

# ABB BALDOR RELIANCE III

---

## Customer information packet

### CSSWDM3537

.5HP, 3450RPM, 3PH, 60HZ, 56C, 3512M, TENV, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| <b>Enclosure</b>                      | TENV                                                       |
| <b>Frame</b>                          | 56C                                                        |
| <b>Frame Material</b>                 | Stainless 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>             | .500 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                          |
| <b>Synchronous Speed @ Frequency</b>  | 3600 RPM @ 60 HZ                                           |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>208.0 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>                 | Rigid                                                      |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                    |
| <b>Blower</b>                         | None                                                       |
| <b>Current @ Voltage</b>              | 1.900 A @ 208.0 V<br>1.800 A @ 230.0 V<br>.900 A @ 460.0 V |
| <b>Design Code</b>                    | B                                                          |
| <b>Drip Cover</b>                     | No Drip Cover                                              |
| <b>Duty Rating</b>                    | CONT                                                       |
| <b>Efficiency @ 100% Load</b>         | 70.0 %                                                     |
| <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                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AK         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35V814     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WG1706   |
| <b>Layout</b>       | 35LYV814   |
| <b>Eff. date</b>    | 02-19-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 06-22-2007 |

|                                      |                               |
|--------------------------------------|-------------------------------|
| <b>Heater Indicator</b>              | No Heater                     |
| <b>High Voltage Full Load Amps</b>   | 0.9 a                         |
| <b>Insulation Class</b>              | F                             |
| <b>Inverter Code</b>                 | Not Inverter                  |
| <b>KVA Code</b>                      | L                             |
| <b>Lifting Lugs</b>                  | No Lifting Lugs               |
| <b>Locked Bearing Indicator</b>      | Locked Bearing                |
| <b>Motor Lead Exit</b>               | Ko Box                        |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 18 AWG                    |
| <b>Motor Lead Termination</b>        | Flying Leads                  |
| <b>Motor Standards</b>               | NEMA                          |
| <b>Motor Type</b>                    | 3512M                         |
| <b>Mounting Arrangement</b>          | F1                            |
| <b>Number of Poles</b>               | 2                             |
| <b>Overall Length</b>                | 11.09 IN                      |
| <b>Power Factor</b>                  | 76                            |
| <b>Product Family</b>                | Wash Down All Stainless Steel |
| <b>Pulley End Bearing Type</b>       | Sealed Bearing                |
| <b>Pulley Face Code</b>              | C-Face                        |
| <b>Pulley Shaft Indicator</b>        | Standard                      |
| <b>Rodent Screen</b>                 | None                          |
| <b>RoHS Status</b>                   | ROHS COMPLIANT                |
| <b>Service Factor</b>                | 1.15                          |
| <b>Shaft Diameter</b>                | 0.625 IN                      |
| <b>Shaft Extension Location</b>      | Pulley End                    |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding            |
| <b>Shaft Rotation</b>                | Reversible                    |
| <b>Shaft Slinger Indicator</b>       | No Slinger                    |
| <b>Speed</b>                         | 3450 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           |

|                   |      |
|-------------------|------|
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

**Nameplate**

| NP1951A01    |               |    |      |     |   |      |  |    |       |   |   |
|--------------|---------------|----|------|-----|---|------|--|----|-------|---|---|
| CAT.NO.      | CSSWDM3537    |    |      |     |   |      |  |    |       |   |   |
| SPEC.        | 35V814-1706G1 |    |      |     |   |      |  |    |       |   |   |
| HP           | .5            |    |      |     |   |      |  |    |       |   |   |
| VOLTS        | 208-230/460   |    |      |     |   |      |  |    |       |   |   |
| AMP          | 1.9-1.8/.9    |    |      |     |   |      |  |    |       |   |   |
| RPM          | 3450          |    |      |     |   |      |  |    |       |   |   |
| FRAME        | 56C           |    |      | HZ  |   | 60   |  | PH |       | 3 |   |
| SER.F.       | 1.15          |    | CODE |     | L | DES  |  | B  | CLASS |   | F |
| NEMA-NOM-EFF | 70            |    |      | PF  |   | 76   |  |    |       |   |   |
| RATING       | 40C AMB-CONT  |    |      |     |   |      |  |    |       |   |   |
| CC           |               |    |      |     |   |      |  |    |       |   |   |
| DE           | 6205          |    |      | ODE |   | 6203 |  |    |       |   |   |
| ENCL         | TENV          | SN |      |     |   |      |  |    |       |   |   |
|              | 4:1CT 20:1VT  |    |      |     |   |      |  |    |       |   |   |
|              |               |    |      |     |   |      |  |    |       |   |   |

**AC Induction Motor Performance Data**

Record # 36509

Typical performance - not guaranteed values

| Winding: 35WG1706-R015 |  |             | Type: 3512M                              |  | Enclosure: TENV           |  |
|------------------------|--|-------------|------------------------------------------|--|---------------------------|--|
| Nameplate Data         |  |             | 460 V, 60 Hz:<br>High Voltage Connection |  |                           |  |
| Rated Output (HP)      |  | .5          | Full Load Torque                         |  | 0.752 LB-FT               |  |
| Volts                  |  | 208-230/460 | Start Configuration                      |  | direct on line            |  |
| Full Load Amps         |  | 1.9-1.8/.9  | Breakdown Torque                         |  | 3.06 LB-FT                |  |
| R.P.M.                 |  | 3450        | Pull-up Torque                           |  | 2.14 LB-FT                |  |
| Hz                     |  | 60          | Phase                                    |  | 3                         |  |
| NEMA Design Code       |  | B           | KVA Code                                 |  | L                         |  |
| Service Factor (S.F.)  |  | 1.15        | No-load Current                          |  | 0.525 A                   |  |
| NEMA Nom. Eff.         |  | 70          | Power Factor                             |  | 76                        |  |
| Rating - Duty          |  | 40C         | AMB-CONT                                 |  | Temp. Rise @ Rated Load   |  |
| S.F. Amps              |  |             |                                          |  | Temp. Rise @ S.F. Load    |  |
|                        |  |             |                                          |  | Locked-rotor Power Factor |  |
|                        |  |             |                                          |  | Rotor inertia             |  |

**Load Characteristics 460 V, 60 Hz, 0.5 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150  | S.F.  |
|-----------------|-------|-------|-------|-------|-------|------|-------|
| Power Factor    | 48    | 62    | 72    | 79    | 83    | 86   | 81    |
| Efficiency      | 43.9  | 59.7  | 67.1  | 70.5  | 72.1  | 72.5 | 71.7  |
| Speed           | 3557  | 3530  | 3502  | 3471  | 3438  | 3402 | 3462  |
| Line amperes    | 0.565 | 0.636 | 0.727 | 0.839 | 0.961 | 1.1  | 0.912 |

ABB Motors and Mechanical Inc.

WINDING # 35WG1706

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 3450 RPM 460 V 3512M

TORQUES (LB-FT): PO=3.06 PU=2.14 LR=2.44 LRA=5.71





