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# Customer information packet

## VEM3664T

2HP, 1165RPM, 3PH, 60HZ, 184TC, 0642M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | TEFC  |
| Frame                          | 184TC   |
| Frame Material                 | Iron  |
| Frequency                      | 60.00 Hz  |
| Haz Area Class and Group       | None  |
| Haz Area Division              | Not Applicable  |
| Motor Letter Type              | Three Phase   |
| Output @ Frequency             | 2.000 HP @ 60 HZ  |
| Phase                          | 3   |
| Synchronous Speed @ Frequency  | 1200 RPM @ 60 HZ  |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| Agency Approvals               | CSA EEV<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR   |
| Ambient Temperature            | 40 °C   |
| Auxillary Box                  | No Auxillary Box  |
| Auxillary Box Lead Termination | None  |
| Base Indicator                 | No Mounting   |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None  |
| Current @ Voltage              | 6.300 A @ 230.0 V<br>6.600 A @ 208.0 V<br>3.150 A @ 460.0 V |
| Design Code                    | B   |
| Drip Cover                     | No Drip Cover   |
| Duty Rating                    | CONT  |
| Efficiency @ 100% Load         | 88.5 %  |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | G          |
| Type         | AC         |
| Mech. spec.  | 06C103     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 06WGW970   |
| Layout       | 06LYC103   |
| Eff. date    | 04-29-2024 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#16       |
| Proprietary  | False      |
| Created date | 04-22-2015 |

|                               |                       |
|-------------------------------|-----------------------|
| Front Face Code               | Standard              |
| Front Shaft Indicator         | None                  |
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 3.2 a                 |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| IP Rating                     | NONE                  |
| KVA Code                      | K                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Exit               | Ko Box                |
| Motor Lead Quantity/Wire Size | 9 @ 16 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 0642M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 6                     |
| Overall Length                | 15.98 IN              |
| Power Factor                  | 68                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | C-Face                |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.125 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 1165 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Bearing      | None                  |

|                                   |                     |
|-----------------------------------|---------------------|
| <b>Thermal Device - Winding</b>   | None                |
| <b>Vibration Sensor Indicator</b> | No Vibration Sensor |
| <b>Winding Thermal 1</b>          | None                |
| <b>Winding Thermal 2</b>          | None                |

**Nameplate**

**NP3441LUA**

|                                   |                            |             |      |            |   |              |       |
|-----------------------------------|----------------------------|-------------|------|------------|---|--------------|-------|
| <b>CAT.NO.</b>                    | VEM3664T                   |             |      |            |   |              |       |
| <b>SPEC</b>                       | 06C103W970G1               |             |      |            |   |              |       |
| <b>HP</b>                         | 2                          |             |      |            |   |              |       |
| <b>VOLTS</b>                      | 230/460                    |             |      |            |   |              |       |
| <b>AMPS</b>                       | 6.3/3.15                   |             |      |            |   |              |       |
| <b>RPM</b>                        | 1165                       |             |      |            |   |              |       |
| <b>FRAME</b>                      | 184TC                      | <b>HZ</b>   | 60   | <b>PH</b>  | 3 |              |       |
| <b>SF</b>                         | 1.15                       | <b>CODE</b> | K    | <b>DES</b> | B | <b>CLASS</b> | F     |
| <b>NEMA NOM. EFF</b>              | 88.5                       | <b>PF</b>   | 68   |            |   |              |       |
| <b>RATING</b>                     | 40C AMB-CONT               |             |      |            |   |              |       |
| <b>CC</b>                         | 010A                       |             |      |            |   |              |       |
| <b>ENCL</b>                       | TEFC                       | <b>SER</b>  |      |            |   |              |       |
| <b>DE</b>                         | 6206                       | <b>ODE</b>  | 6205 |            |   |              |       |
| <b>VPWM INVERTER READY</b>        | SFA 7/3.5                  |             |      |            |   |              |       |
| <b>CT6-60H(10:1)VT3-60H(20:1)</b> | 50HZ 2HP 190/380V 7.4/3.7A |             |      |            |   |              | SF1.0 |

## Parts list

| Part number   | Description                              | Quantity |
|---------------|--|----------|
| SA299815      | SA 06C103W970G1                          | 1.000 ea |
| RA286847      | RA 06C103W970G1                          | 1.000 ea |
| 36FN3000B01   | EXFN, PLASTIC, 6.00 OD, .912 ID          | 1.000 ea |
| HW3201A05     | 3/8-16 EYEBOLT                           | 1.000 ea |
| 06CB3000      | BALDOR CONDUIT BOX CAST                  | 1.000 ea |
| 06GS1000      | GASKET, CONDUIT BOX                      | 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 |
| 36EP1101A01   | FR ENDPLATE, MACH                        | 1.000 ea |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| HW5100A05     | WVY WSHR F/205 & 304 BRGS                | 1.000 ea |
| 36PE1300A01   | PU ENDPLATE, MACH                        | 1.000 ea |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| 10XN2520A26   | 1/4-20X 1 5/8 HEX HD                     | 4.000 ea |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| HA3101A34     | THRUBOLT- 1/4-20 X 10.375                | 4.000 ea |
| 36FH4009A03SP | IEC FH , W/ PRIMER                       | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 06CB3500      | BALDOR CONDUIT BOX LID                   | 1.000 ea |
| 06GS1001      | BALDOR CONDUIT BOX GASKET                | 1.000 ea |
| 51XW2520A12   | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 ea |
| HW2501E16     | KEY, 1/4 SQ X 1.750                      | 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 |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| MG1050Y01     | CELEROL BALDOR GOLD *** NLA IN 5 GALLON  | 0.028 ga |
| LB1624        | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0005        | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea |
| NP3441LUA     | AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM | 1.000 ea |

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|          |                                       |          |
|----------|---------------------------------------|----------|
| 36PA1001 | PKG GRP, PRINT PK1017A06              | 1.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2500bx)4/22 | 1.000 ea |

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**AC Induction Motor Performance Data**

Record # 53064

Typical performance - not guaranteed values

| <b>Winding: 06WGW970-R023</b> |                          | <b>Type: 0642M</b>             |  | <b>Enclosure: TEFC</b> |  |
|-------------------------------|--------------------------|--------------------------------|--|------------------------|--|
| <b>Nameplate Data</b>         |                          |                                | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |                        |  |
| <b>Rated Output (HP)</b>      | 2                        | <b>Full Load Torque</b>        | 9.05 LB-FT                                       |                        |  |
| <b>Volts</b>                  | 230/460                  | <b>Start Configuration</b>     | direct on line                                   |                        |  |
| <b>Full Load Amps</b>         | 6.3/3.15                 | <b>Breakdown Torque</b>        | 31.2 LB-FT                                       |                        |  |
| <b>R.P.M.</b>                 | 1165                     | <b>Pull-up Torque</b>          | 16.7 LB-FT                                       |                        |  |
| <b>Hz</b>                     | 60 <b>Phase</b>          | 3                              | <b>Locked-rotor Torque</b>                       | 19.9 LB-FT             |  |
| <b>NEMA Design Code</b>       | <b>B KVA Code</b>        | K                              | <b>Starting Current</b>                          | 20.9 A                 |  |
| <b>Service Factor (S.F.)</b>  | 1.15                     | <b>No-load Current</b>         | 1.84 A   |                        |  |
| <b>NEMA Nom. Eff.</b>         | 88.5 <b>Power Factor</b> | 68                             | <b>Line-line Res. @ 25°C</b>                     | 5.42 Ω                 |  |
| <b>Rating - Duty</b>          | 40C AMB-CONT             | <b>Temp. Rise @ Rated Load</b> | 27°C   |                        |  |
| <b>S.F. Amps</b>              |                          | <b>Temp. Rise @ S.F. Load</b>  | 33°C   |                        |  |
|                               |                          | <b>Rotor inertia</b>           | 0.394 LB-FT <sup>2</sup>                         |                        |  |

**Load Characteristics 460 V, 60 Hz, 2 HP**

| <b>% of Rated Load</b> | <b>25</b> | <b>50</b> | <b>75</b> | <b>100</b> | <b>125</b> | <b>150</b> | <b>S.F.</b> |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| <b>Power Factor</b>    | 31        | 48        | 60        | 68         | 73         | 75         | 71          |
| <b>Efficiency</b>      | 80.5      | 86.9      | 88.5      | 88.6       | 87.9       | 86.6       | 88.2        |
| <b>Speed</b>           | 1193.1    | 1186      | 1178.3    | 1170       | 1160.8     | 1150       | 1164        |
| <b>Line amperes</b>    | 1.97      | 2.26      | 2.67      | 3.14       | 3.68       | 4.33       | 3.46        |



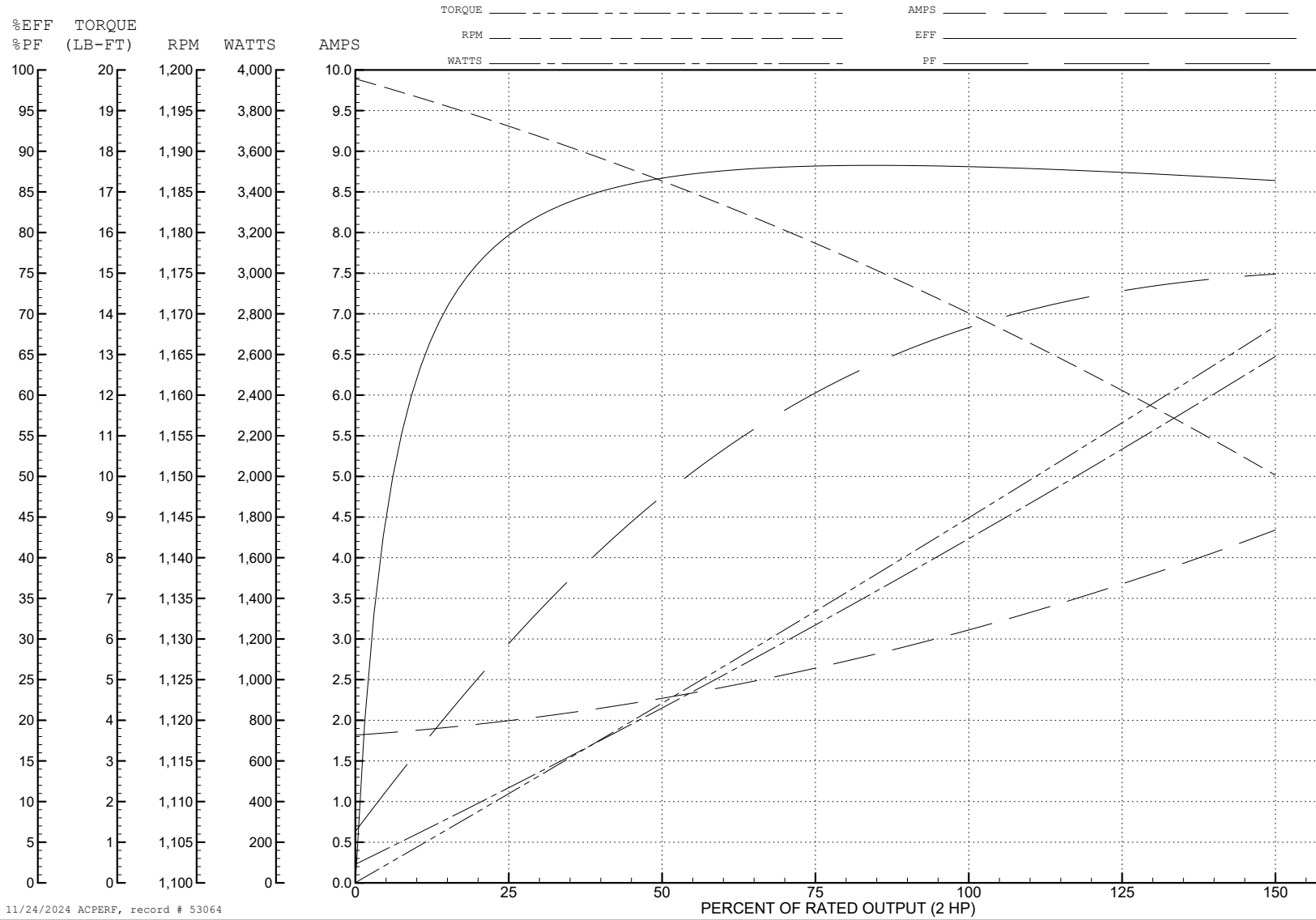
ABB Motors and Mechanical Inc.

WINDING # 06WGW970

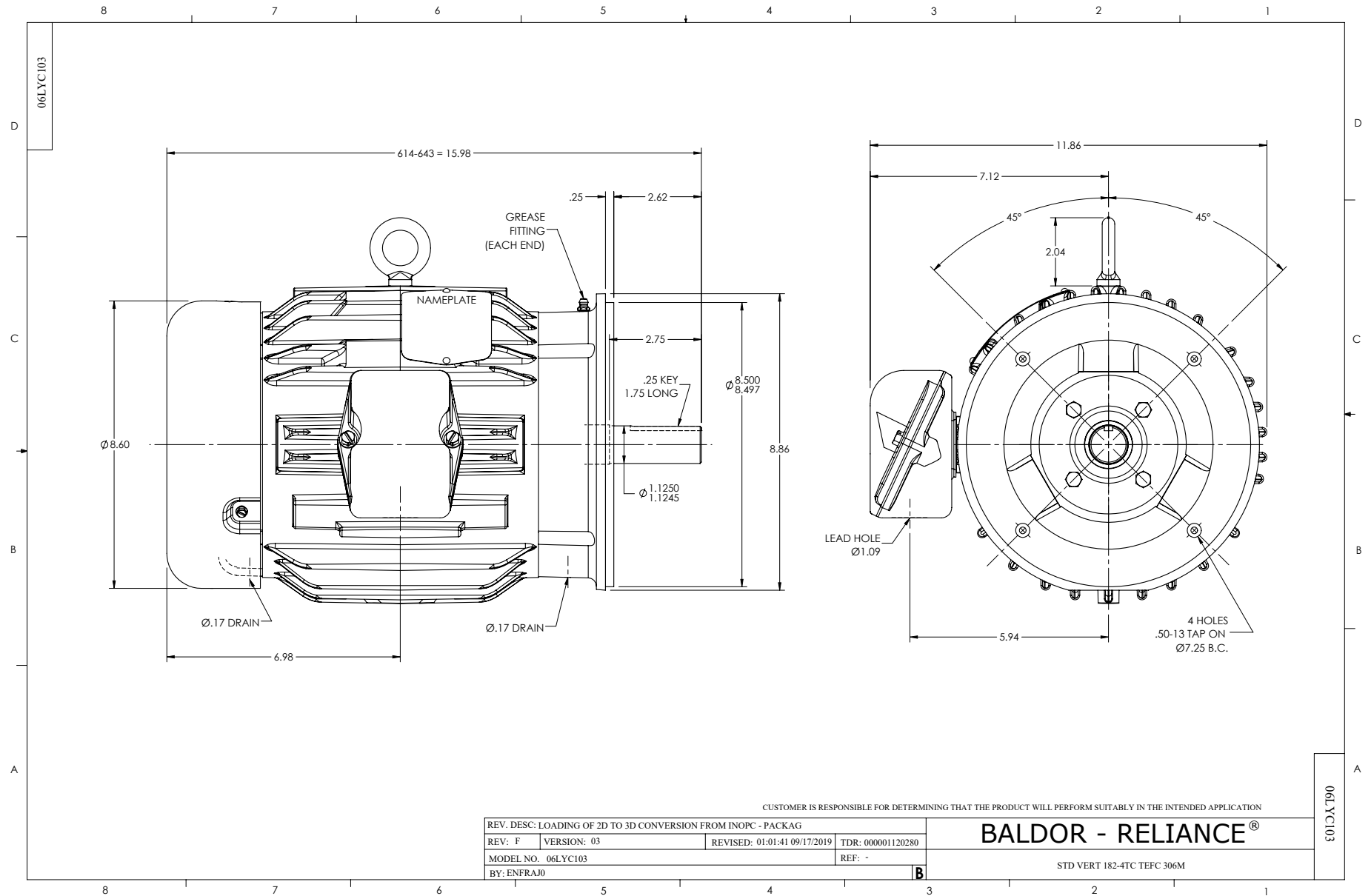
Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1165 RPM 460 V 0642M

TORQUES (LB-FT): PO=31.2 PU=16.7 LR=19.9 LRA=20.9



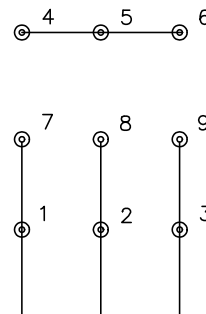
11/24/2024 ACPERF, record # 53064



CD0005

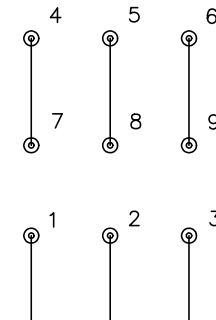


LOW VOLTAGE (2Y)



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.

CD0005

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000                                    |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS