

# ABB BALDOR RELIANCE III

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## Customer information packet

### VEM3546-57

1/.75KWHP, 1470RPM, 3PH, 50HZ, 56C, 3520M, TEF

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                               |
|---------------------------------------|-----------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                          |
| <b>Frame</b>                          | 56C                                           |
| <b>Frame Material</b>                 | Steel                                         |
| <b>Frequency</b>                      | 50.00 Hz                                      |
| <b>Haz Area Class and Group</b>       | None                                          |
| <b>Haz Area Division</b>              | Not Applicable                                |
| <b>Motor Letter Type</b>              | Three Phase                                   |
| <b>Output @ Frequency</b>             | 1.000 HP @ 50 HZ                              |
| <b>Phase</b>                          | 3                                             |
| <b>Synchronous Speed @ Frequency</b>  | 1500 RPM @ 50 HZ                              |
| <b>Voltage @ Frequency</b>            | 400.0 V @ 50 HZ<br>230.0 V @ 50 HZ            |
| <b>Agency Approvals</b>               | C UR US<br>CE<br>CURUS<br>IE3<br>UKCA<br>WEEE |
| <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>              | 3.450 A @ 230.0 V<br>2.000 A @ 400.0 V        |
| <b>Design Code</b>                    | B                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                 |
| <b>Duty Rating</b>                    | CONT                                          |
| <b>Efficiency @ 100% Load</b>         | 82.5 %                                        |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                     |
| <b>Feedback Device</b>                | NO FEEDBACK                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | D          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35A013     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGZ921   |
| <b>Layout</b>       | 35LYA013   |
| <b>Eff. date</b>    | 09-21-2026 |
| <b>CD Diagram</b>   | CD0022     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 6#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-11-2022 |

|                               |                     |
|-------------------------------|---------------------|
| Front Shaft Indicator         | None                |
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 2.0 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Not Inverter        |
| KVA Code                      | N                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Quantity/Wire Size | 6 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3520M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 12.23 IN            |
| Power Factor                  | 65                  |
| 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                | 0.625 IN            |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1470 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

| NP2716L        |                 |      |          |     |      |    |      |   |    |
|----------------|-----------------|------|----------|-----|------|----|------|---|----|
| CAT NO         | VEM3546-57      |      |          |     |      |    |      |   |    |
| SPEC.          | 35A013Z921G1    |      |          |     |      |    |      |   |    |
| HP             | 1/.75KW         |      |          |     |      |    | PH   | 3 |    |
| VOLTS          | 230/400         |      |          |     |      |    |      |   |    |
| AMP            | 3.45/2          |      |          |     |      |    |      |   |    |
| R.P.M. (1/MIN) | 1470            |      |          |     |      |    |      |   |    |
| FRAME          | 56C             |      | HZ       |     | 50   |    | I.P. |   | 44 |
| SER.F.         | 1.15            | CODE | N        | DES | B    | CL | F    |   |    |
| NOM.EFF.       | 82.5            |      | % (100%) |     |      |    |      |   |    |
| PF             | 65              |      |          |     |      |    |      |   |    |
| RATING         | 40C AMB-S1 CONT |      |          |     | CC   |    |      |   |    |
| DE BRG         | 6205            |      | ODE      |     | 6203 |    |      |   |    |
| ENCL           | TEFC            | SN   |          |     |      |    |      |   |    |
| BLANK          | SFA 3.7/2.15    |      |          |     |      |    |      |   |    |
|                | IC411 15KG      |      |          |     |      |    |      |   |    |

**AC Induction Motor Performance Data**

Record # 88662

Typical performance - not guaranteed values

| Winding: 35WGZ921-R001 |      |              | Type: 3520M                              |                       | Enclosure: TEFC |  |
|------------------------|------|--------------|------------------------------------------|-----------------------|-----------------|--|
| Nameplate Data         |      |              | 400 V, 50 Hz:<br>High Voltage Connection |                       |                 |  |
| Rated Output (HP)      |      | 1            | Full Load Torque                         |                       | 3.56 LB-FT      |  |
| Volts                  |      | 230/400      | Start Configuration                      |                       | direct on line  |  |
| Full Load Amps         |      | 3.45/2       | Breakdown Torque                         |                       | 17.3 LB-FT      |  |
| R.P.M.                 |      | 1470         | Pull-up Torque                           |                       | 11 LB-FT        |  |
| Hz                     | 50   | Phase        | 3                                        | Locked-rotor Torque   | 12.7 LB-FT      |  |
| NEMA Design Code       | B    | KVA Code     | N                                        | Starting Current      | 18.2 A          |  |
| Service Factor (S.F.)  |      | 1.15         | No-load Current                          |                       | 1.65 A          |  |
| NEMA Nom. Eff.         | 82.5 | Power Factor | 65                                       | Line-line Res. @ 25°C | 13.5 Ω          |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 32°C            |  |
| S.F. Amps              |      | 3.7/2.15     | Temp. Rise @ S.F. Load                   |                       | 36°C            |  |
|                        |      |              | Locked-rotor Power Factor                |                       | 68              |  |
|                        |      |              | Rotor inertia                            |                       | 0.144 lb-ft²    |  |

**Load Characteristics 400 V, 50 Hz, 1 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 26   | 40   | 53   | 62   | 70   | 75   | 67   |
| Efficiency      | 62.7 | 75.6 | 80.6 | 82.5 | 83.1 | 82.9 | 82.6 |
| Speed           | 1494 | 1488 | 1483 | 1477 | 1470 | 1463 | 1473 |
| Line amperes    | 1.67 | 1.77 | 1.9  | 2.09 | 2.32 | 2.59 | 2.23 |

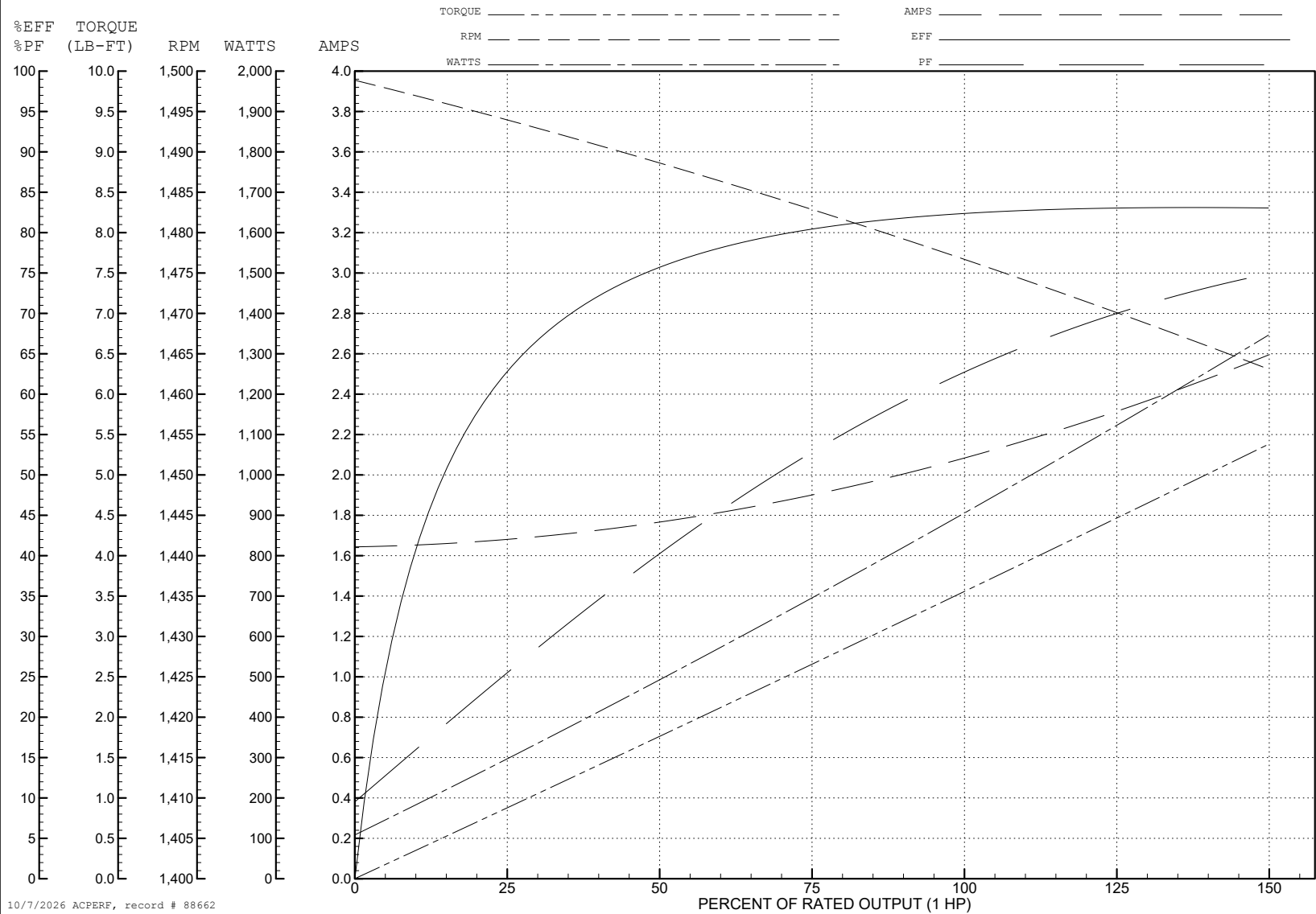
ABB Motors and Mechanical Inc.

WINDING # 35WGZ921

Typical performance - not guaranteed values.

1 HP 3 PH 50 HZ 1470 RPM 400 V 3520M

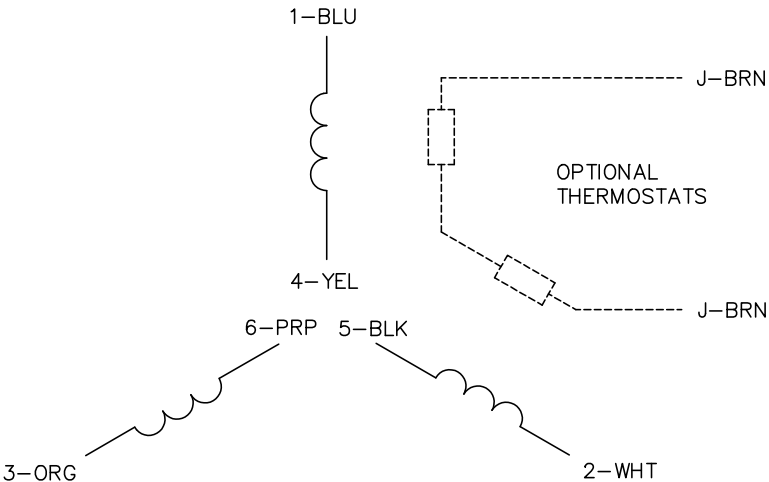
TORQUES (LB-FT): PO=17.3 PU=11 LR=12.7 LRA=18.2



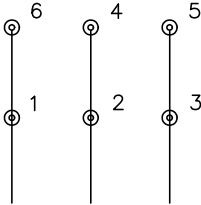
10/7/2026 ACPERF, record # 88662



CD0022

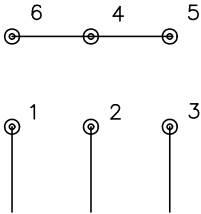


LOW VOLTAGE  
(1D)



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: F

BY: JLP

REVISED: 01/21/99 3:54

TDR: 0171435

CD0022

FILE: AAA00005144

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 6 LEADS, DELTA/WYE CONNECTION

CD0022