

BALDOR® • RELIANCE 

Product Information Packet

VEM2334T-5

20HP, 1770RPM, 3PH, 60HZ, 256TC, 0960M, TEFC, F

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | K | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 09WGT507 | CD Diagram: | CD0006 | Mfg Plant: | |
| Mech. Spec: | 09C103 | Layout: | 09LYC103 | Poles: | 04 | Created Date: | 11-17-2017 |
| Base: | N | Eff. Date: | 03-15-2022 | Leads: | 3#10 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | VEM2334T-5 | Inverter Code: | Inverter Ready |
| Enclosure: | TEFC | KVA Code: | J |
| Frame: | 256TC | Lifting Lugs: | Standard Lifting Lugs |
| Frame Material: | Iron | Locked Bearing Indicator: | Locked Bearing |
| Output @ Frequency: | 20.000 HP @ 60 HZ | Motor Lead Quantity/Wire Size: | 3 @ 10 AWG |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Motor Lead Exit: | Ko Box |
| Voltage @ Frequency: | 575.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| XP Class and Group: | None | Motor Type: | 0960M |
| XP Division: | Not Applicable | Mounting Arrangement: | F1 |
| Agency Approvals: | CSA | Power Factor: | 83 |
| | CSA EEV | Product Family: | General Purpose |
| | UR | Pulley End Bearing Type: | Ball |
| Auxillary Box: | No Auxillary Box | Pulley Face Code: | C-Face |
| Auxillary Box Lead Termination: | None | Pulley Shaft Indicator: | Standard |
| Base Indicator: | No Mounting | Rodent Screen: | None |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Shaft Extension Location: | Pulley End |
| Blower: | None | Shaft Ground Indicator: | No Shaft Grounding |
| Current @ Voltage: | 19.200 A @ 575.0 V | Shaft Rotation: | Reversible |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Design Code: | A | 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 |
| Feedback Device: | NO FEEDBACK | Thermal Device - Bearing: | None |
| Front Face Code: | Standard | Thermal Device - Winding: | None |
| Front Shaft Indicator: | None | Vibration Sensor Indicator: | No Vibration Sensor |
| Heater Indicator: | No Heater | Winding Thermal 1: | None |
| Insulation Class: | F | Winding Thermal 2: | None |

| | | | | | | | | | | |
|-----------------------------------|--------------|--|--|-------------|----|-----------------------|------|--|-----------|---|
| Nameplate NP3441L | | | | | | | | | | |
| CAT.NO. | VEM2334T-5 | | | | | | | | | |
| SPEC. | 09C103T507G1 | | | | | | | | | |
| HP | 20 | | | | | | | | | |
| VOLTS | 575 | | | | | | | | | |
| AMP | 19.2 | | | | | | | | | |
| RPM | 1770 | | | | | | | | | |
| FRAME | 256TC | | | | | HZ | 60 | | PH | 3 |
| SER.F. | 1.15 | | | CODE | J | DES | A | | CL | F |
| NEMA-NOM-EFF | 93 | | | PF | 83 | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | | |
| CC | 010A | | | | | USABLE AT 208V | | | | |
| DE | 6309 | | | | | ODE | 6208 | | | |
| ENCL | TEFC | | | SN | | | | | | |
| VPWM INVERTER READY | | | | | | | | | | |
| CT6-60H(10:1)VT3-60H(20:1) | | | | | | | | | | |
| | SFA 21.7 | | | | | | | | | |

| Parts List | | |
|---------------|--|----------|
| Part Number | Description | Quantity |
| SA347953 | SA 09C103T507G1 | 1.000 EA |
| RA336512 | RA 09C103T507G1 | 1.000 EA |
| 09FN3001D01SP | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 EA |
| HW1002A63 | WASHER, 5/8 HI-COLLAR SPRLCKWASHER | 1.000 EA |
| 09CB3003 | CB W/1.75" DIA LD HL - 37, 39, 307 & 309 | 1.000 EA |
| 09GS1000SP | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 4.000 EA |
| WD1000B16 | T&B CX70TN OR L70P TERMINAL LUG | 1.000 EA |
| 59XW2520G07 | .25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN | 1.000 EA |
| 09EP1100A208 | ENDPLATE, MACH | 1.000 EA |
| HA3400A33 | STUD- 3/8-16 X 4.82 HEX WELKER | 4.000 EA |
| XY3816A12 | 3/8-16 FINISHED NUT | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW5100A08 | W3118-035 WVY WSHR (WB) | 1.000 EA |
| 10XN2520K36 | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| 09EP1300A155 | PUEP MACH W/309 BRG & "O" DRAIN, SLINGER | 1.000 EA |
| 10XN3816K28 | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5 | 4.000 EA |
| HW4600B44 | V-RING SLINGER 1.500 X 1.810 X .28 VITON | 1.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 09FH4000SP | 309 FH - BLACK PRIMER | 1.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 09CB3501SP | CONDUIT BOX LID FOR 09CB3001 & 09CB3002 | 1.000 EA |
| 09GS1013SP | GS FOR 09CB3501, 12CB1500 & 12CB1503 LID | 1.000 EA |

| Parts List (continued) | | |
|------------------------|--|----------|
| Part Number | Description | Quantity |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| HW2501G25 | KEY, 3/8 SQ X 2.875 | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| PK6014 | STEEL STRAP FOR 309-312 BASELESS MOTORS | 3.000 EA |
| 19XW3118A08 | .31-18 X .50 HEX WASHER HEAD TAPTITE II | 3.000 EA |
| HW4500A05 | 1669B ALEM/UNIV860 GR FTG X | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HA4066A01 | PUSH IN T-DRAIN FITTING (BLACK) | 1.000 EA |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.080 LB |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HA4066A01 | PUSH IN T-DRAIN FITTING (BLACK) | 1.000 EA |
| HW2500A25 | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.050 GA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0006 | CONNECTION LABEL | 1.000 EA |
| NP3441L | ALUM SUPER-E VPWM INVERTER READY UL | 1.000 EA |
| 40PA1017 | PACKAGING GROUP, 09 VERT LARGE FLANGE | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (2100/bx) 4/22 | 1.000 EA |
| FE-0000013 | ZRTG FE ASSEMBLY | 1.000 EA |
| LD7020E03 | LEAD SET, 10AWG, 3 LEAD, 20" LONG LEADS | 1.000 EA |

AC Induction Motor Performance Data

Record # 67979

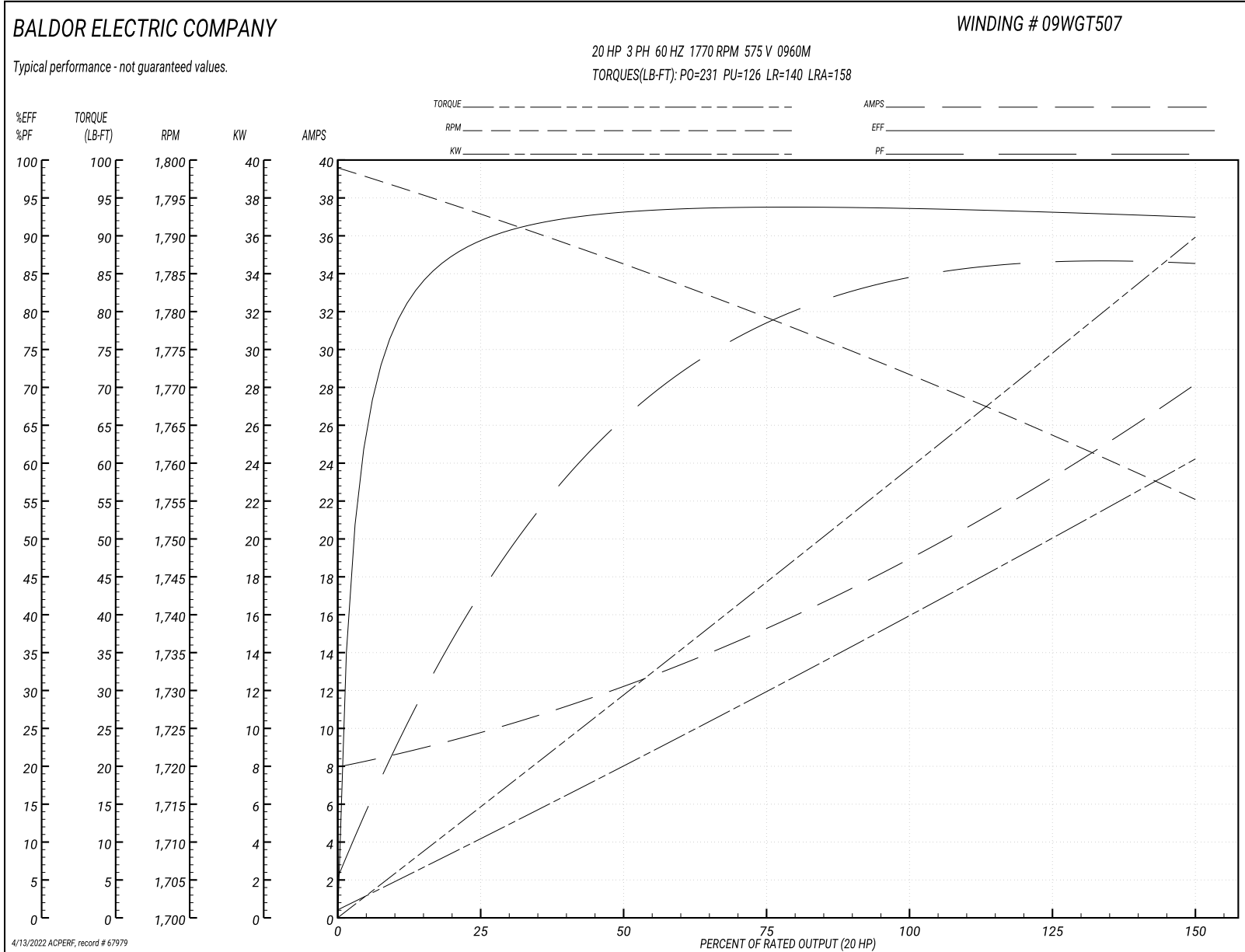
Typical performance - not guaranteed values

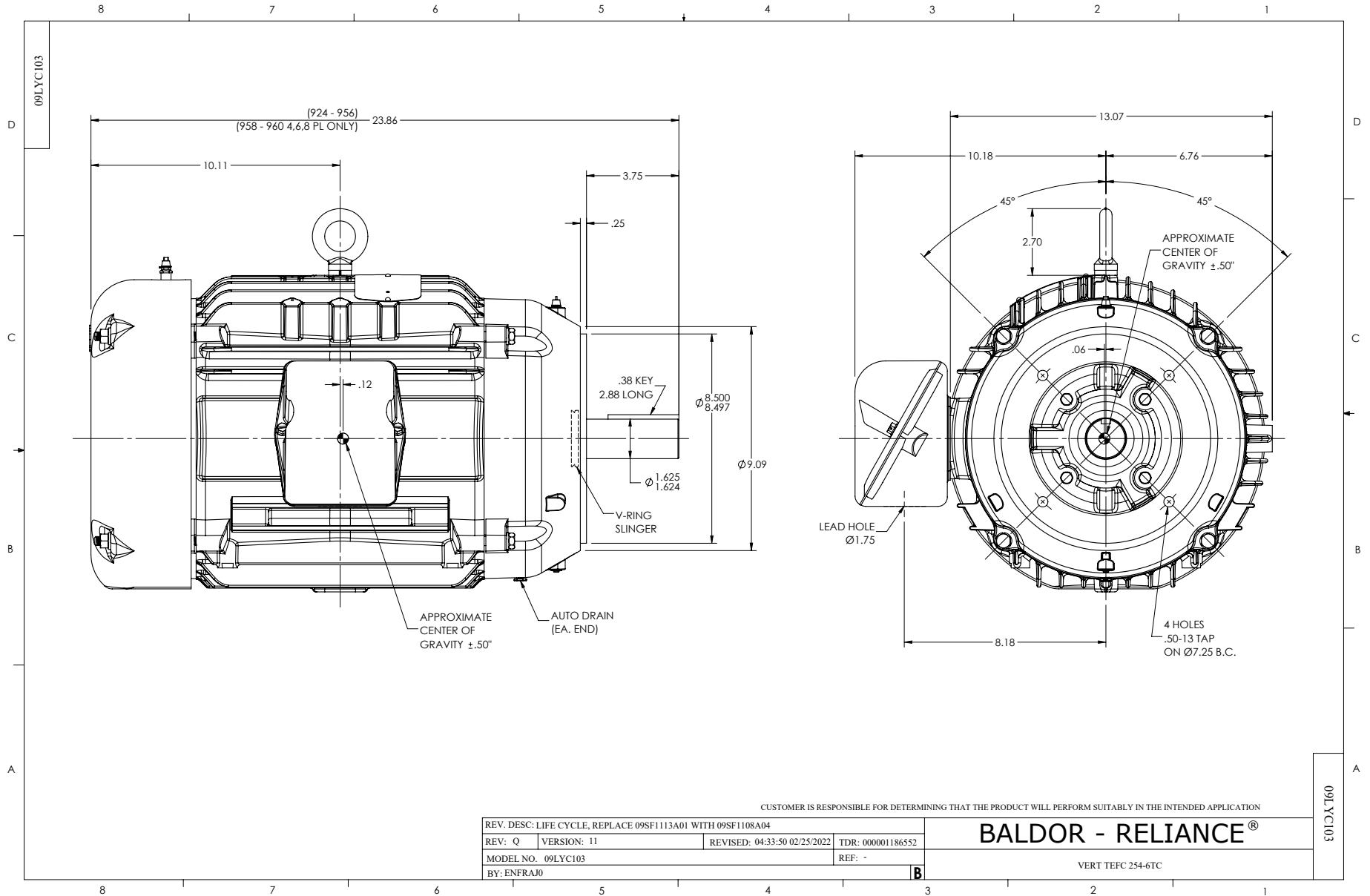
| Winding: 09WGT507-R001 | | Type: 0960M | Enclosure: TEFC |
|------------------------|-----------------|---|-------------------------|
| Nameplate Data | | 575 V, 60 Hz: Single Voltage Motor | |
| Rated Output (HP) | 20 | Full Load Torque | 59.29 LB-FT |
| Volts | 575 | Start Configuration | direct on line |
| Full Load Amps | 19.2 | Breakdown Torque | 231 LB-FT |
| R.P.M. | 1770 | Pull-up Torque | 126 LB-FT |
| Hz | 60 Phase | Locked-rotor Torque | 140 LB-FT |
| NEMA Design Code | A KVA Code | Starting Current | 158 A |
| Service Factor (S.F.) | 1.15 | No-load Current | 8.28 A |
| NEMA Nom. Eff. | 93 Power Factor | Line-line Res. @ 25°C | 0.499 Ω |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 58°C |
| S.F. Amps | | Temp. Rise @ S.F. Load | 69°C |
| | | Locked-rotor Power Factor | 26.5 |
| | | Rotor inertia | 2.65 lb-ft ² |

Load Characteristics 575 V, 60 Hz, 20 HP

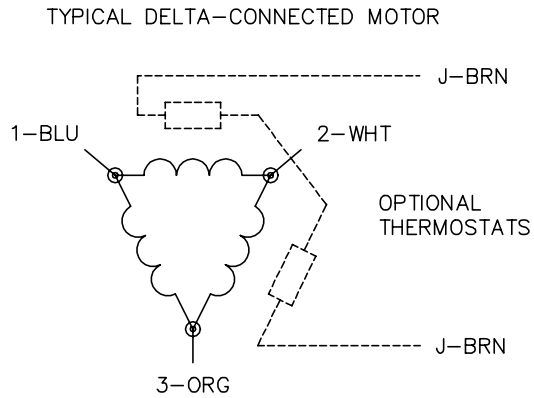
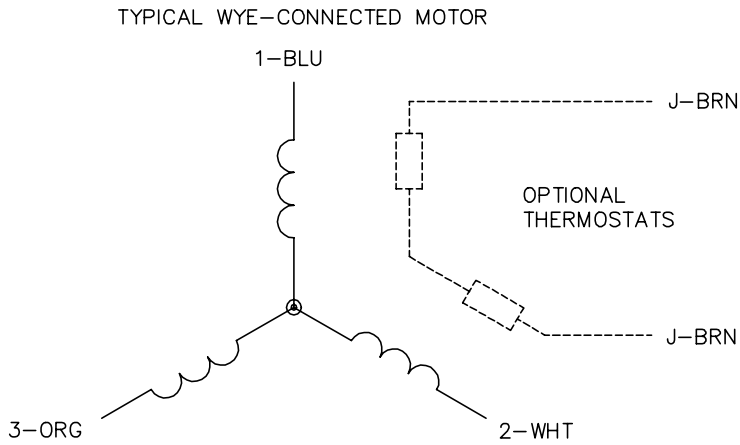
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|-------|-------|-------|-------|-------|------|
| Power Factor | 45 | 67 | 78 | 83 | 86 | 87 | 85 |
| Efficiency | 89.2 | 93 | 93.7 | 93.5 | 93.1 | 92.4 | 93.3 |
| Speed | 1793 | 1786 | 1779 | 1772 | 1764 | 1755 | 1767 |
| Line amperes | 9.41 | 11.99 | 15.34 | 19.19 | 23.44 | 27.92 | 21.7 |

Performance Graph at 575V, 60Hz, 20.0HP 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 | | |
| REV. LTR: E | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\141 | REVISED: 10:24:49 02/19/2019 | BY: ENBRIRO |
| MTL: - | | |

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

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