

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM30003

.25HP, 1725RPM, 3PH, 60HZ, 48, 3413M, ODP, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| <b>Enclosure</b>                      | ODP                                                        |
| <b>Frame</b>                          | 48                                                         |
| <b>Frame Material</b>                 | Steel                                                      |
| <b>Frequency</b>                      | 60.00 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>             | .250 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                          |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                           |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                         |
| <b>Agency Approvals</b>               | 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>                 | Rigid                                                      |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                    |
| <b>Blower</b>                         | None                                                       |
| <b>Current @ Voltage</b>              | .500 A @ 460.0 V<br>1.000 A @ 230.0 V<br>1.300 A @ 208.0 V |
| <b>Design Code</b>                    | B                                                          |
| <b>Drip Cover</b>                     | No Drip Cover                                              |
| <b>Duty Rating</b>                    | CONT                                                       |
| <b>Efficiency @ 100% Load</b>         | 69.5 %                                                     |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                  |
| <b>Feedback Device</b>                | NO FEEDBACK                                                |
| <b>Front Face Code</b>                | Standard                                                   |
| <b>Front Shaft Indicator</b>          | None                                                       |
| <b>Heater Indicator</b>               | No Heater                                                  |
| <b>High Voltage Full Load Amps</b>    | 0.5 a                                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | H          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 34B051     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 34WGR137   |
| <b>Layout</b>       | 34LYB051   |
| <b>Eff. date</b>    | 12-30-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 02-27-2014 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | <b>F</b>                   |
| <b>Inverter Code</b>                 | <b>Not Inverter</b>        |
| <b>KVA Code</b>                      | <b>M</b>                   |
| <b>Lifting Lugs</b>                  | <b>No Lifting Lugs</b>     |
| <b>Locked Bearing Indicator</b>      | <b>No Locked Bearing</b>   |
| <b>Motor Lead Exit</b>               | <b>Ko Box</b>              |
| <b>Motor Lead Quantity/Wire Size</b> | <b>9 @ 18 AWG</b>          |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>        |
| <b>Motor Standards</b>               | <b>NEMA</b>                |
| <b>Motor Type</b>                    | <b>3413M</b>               |
| <b>Mounting Arrangement</b>          | <b>F1</b>                  |
| <b>Number of Poles</b>               | <b>4</b>                   |
| <b>Overall Length</b>                | <b>9.62 IN</b>             |
| <b>Power Factor</b>                  | <b>62</b>                  |
| <b>Product Family</b>                | <b>General Purpose</b>     |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                |
| <b>Pulley Face Code</b>              | <b>Standard</b>            |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>            |
| <b>Rodent Screen</b>                 | <b>None</b>                |
| <b>RoHS Status</b>                   | <b>ROHS COMPLIANT</b>      |
| <b>Service Factor</b>                | <b>1.35</b>                |
| <b>Shaft Diameter</b>                | <b>0.500 IN</b>            |
| <b>Shaft Extension Location</b>      | <b>Pulley End</b>          |
| <b>Shaft Ground Indicator</b>        | <b>No Shaft Grounding</b>  |
| <b>Shaft Rotation</b>                | <b>Reversible</b>          |
| <b>Shaft Slinger Indicator</b>       | <b>No Slinger</b>          |
| <b>Speed</b>                         | <b>1725 rpm</b>            |
| <b>Speed Code</b>                    | <b>Single Speed</b>        |
| <b>Starting Method</b>               | <b>Direct on line</b>      |
| <b>Thermal Device - Bearing</b>      | <b>None</b>                |
| <b>Thermal Device - Winding</b>      | <b>None</b>                |
| <b>Vibration Sensor Indicator</b>    | <b>No Vibration Sensor</b> |
| <b>Winding Thermal 1</b>             | <b>None</b>                |
| <b>Winding Thermal 2</b>             | <b>None</b>                |

**Nameplate**

| NP3155L        |              |  |      |      |     |   |  |    |   |  |  |
|----------------|--------------|--|------|------|-----|---|--|----|---|--|--|
| CAT.NO.        | EM30003      |  |      |      |     |   |  |    |   |  |  |
| SPEC.          | 34B051R137G1 |  |      |      |     |   |  |    |   |  |  |
| HP             | .25          |  |      |      |     |   |  |    |   |  |  |
| VOLTS          | 230/460      |  |      |      |     |   |  |    |   |  |  |
| AMP            | 1/.5         |  |      |      |     |   |  |    |   |  |  |
| RPM            | 1725         |  |      |      |     |   |  |    |   |  |  |
| FRAME          | 48           |  | HZ   | 60   |     |   |  | PH | 3 |  |  |
| SER.F.         | 1.35         |  | CODE | M    | DES | B |  | CL | F |  |  |
| F.L. AVG. EFF. | 69.5         |  | PF   | 62   |     |   |  |    |   |  |  |
| RATING         | 40C AMB-CONT |  |      |      |     |   |  |    |   |  |  |
| CC             |              |  |      |      |     |   |  |    |   |  |  |
| DE             | 6203         |  | ODE  | 6203 |     |   |  |    |   |  |  |
| ENCL           | ODP          |  | SN   |      |     |   |  |    |   |  |  |
|                | SFA 1.2/.6   |  |      |      |     |   |  |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 44893

Typical performance - not guaranteed values

| Winding: 34WGR137-R001 |    |         | Type: 3413M                              |                         | Enclosure: OPEN |            |
|------------------------|----|---------|------------------------------------------|-------------------------|-----------------|------------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                         |                 |            |
| Rated Output (HP)      |    | .25     | Full Load Torque                         |                         | 0.76 LB-FT      |            |
| Volts                  |    | 230/460 | Start Configuration                      |                         | direct on line  |            |
| Full Load Amps         |    | 1/.5    | Breakdown Torque                         |                         | 3.28 LB-FT      |            |
| R.P.M.                 |    | 1725    | Pull-up Torque                           |                         | 2.41 LB-FT      |            |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque     |                 | 1.91 LB-FT |
| NEMA Design Code       |    | B       | KVA Code                                 | Starting Current        |                 | 3.43 A     |
| Service Factor (S.F.)  |    | 1.35    | No-load Current                          |                         | 0.395 A         |            |
| NEMA Nom. Eff.         |    | 69.5    | Power Factor                             | Line-line Res. @ 25°C   |                 | 60.2 Ω     |
| Rating - Duty          |    | 40C     | AMB-CONT                                 | Temp. Rise @ Rated Load |                 | 16°C       |
| S.F. Amps              |    | 1.2/.6  | Temp. Rise @ S.F. Load                   |                         | 20°C            |            |
|                        |    |         | Locked-rotor Power Factor                |                         | 63              |            |
|                        |    |         | Rotor inertia                            |                         | 0.031 LB-FT2    |            |

**Load Characteristics 460 V, 60 Hz, 0.25 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150  | S.F.  |
|-----------------|-------|-------|-------|-------|-------|------|-------|
| Power Factor    | 28    | 41    | 53    | 62    | 69    | 74   | 71    |
| Efficiency      | 52.3  | 65.9  | 72.5  | 74.1  | 74.8  | 74.2 | 74.6  |
| Speed           | 1783  | 1771  | 1757  | 1742  | 1726  | 1707 | 1718  |
| Line amperes    | 0.405 | 0.428 | 0.467 | 0.514 | 0.568 | 0.64 | 0.597 |

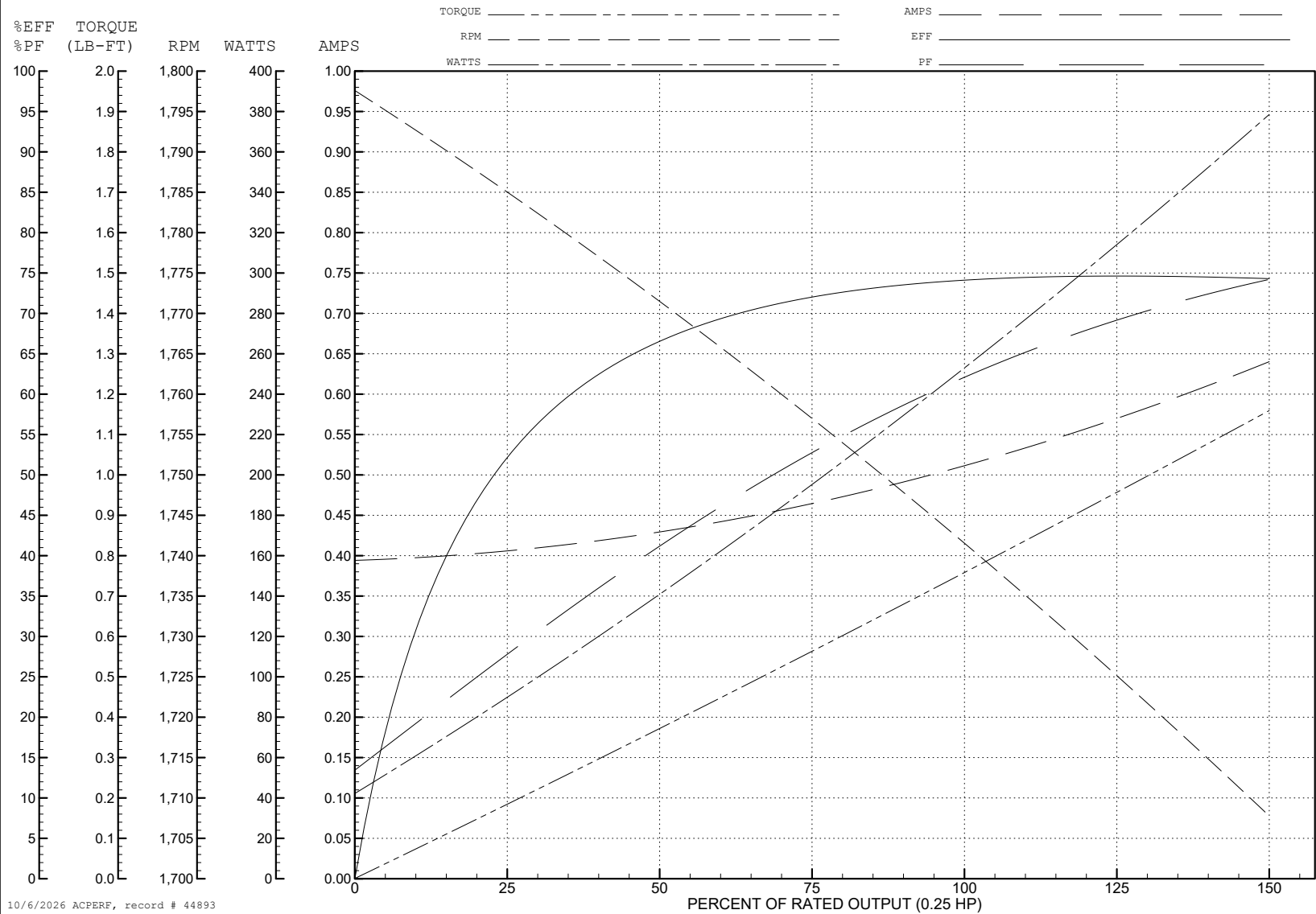
ABB Motors and Mechanical Inc.

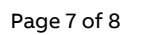
WINDING # 34WGR137

Typical performance - not guaranteed values.

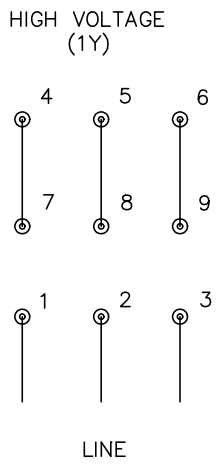
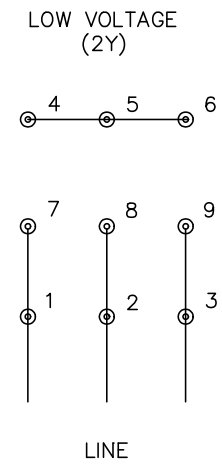
0.25 HP 3 PH 60 HZ 1725 RPM 460 V 3413M

TORQUES (LB-FT) : PO=3.28 PU=2.41 LR=1.91 LRA=3.43





CD0005



- 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