

# ABB BALDOR RELIANCE III

---

## Customer information packet

### VEM2534T

30HP, 3530RPM, 3PH, 60HZ, 284TSC, 4040M, OPEN

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                                           |
| <b>Frame</b>                          | 284TSC                                                         |
| <b>Frame Material</b>                 | Steel                                                          |
| <b>Frequency</b>                      | 60.00 Hz                                                       |
| <b>Motor Letter Type</b>              | Three Phase                                                    |
| <b>Output @ Frequency</b>             | 30.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                              |
| <b>Synchronous Speed @ Frequency</b>  | 3600 RPM @ 60 HZ                                               |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>208.0 V @ 60 HZ          |
| <b>Agency Approvals</b>               | NEMA PREMIUM<br>NEMA PREMIUM (OLD LOGO)<br>CURUSEEV            |
| <b>Ambient Temperature</b>            | 40 °C                                                          |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                               |
| <b>Auxiliary Box Lead Termination</b> | None                                                           |
| <b>Base Indicator</b>                 | No Mounting                                                    |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                        |
| <b>Blower</b>                         | None                                                           |
| <b>Current @ Voltage</b>              | 35.000 A @ 460.0 V<br>70.000 A @ 230.0 V<br>76.000 A @ 208.0 V |
| <b>Design Code</b>                    | A                                                              |
| <b>Drip Cover</b>                     | Drip Cover                                                     |
| <b>Duty Rating</b>                    | CONT                                                           |
| <b>Efficiency @ 100% Load</b>         | 91.7 %                                                         |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                      |
| <b>Feedback Device</b>                | NO FEEDBACK                                                    |
| <b>Front Face Code</b>                | Drip Cover Mounting                                            |
| <b>Front Shaft Indicator</b>          | None                                                           |
| <b>Heater Indicator</b>               | No Heater                                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | P          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 40E101     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 40WGX193   |
| <b>Layout</b>       | 40LYE101   |
| <b>Eff. date</b>    | 12-26-2024 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#8        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 05-01-2015 |

|                               |                       |
|-------------------------------|-----------------------|
| High Voltage Full Load Amps   | 35.0 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | H                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Exit               | Ko Box                |
| Motor Lead Quantity/Wire Size | 9 @ 8 AWG             |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 4040M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 2                     |
| Overall Length                | 25.09 IN              |
| Power Factor                  | 87                    |
| 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                | 1.625 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 3530 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                  |

**Nameplate**

| NP3554LUA |                           |                         |              |                           |        |        |         |        |            |      |      |
|-----------|---------------------------|-------------------------|--------------|---------------------------|--------|--------|---------|--------|------------|------|------|
| CAT.NO.   | VEM2534T                  |                         |              | P/N                       |        |        |         |        |            | ENCL | OPEN |
| SPEC.     | 40E101X193G1              | CC                      | 010A         | FRAME                     |        | 284TSC | SER.NO. |        |            |      |      |
| HP        | 30                        |                         | CLASS        |                           | F      | HZ     | 60      |        |            |      |      |
| RPM       | 3530                      |                         | PH           | 3                         | DES    |        | A       |        |            |      |      |
| VOLTS     | 208-230/460               |                         |              | CODE                      |        | H      | ODE BRG | 6309   | DE BRG     | 6312 |      |
| AMPS      | 76-70/35                  |                         |              |                           |        |        |         |        |            |      |      |
| RATING    | 40C AMB-CONT              |                         | NEMA-NOM-EFF |                           |        |        | 91.7    | GREASE | POLYREX EM |      |      |
| PF        | 87                        | SER.F.                  | 1.15         | CT30-60(2:1) VT3-60(20:1) |        |        |         |        |            |      |      |
| USABLE AT | 50HZ 30HP 190/380V 84/42A |                         |              |                           | SF 1.0 |        |         |        |            |      |      |
| HTR-VOLTS | HTR-AMPS                  | MAX. SPACE HEATER TEMP. |              |                           |        |        |         |        |            |      |      |

**AC Induction Motor Performance Data**

Record # 33084

Typical performance - not guaranteed values

| Winding: 40WGX193-R001 |    |             | Type: 4040M                              |                     | Enclosure: OPSB           |            |             |
|------------------------|----|-------------|------------------------------------------|---------------------|---------------------------|------------|-------------|
| Nameplate Data         |    |             | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |             |
| Rated Output (HP)      |    | 30          | Full Load Torque                         |                     | 44.7 LB-FT                |            |             |
| Volts                  |    | 208-230/460 | Start Configuration                      |                     | direct on line            |            |             |
| Full Load Amps         |    | 76-70/35    | Breakdown Torque                         |                     | 175 LB-FT                 |            |             |
| R.P.M.                 |    | 3530        | Pull-up Torque                           |                     | 59.3 LB-FT                |            |             |
| Hz                     | 60 | Phase       | 3                                        | Locked-rotor Torque |                           | 78.3 LB-FT |             |
| NEMA Design Code       |    | A           | KVA Code                                 | H                   | Starting Current          |            | 240 A       |
| Service Factor (S.F.)  |    | 1.15        | No-load Current                          |                     | 11.2 A                    |            |             |
| NEMA Nom. Eff.         |    | 91.7        | Power Factor                             | 0                   | Line-line Res. @ 25°C     |            | 0.21802 Ω   |
| Rating - Duty          |    | 40C         | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 23°C        |
| S.F. Amps              |    |             |                                          |                     | Temp. Rise @ S.F. Load    |            | 28°C        |
|                        |    |             |                                          |                     | Locked-rotor Power Factor |            | 24          |
|                        |    |             |                                          |                     | Rotor inertia             |            | 1.72 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 58     | 77     | 84     | 87     | 88     | 89     | 88   |
| Efficiency      | 89.3   | 92.8   | 93.4   | 93.2   | 92.6   | 91.8   | 92.8 |
| Speed           | 3582.7 | 3568.7 | 3554.6 | 3538.7 | 3522.3 | 3504.1 | 3529 |
| Line amperes    | 14.4   | 20.3   | 27.2   | 35.1   | 43.4   | 52.1   | 40.1 |

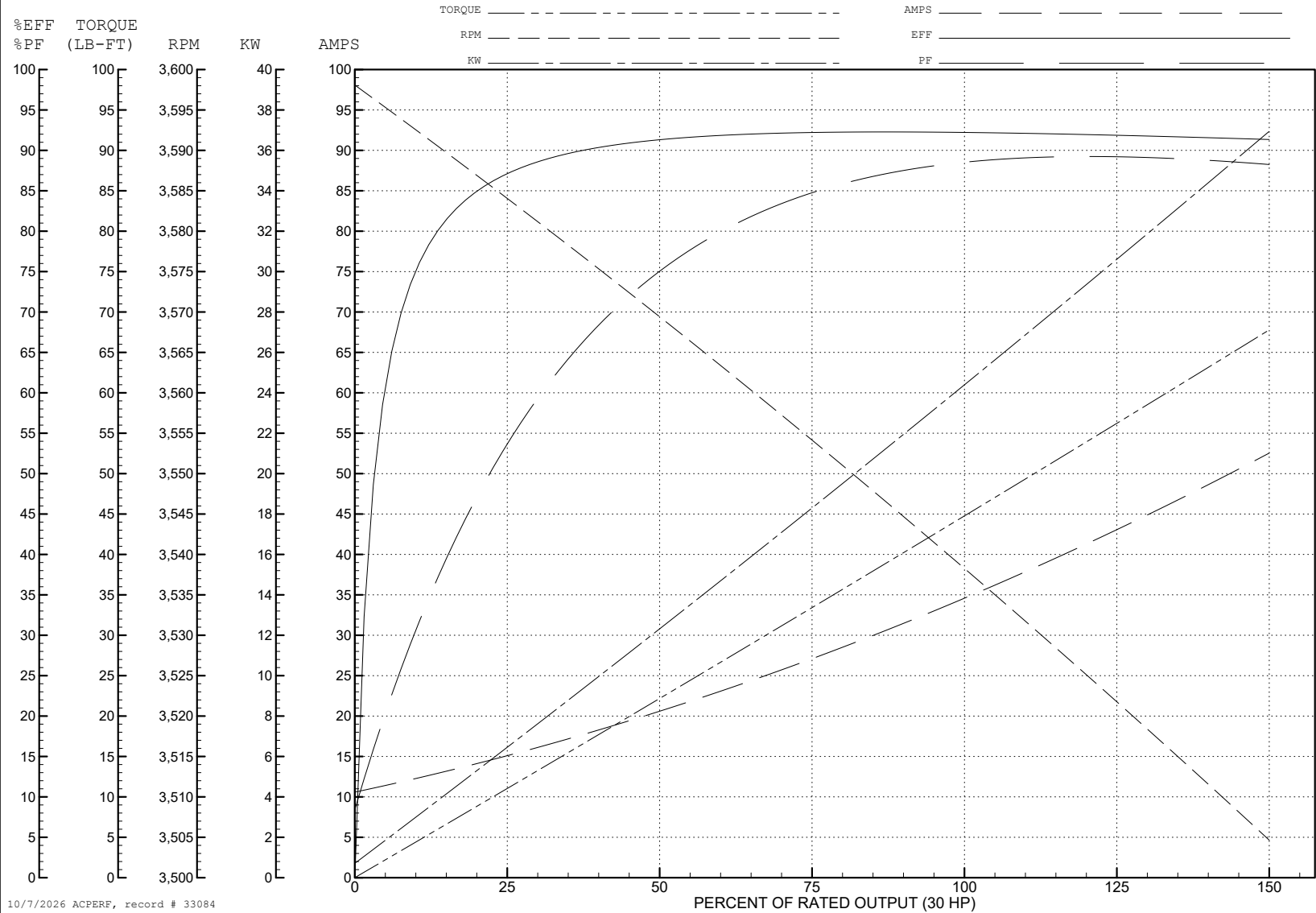
ABB Motors and Mechanical Inc.

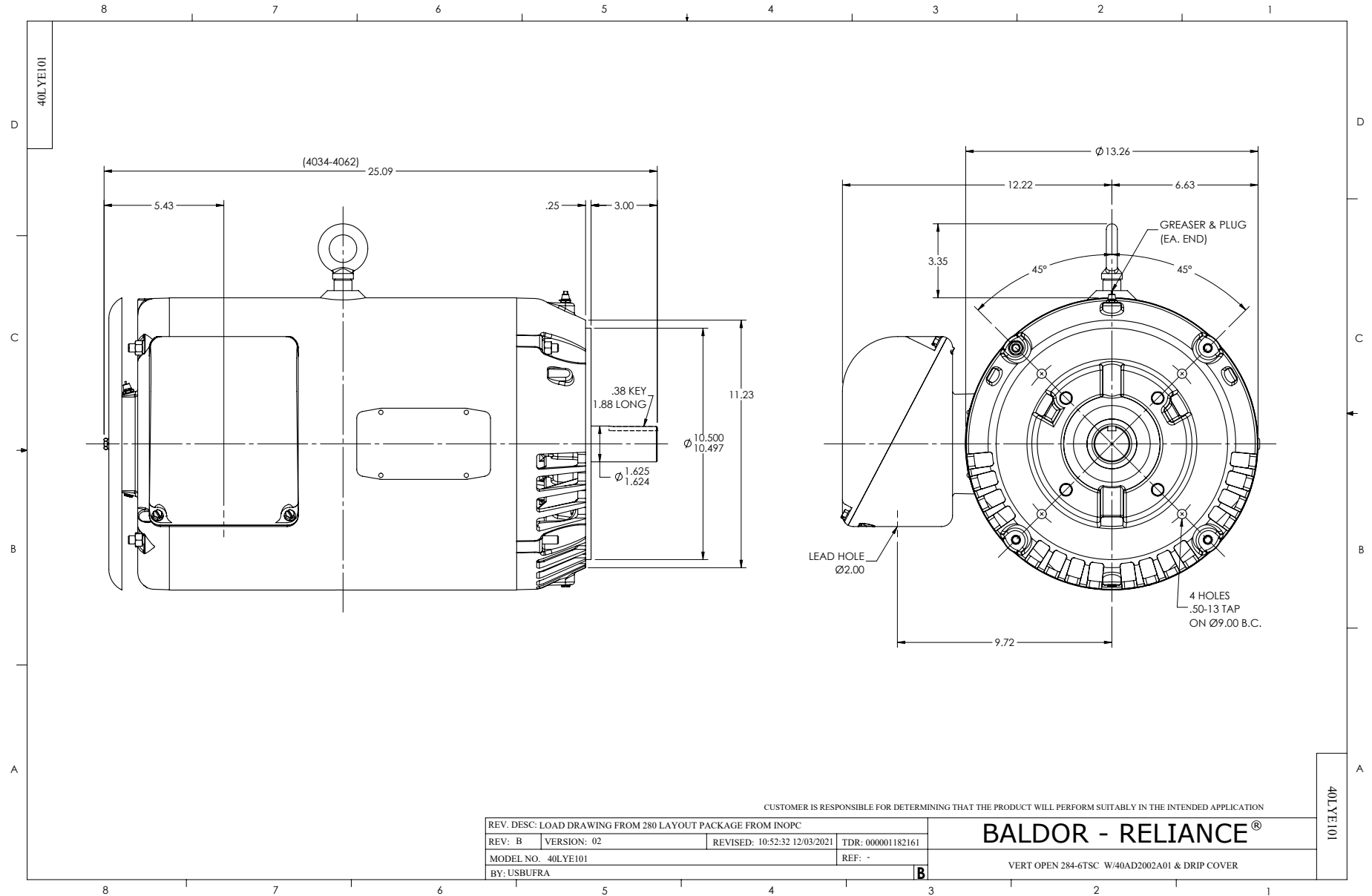
WINDING # 40WGX193

Typical performance - not guaranteed values.

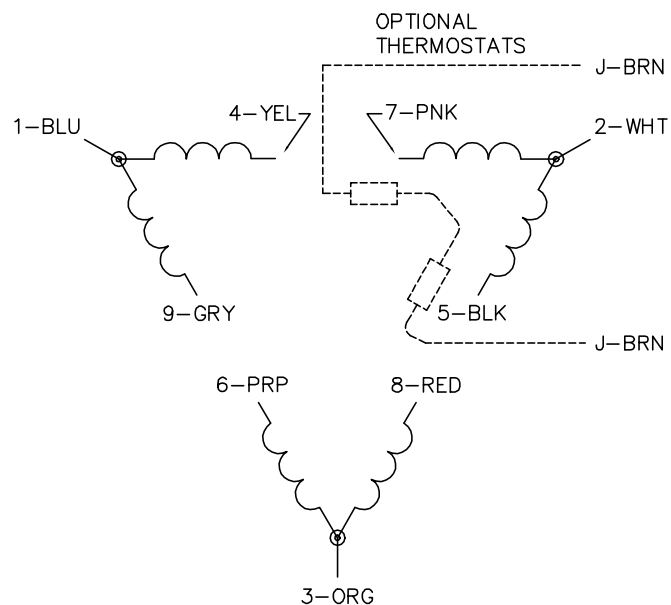
30 HP 3 PH 60 HZ 3530 RPM 460 V 4040M

TORQUES (LB-FT): PO=175 PU=59.3 LR=78.3 LRA=240

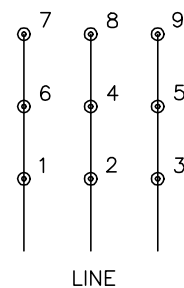




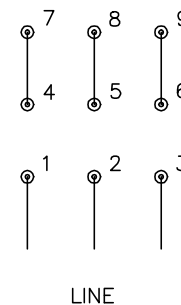
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



**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.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —



**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1