

# ABB BALDOR RELIANCE III

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## Customer information packet

### CFSWDNM3558-E

2HP, 1760RPM, 3PH, 60HZ, 56C, 3546M, TENV, F1, N

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>             | 2.000 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CSA EEV<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<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>              | 5.600 A @ 208.0 V<br>5.300 A @ 230.0 V<br>2.650 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>         | 86.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35E4735    |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGZ811   |
| <b>Layout</b>       | 35LYE4735  |
| <b>Eff. date</b>    | 10-01-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18 Y     |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-11-2022 |

|                               |                            |
|-------------------------------|----------------------------|
| Front Shaft Indicator         | None                       |
| Heater Indicator              | No Heater                  |
| High Voltage Full Load Amps   | 2.7 a                      |
| Insulation Class              | H                          |
| Inverter Code                 | Inverter Duty              |
| KVA Code                      | L                          |
| Lifting Lugs                  | No Lifting Lugs            |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 2700 rpm                   |
| Motor Finish                  | UNPAINTED                  |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG                 |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 3546M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 4                          |
| Overall Length                | 15.04 IN                   |
| Power Factor                  | 80                         |
| Product Family                | WD All SD Non-Encapsulated |
| Pulley End Bearing Type       | Sealed Bearing             |
| Pulley Face Code              | C-Face                     |
| Pulley Shaft Indicator        | Standard                   |
| Rodent Screen                 | None                       |
| Service Factor                | 1.15                       |
| Shaft Diameter                | 0.625 IN                   |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Shaft Slinger Indicator       | No Slinger                 |
| Speed                         | 1760 rpm                   |
| Speed Code                    | Single Speed               |
| Starting Method               | Direct on line             |
| Thermal Device - Bearing      | None                       |
| Thermal Device - Winding      | None                       |
| Vibration Sensor Indicator    | No Vibration Sensor        |



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

## Nameplate

| NP4427AAA01 |               |       |        |         |    |               |          |      |       |      |      |       |  |  |
|-------------|---------------|-------|--------|---------|----|---------------|----------|------|-------|------|------|-------|--|--|
| CAT #       | CFSWDNM3558-E |       |        |         |    | WT            | 63       |      | LBS   |      |      |       |  |  |
| SPEC        | 35E4735Z811G1 |       |        |         |    | ENCL          | TENV     |      |       |      |      |       |  |  |
| SER #       |               |       |        |         |    | CC            | 010A     |      | IP    | 69   |      |       |  |  |
| HP          | 2             |       |        | MAG CUR |    |               | 2.7/1.35 |      |       |      |      |       |  |  |
| VOLTS       | 230/460       |       |        |         |    | NEMA NOM. EFF |          |      |       |      | 86.5 |       |  |  |
| AMPS        | 5.3/2.65      |       |        |         |    | PF            |          | 80   |       |      |      |       |  |  |
| RATING      | 40C AMB-CONT  |       |        |         |    |               |          |      |       |      |      |       |  |  |
| RPM         | 1760          |       |        |         |    | MAX RPM       |          | 2700 |       |      |      |       |  |  |
| FRAME       | 56C           |       | HZ     | 60      |    | CODE          | L        |      | CLASS | H    |      |       |  |  |
| SER.F.      | 1.15          |       | SF AMP | 6/3     |    | PH            |          | 3    |       | DES  | B    |       |  |  |
| DE          | 6205          |       |        | ODE     |    | 6205          |          |      |       |      |      |       |  |  |
| LUBRICATION | POLYREX EM    |       |        |         |    |               |          |      |       |      |      |       |  |  |
| ID LOGO     | INVERTER TYPE |       |        | VPWM    |    | CHP           | 60       |      | TO    | 90   |      | 1.5:1 |  |  |
| ID LOGO     | WK2           | 0.332 |        | CT      | 15 |               | TO       | 60   |       | 4:1  |      |       |  |  |
| ID LOGO     | SL HZ         | 1.33  |        | VT      | 3  |               | TO       | 60   |       | 20:1 |      |       |  |  |
|             |               |       |        |         |    |               |          |      |       |      |      |       |  |  |
|             |               |       |        |         |    |               |          |      |       |      |      |       |  |  |
|             |               |       |        |         |    |               |          |      |       |      |      |       |  |  |
|             |               |       |        |         |    |               |          |      |       |      |      |       |  |  |
|             |               |       |        |         |    |               |          | QR   |       |      |      |       |  |  |
| YR          |               |       |        |         |    |               |          |      |       |      |      |       |  |  |

**AC Induction Motor Performance Data**

Record # 87105

Preliminary Data Sheet

| Winding: 35WGZ811-R001 |    |          | Type: 3546M                              |                     | Enclosure: TENV         |             |         |
|------------------------|----|----------|------------------------------------------|---------------------|-------------------------|-------------|---------|
| Nameplate Data         |    |          | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |             |         |
| Rated Output (HP)      |    | 2        | Full Load Torque                         |                     | 6 LB-FT                 |             |         |
| Volts                  |    | 230/460  | Start Configuration                      |                     | direct on line          |             |         |
| Full Load Amps         |    | 5.3/2.65 | Breakdown Torque                         |                     | 27.78 LB-FT             |             |         |
| R.P.M.                 |    | 1760     | Pull-up Torque                           |                     | 16.81 LB-FT             |             |         |
| Hz                     | 60 | Phase    | 3                                        | Locked-rotor Torque |                         | 21.79 LB-FT |         |
| NEMA Design Code       |    | B        | KVA Code                                 | L                   | Starting Current        |             | 25.07 A |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                     | 1.36 A                  |             |         |
| NEMA Nom. Eff.         |    | 86.5     | Power Factor                             | 80                  | Line-line Res. @ 25°C   |             | 7.86 Ω  |
| Rating - Duty          |    | 40C      | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |             | 100°C   |
| S.F. Amps              |    | 6/3      | Temp. Rise @ S.F. Load                   |                     | 122°C                   |             |         |
|                        |    |          | Locked-rotor Power Factor                |                     | 51.7                    |             |         |
|                        |    |          | Rotor inertia                            |                     | 0.332 lb-ft²            |             |         |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 39   | 61   | 73   | 80   | 85   | 87   | 83   |
| Efficiency      | 83.3 | 88.6 | 89.2 | 88.7 | 87.5 | 86   | 88   |
| Speed           | 1790 | 1781 | 1771 | 1760 | 1748 | 1735 | 1753 |
| Line amperes    | 1.5  | 1.78 | 2.17 | 2.65 | 3.18 | 3.77 | 2.97 |

ABB Motors and Mechanical Inc.

WINDING # 35WGZ811

Typical performance - not guaranteed values.

2 HP 3 PH 60 HZ 1760 RPM 460 V 3546M

TORQUES (LB-FT) : PO=27.78 PU=16.81 LR=21.79 LRA=25.07





