

# ABB BALDOR RELIANCE III

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## Customer information packet

VBL3510

1HP, 1740RPM, 1PH, 60HZ, 56C, 3526LC, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                        |
|---------------------------------------|----------------------------------------|
| <b>Enclosure</b>                      | TEFC                                   |
| <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>             | 1.000 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>               | CSA<br>UR                              |
| <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>              | 9.250 A @ 115.0 V<br>4.650 A @ 230.0 V |
| <b>Design Code</b>                    | L                                      |
| <b>Drip Cover</b>                     | No Drip Cover                          |
| <b>Duty Rating</b>                    | CONT                                   |
| <b>Efficiency @ 100% Load</b>         | 80.0 %                                 |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated              |
| <b>Feedback Device</b>                | NO FEEDBACK                            |
| <b>Front Shaft Indicator</b>          | None                                   |
| <b>Heater Indicator</b>               | No Heater                              |
| <b>High Voltage Full Load Amps</b>    | 4.7 a                                  |
| <b>Insulation Class</b>               | F                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35F021     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGG241   |
| <b>Layout</b>       | 35LYF021   |
| <b>Eff. date</b>    | 03-03-2026 |
| <b>CD Diagram</b>   | CD0055     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 6#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 08-01-2022 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Inverter Code</b>                 | Not Inverter        |
| <b>KVA Code</b>                      | J                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <b>Motor Lead Quantity/Wire Size</b> | 6 @ 18 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3526LC              |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 17.80 IN            |
| <b>Power Factor</b>                  | 85                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | C-Face              |
| <b>Pulley Shaft Indicator</b>        | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>Service Factor</b>                | 1.25                |
| <b>Shaft Diameter</b>                | 0.625 IN            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 1740 rpm            |
| <b>Speed Code</b>                    | Single Speed        |
| <b>Starting Method</b>               | Direct on line      |
| <b>Thermal Device - Bearing</b>      | None                |
| <b>Thermal Device - Winding</b>      | None                |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor |
| <b>Winding Thermal 1</b>             | None                |
| <b>Winding Thermal 2</b>             | None                |

**Nameplate**

| NP1256L      |              |      |     |      |   |       |    |   |  |
|--------------|--------------|------|-----|------|---|-------|----|---|--|
| CAT.NO.      | VBL3510      |      |     |      |   |       |    |   |  |
| SPEC.        | 35F021G241   |      |     |      |   |       |    |   |  |
| HP           | 1            |      |     |      |   |       |    |   |  |
| VOLTS        | 115/230      |      |     |      |   |       |    |   |  |
| AMP          | 9.25/4.65    |      |     |      |   |       |    |   |  |
| RPM          | 1740         |      |     |      |   |       |    |   |  |
| FRAME        | 56C          |      | HZ  | 60   |   |       | PH | 1 |  |
| SER.F.       | 1.25         | CODE | J   | DES  | L | CLASS | F  |   |  |
| NEMA-NOM-EFF | 80           | PF   | 85  |      |   |       |    |   |  |
| RATING       | 40C AMB-CONT |      |     |      |   |       |    |   |  |
| CC           |              |      |     |      |   |       |    |   |  |
| DE           | 6205         |      | ODE | 6203 |   |       |    |   |  |
| ENCL         | TEFC         | SN   |     |      |   |       |    |   |  |
|              | SFA 11.4/5.7 |      |     |      |   |       |    |   |  |

**AC Induction Motor Performance Data**

Record # 88915

Typical performance - not guaranteed values

| Winding: 35WGG241-R001 |    |          |              | Type: 3526LC                             |                       | Enclosure: TEFC           |                               |      |
|------------------------|----|----------|--------------|------------------------------------------|-----------------------|---------------------------|-------------------------------|------|
| Nameplate Data         |    |          |              | 230 V, 60 Hz:<br>High Voltage Connection |                       |                           |                               |      |
| Rated Output (HP)      |    | 1        |              | Full Load Torque                         |                       | 3.023 LB-FT               |                               |      |
| Volts                  |    | 115/230  |              | Start Configuration                      |                       | direct on line            |                               |      |
| Full Load Amps         |    | 9.5/4.75 |              | Breakdown Torque                         |                       | 7.77 LB-FT                |                               |      |
| R.P.M.                 |    | 1740     |              | Pull-up Torque                           |                       | 6.11 LB-FT                |                               |      |
| Hz                     | 60 | Phase    | 1            | Locked-rotor Torque                      |                       | 9.4 LB-FT                 |                               |      |
| NEMA Design Code       |    | L        | KVA Code     | K                                        | Starting Current      |                           | 36.9 A                        |      |
| Service Factor (S.F.)  |    | 1.25     |              | No-load Current                          |                       | 2.41 A                    |                               |      |
| NEMA Nom. Eff.         |    | 80       | Power Factor | 85                                       | Line-line Res. @ 25°C |                           | 2.835 Ω A Ph<br>1.4934 Ω B Ph |      |
| Rating - Duty          |    | 40C      |              | AMB-CONT                                 |                       | Temp. Rise @ Rated Load   |                               | 54°C |
| S.F. Amps              |    | 11.6/5.8 |              |                                          |                       | Temp. Rise @ S.F. Load    |                               | 76°C |
|                        |    |          |              |                                          |                       | Locked-rotor Power Factor |                               | 96   |

**Load Characteristics 230 V, 60 Hz, 1 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 50     | 68     | 79     | 85     | 89     | 91     | 89   |
| Efficiency      | 63.4   | 75.5   | 78.5   | 78.4   | 76.2   | 72.2   | 76.2 |
| Speed           | 1784.3 | 1770.7 | 1755.4 | 1737.9 | 1715.6 | 1686.4 | 1716 |
| Line amperes    | 2.62   | 3.14   | 3.89   | 4.83   | 5.98   | 7.41   | 5.98 |

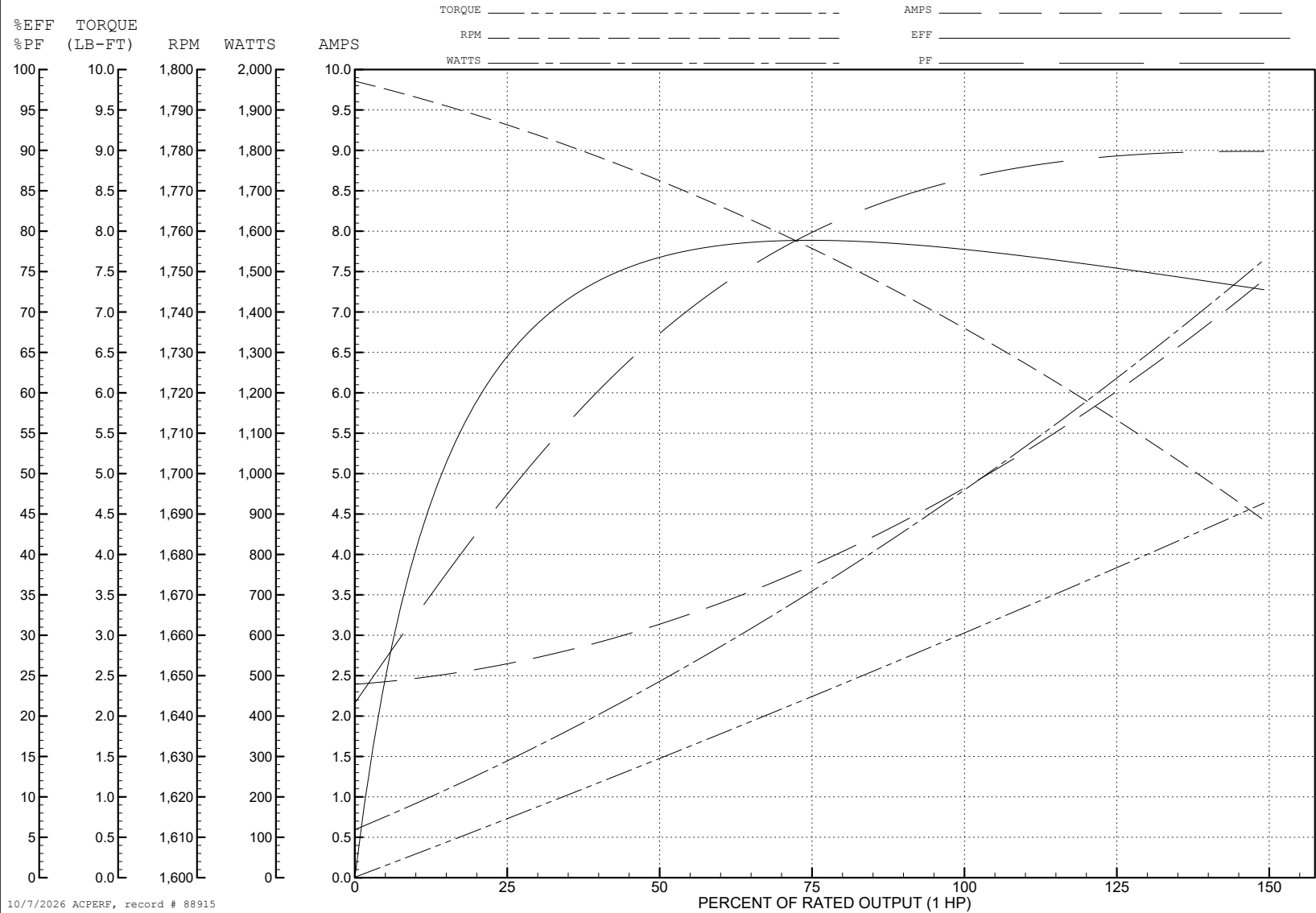
ABB Motors and Mechanical Inc.

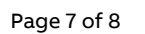
WINDING # 35WGG241

Typical performance - not guaranteed values.

1 HP 1 PH 60 HZ 1740 RPM 230 V 3526LC

TORQUES (LB-FT): PO=7.77 PU=6.11 LR=9.4 LRA=36.9





CD0055

