

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEL11304

.5HP, 1725RPM, 1PH, 60HZ, 56C, 3424LC, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                                        |
| <b>Frame</b>                          | 56C                                                         |
| <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>              | Cap Start, Cap Run                                          |
| <b>Output @ Frequency</b>             | .500 HP @ 60 HZ                                             |
| <b>Phase</b>                          | 1                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 115.0 V @ 60 HZ<br>230.0 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>              | 2.350 A @ 230.0 V<br>3.200 A @ 208.0 V<br>4.700 A @ 115.0 V |
| <b>Design Code</b>                    | N                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 76.2 %                                                      |
| <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>    | 2.4 a                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 34F867     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 34WGR141   |
| <b>Layout</b>       | 34LYF867   |
| <b>Eff. date</b>    | 10-29-2024 |
| <b>CD Diagram</b>   | CD0055     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 6#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 10-03-2014 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | <b>B</b>                   |
| <b>Inverter Code</b>                 | <b>Not Inverter</b>        |
| <b>KVA Code</b>                      | <b>K</b>                   |
| <b>Lifting Lugs</b>                  | <b>No Lifting Lugs</b>     |
| <b>Locked Bearing Indicator</b>      | <b>Locked Bearing</b>      |
| <b>Motor Lead Exit</b>               | <b>Ko Box</b>              |
| <b>Motor Lead Quantity/Wire Size</b> | <b>6 @ 18 AWG</b>          |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>        |
| <b>Motor Standards</b>               | <b>NEMA</b>                |
| <b>Motor Type</b>                    | <b>3424LC</b>              |
| <b>Mounting Arrangement</b>          | <b>F1</b>                  |
| <b>Number of Poles</b>               | <b>4</b>                   |
| <b>Overall Length</b>                | <b>11.62 IN</b>            |
| <b>Power Factor</b>                  | <b>98</b>                  |
| <b>Product Family</b>                | <b>General Purpose</b>     |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                |
| <b>Pulley Face Code</b>              | <b>C-Face</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>1.25</b>                |
| <b>Shaft Diameter</b>                | <b>0.625 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.        | CEL11304     |      |     |      |   |    |   |    |   |  |  |  |
| SPEC.          | 34F867R141G1 |      |     |      |   |    |   |    |   |  |  |  |
| HP             | .5           |      |     |      |   |    |   |    |   |  |  |  |
| VOLTS          | 115/230      |      |     |      |   |    |   |    |   |  |  |  |
| AMP            | 4.7/2.35     |      |     |      |   |    |   |    |   |  |  |  |
| RPM            | 1725         |      |     |      |   |    |   |    |   |  |  |  |
| FRAME          | 56C          |      | HZ  | 60   |   |    |   | PH | 1 |  |  |  |
| SER.F.         | 1.25         | CODE | K   | DES  | N | CL | B |    |   |  |  |  |
| F.L. AVG. EFF. | 76.2         | PF   | 98  |      |   |    |   |    |   |  |  |  |
| RATING         | 40C AMB-CONT |      |     |      |   |    |   |    |   |  |  |  |
| CC             |              |      |     |      |   |    |   |    |   |  |  |  |
| DE             | 6203         |      | ODE | 6203 |   |    |   |    |   |  |  |  |
| ENCL           | OPEN         | SN   |     |      |   |    |   |    |   |  |  |  |
|                | SFA 5.9/2.95 |      |     |      |   |    |   |    |   |  |  |  |

**AC Induction Motor Performance Data**

Record # 47421

Typical performance - not guaranteed values

| Winding: 34WGR141-R002 |  |              | Type: 3424LC                            |  | Enclosure: OPEN                |  |
|------------------------|--|--------------|-----------------------------------------|--|--------------------------------|--|
| Nameplate Data         |  |              | 115 V, 60 Hz:<br>Low Voltage Connection |  |                                |  |
| Rated Output (HP)      |  | .5           | Full Load Torque                        |  | 1.51 LB-FT                     |  |
| Volts                  |  | 115/230      | Start Configuration                     |  | direct on line                 |  |
| Full Load Amps         |  | 4.7/2.35     | Breakdown Torque                        |  | 4.01 LB-FT                     |  |
| R.P.M.                 |  | 1725         | Pull-up Torque                          |  | 3.75 LB-FT                     |  |
| Hz                     |  | 60 Phase     | Locked-rotor Torque                     |  | 6.42 LB-FT                     |  |
| NEMA Design Code       |  | N            | KVA Code                                |  | K                              |  |
| Service Factor (S.F.)  |  | 1.25         | Starting Current                        |  | 31.9 A                         |  |
|                        |  |              | No-load Current                         |  | 1.06 A                         |  |
| NEMA Nom. Eff.         |  | 76.2         | Power Factor                            |  | 98                             |  |
|                        |  |              | Line-line Res. @ 25°C                   |  | 1.6786 Ω A Ph<br>2.0496 Ω B Ph |  |
| Rating - Duty          |  | 40C AMB-CONT | Temp. Rise @ Rated Load                 |  | 37°C                           |  |
| S.F. Amps              |  | 5.9/2.95     | Temp. Rise @ S.F. Load                  |  | 55°C                           |  |

**Load Characteristics 115 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 89     | 94     | 95     | 95     | 95     | 94     | 95   |
| Efficiency      | 59.9   | 73     | 76.8   | 76.6   | 73.3   | 67.1   | 73.3 |
| Speed           | 1782.8 | 1767.7 | 1748.6 | 1726.8 | 1694.2 | 1648.1 | 1694 |
| Line amperes    | 1.56   | 2.34   | 3.34   | 4.39   | 5.8    | 7.69   | 5.8  |

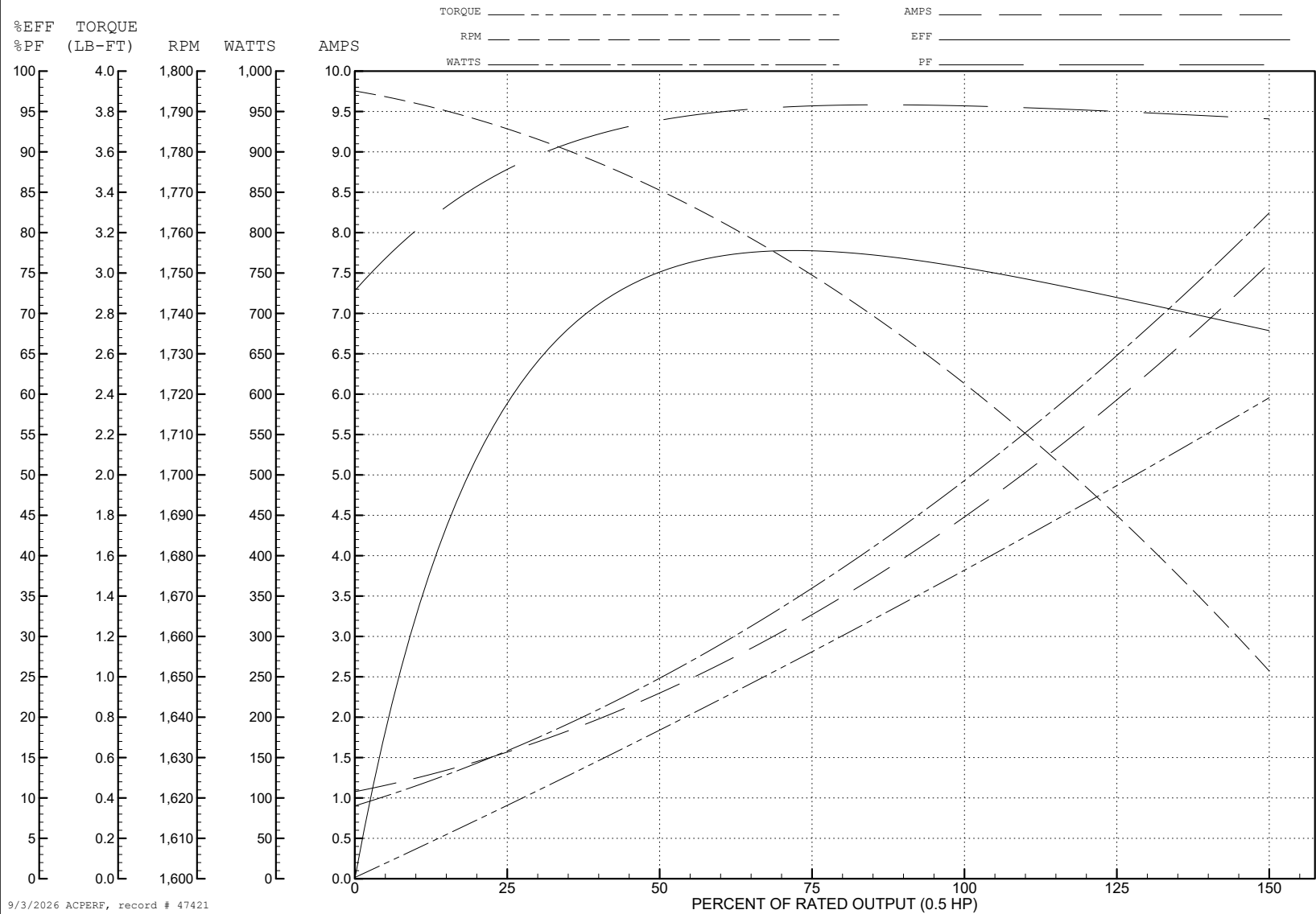
ABB Motors and Mechanical Inc.

WINDING # 34WGR141

Typical performance - not guaranteed values.

0.5 HP 1 PH 60 HZ 1725 RPM 115 V 3424LC

TORQUES (LB-FT): PO=4.01 PU=3.75 LR=6.42 LRA=31.9



**AC Induction Motor Performance Data**

Record # 49328

Typical performance - not guaranteed values

| Winding: 34WGR141-R002 |    |              | Type: 3424LC                             |                         | Enclosure: OPEN       |              |                            |
|------------------------|----|--------------|------------------------------------------|-------------------------|-----------------------|--------------|----------------------------|
| Nameplate Data         |    |              | 230 V, 60 Hz:<br>High Voltage Connection |                         |                       |              |                            |
| Rated Output (HP)      |    | .5           | Full Load Torque                         |                         | 1.51 LB-FT            |              |                            |
| Volts                  |    | 115/230      | Start Configuration                      |                         | direct on line        |              |                            |
| Full Load Amps         |    | 4.7/2.35     | Breakdown Torque                         |                         | 4.01 LB-FT            |              |                            |
| R.P.M.                 |    | 1725         | Pull-up Torque                           |                         | 2.84 LB-FT            |              |                            |
| Hz                     | 60 | Phase        | 1                                        | Locked-rotor Torque     |                       | 4.87 LB-FT   |                            |
| NEMA Design Code       |    | N            | KVA Code                                 | K                       | Starting Current      |              | 14.97 A                    |
| Service Factor (S.F.)  |    | 1.25         |                                          | No-load Current         |                       | 0.571 A      |                            |
| NEMA Nom. Eff.         |    | 76.2         | Power Factor                             | 98                      | Line-line Res. @ 25°C |              | 6.38 Ω A Ph<br>2.09 Ω B Ph |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load |                       | 40°C         |                            |
| S.F. Amps              |    | 5.9/2.95     |                                          | Temp. Rise @ S.F. Load  |                       | 53°C         |                            |
|                        |    |              |                                          | Rotor inertia           |                       | 0.057 LB-FT2 |                            |

**Load Characteristics 230 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25    | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|-------|------|------|------|------|------|------|
| Power Factor    | 89    | 93   | 95   | 96   | 95   | 94   | 95   |
| Efficiency      | 57.8  | 71.3 | 75.5 | 75.6 | 72.6 | 66.9 | 72.6 |
| Speed           | 1783  | 1768 | 1749 | 1727 | 1694 | 1648 | 1694 |
| Line amperes    | 0.809 | 1.2  | 1.7  | 2.22 | 2.93 | 3.87 | 2.93 |

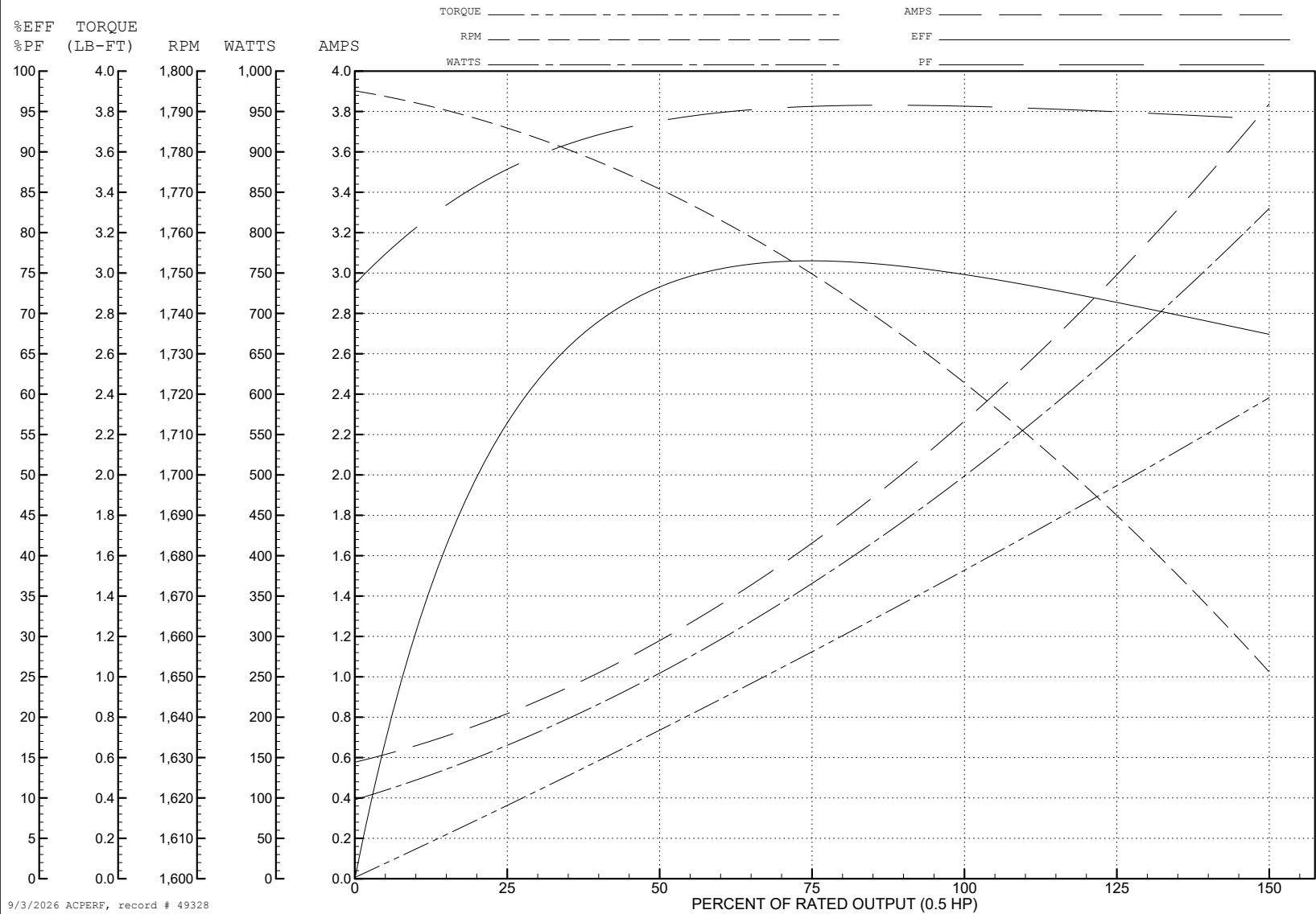
ABB Motors and Mechanical Inc.

WINDING # 34WGR141

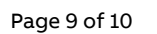
Typical performance - not guaranteed values.

0.5 HP 1 PH 60 HZ 1725 RPM 230 V 3424LC

TORQUES (LB-FT): PO=4.01 PU=2.84 LR=4.87 LRA=14.97







CD0055

