

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **VEM3581T-5**

**1HP,1760RPM,3PH,60HZ,143TC,0519M,TEFC,F1**

| Part Detail |       |                |       |             |          |               |            |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | G     | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC    | Prod. Type:    | 0518M | Elec. Spec: | 05WGX127 | CD Diagram:   | CD0006     |
| Enclosure:  | TEFC  | Mfg Plant:     |       | Mech. Spec: | 05C053   | Layout:       | 05LYC053   |
| Frame:      | 143TC | Mounting:      | F1    | Poles:      | 04       | Created Date: | 08-03-2010 |
| Base:       | N     | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 06-16-2016 |
| Leads:      | 3#18  |                |       |             |          | Replaced By:  |            |
| Literature: |       | Elec. Diagram: |       |             |          |               |            |

## Nameplate NP3441L

|                            |              |  |  |      |                |     |      |   |  |    |   |
|----------------------------|--------------|--|--|------|----------------|-----|------|---|--|----|---|
| CAT.NO.                    | VEM3581T-5   |  |  |      |                |     |      |   |  |    |   |
| SPEC.                      | 05C053X127G1 |  |  |      |                |     |      |   |  |    |   |
| HP                         | 1            |  |  |      |                |     |      |   |  |    |   |
| VOLTS                      | 575          |  |  |      |                |     |      |   |  |    |   |
| AMP                        | 1.2          |  |  |      |                |     |      |   |  |    |   |
| RPM                        | 1760         |  |  |      |                |     |      |   |  |    |   |
| FRAME                      | 143TC        |  |  |      |                | HZ  | 60   |   |  | PH | 3 |
| SER.F.                     | 1.15         |  |  | CODE | L              |     | DES  | B |  | CL | F |
| NEMA-NOM-EFF               | 85.5         |  |  | PF   | 71             |     |      |   |  |    |   |
| RATING                     | 40C AMB-CONT |  |  |      |                |     |      |   |  |    |   |
| CC                         | 010A         |  |  |      | USABLE AT 208V |     |      |   |  |    |   |
| DE                         | 6205         |  |  |      |                | ODE | 6203 |   |  |    |   |
| ENCL                       | TEFC         |  |  | SN   |                |     |      |   |  |    |   |
| VPWM INVERTER READY        |              |  |  |      |                |     |      |   |  |    |   |
| CT6-60H(10:1)VT3-60H(20:1) |              |  |  |      |                |     |      |   |  |    |   |

| Parts List  |                                          |          |
|-------------|------------------------------------------|----------|
| Part Number | Description                              | Quantity |
| SA201052    | SA 05C053X127G1                          | 1.000 EA |
| RA188357    | RA 05C053X127G1                          | 1.000 EA |
| 34FN3002B01 | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 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 |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 EA |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| HW3001B01   | BRASS CUP WASHER, FOR #8 SCREW           | 1.000 EA |
| 35EP1100A02 | FR ENDPLATE, TEFC W/GREASER              | 1.000 EA |
| HW4500A01   | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| HW5100A03SP | WAVY WASHER (W1543-017)                  | 1.000 EA |
| 35EP1329A01 | PU EP ENCL 143-5TC 205 BRG W/GRSR & STD  | 1.000 EA |
| HW4500A01   | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| 51XN1032A20 | 10-32 X 1 1/4 HX WS SL SR                | 2.000 EA |
| HA3100A28   | THRUBOLT 10-32 X 8.187                   | 4.000 EA |
| 51XB1214A16 | 12-14X1.00 HXWSSLD SERTYB                | 1.000 EA |
| 35FH4005A02 | IEC FH W/GREASER - 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 |
| HW2501D13   | KEY, 3/16 SQ X 1.375                     | 1.000 EA |
| HA7000A01   | KEY RETAINER 7/8" DIA SHAFT              | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |

| Parts List (continued) |                                          |          |
|------------------------|------------------------------------------|----------|
| Part Number            | Description                              | Quantity |
| MJ1000A02              | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.022 GA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| LC0006                 | CONNECTION LABEL                         | 1.000 EA |
| NP3441L                | ALUM SUPER-E VPWM INVERTER READY UL      | 1.000 EA |
| 36PA1000               | PKG GRP, PRINT     PK1016A06             | 1.000 EA |
| PK3082                 | STYROFOAM CRADLE                         | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1000/bx) 11/14 | 1.000 EA |

**AC Induction Motor Performance Data**

Record # 32077 - Typical performance - not guaranteed values

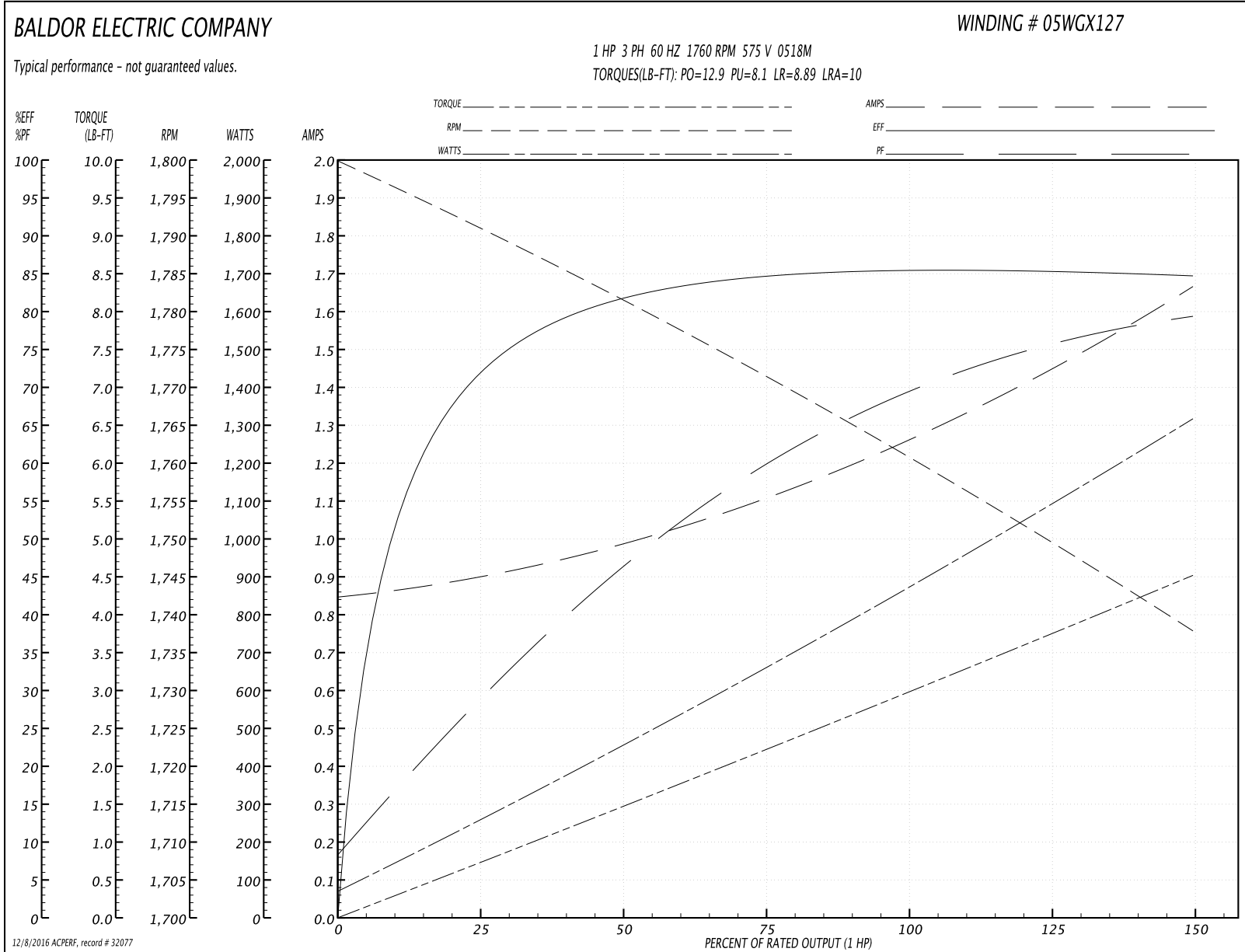
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 05WGX127-R001 | <b>Type:</b> 0518M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

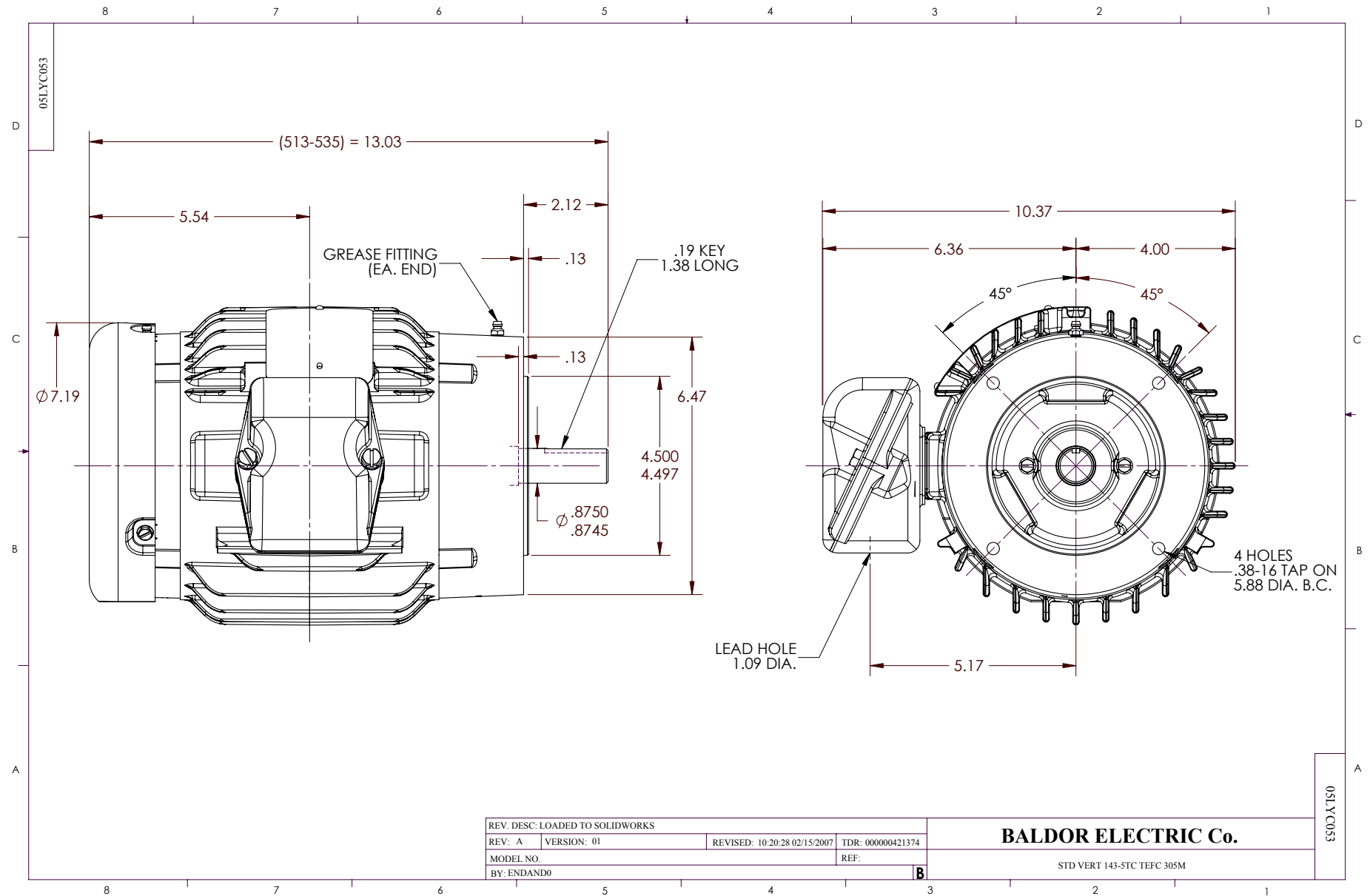
| Nameplate Data        |              |              |    | 575 V, 60 Hz:<br>Single Voltage Motor |                |
|-----------------------|--------------|--------------|----|---------------------------------------|----------------|
| Rated Output (HP)     | 1            |              |    | Full Load Torque                      | 2.98 LB-FT     |
| Volts                 | 575          |              |    | Start Configuration                   | direct on line |
| Full Load Amps        | 1.2          |              |    | Breakdown Torque                      | 12.9 LB-FT     |
| R.P.M.                | 1760         |              |    | Pull-up Torque                        | 8.1 LB-FT      |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                   | 8.89 LB-FT     |
| NEMA Design Code      | B            | KVA Code     | L  | Starting Current                      | 10 A           |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                       | 0.853 A        |
| NEMA Nom. Eff.        | 85.5         | Power Factor | 71 | Line-line Res. @ 25°C                 | 24.2 Ω         |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load               | 30°C           |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                | 35°C           |
|                       |              |              |    | Locked-rotor Power Factor             | 54.9           |
|                       |              |              |    | Rotor inertia                         | 0.106 LB-FT2   |

**Load Characteristics 575 V, 60 Hz, 1 HP**

|                 |       |       |      |      |      |      |      |
|-----------------|-------|-------|------|------|------|------|------|
| % of Rated Load | 25    | 50    | 75   | 100  | 125  | 150  | S.F. |
| Power Factor    | 29    | 47    | 59   | 69   | 75   | 80   | 75   |
| Efficiency      | 71.6  | 81.4  | 84.8 | 85.6 | 85.3 | 84.7 | 85.5 |
| Speed           | 1791  | 1781  | 1772 | 1761 | 1749 | 1738 | 1754 |
| Line amperes    | 0.891 | 0.985 | 1.11 | 1.26 | 1.46 | 1.66 | 1.35 |

## Performance Graph at 575V, 60Hz, 1.0HP Typical performance - Not guaranteed values





CD0006

TYPICAL WYE-CONNECTED MOTOR

1-BLU

3-ORG

2-WHT

J-BRN

J-BRN

OPTIONAL THERMOSTATS

TYPICAL DELTA-CONNECTED MOTOR

1-BLU

2-WHT

3-ORG

J-BRN

J-BRN

OPTIONAL THERMOSTATS

1

2

3

LINE

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 |         |                        |              | BALDOR ELECTRIC Co. |
| REV. LTR: D                               | BY: JLP | REVISED: 01/21/99 4:02 | TDR: 0171435 |                     |
| 90000                                     |         | FILE: AAA00005141      | MDL: -       |                     |
|                                           |         | MTL: -                 |              |                     |

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

CD0006

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