

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VECP3587T**

**2HP,1755RPM,3PH,60HZ,145TC,0535M,TEFC,F1**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | AA     | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 05WGX009   | CD Diagram: | CD0005 | Mfg Plant:    |            |
| Mech. Spec: | 05F006 | Layout:     | 05LYF006   | Poles:      | 04     | Created Date: | 12-29-2008 |
| Base:       | N      | Eff. Date:  | 03-10-2021 | Leads:      | 9#18   |               |            |

| Specs                           |                         |                                |                              |
|---------------------------------|-------------------------|--------------------------------|------------------------------|
| Catalog Number:                 | VECP3587T               | Insulation Class:              | F                            |
| Enclosure:                      | TEFC                    | Inverter Code:                 | Inverter Ready               |
| Frame:                          | 145TC                   | KVA Code:                      | L                            |
| Frame Material:                 | Iron                    | Lifting Lugs:                  | Standard Lifting Lugs        |
| Output @ Frequency:             | 2.000 HP @ 60 HZ        | Locked Bearing Indicator:      | Locked Bearing               |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Motor Lead Quantity/Wire Size: | 9 @ 18 AWG                   |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Exit:               | Ko Box                       |
|                                 | 230.0 V @ 60 HZ         | Motor Lead Termination:        | Flying Leads                 |
| XP Class and Group:             | CLI GP A,B,C,D          | Motor Type:                    | 0534M                        |
| XP Division:                    | Division II             | Mounting Arrangement:          | F1                           |
| Agency Approvals:               | UR                      | Power Factor:                  | 75                           |
|                                 | CSA EEV                 | Product Family:                | Chemical Processing (Not DC) |
|                                 | CSA                     | 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) | RoHS Status:                   | ROHS COMPLIANT               |
| Blower:                         | None                    | Shaft Extension Location:      | Pulley End                   |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| <b>Constant Torque Speed Range:</b>   | 1.5                       | <b>Shaft Ground Indicator:</b>     | No Shaft Grounding  |
| <b>Current @ Voltage:</b>             | 2.800 A @ 460.0 V         | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 5.600 A @ 230.0 V         | <b>Shaft Slinger Indicator:</b>    | Shaft Slinger       |
|                                       | 6.000 A @ 208.0 V         | <b>Speed Code:</b>                 | Single Speed        |
| <b>Design Code:</b>                   | B                         | <b>Motor Standards:</b>            | NEMA                |
| <b>Drip Cover:</b>                    | Drip Cover                | <b>Starting Method:</b>            | Direct on line      |
| <b>Duty Rating:</b>                   | CONT                      | <b>Thermal Device - Bearing:</b>   | None                |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Thermal Device - Winding:</b>   | None                |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Front Face Code:</b>               | Standard                  | <b>Winding Thermal 1:</b>          | None                |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Winding Thermal 2:</b>          | None                |
| <b>Heater Indicator:</b>              | No Heater                 | <b>XP Temp Code:</b>               | T4                  |

|                          |              |    |  |             |            |      |            |           |   |  |
|--------------------------|--------------|----|--|-------------|------------|------|------------|-----------|---|--|
| <b>Nameplate NP3258E</b> |              |    |  |             |            |      |            |           |   |  |
| <b>CAT.NO.</b>           | VECP3587T    |    |  |             |            |      |            |           |   |  |
| <b>SPEC.</b>             | 05F006X009G1 |    |  |             |            |      |            |           |   |  |
| <b>HP</b>                | 2            | TE |  |             |            |      |            |           |   |  |
| <b>VOLTS</b>             | 230/460      |    |  |             |            |      |            |           |   |  |
| <b>AMP</b>               | 5.6/2.8      |    |  |             |            |      |            |           |   |  |
| <b>RPM</b>               | 1755         |    |  |             |            |      |            |           |   |  |
| <b>FRAME</b>             | 145TC        |    |  |             | <b>HZ</b>  | 60   |            | <b>PH</b> | 3 |  |
| <b>SER.F.</b>            | 1.15         |    |  | <b>CODE</b> | L          |      | <b>DES</b> | B         |   |  |
| <b>RATING</b>            | 40C AMB-CONT |    |  |             |            |      |            |           |   |  |
| <b>SN</b>                |              |    |  |             |            |      |            |           |   |  |
| <b>DE</b>                | 6205         |    |  |             | <b>ODE</b> | 6205 |            |           |   |  |
| <b>NEMA-NOM-EFF</b>      | 88.5         |    |  | <b>PF</b>   | 75         |      |            |           |   |  |
| <b>G.MIN.EFF</b>         | 86.5         |    |  | <b>CC</b>   | 010A       |      |            |           |   |  |
| <b>T. CODE</b>           | T4           |    |  | <b>T=</b>   | 135        |      |            |           |   |  |
|                          |              |    |  |             |            |      |            | <b>CL</b> | F |  |

|                          |                                |
|--------------------------|--------------------------------|
| <b>Nameplate NP3261E</b> |                                |
| <b>SPEC.</b>             | 05F006X009G1                   |
| <b>D.E. BRG.</b>         | 25BC02XP30X                    |
| <b>O.D.E. BRG.</b>       | 25BC02XP30X                    |
| <b>GREASE</b>            | POLYREX EM                     |
| <b>RPM MAX</b>           | 2700                           |
|                          | <b>MAX. KVAR</b> N/A           |
| <b>BLANK</b>             |                                |
| <b>INV. TYPE</b>         | PWM                            |
| <b>T=</b>                | 135                            |
| <b>C HP FR</b>           | 60                             |
| <b>CT HZ FROM</b>        | 1.5                            |
| <b>VT HZ FROM</b>        | 0-                             |
| <b>HTR-VOLTS</b>         |                                |
| <b>HTR-WATTS</b>         |                                |
| <b>C HP TO</b>           | 90                             |
| <b>CT HZ TO</b>          | 60                             |
| <b>VT HZ TO</b>          | 60                             |
| <b>HTR-AMPS</b>          |                                |
|                          | <b>MAX. SPACE HEATER TEMP.</b> |

| Parts List   |  |          |
|--------------|--|----------|
| Part Number  | Description                              | Quantity |
| SA178735     | SA 05F006X009G1                          | 1.000 EA |
| RA166808     | RA 05F006X009G1                          | 1.000 EA |
| 34FN3002B01  | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 EA |
| HW3201A05    | 3/8-16 EYEBOLT                           | 1.000 EA |
| 06CB1000A02G | 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 |
| 35EP1102B03G | FREP TEFC 205 BRG,GRSR,RLF,.125 NPT DRAI | 1.000 EA |
| HW4500A19    | 1/4-28X1/4 SLOTTED PLUG F/S              | 1.000 EA |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4054       | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| HW5100A05    | WVY WSHR F/205 & 304 BRGS                | 1.000 EA |
| 35EP1329A16G | PUEP ENCL 143-5TC 205 BRG,GRSR,RLF,NPT D | 1.000 EA |
| HW4500A19    | 1/4-28X1/4 SLOTTED PLUG F/S              | 1.000 EA |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4054       | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 EA |
| 51XN1032A20  | 10-32 X 1 1/4 HX WS SL SR                | 2.000 EA |
| 06CB1502G    | LIPPED CONDUIT BOX LID CAST, GRAY EPOXY  | 1.000 EA |
| HA3100A28    | THRUBOLT 10-32 X 8.187                   | 4.000 EA |
| 51XB1214A16  | 12-14X1.00 HXWSSLD SERTYB                | 1.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| 35FH1000A04G           | FAN COVER 35FH1000 - (GRAY)              | 1.000 EA |
| 10XN2520A18            | 1/4-20 X 1-1/8 HEX CAP SCREW.            | 3.000 EA |
| HW1001A25              | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 3.000 EA |
| HW4600B32SP            | V-RING SLINGER 1.000 X 1.540 X .24 VITON | 1.000 EA |
| WD4100A03              | DE-750 HEYCO PLUG 62MP0750 MICRO PLASTIC | 1.000 EA |
| 35FH4500A01            | DRIP COVER, STAMPED X - W/PRIMED         | 1.000 EA |
| HA2001A13              | 35-10103 SPACER WELKER                   | 3.000 EA |
| 51XN1032A20            | 10-32 X 1 1/4 HX WS SL SR                | 3.000 EA |
| 06GS1003               | GASKET, KOBX LID, 1/8" THICK BLACK NEOPR | 1.000 EA |
| 10XN2520A12            | 1/4-20 X 3/4 HEX HEAD CAP                | 2.000 EA |
| HW1001A25              | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| HA1005A03SP            | SLINGER, OD 1.750, ID .938, 205 BRG      | 1.000 EA |
| HW2501D13              | KEY, 3/16 SQ X 1.375                     | 1.000 EA |
| HA7000A01              | KEY RETAINER 7/8" DIA SHAFT              | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| MJ5001A27              | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 QT |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |
| LB1002N                | LABEL,MARINE DUTY (ON ROLLS)             | 1.000 EA |
| MJ1000A02              | GREASE, MOBIL POLYREX EM - 124047        | 0.050 LB |
| MG1025N19              | WILKOFASST, 778.50, RELIANCE BLUE-GREEN  | 0.022 GA |
| LC0005E01              | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| LB1449                 | DIV-2/NEC WARNING LABEL                  | 1.000 EA |
| NP3258E                | SS CP SUPER-E DIV-2 UL CSA-C US EEV CC   | 1.000 EA |
| NP3261E                | SS CP SUPER-E AUX DATA INFORMATION       | 1.000 EA |

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|             |   |          |
|-------------|---|----------|
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS             | 2.000 EA |
| 36PA1000    | PKG GRP, PRINT PK1016A06                | 1.000 EA |
| PK3082      | STYROFOAM CRADLE                        | 1.000 EA |
| MN416A01    | TAG-INSTAL-MAINT no wire (2100/bx) 4/22 | 1.000 EA |



**AC Induction Motor Performance Data**

Record # 47104

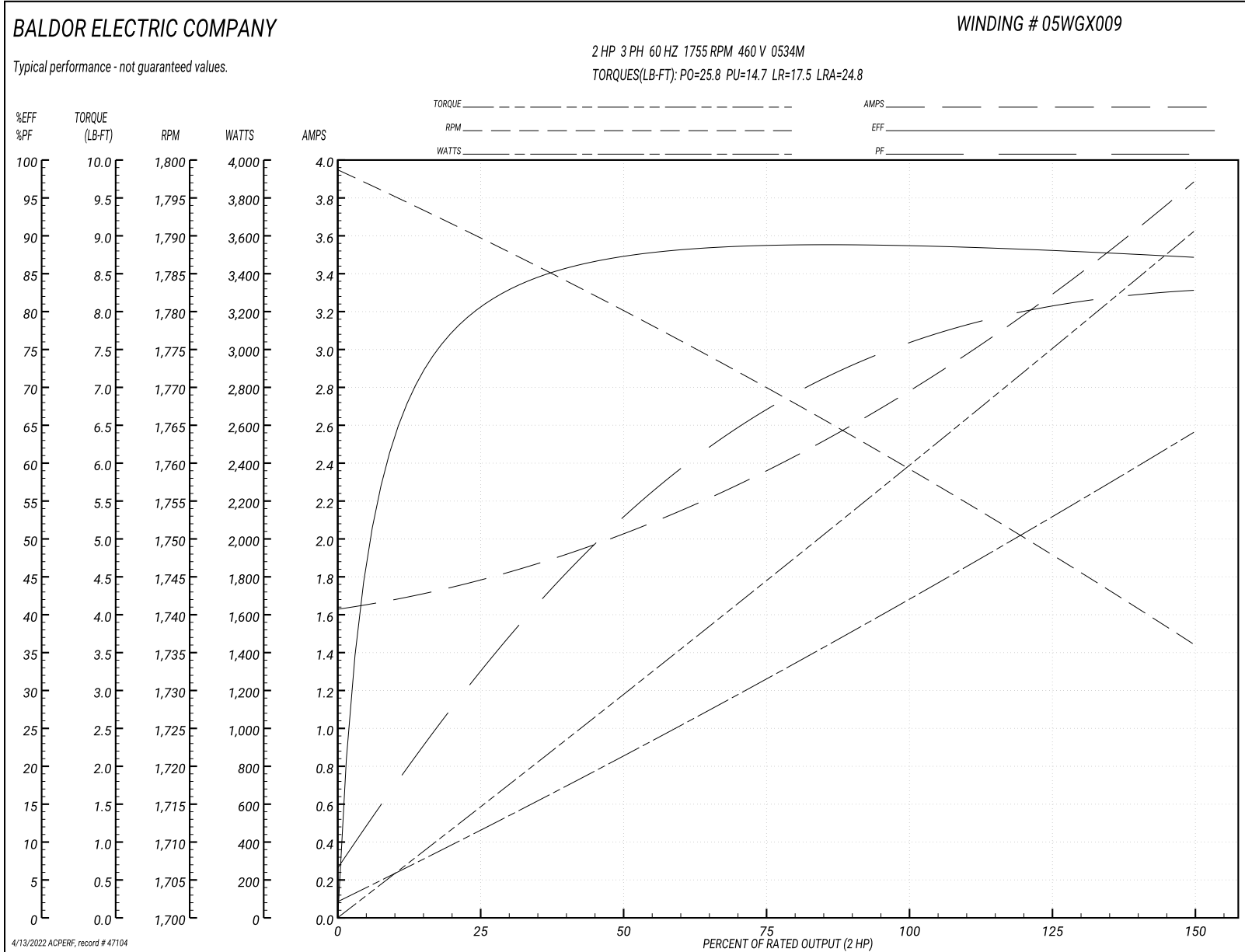
Typical performance - not guaranteed values

| <b>Winding: 05WGX009-R039</b> |                   | <b>Type: 0534M</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>    | 5.99 LB-FT                                       |                              |        |
| <b>Volts</b>                  | 230/460           | <b>Start Configuration</b> | direct on line                                   |                              |        |
| <b>Full Load Amps</b>         | 5.6/2.8           | <b>Breakdown Torque</b>    | 25.8 LB-FT                                       |                              |        |
| <b>R.P.M.</b>                 | 1755              | <b>Pull-up Torque</b>      | 14.7 LB-FT                                       |                              |        |
| <b>Hz</b>                     | 60 <b>Phase</b>   | 3                          | <b>Locked-rotor Torque</b>                       | 17.5 LB-FT                   |        |
| <b>NEMA Design Code</b>       | <b>B KVA Code</b> | L                          | <b>Starting Current</b>                          | 24.8 A                       |        |
| <b>Service Factor (S.F.)</b>  | 1.15              |                            | <b>No-load Current</b>                           | 1.66 A                       |        |
| <b>NEMA Nom. Eff.</b>         | 88.5              | <b>Power Factor</b>        | 75   | <b>Line-line Res. @ 25°C</b> | 6.28 Ω |
| <b>Rating - Duty</b>          | 40C AMB-CONT      |                            | <b>Temp. Rise @ Rated Load</b>                   | 39°C                         |        |
| <b>S.F. Amps</b>              |                   |                            | <b>Temp. Rise @ S.F. Load</b>                    | 46°C                         |        |
|                               |                   |                            | <b>Locked-rotor Power Factor</b>                 | 46.5                         |        |
|                               |                   |                            | <b>Rotor inertia</b>                             | 0.201 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>    | 34        | 54        | 67        | 75         | 80         | 83         | 78          |
| <b>Efficiency</b>      | 80.6      | 87.2      | 88.9      | 88.7       | 88.2       | 87.2       | 88.2        |
| <b>Speed</b>           | 1789      | 1780      | 1770      | 1759       | 1748       | 1736       | 1748        |
| <b>Line amperes</b>    | 1.75      | 2.01      | 2.37      | 2.82       | 3.31       | 3.86       | 3.14        |

Performance Graph at 460V, 60Hz, 2.0HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 47862

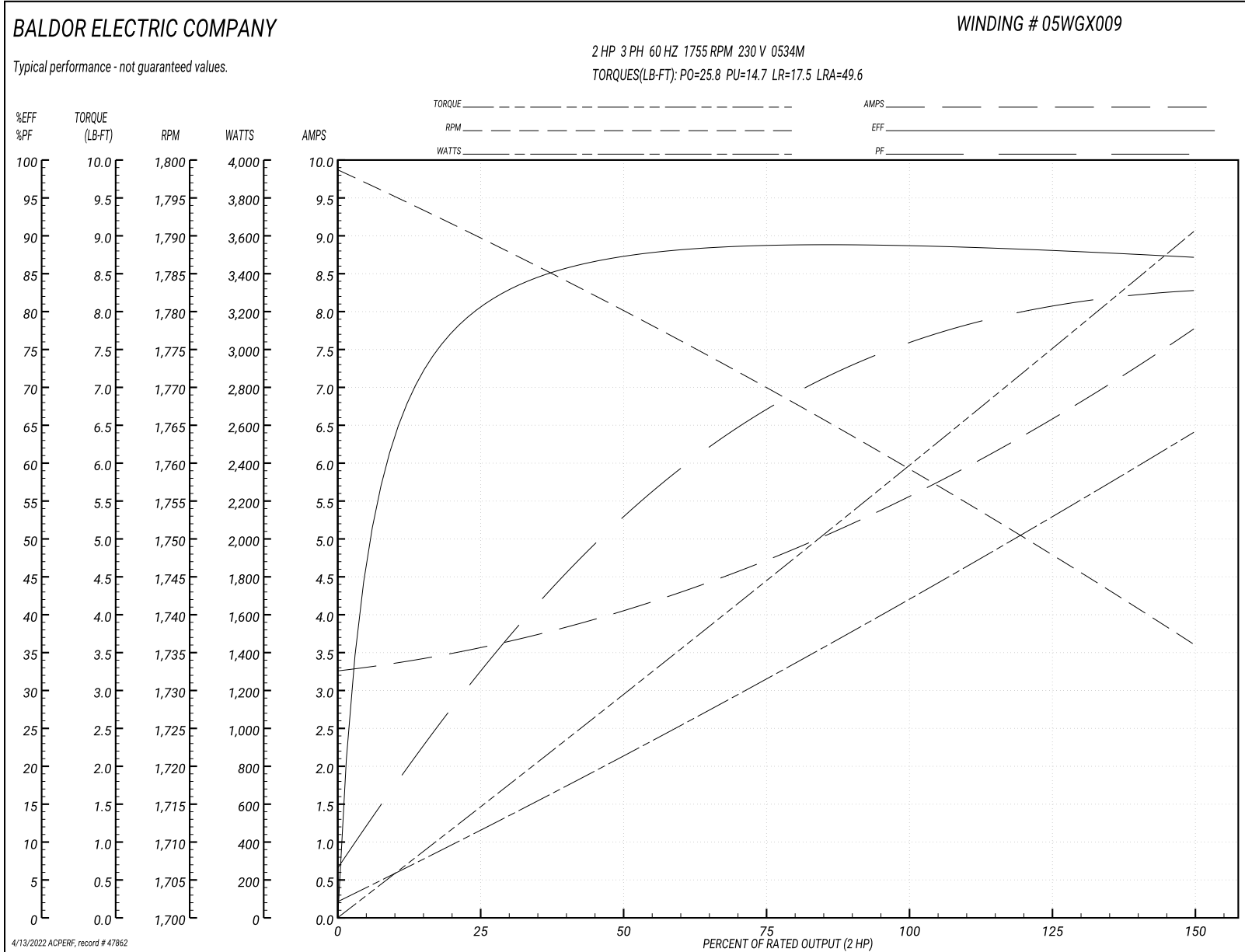
Typical performance - not guaranteed values

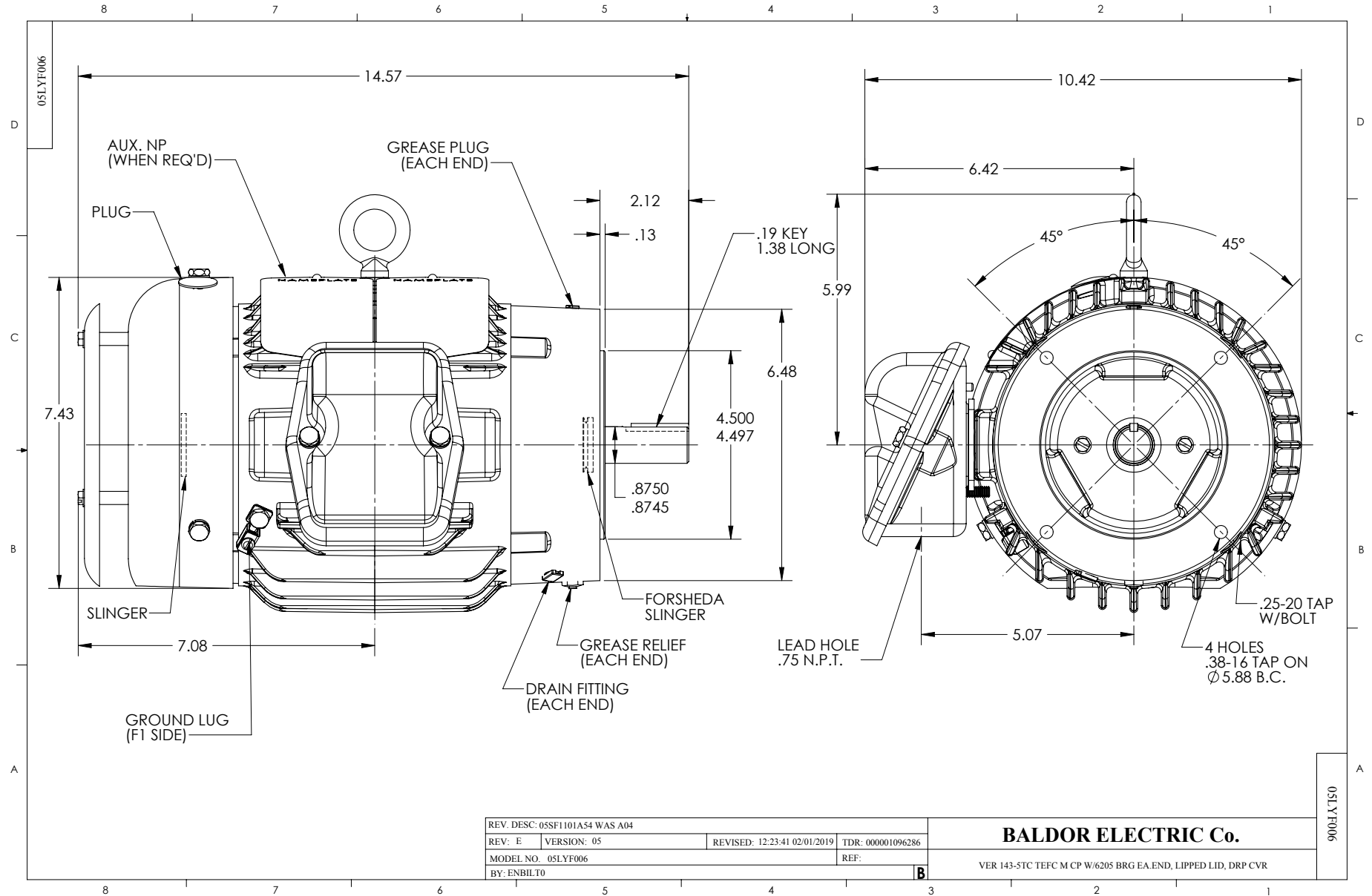
| <b>Winding: 05WGX009-R039</b> |                   | <b>Type: 0534M</b>         |   | <b>Enclosure: TEFC</b>           |                          |
|-------------------------------|-------------------|----------------------------|---|----------------------------------|--------------------------|
| <b>Nameplate Data</b>         |                   |                            | <b>230 V, 60 Hz:<br/>Low Voltage Connection</b> |                                  |                          |
| <b>Rated Output (HP)</b>      | 2                 | <b>Full Load Torque</b>    | 5.99 LB-FT                                      |                                  |                          |
| <b>Volts</b>                  | 230/460           | <b>Start Configuration</b> | direct on line                                  |                                  |                          |
| <b>Full Load Amps</b>         | 5.6/2.8           | <b>Breakdown Torque</b>    | 25.8 LB-FT                                      |                                  |                          |
| <b>R.P.M.</b>                 | 1755              | <b>Pull-up Torque</b>      | 14.7 LB-FT                                      |                                  |                          |
| <b>Hz</b>                     | 60 <b>Phase</b>   | 3                          | <b>Locked-rotor Torque</b>                      | 17.5 LB-FT                       |                          |
| <b>NEMA Design Code</b>       | <b>B KVA Code</b> | L                          | <b>Starting Current</b>                         | 49.6 A                           |                          |
| <b>Service Factor (S.F.)</b>  | 1.15              |                            | <b>No-load Current</b>                          | 3.32 A                           |                          |
| <b>NEMA Nom. Eff.</b>         | 88.5              | <b>Power Factor</b>        | 75  | <b>Line-line Res. @ 25°C</b>     | 1.57 Ω                   |
| <b>Rating - Duty</b>          | 40C               | <b>AMB-CONT</b>            |   | <b>Temp. Rise @ Rated Load</b>   | 39°C                     |
| <b>S.F. Amps</b>              |                   |                            |   | <b>Temp. Rise @ S.F. Load</b>    | 46°C                     |
|                               |                   |                            |   | <b>Locked-rotor Power Factor</b> | 46.5                     |
|                               |                   |                            |   | <b>Rotor inertia</b>             | 0.201 LB-FT <sup>2</sup> |

**Load Characteristics 230 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>    | 34        | 54        | 67        | 75         | 80         | 83         | 78          |
| <b>Efficiency</b>      | 80.6      | 87.2      | 88.9      | 88.7       | 88.2       | 87.2       | 88.1        |
| <b>Speed</b>           | 1789      | 1780      | 1770      | 1759       | 1748       | 1736       | 1748        |
| <b>Line amperes</b>    | 3.5       | 4.02      | 4.74      | 5.63       | 6.63       | 7.72       | 6.27        |

Performance Graph at 230V, 60Hz, 2.0HP Typical performance - Not guaranteed values

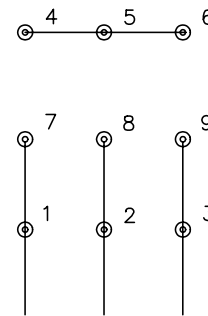




CD0005

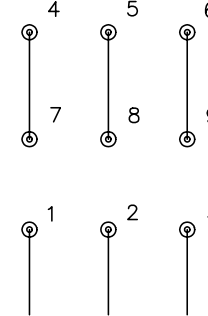


LOW VOLTAGE  
(2Y)



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.

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 90000                                     |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005