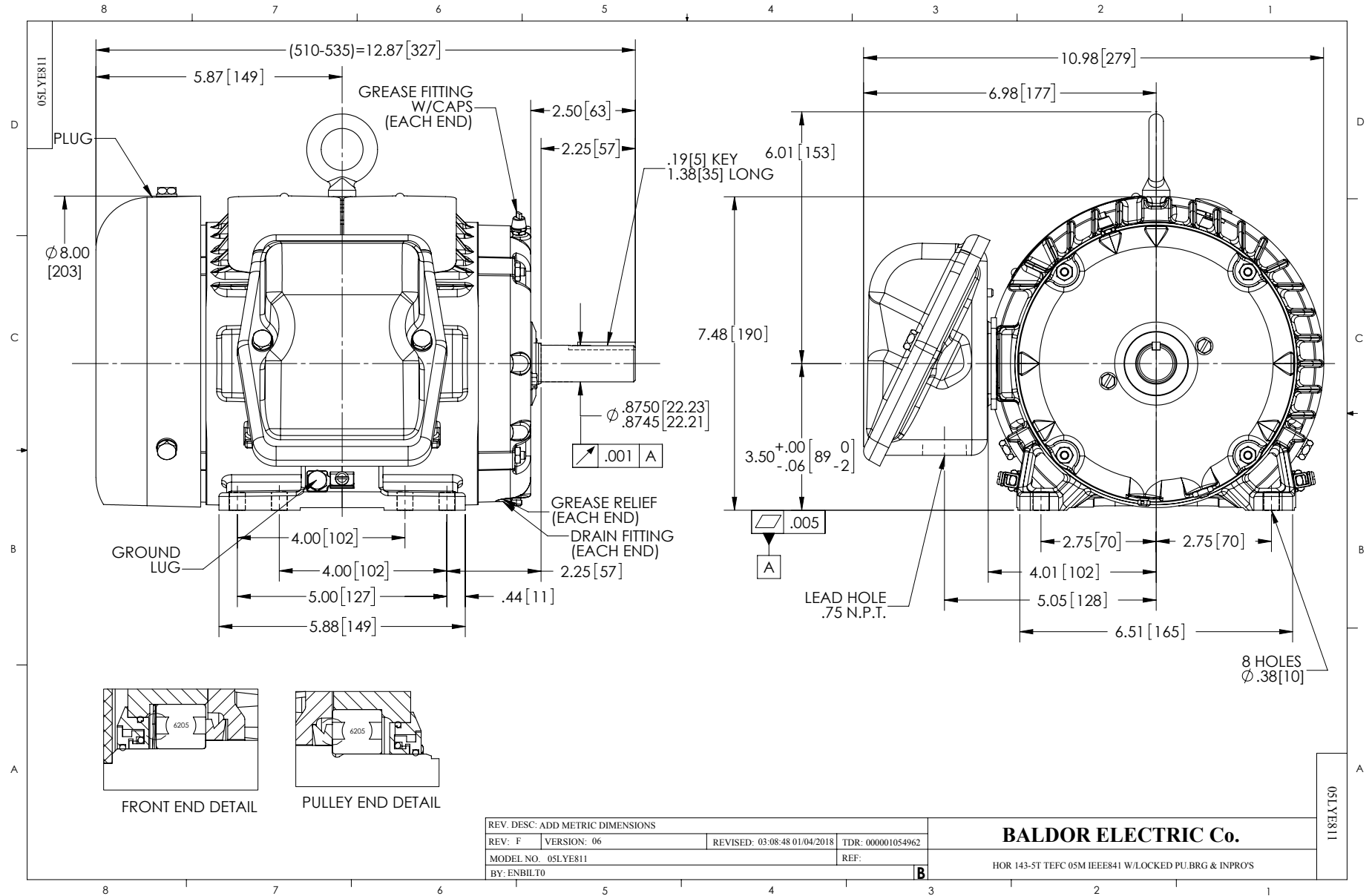
| Winding: 05WGX502-R001 | | Type: 0522M | | Enclosure: TEFC | | | |
|-------------------------------|-------------------|----------------------------|---|----------------------------------|----------|--|--|
| Nameplate Data | | | 460 V, 60 Hz: Single Voltage Motor | | | | |
| Rated Output (HP) | 1 | Full Load Torque | 2.978 LB-FT | | | | |
| Volts | 460 | Start Configuration | direct on line | | | | |
| Full Load Amps | 1.63 | Breakdown Torque | 15.3 LB-FT | | | | |
| R.P.M. | 1765 | Pull-up Torque | 8.69 LB-FT | | | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 10.3 LB-FT | | | |
| NEMA Design Code | B KVA Code | N | Starting Current | 14.4 A | | | |
| Service Factor (S.F.) | 1.15 | | No-load Current | 1.15 A | | | |
| NEMA Nom. Eff. | 85.5 | Power Factor | 67 | Line-line Res. @ 25°C | 14.884 Ω | | |
| Rating - Duty | 40C | AMB-CONT | | Temp. Rise @ Rated Load | 30°C | | |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 34°C | | |
| | | | | Locked-rotor Power Factor | 54.9 | | |

Load Characteristics 460 V, 60 Hz, 1 HP

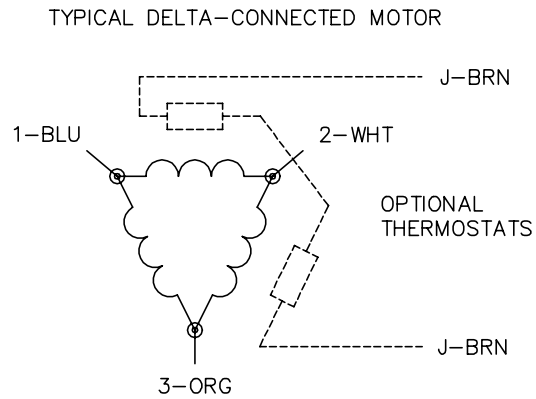
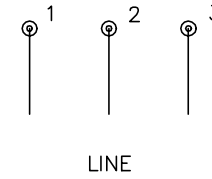
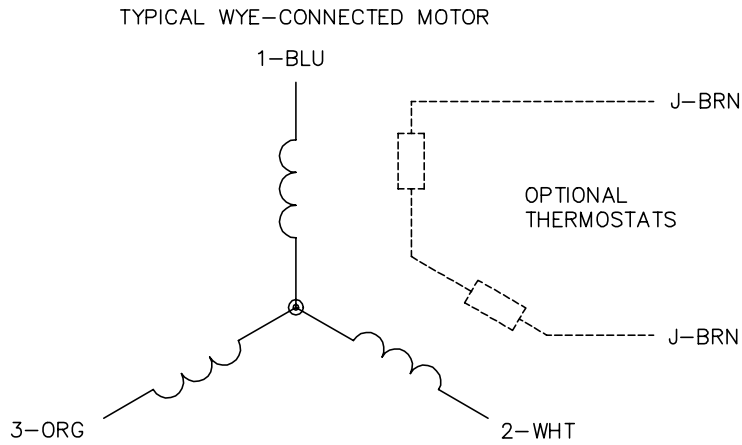
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 28 | 45 | 58 | 67 | 74 | 78 | 71 |
| Efficiency | 70.5 | 81.4 | 84.7 | 85.9 | 86 | 85.5 | 86 |
| Speed | 1791.4 | 1783.5 | 1775.5 | 1766.9 | 1757.8 | 1747.6 | 1761 |
| Line amperes | 1.19 | 1.29 | 1.44 | 1.63 | 1.85 | 2.1 | 1.76 |

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





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.

CD0006

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|-----------------------------------|------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 | | |
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3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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