

# ABB BALDOR RELIANCE III

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## Customer information packet

### CWDM3561TP

3HP, 1645RPM, 3PH, 60HZ, 143TC, 3540M, TEFC, F3

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | 143TC                                                       |
| Frame Material                 | Steel                                                       |
| Frequency                      | 60.00 Hz                                                    |
| Haz Area Class and Group       | None                                                        |
| Haz Area Division              | Not Applicable                                              |
| Motor Letter Type              | Three Phase                                                 |
| Output @ Frequency             | 3.000 HP @ 60 HZ                                            |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| Agency Approvals               | CSA<br>UR                                                   |
| Ambient Temperature            | 40 °C                                                       |
| Auxiliary Box                  | NO AUXILLARY BOX                                            |
| Auxiliary Box Lead Termination | None                                                        |
| Base Indicator                 | Rigid                                                       |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Current @ Voltage              | 4.300 A @ 460.0 V<br>8.600 A @ 230.0 V<br>8.800 A @ 208.0 V |
| Design Code                    | D                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 81.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |
| High Voltage Full Load Amps    | 4.3 a                                                       |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | N          |
| Type         | AC         |
| Mech. spec.  | 35E2678    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG301   |
| Layout       | 35LYE2678  |
| Eff. date    | 03-28-2025 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 10-01-2021 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Insulation Class</b>              | H                   |
| <b>Inverter Code</b>                 | Not Inverter        |
| <b>KVA Code</b>                      | H                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <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>                    | 3540M               |
| <b>Mounting Arrangement</b>          | F3                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 15.54 IN            |
| <b>Power Factor</b>                  | 80                  |
| <b>Product Family</b>                | Wash Down           |
| <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>Service Factor</b>                | 1.00                |
| <b>Shaft Diameter</b>                | 0.875 IN            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger       |
| <b>Speed</b>                         | 1645 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**

| NP1496L      |               |      |     |      |   |       |  |    |   |  |  |
|--------------|---------------|------|-----|------|---|-------|--|----|---|--|--|
| CAT.NO.      | CWDM3561TP    |      |     |      |   |       |  |    |   |  |  |
| SPEC.        | 35E2678G301G1 |      |     |      |   |       |  |    |   |  |  |
| HP           | 3             |      |     |      |   |       |  |    |   |  |  |
| VOLTS        | 230/460       |      |     |      |   |       |  |    |   |  |  |
| AMP          | 8.2/4.1       |      |     |      |   |       |  |    |   |  |  |
| RPM          | 1690          |      |     |      |   |       |  |    |   |  |  |
| FRAME        | 143TC         |      | HZ  | 60   |   |       |  | PH | 3 |  |  |
| SER.F.       | 1.00          | CODE | H   | DES  | D | CLASS |  | H  |   |  |  |
| NEMA-NOM-EFF | 81.5          | PF   | 80  |      |   |       |  |    |   |  |  |
| RATING       | 40C AMB-CONT  |      |     |      |   |       |  |    |   |  |  |
| CC           |               |      |     |      |   |       |  |    |   |  |  |
| DE           | 6205          |      | ODE | 6203 |   |       |  |    |   |  |  |
| ENCL         | TEFC          | SN   |     |      |   |       |  |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 86945

Preliminary Data Sheet

| Winding: 35WGG301-R001 |    |         | Type: 3540M                              |                     | Enclosure: TEFC           |            |              |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|------------|--------------|
|                        |    |         |                                          |                     |                           |            |              |
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |              |
| Rated Output (HP)      |    | 3       | Full Load Torque                         |                     | 9.54 LB-FT                |            |              |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line            |            |              |
| Full Load Amps         |    | 8.6/4.3 | Breakdown Torque                         |                     | 34.9 LB-FT                |            |              |
| R.P.M.                 |    | 1655    | Pull-up Torque                           |                     | 34.8 LB-FT                |            |              |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                           | 39.2 LB-FT |              |
| NEMA Design Code       |    | D       | KVA Code                                 | H                   | Starting Current          |            | 26 A         |
| Service Factor (S.F.)  |    | 1       | No-load Current                          |                     | 2.25 A                    |            |              |
| NEMA Nom. Eff.         |    | 81.5    | Power Factor                             | 80                  | Line-line Res. @ 25°C     |            | 5.66 Ω       |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 105°C        |
|                        |    |         |                                          |                     | Locked-rotor Power Factor |            | 70.6         |
|                        |    |         |                                          |                     | Rotor inertia             |            | 0.289 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 37   | 59   | 72   | 79   | 84   | 86   |
| Efficiency      | 80.2 | 85.1 | 85   | 82.7 | 79.5 | 75.5 |
| Speed           | 1768 | 1736 | 1701 | 1658 | 1610 | 1553 |
| Line amperes    | 2.39 | 2.83 | 3.46 | 4.29 | 5.27 | 6.47 |

ABB Motors and Mechanical Inc.

WINDING # 35WGG301

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1655 RPM 460 V 3540M

TORQUES (LB-FT): PO=34.9 PU=34.8 LR=39.2 LRA=26





