

# ABB BALDOR RELIANCE III

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## Customer information packet

### SPM31157

2HP, 1770RPM, 3PH, 60HZ, 56H, 3538M, ODP, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | ODP                                                         |
| <b>Frame</b>                          | 56H                                                         |
| <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>             | 2.000 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>               | NEMA PREMIUM 4<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>                 | Rigid                                                       |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                     |
| <b>Blower</b>                         | None                                                        |
| <b>Current @ Voltage</b>              | 2.700 A @ 460.0 V<br>5.400 A @ 230.0 V<br>5.800 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>         | 88.5 %                                                      |
| <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>    | 2.7 a                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35E6250    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGZ966   |
| <b>Layout</b>       | 35LYE6250  |
| <b>Eff. date</b>    | 11-19-2025 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-08-2023 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | <b>F</b>                   |
| <b>Inverter Code</b>                 | <b>Inverter Duty</b>       |
| <b>KVA Code</b>                      | <b>L</b>                   |
| <b>Lifting Lugs</b>                  | <b>No Lifting Lugs</b>     |
| <b>Locked Bearing Indicator</b>      | <b>No Locked Bearing</b>   |
| <b>Max Speed</b>                     | <b>2700 rpm</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>3538M</b>               |
| <b>Mounting Arrangement</b>          | <b>F1</b>                  |
| <b>Number of Poles</b>               | <b>4</b>                   |
| <b>Overall Length</b>                | <b>14.00 IN</b>            |
| <b>Power Factor</b>                  | <b>75</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>1.25</b>                |
| <b>Shaft Diameter</b>                | <b>0.625 IN</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>1770 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>                |



**AC Induction Motor Performance Data**

Record # 109554

Preliminary Data Sheet

| Winding: 35WGZ966-R010 |      |              | Type: 3538M                              |                       | Enclosure: OPSB |  |
|------------------------|------|--------------|------------------------------------------|-----------------------|-----------------|--|
| Nameplate Data         |      |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |  |
| Rated Output (HP)      |      | 2            | Full Load Torque                         |                       | 5.96 LB-FT      |  |
| Volts                  |      | 230/460      | Start Configuration                      |                       | direct on line  |  |
| Full Load Amps         |      | 5.4/2.7      | Breakdown Torque                         |                       | 26.9 LB-FT      |  |
| R.P.M.                 |      | 1770         | Pull-up Torque                           |                       | 12.6 LB-FT      |  |
| Hz                     | 60   | Phase        | 3                                        | Locked-rotor Torque   | 15.8 LB-FT      |  |
| NEMA Design Code       | B    | KVA Code     | L                                        | Starting Current      | 27.1 A          |  |
| Service Factor (S.F.)  |      | 1.25         | No-load Current                          |                       | 1.54 A          |  |
| NEMA Nom. Eff.         | 88.5 | Power Factor | 75                                       | Line-line Res. @ 25°C | 7.41 Ω          |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 31°C            |  |
| S.F. Amps              |      | 6.6/3.3      | Temp. Rise @ S.F. Load                   |                       | 41°C            |  |
|                        |      |              | Locked-rotor Power Factor                |                       | 51.8            |  |
|                        |      |              | Rotor inertia                            |                       | 0.274 lb-ft²    |  |

**Load Characteristics 460 V, 60 Hz, 2 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 36   | 57   | 69   | 77   | 81   | 84   | 81   |
| Efficiency      | 81.5 | 87.9 | 89.3 | 89.3 | 88.7 | 87.6 | 88.7 |
| Speed           | 1792 | 1785 | 1778 | 1771 | 1763 | 1754 | 1763 |
| Line amperes    | 1.65 | 1.93 | 2.31 | 2.75 | 3.26 | 3.82 | 3.26 |

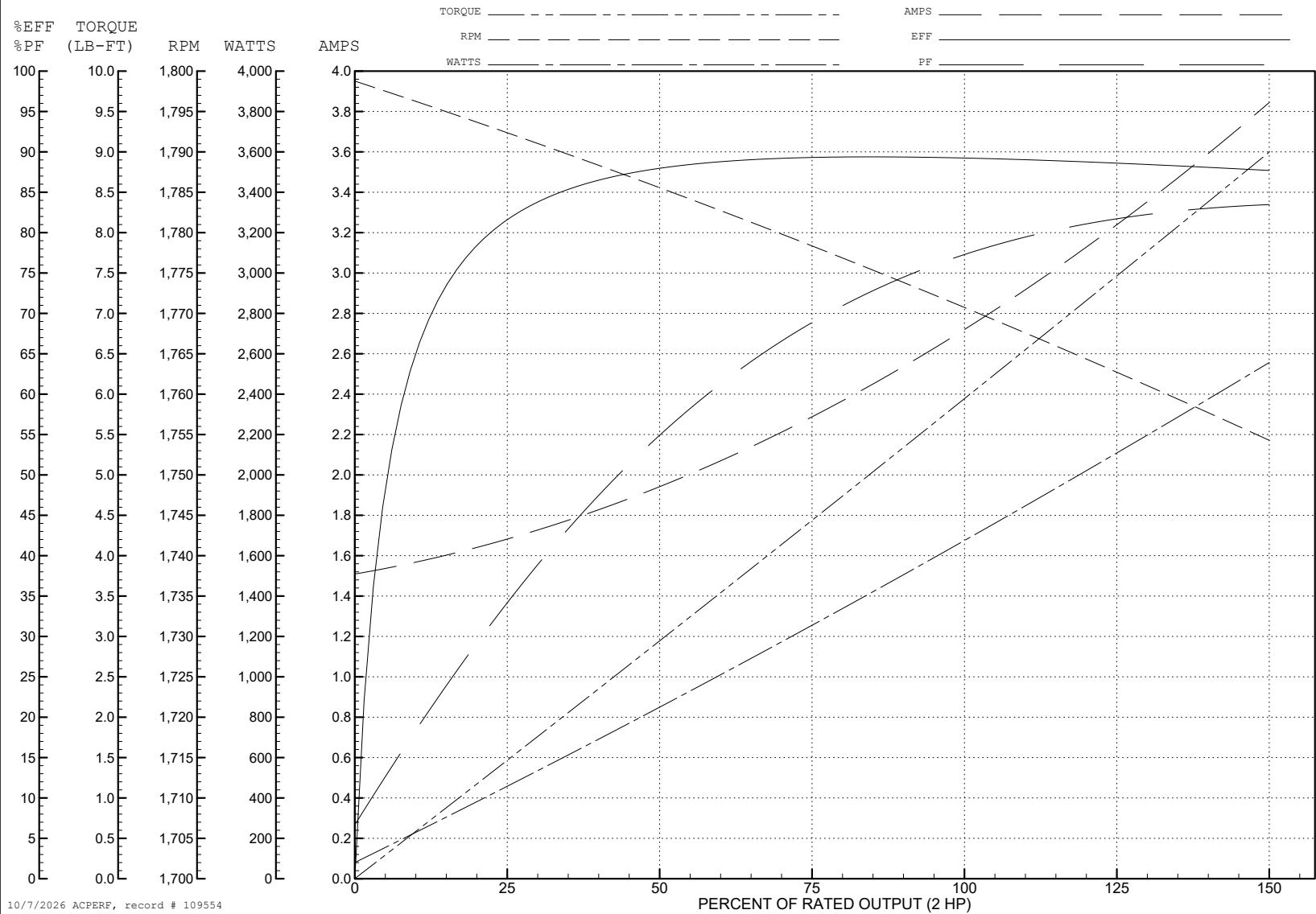
ABB Motors and Mechanical Inc.

WINDING # 35WGZ966

Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1770 RPM 460 V 3538M

TORQUES (LB-FT): PO=26.9 PU=12.6 LR=15.8 LRA=27.1



10/7/2026 ACPERF, record # 109554

