

# ABB BALDOR RELIANCE III

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## Customer information packet

### VHECP2334T

20HP, 1770RPM, 3PH, 60HZ, 256HP, 0960M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | TEFC                                                           |
| Frame                          | 256HP                                                          |
| Frame Material                 | Iron                                                           |
| Frequency                      | 60.00 Hz                                                       |
| Haz Area Class and Group       | None                                                           |
| Haz Area Division              | Not Applicable                                                 |
| Motor Letter Type              | Three Phase                                                    |
| Output @ Frequency             | 20.000 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               | CSA<br>CSA EEV<br>UR                                           |
| Ambient Temperature            | 40 °C                                                          |
| Auxiliary Box                  | NO AUXILLARY BOX                                               |
| Auxiliary Box Lead Termination | None                                                           |
| Base Indicator                 | No Mounting                                                    |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                        |
| Blower                         | None                                                           |
| Current @ Voltage              | 48.000 A @ 230.0 V<br>52.000 A @ 208.0 V<br>24.000 A @ 460.0 V |
| Design Code                    | A                                                              |
| Drip Cover                     | Drip Cover                                                     |
| Duty Rating                    | CONT                                                           |
| Efficiency @ 100% Load         | 93.0 %                                                         |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK                                                    |
| Front Face Code                | Standard                                                       |
| Front Shaft Indicator          | None                                                           |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | Q          |
| Type         | AC         |
| Mech. spec.  | 09G604     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 09WGT459   |
| Layout       | 09LYG604   |
| Eff. date    | 02-01-2024 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#10       |
| Proprietary  | False      |
| Created date | 11-20-2017 |

|                               |                             |
|-------------------------------|-----------------------------|
| Heater Indicator              | No Heater                   |
| High Voltage Full Load Amps   | 24.0 a                      |
| Insulation Class              | F                           |
| Inverter Code                 | Inverter Ready              |
| KVA Code                      | J                           |
| Lifting Lugs                  | Vertical Lifting Lugs       |
| Locked Bearing Indicator      | Locked Bearing              |
| Motor Lead Exit               | Ko Box                      |
| Motor Lead Quantity/Wire Size | 9 @ 10 AWG                  |
| Motor Lead Termination        | Flying Leads                |
| Motor Standards               | NEMA                        |
| Motor Type                    | 0960M                       |
| Mounting Arrangement          | F1                          |
| Number of Poles               | 4                           |
| Overall Length                | 26.01 IN                    |
| Power Factor                  | 83                          |
| Product Family                | Super-E Chemical Processing |
| Pulley End Bearing Type       | Ball                        |
| Pulley Face Code              | P-Base                      |
| Pulley Shaft Indicator        | P-Base Groove & Key         |
| Rodent Screen                 | None                        |
| Service Factor                | 1.15                        |
| Shaft Diameter                | 1.125 IN                    |
| Shaft Extension Location      | Pulley End                  |
| Shaft Ground Indicator        | No Shaft Grounding          |
| Shaft Rotation                | Reversible                  |
| Shaft Slinger Indicator       | Shaft 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**

| NP1260       |               |      |  |      |     |    |   |    |   |
|--------------|---------------|------|--|------|-----|----|---|----|---|
| CAT.NO.      | VHECP2334T    |      |  |      |     |    |   |    |   |
| SPEC.        | 09G604T459    |      |  |      |     |    |   |    |   |
| HP           | 20            |      |  |      |     |    |   |    |   |
| VOLTS        | 230/460       |      |  |      |     |    |   |    |   |
| AMP          | 48/24         |      |  |      |     |    |   |    |   |
| RPM          | 1770          |      |  |      |     |    |   |    |   |
| FRAME        | 256HP         | HZ   |  | 60   |     | PH |   | 3  |   |
| SER.F.       | 1.15          | CODE |  | J    | DES |    | A | CL | F |
| NEMA-NOM-EFF | 93            | PF   |  | 83   |     |    |   |    |   |
| RATING       | 40C AMB-CONT  |      |  |      |     |    |   |    |   |
| CC           | 010A          |      |  |      |     |    |   |    |   |
| DE           | 6311          | ODE  |  | 6208 |     |    |   |    |   |
| ENCL         | TEFC          | SN   |  |      |     |    |   |    |   |
|              | SFA 54.4/27.2 |      |  |      |     |    |   |    |   |

**AC Induction Motor Performance Data**

Record # 67948

Typical performance - not guaranteed values

| Winding: 09WGT459-R001 |          |              | Type: 0960M                              |  | Enclosure: TEFC |  |
|------------------------|----------|--------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |          |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | 20           | Full Load Torque                         |  | 59.27 LB-FT     |  |
| Volts                  |          | 230/460      | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |          | 48/24        | Breakdown Torque                         |  | 232 LB-FT       |  |
| R.P.M.                 |          | 1770         | Pull-up Torque                           |  | 126 LB-FT       |  |
| Hz                     | 60 Phase | 3            | Locked-rotor Torque                      |  | 141 LB-FT       |  |
| NEMA Design Code       |          | A            | KVA Code                                 |  | J               |  |
| Starting Current       |          | 198 A        | No-load Current                          |  | 10.4 A          |  |
| Service Factor (S.F.)  |          | 1.15         | Line-line Res. @ 25°C                    |  | 0.33814 Ω       |  |
| NEMA Nom. Eff.         |          | 93           | Power Factor                             |  | 83              |  |
| Rating - Duty          |          | 40C AMB-CONT | Temp. Rise @ Rated Load                  |  | 58°C            |  |
| S.F. Amps              |          |              | Temp. Rise @ S.F. Load                   |  | 70°C            |  |
|                        |          |              | Locked-rotor Power Factor                |  | 26.9            |  |

**Load Characteristics 460 V, 60 Hz, 20 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 45     | 67     | 78     | 83     | 86     | 87     | 85   |
| Efficiency      | 89.2   | 93     | 93.7   | 93.6   | 93.1   | 92.4   | 93.3 |
| Speed           | 1793.2 | 1786.4 | 1779.1 | 1771.9 | 1763.7 | 1755.3 | 1767 |
| Line amperes    | 11.8   | 15     | 19.2   | 24     | 29.3   | 34.9   | 27.2 |

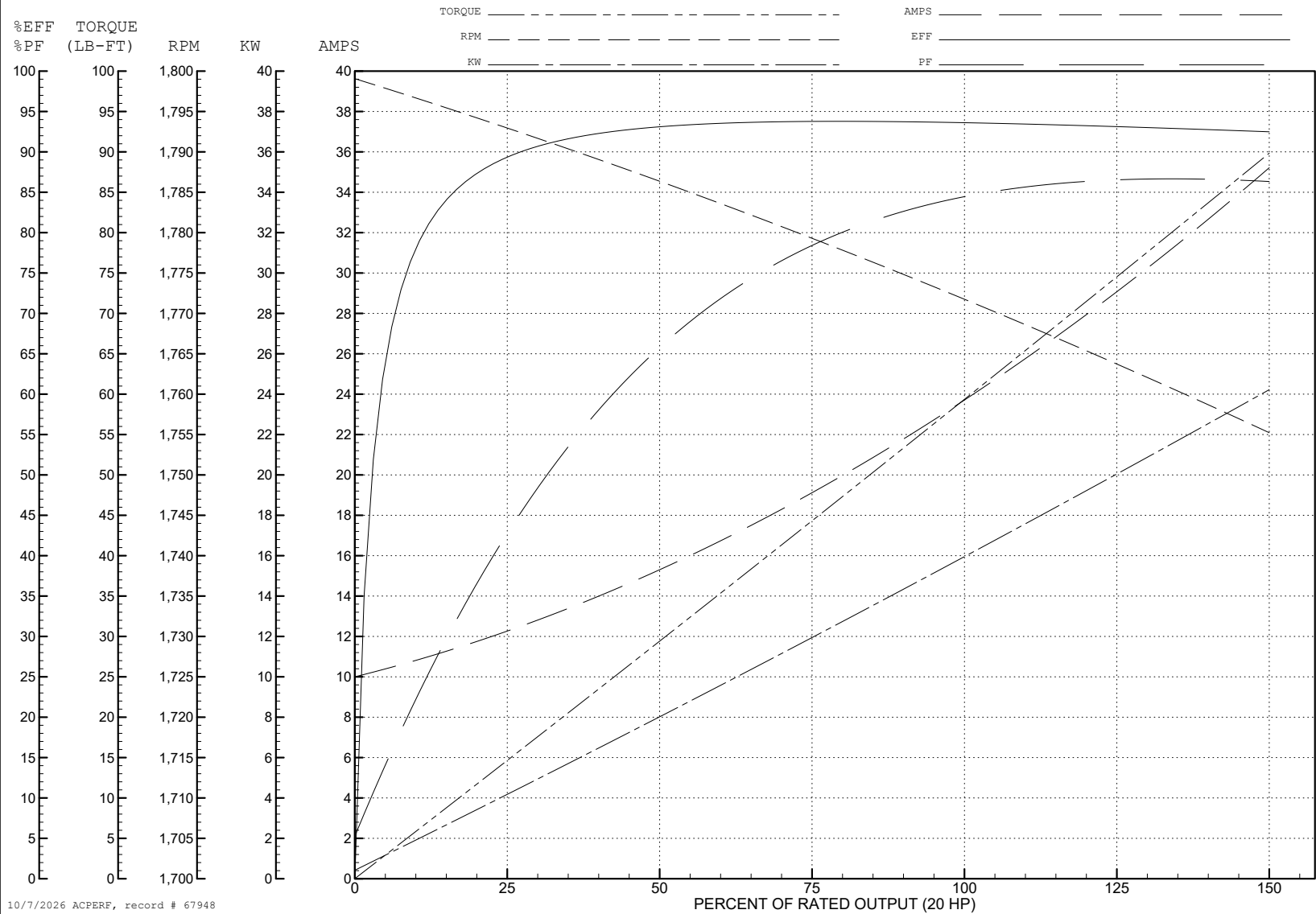
ABB Motors and Mechanical Inc.

WINDING # 09WGT459

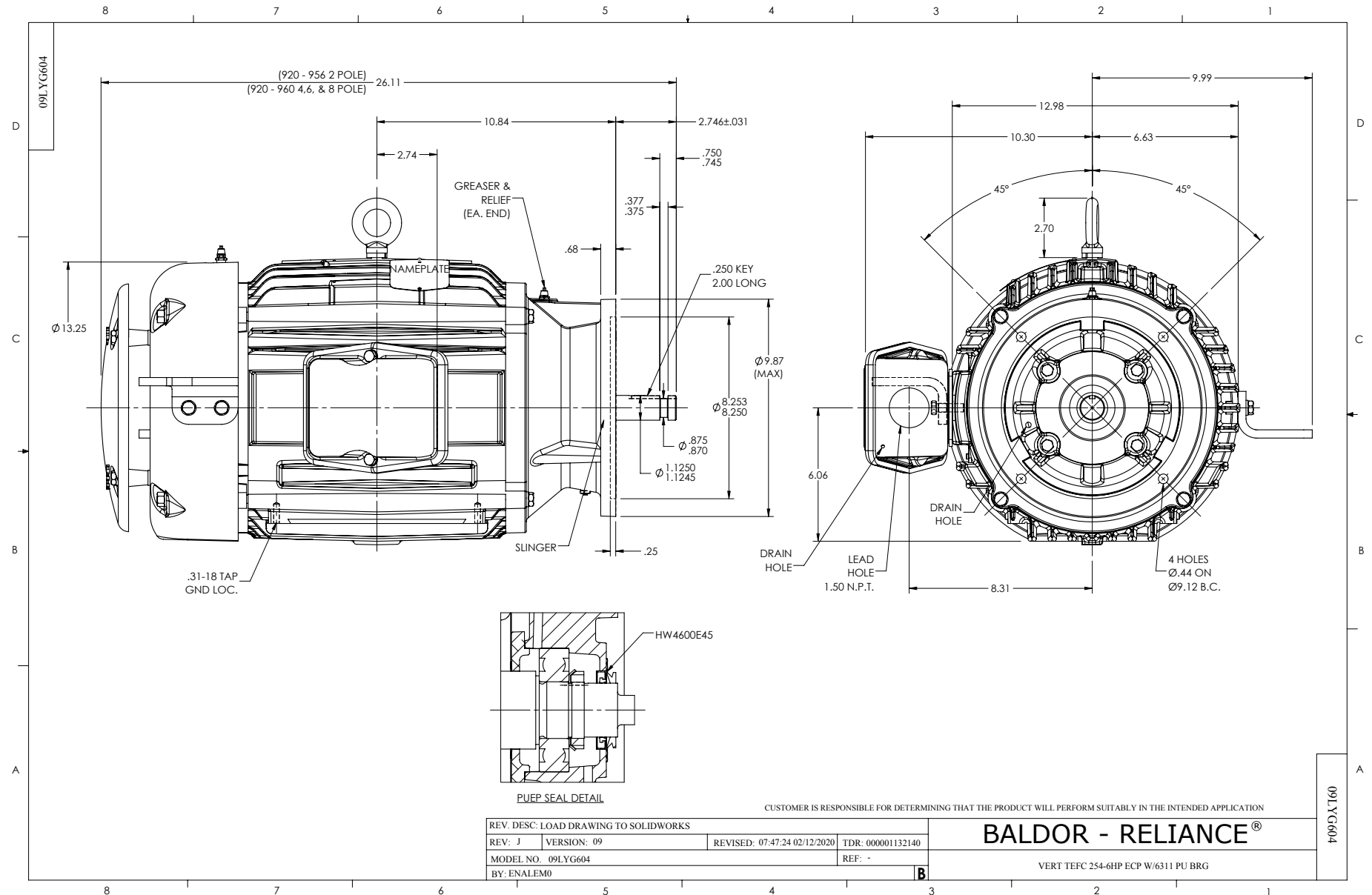
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1770 RPM 460 V 0960M

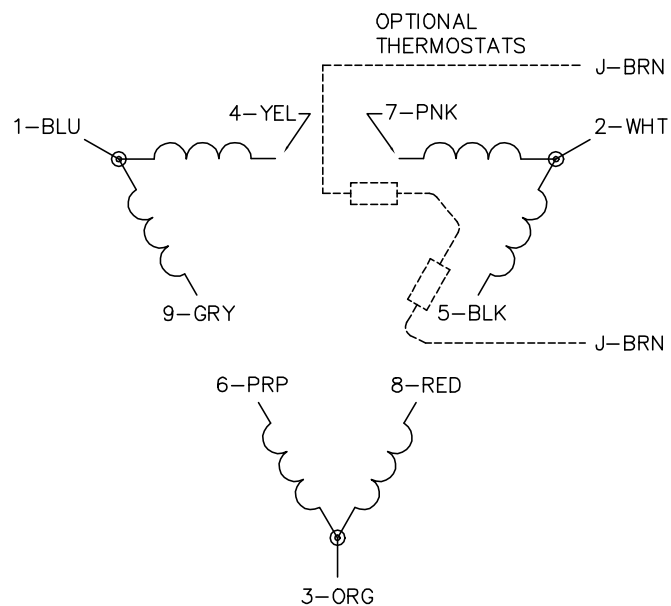
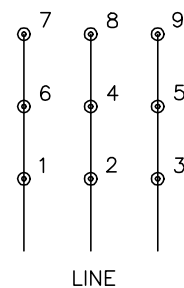
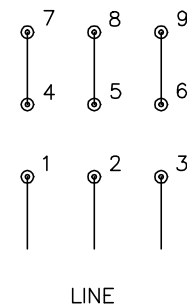
TORQUES (LB-FT): PO=232 PU=126 LR=141 LRA=198



10/7/2026 ACPERF, record # 67948



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.

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

CD0180