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# Customer information packet

## VNEDM3546T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 3522M, TENV, F1

Class - None

Division - Not Applicable

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | TENV  |
| Frame                          | 143TC   |
| Frame Material                 | Steel   |
| Frequency                      | 60.00 Hz  |
| Haz Area Class and Group       | None  |
| Haz Area Division              | Not Applicable  |
| Motor Letter Type              | Three Phase   |
| Output @ Frequency             | 1.000 HP @ 60 HZ  |
| Phase                          | 3   |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ  |
| Voltage @ Frequency            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| Agency Approvals               | CCSA US<br>CSA EEV<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  |
| Constant Torque Speed Range    | 6   |
| Current @ Voltage              | 3.340 A @ 230.0 V<br>3.300 A @ 208.0 V<br>1.670 A @ 460.0 V |
| Design Code                    | B   |
| Drip Cover                     | No Drip Cover   |
| Duty Rating                    | CONT  |
| Efficiency @ 100% Load         | 85.5 %  |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  | 35E4321    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGZ818   |
| Layout       | 35LYE4321  |
| Eff. date    | 07-14-2022 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 01-10-2022 |

|                               |                    |
|-------------------------------|--------------------|
| Feedback Device               | NO FEEDBACK        |
| Front Shaft Indicator         | None               |
| Heater Indicator              | No Heater          |
| High Voltage Full Load Amps   | 1.7 a              |
| Insulation Class              | F                  |
| Inverter Code                 | Inverter Ready     |
| KVA Code                      | M                  |
| Lifting Lugs                  | No Lifting Lugs    |
| Locked Bearing Indicator      | Locked Bearing     |
| Max Speed                     | 2700 rpm           |
| Motor Finish                  | UNPAINTED          |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG         |
| Motor Lead Termination        | Flying Leads       |
| Motor Standards               | NEMA               |
| Motor Type                    | 3522M              |
| Mounting Arrangement          | F1                 |
| Number of Poles               | 4                  |
| Overall Length                | 12.12 IN           |
| Power Factor                  | 66                 |
| Product Family                | Dirty Duty Plus    |
| Pulley End Bearing Type       | Sealed Bearing     |
| Pulley Face Code              | C-Face             |
| Pulley Shaft Indicator        | Standard           |
| Rodent Screen                 | None               |
| Service Factor                | 1.15               |
| Shaft Diameter                | 0.875 IN           |
| Shaft Ground Indicator        | No Shaft Grounding |
| Shaft Rotation                | Reversible         |
| Shaft Slinger Indicator       | No Slinger         |
| Speed                         | 1770 rpm           |
| Speed Code                    | Single Speed       |
| Starting Method               | Direct on line     |
| Thermal Device - Bearing      | None               |
| Thermal Device - Winding      | None               |

**Vibration Sensor Indicator****No Vibration Sensor****Winding Thermal 1****None****Winding Thermal 2****None**

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**Nameplate**

**NP3504**

|                     |               |                 |      |                   |      |
|---------------------|---------------|-----------------|------|-------------------|------|
| <b>CAT NO</b>       | VNEDM3546T    |                 |      |                   |      |
| <b>SPEC.</b>        | 35E4321Z818G1 | <b>ENCL</b>     | TENV |                   |      |
| <b>FRAME</b>        | 143TC         | <b>HP</b>       | 1    |                   |      |
| <b>VOLTS</b>        | 230/460       |                 |      |                   |      |
| <b>FLA</b>          | 3.34/1.67     | <b>I.P.</b>     | 56   |                   |      |
| <b>RPM</b>          | 1770          | <b>RPM MAX</b>  | 2700 |                   |      |
| <b>HZ</b>           | 60            | <b>PH</b>       | 3    | <b>CLASS</b>      | F    |
| <b>SER.F.</b>       | 1.15          | <b>DES</b>      | B    | <b>CC</b>         | 010A |
| <b>NEMA-NOM-EFF</b> | 85.5          |                 |      |                   |      |
| <b>RATING</b>       | 40C AMB-CONT  |                 |      |                   |      |
| <b>DE BRG</b>       | 6205          | <b>ODE BRG</b>  | 6203 |                   |      |
| <b>GREASE</b>       | POLYREX EM    |                 |      |                   |      |
| <b>C HP FR</b>      | 60            | <b>C HP TO</b>  | 90   |                   |      |
| <b>CT HZ FROM</b>   | 6             | <b>CT HZ TO</b> | 60   | <b>VT HZ FROM</b> | 6    |
|                     |               |                 |      | <b>VT HZ TO</b>   | 60   |
| <b>SER.NO</b>       | SFA 3.5/1.75  |                 |      |                   |      |

**AC Induction Motor Performance Data**

Record # 89784

Typical performance - not guaranteed values

| Winding: 35WGZ818-R002 |                   | Type: 3522M               | Enclosure: TENV                                  |  |
|------------------------|-------------------|---------------------------|--|--|
| <b>Nameplate Data</b>  |                   |                           | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | 1                 | Full Load Torque          | 2.99 LB-FT                                       |  |
| Volts                  | 230/460           | Start Configuration       | direct on line                                   |  |
| Full Load Amps         | 3.34/1.67         | Breakdown Torque          | 16.6 LB-FT                                       |  |
| R.P.M.                 | 1770              | Pull-up Torque            | 7.42 LB-FT                                       |  |
| Hz                     | 60 Phase          | Locked-rotor Torque       | 10.32 LB-FT                                      |  |
| NEMA Design Code       | B KVA Code        | Starting Current          | 16.1 A   |  |
| Service Factor (S.F.)  | 1.15              | No-load Current           | 1.23 A   |  |
| NEMA Nom. Eff.         | 85.5 Power Factor | Line-line Res. @ 25°C     | 14.4 Ω   |  |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load   | 63°C   |  |
| S.F. Amps              | 3.5/1.75          | Temp. Rise @ S.F. Load    | 71°C   |  |
|                        |                   | Locked-rotor Power Factor | 60.4724  |  |
|                        |                   | Rotor inertia             | 0.159 lb-ft <sup>2</sup>                         |  |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 27   | 43   | 56   | 66   | 73   | 78   | 72   |
| Efficiency      | 70.8 | 81.2 | 84.5 | 85.9 | 85.8 | 85.2 | 85.5 |
| Speed           | 1793 | 1786 | 1781 | 1773 | 1766 | 1758 | 1768 |
| Line amperes    | 1.25 | 1.34 | 1.49 | 1.67 | 1.87 | 2.12 | 1.75 |

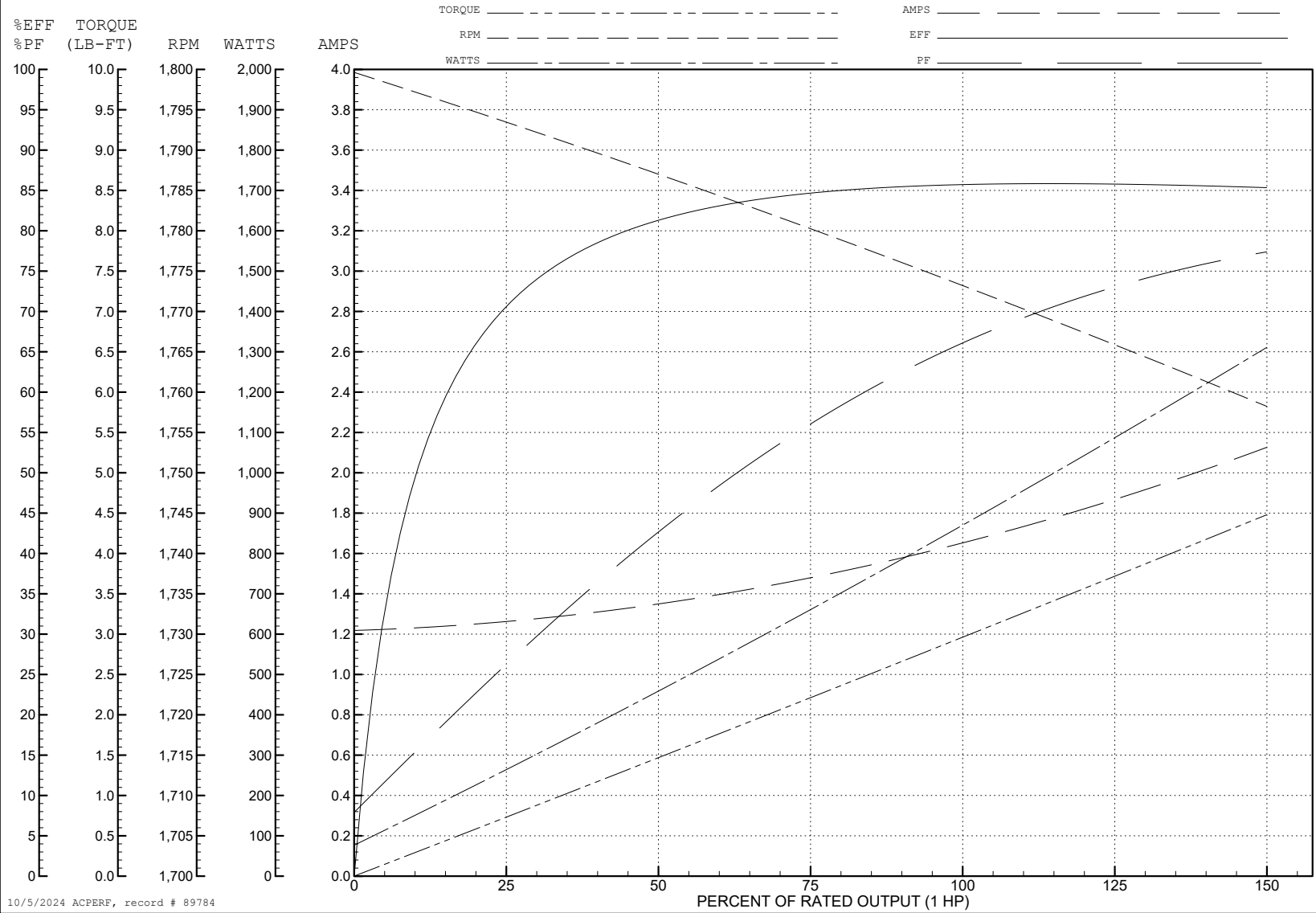
ABB Motors and Mechanical Inc.

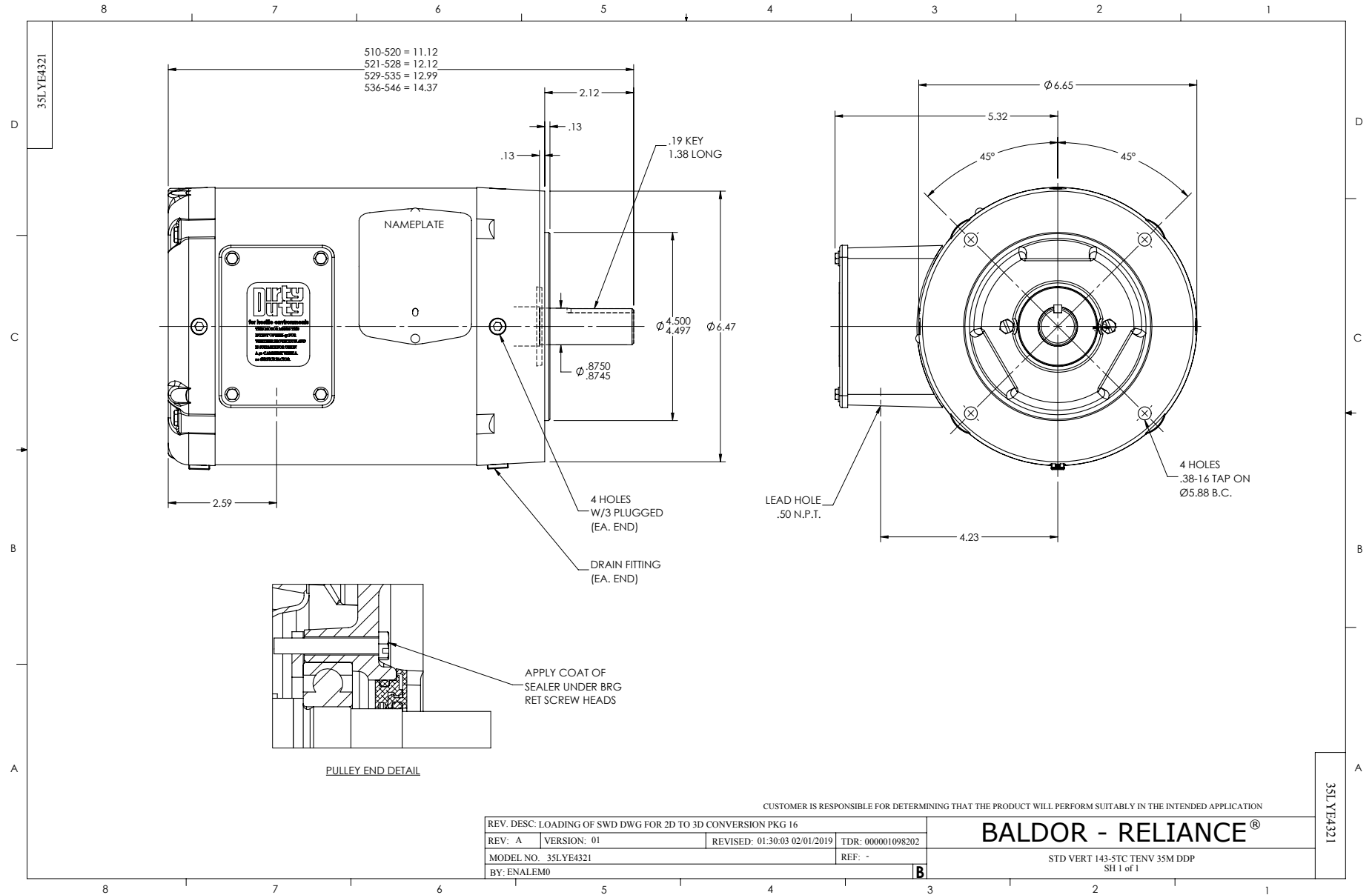
WINDING # 35WGZ818

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

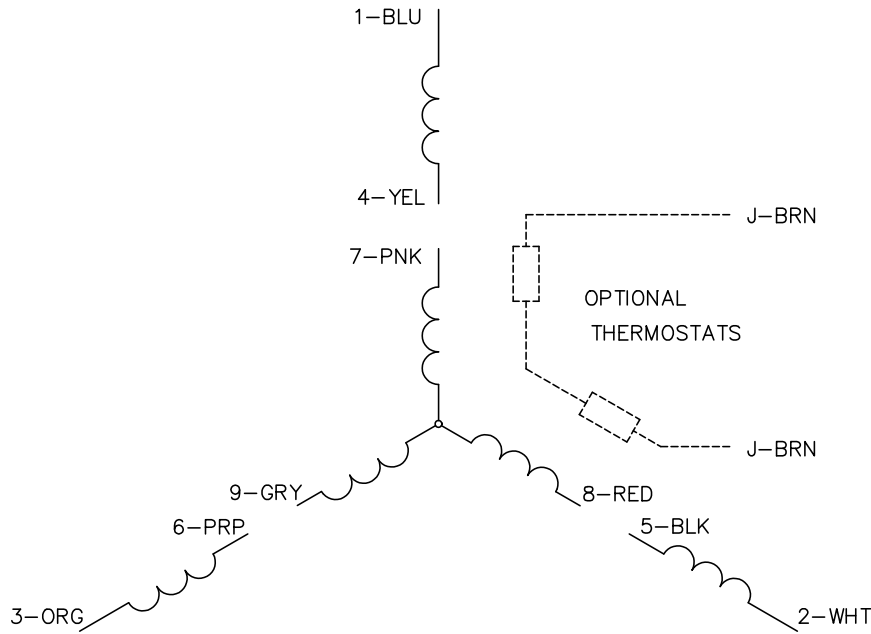
TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1



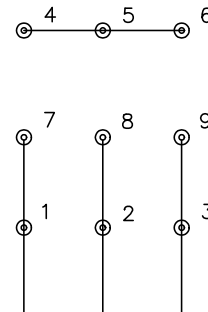




CD0005

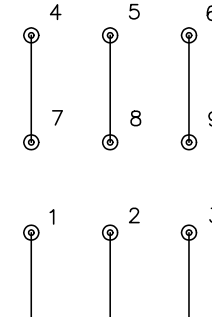


LOW VOLTAGE (2Y)



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