

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **VEM3559T**

**3HP,3450RPM,3PH,60HZ,145TC,3532M,TEFC,F1**

| Part Detail |       |                |       |             |          |               |            |
|-------------|-------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | B     | Status:        | PRD/A | Change #:   |          | Proprietary:  | Yes        |
| Type:       | AC    | Prod. Type:    | 3532M | Elec. Spec: | 35WGQ060 | CD Diagram:   | CD0005     |
| Enclosure:  | TEFC  | Mfg Plant:     |       | Mech. Spec: | 35AA003  | Layout:       | 35LYAA003  |
| Frame:      | 145TC | Mounting:      | F1    | Poles:      | 02       | Created Date: | 04-20-2015 |
| Base:       | N     | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 10-16-2015 |
| Leads:      | 9#18  |                |       |             |          | Replaced By:  |            |
| Literature: |       | Elec. Diagram: |       |             |          |               |            |

## Nameplate NP3441LUA

|              |               |  |      |                |      |  |    |    |  |     |   |
|--------------|---------------|--|------|----------------|------|--|----|----|--|-----|---|
| CAT.NO.      | VEM3559T      |  |      |                |      |  |    |    |  |     |   |
| SPEC.        | 35AA003Q060G1 |  |      |                |      |  |    |    |  |     |   |
| HP           | 3             |  |      |                |      |  |    |    |  |     |   |
| VOLTS        | 230/460       |  |      |                |      |  |    |    |  |     |   |
| AMP          | 7.2/3.6       |  |      |                |      |  |    |    |  |     |   |
| RPM          | 3450          |  |      |                |      |  |    |    |  |     |   |
| FRAME        | 145TC         |  |      |                | HZ   |  | 60 |    |  | PH  | 3 |
| SER.F.       | 1.15          |  | CODE | L              | DES  |  | B  | CL |  | F   |   |
| NEMA-NOM-EFF | 86.5          |  |      | PF             | 92   |  |    |    |  |     |   |
| RATING       | 40C AMB-CONT  |  |      |                |      |  |    |    |  |     |   |
| CC           | 010A          |  |      | USABLE AT 208V |      |  |    |    |  | 7.9 |   |
| DE           | 6205          |  |      | ODE            | 6203 |  |    |    |  |     |   |
| ENCL         | TEFC          |  | SN   |                |      |  |    |    |  |     |   |

 VPWM INVERTER READY  
 CT6-60H(10:1)VT3-60H(20:1

50Hz 3HP 190/380V 8.8/4.4A

SF1.0

| Parts List     |                                          |          |
|----------------|------------------------------------------|----------|
| Part Number    | Description                              | Quantity |
| SA299883       | SA 35AA003Q060G1                         | 1.000 EA |
| RA286918       | RA 35AA003Q060G1                         | 1.000 EA |
| S/P107-000-001 | SUPER E PROC'S-FS, WS & CK PLTS          | 1.000 EA |
| NS2512A01      | INSULATOR, CONDUIT BOX X                 | 1.000 EA |
| 35CB3009       | 35 CB W/1.09 DIA. LEAD HOLE @ 6:         | 1.000 EA |
| 36GS1000       | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 EA |
| 51XB1016A07    | 10-16 X 7/16 HXWSSLD SERTYB              | 2.000 EA |
| 11XW1032G06    | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 35EP3100M01    | FREP TEFC 203 BRG W/GRSR (RAISED FH PADS | 1.000 EA |
| HW4500A01      | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| HW5100A03SP    | WAVY WASHER (W1543-017)                  | 1.000 EA |
| 35EP3300A46    | SPL FACE MTD EP-ENCL-145TC-205 BRG       | 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 |
| 35FH4005A84SP  | IEC FH W/GRSR, NO DIMPLES PRIMED         | 1.000 EA |
| 51XW1032A06    | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 35CB4521       | 35 LIPPED CB LID (GALV & PHOSPH)         | 1.000 EA |
| 35GS1030       | 35 GS FOR CB LID - LEXIDE                | 1.000 EA |
| 51XW0832A07    | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 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 |
| MJ1000A02      | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB |
| 34FN3002B01    | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 EA |

| Parts List (continued) |                                          |          |
|------------------------|------------------------------------------|----------|
| Part Number            | Description                              | Quantity |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.017 GA |
| HA3100A18              | THRUBOLT 10-32 X 9.250                   | 4.000 EA |
| LC0005E01              | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1000/bx) 11/14 | 1.000 EA |
| NP3441LUA              | ALUM SUPER-E VPWM INV READY UL           | 1.000 EA |
| PK3082                 | STYROFOAM CRADLE                         | 1.000 EA |
| 36PA1000               | PKG GRP, PRINT     PK1016A06             | 1.000 EA |

**AC Induction Motor Performance Data**

Record # 50261 - Typical performance - not guaranteed values

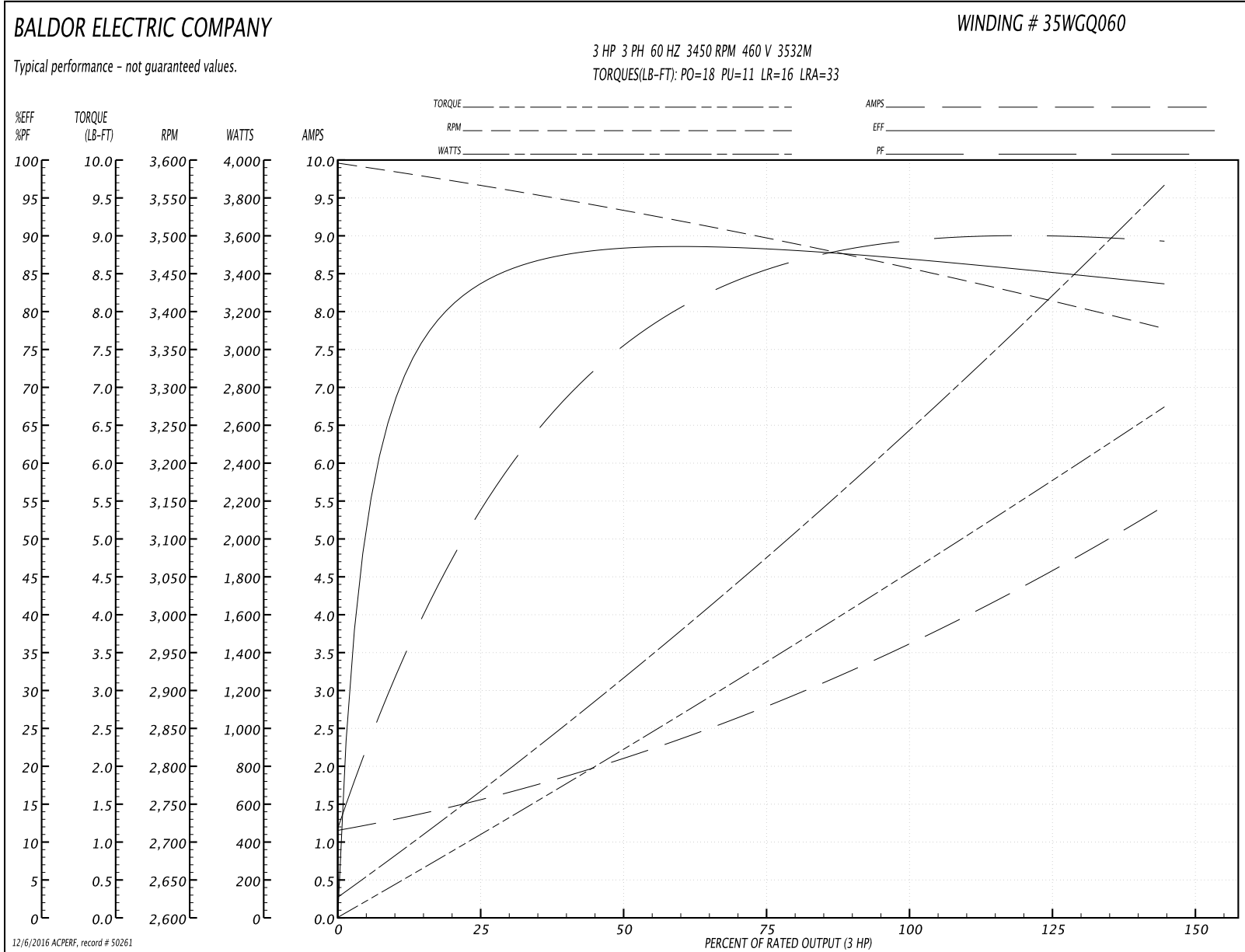
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 35WGQ060-R002 | <b>Type:</b> 3532M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                |
|-----------------------|--------------|--------------|----|------------------------------------------|----------------|
| Rated Output (HP)     | 3            |              |    | Full Load Torque                         | 4.5 LB-FT      |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line |
| Full Load Amps        | 7.2/3.6      |              |    | Breakdown Torque                         | 18 LB-FT       |
| R.P.M.                | 3450         |              |    | Pull-up Torque                           | 11 LB-FT       |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 16 LB-FT       |
| NEMA Design Code      | B            | KVA Code     | L  | Starting Current                         | 33 A           |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 1.2 A          |
| NEMA Nom. Eff.        | 86.5         | Power Factor | 92 | Line-line Res. @ 25°C                    | 4.72 Ω         |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 61°C           |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 76°C           |

## Load Characteristics 460 V, 60 Hz, 3 HP

|                 |      |      |      |      |      |      |      |
|-----------------|------|------|------|------|------|------|------|
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
| Power Factor    | 62   | 81   | 88   | 92   | 93   | 94   | 93   |
| Efficiency      | 83.7 | 87.9 | 88.2 | 87.2 | 85.6 | 83.5 | 86.2 |
| Speed           | 3562 | 3531 | 3498 | 3462 | 3421 | 3375 | 3437 |
| Line amperes    | 1.5  | 2.1  | 2.8  | 3.6  | 4.5  | 5.4  | 4.1  |

## Performance Graph at 460V, 60Hz, 3.0HP Typical performance - Not guaranteed values



## AC Induction Motor Performance Data

Record # 59171 - Typical performance - not guaranteed values

|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 35WGQ060-R002 | <b>Type:</b> 3532M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 230 V, 60 Hz:<br>Low Voltage Connection |                           |
|-----------------------|--------------|--------------|----|-----------------------------------------|---------------------------|
| Rated Output (HP)     | 3            |              |    | Full Load Torque                        | 4.5 LB-FT                 |
| Volts                 | 230/460      |              |    | Start Configuration                     | direct on line            |
| Full Load Amps        | 7.2/3.6      |              |    | Breakdown Torque                        | 18 LB-FT                  |
| R.P.M.                | 3450         |              |    | Pull-up Torque                          | 11 LB-FT                  |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                     | 16 LB-FT                  |
| NEMA Design Code      | B            | KVA Code     | L  | Starting Current                        | 66 A                      |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                         | 2.4 A                     |
| NEMA Nom. Eff.        | 86.5         | Power Factor | 92 | Line-line Res. @ 25°C                   | 1.17 $\Omega$             |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                 | 61°C                      |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                  | 73°C                      |
|                       |              |              |    | Locked-rotor Power Factor               | 47.1                      |
|                       |              |              |    | Rotor inertia                           | 0.0885 LB-FT <sup>2</sup> |

Load Characteristics 230 V, 60 Hz, 3 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 57   | 77   | 85   | 88   | 89   | 90   | 89   |
| Efficiency      | 84.1 | 87.9 | 88.4 | 87.2 | 85.7 | 83.5 | 86.3 |
| Speed           | 3562 | 3531 | 3498 | 3462 | 3421 | 3375 | 3437 |
| Line amperes    | 3    | 4.2  | 5.6  | 7.2  | 9    | 10.8 | 8.28 |

## Performance Graph at 230V, 60Hz, 3.0HP Typical performance - Not guaranteed values

