

# ABB BALDOR RELIANCE III

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## Customer information packet

### EJPM4106T

20HP, 3520RPM, 3PH, 60HZ, 256JP, 0936M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | TEFC                                                           |
| Frame                          | 256JP                                                          |
| 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  | 3600 RPM @ 60 HZ                                               |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                             |
| Agency Approvals               | CSA<br>UR<br>NEMA PREMIUM<br>CSA EEV                           |
| Ambient Temperature            | 40 °C                                                          |
| Auxiliary Box                  | NO AUXILLARY BOX                                               |
| Auxiliary Box Lead Termination | None                                                           |
| Base Indicator                 | Rigid                                                          |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                        |
| Blower                         | None                                                           |
| Current @ Voltage              | 23.000 A @ 460.0 V<br>46.000 A @ 230.0 V<br>50.000 A @ 208.0 V |
| Design Code                    | A                                                              |
| Drip Cover                     | No Drip Cover                                                  |
| Duty Rating                    | CONT                                                           |
| Efficiency @ 100% Load         | 91.0 %                                                         |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK                                                    |
| Heater Indicator               | No Heater                                                      |

**Part Detail**

|              |              |
|--------------|--------------|
| Revision     | J            |
| Type         | AC           |
| Mech. spec.  |              |
| Base         |              |
| Status       | PRD/A        |
| Elec. spec.  | M-09WG-Z601  |
| Layout       | 09LY-001-182 |
| Eff. date    | 06-29-2026   |
| CD Diagram   | CD0005       |
| Poles        | 02           |
| Leads        | 9#10,0#0,0#0 |
| Proprietary  | False        |
| Created date | 02-25-2021   |

|                             |                       |
|-----------------------------|-----------------------|
| High Voltage Full Load Amps | 23.0 a                |
| Insulation Class            | F                     |
| Inverter Code               | Inverter Ready        |
| KVA Code                    | H                     |
| Lifting Lugs                | Standard Lifting Lugs |
| Locked Bearing Indicator    | Locked Bearing        |
| Motor Lead Termination      | Flying Leads          |
| Motor Standards             | NEMA                  |
| Motor Type                  | 0936M                 |
| Mounting Arrangement        | F1                    |
| Number of Poles             | 2                     |
| Overall Length              | 28.24 IN              |
| Power Factor                | 89                    |
| Product Family              | General Purpose       |
| Pulley Face Code            | C-Face                |
| Rodent Screen               | None                  |
| Service Factor              | 1.15                  |
| Shaft Diameter              | 1.250 IN              |
| Shaft Ground Indicator      | No Shaft Grounding    |
| Shaft Rotation              | Reversible            |
| Speed                       | 3520 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

| NP3441LUA                 |              |           |      |      |     |   |       |   |       |
|---------------------------|--------------|-----------|------|------|-----|---|-------|---|-------|
| CAT.NO.                   | EJPM4106T    |           |      |      |     |   |       |   |       |
| SPEC                      | 09-0000-2964 |           |      |      |     |   |       |   |       |
| HP                        | 20           |           |      |      |     |   |       |   |       |
| VOLTS                     | 230/460      |           |      |      |     |   |       |   |       |
| AMPS                      | 46/23        |           |      |      |     |   |       |   |       |
| RPM                       | 3520         |           |      |      |     |   |       |   |       |
| FRAME                     | 256JP        |           | HZ   | 60   |     |   | PH    | 3 |       |
| SF                        | 1.15         |           | CODE | H    | DES | A | CLASS | F |       |
| NEMA NOM. EFF             | 91           |           | PF   | 89   |     |   |       |   |       |
| RATING                    | CONT         |           |      |      |     |   |       |   |       |
| CC                        | 010A         |           |      |      |     |   |       |   |       |
| ENCL                      | TEFC         | SER       |      |      |     |   |       |   |       |
| DE                        | 6309         |           | ODE  | 6208 |     |   |       |   |       |
| VPWM INVERTER READY       |              | SFA 52/26 |      |      |     |   |       |   |       |
| CT6-60H(10:1)VT3-60H(20:1 |              |           |      |      |     |   |       |   |       |
| 50HZ 20HP 190/380V 56/28A |              |           |      |      |     |   |       |   | SF1.0 |

**AC Induction Motor Performance Data**

Record # 31396

Typical performance - not guaranteed values

| Winding: 09WGZ601-R001 |    |         | Type: 0936M                              |                     | Enclosure: TEFC           |            |             |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|------------|-------------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |             |
| Rated Output (HP)      |    | 20      | Full Load Torque                         |                     | 29.6 LB-FT                |            |             |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line            |            |             |
| Full Load Amps         |    | 46/23   | Breakdown Torque                         |                     | 111 LB-FT                 |            |             |
| R.P.M.                 |    | 3520    | Pull-up Torque                           |                     | 39.1 LB-FT                |            |             |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                           | 49.6 LB-FT |             |
| NEMA Design Code       |    | A       | KVA Code                                 | H                   | Starting Current          |            | 161 A       |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 7.17 A                    |            |             |
| NEMA Nom. Eff.         |    | 91      | Power Factor                             | 89                  | Line-line Res. @ 25°C     |            | 0.47592 Ω   |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 76°C        |
| S.F. Amps              |    |         |                                          |                     | Temp. Rise @ S.F. Load    |            | 95°C        |
|                        |    |         |                                          |                     | Locked-rotor Power Factor |            | 29.4        |
|                        |    |         |                                          |                     | Rotor inertia             |            | 0.92 lb-ft² |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 58     | 78     | 86     | 89     | 90     | 90     | 90   |
| Efficiency      | 88.9   | 92.2   | 92.4   | 91.7   | 90.7   | 89.2   | 91.1 |
| Speed           | 3579.6 | 3561.5 | 3541.3 | 3519.5 | 3495.4 | 3467.8 | 3505 |
| Line amperes    | 9      | 13     | 17.7   | 22.9   | 28.6   | 35     | 26.3 |

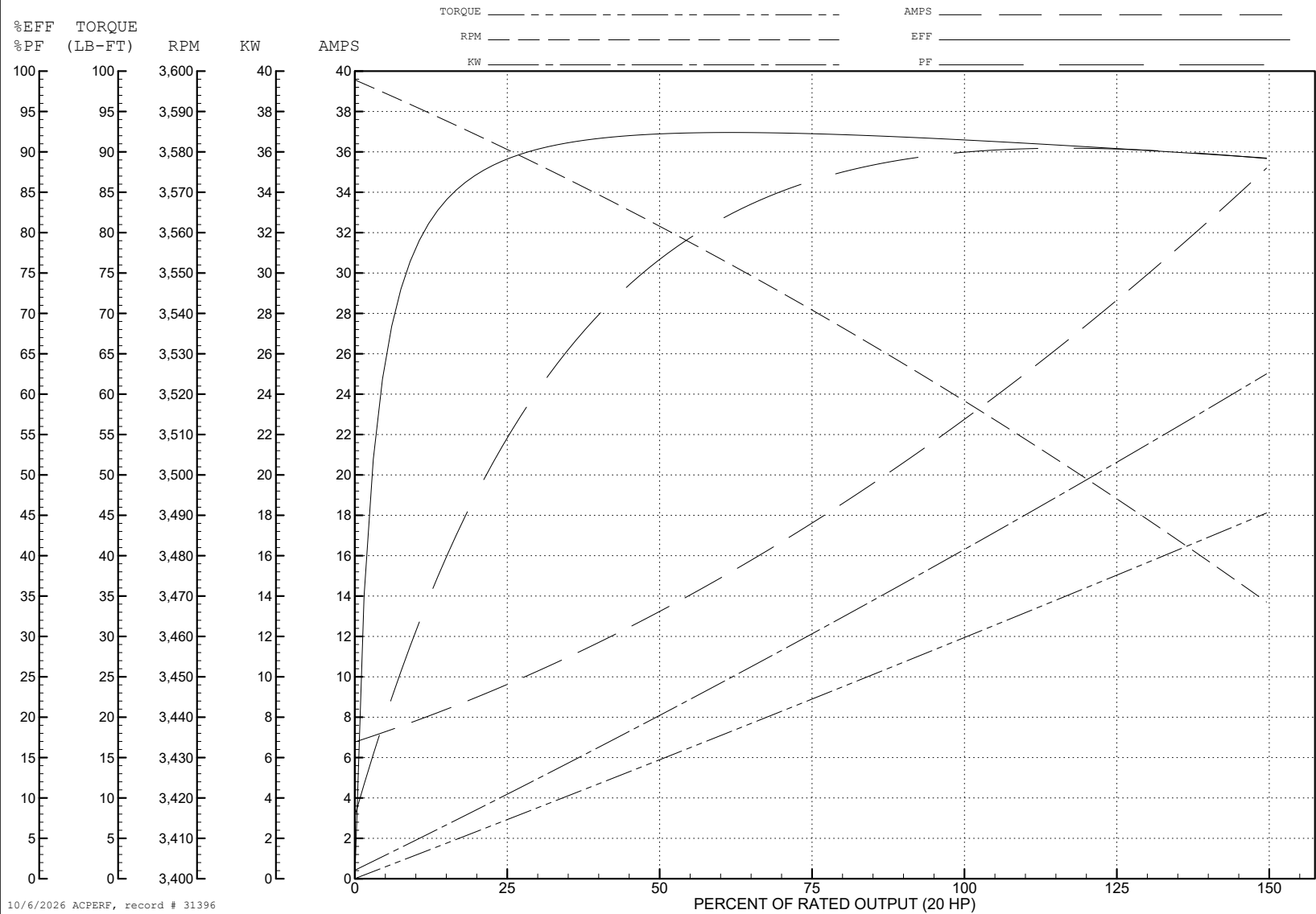
ABB Motors and Mechanical Inc.

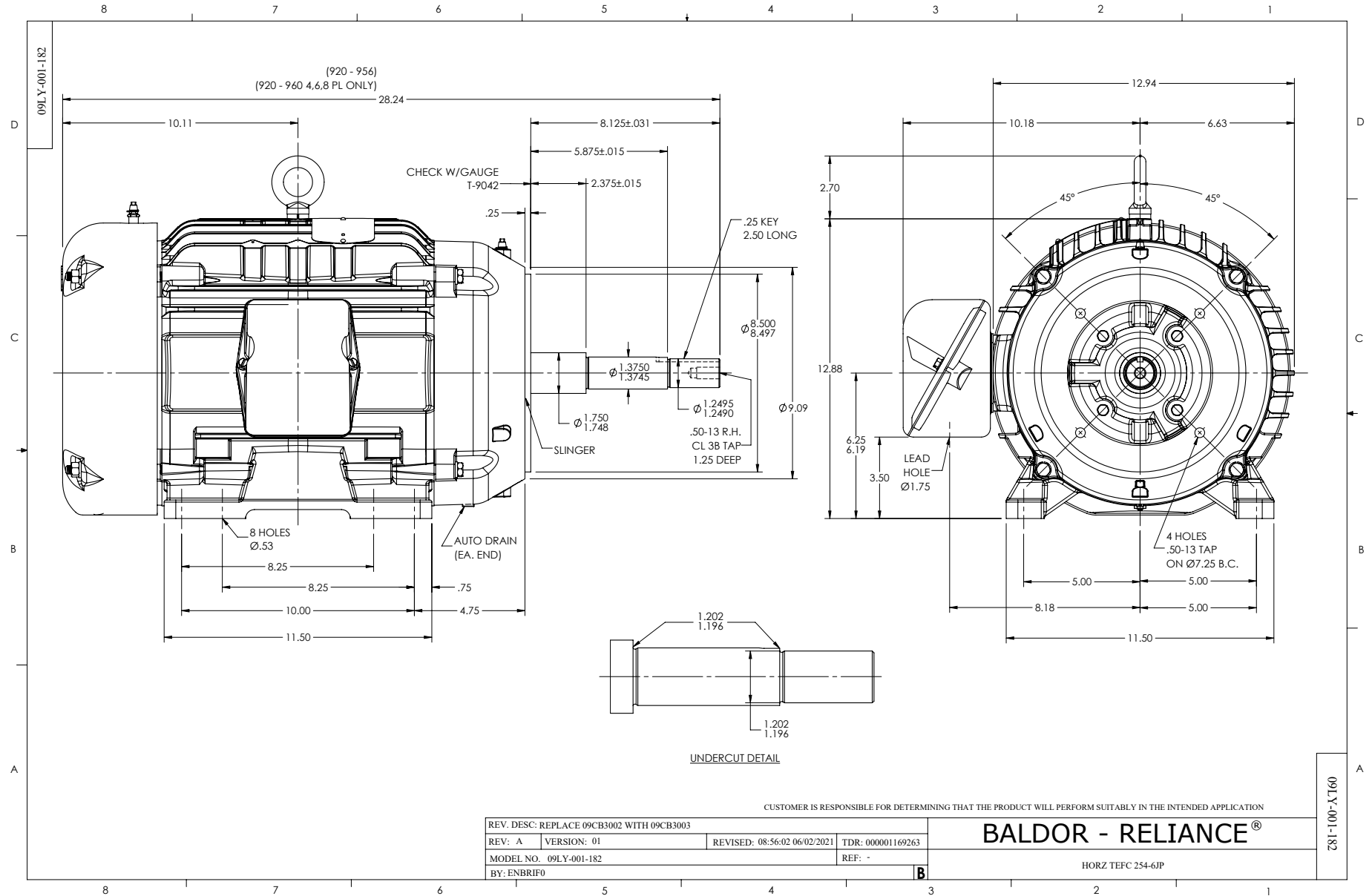
WINDING # 09WGZ601

Typical performance - not guaranteed values.

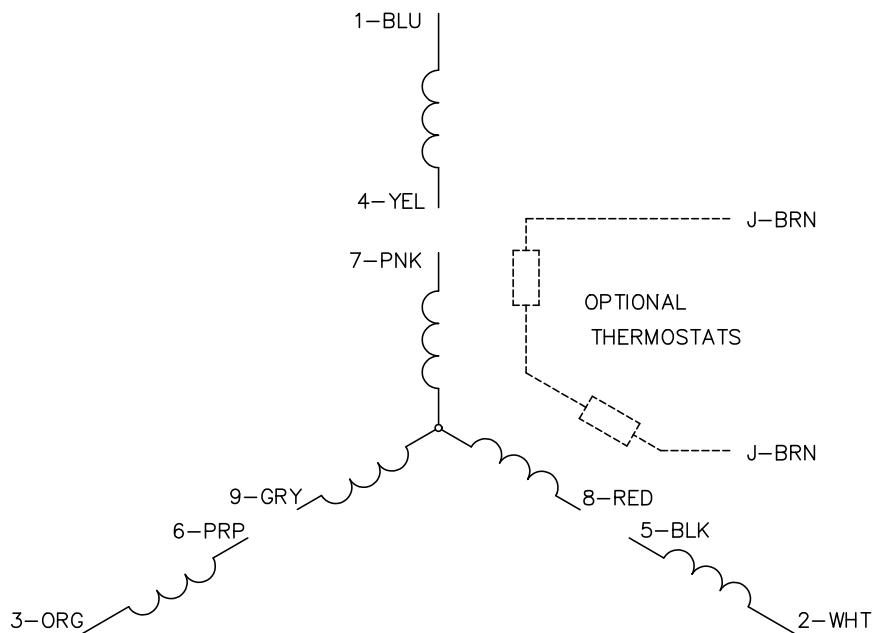
20 HP 3 PH 60 HZ 3520 RPM 460 V 0936M

TORQUES (LB-FT): PO=111 PU=39.1 LR=49.6 LRA=161

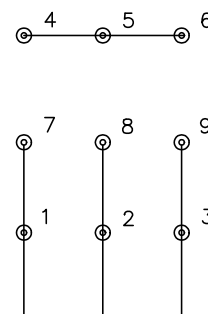




CD0005

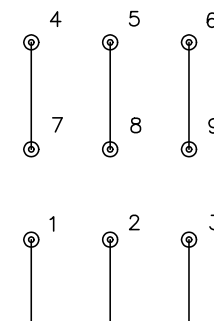


LOW VOLTAGE  
(2Y)



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E

BY: JLP

REVISED: 01/19/99 10:15

TDR: 0171435

900000

FILE: AAA00005140

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005