

# ABB BALDOR RELIANCE III

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## Customer information packet

### CZDNM3607T

1.5HP, 1170RPM, 3PH, 60HZ, 182TC, 3642M, TENV

Class - None

Division - Not Applicable

**Specifications**

|                                |                                        |
|--------------------------------|----------------------------------------|
| Enclosure                      | TENV                                   |
| Frame                          | 184TC                                  |
| 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             | 1.500 HP @ 60 HZ                       |
| Phase                          | 3                                      |
| Synchronous Speed @ Frequency  | 1200 RPM @ 60 HZ                       |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ     |
| Agency Approvals               | CSA EEV<br>NEMA_PREMIUM<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              | 2.500 A @ 460.0 V<br>5.000 A @ 230.0 V |
| Design Code                    | B                                      |
| Drip Cover                     | No Drip Cover                          |
| Duty Rating                    | CONT                                   |
| Efficiency @ 100% Load         | 87.5 %                                 |
| Electrically Isolated Bearing  | Not Electrically Isolated              |
| Feedback Device                | ENCODER                                |
| Front Shaft Indicator          | None                                   |
| Heater Indicator               | No Heater                              |
| High Voltage Full Load Amps    | 2.5 a                                  |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | B          |
| Type         | AC         |
| Mech. spec.  | 36T621     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 36WGZ642   |
| Layout       | 36LYT621   |
| Eff. date    | 08-05-2026 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#16       |
| Proprietary  | False      |
| Created date | 04-22-2025 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | H                          |
| <b>Inverter Code</b>                 | Inverter Duty              |
| <b>KVA Code</b>                      | L                          |
| <b>Lifting Lugs</b>                  | No Lifting Lugs            |
| <b>Locked Bearing Indicator</b>      | Locked Bearing             |
| <b>Max Speed</b>                     | 1800 rpm                   |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 16 AWG                 |
| <b>Motor Lead Termination</b>        | Flying Leads               |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Motor Type</b>                    | 3642M                      |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 6                          |
| <b>Overall Length</b>                | 19.28 IN                   |
| <b>Power Factor</b>                  | 65                         |
| <b>Product Family</b>                | General Purpose            |
| <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>                | 1.103 IN                   |
| <b>Shaft Ground Indicator</b>        | Shaft Grounding            |
| <b>Shaft Rotation</b>                | Reversible                 |
| <b>Shaft Slinger Indicator</b>       | No Slinger                 |
| <b>Speed</b>                         | 1170 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>      | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor        |
| <b>Winding Thermal 1</b>             | None                       |
| <b>Winding Thermal 2</b>             | None                       |

Nameplate

| NP3943L        |                     |            |        |         |
|----------------|---------------------|------------|--------|---------|
| CAT.NO.        | CZDNM3607T          |            |        |         |
| SPEC.          | 36T621Z642Z1        |            |        |         |
| FRAME          | 182TC               | H.P.       | 1.5 TE |         |
| VOLTS          | 230/460 ENCL TENV   |            |        |         |
| MAG. CUR.      | 3.2/1.6             | F.L. AMPS  |        | 5/2.5   |
| R.P.M.         | 1170                | R.P.M. MAX |        | 1800    |
| HZ.            | 60                  | PH.        | 3      | CLASS H |
| SER.F.         | 1.00                | SL HZ      | 1.5    |         |
| NEMA NOM. EFF. | 87.5                | WK2        | 0.395  |         |
| RATING         | 40C AMB-CONT        |            |        |         |
| DE             | 6206                | ODE        | 6205   |         |
| CC             | 010A                | SN         |        |         |
|                | 1000:1 CT 1.5:1 CHP |            |        |         |
|                | 1.15 SF ON SINEWAVE |            |        |         |

**AC Induction Motor Performance Data**

Record # 108020

Typical performance - not guaranteed values

| Winding: 36WGZ642-R001 |    |         | Type: 3642M                              |                     | Enclosure: TENV           |            |              |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|------------|--------------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |              |
| Rated Output (HP)      |    | 1.5     | Full Load Torque                         |                     | 6.84 LB-FT                |            |              |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line            |            |              |
| Full Load Amps         |    | 5/2.5   | Breakdown Torque                         |                     | 26.6 LB-FT                |            |              |
| R.P.M.                 |    | 1170    | Pull-up Torque                           |                     | 13.7 LB-FT                |            |              |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                           | 16.8 LB-FT |              |
| NEMA Design Code       |    | B       | KVA Code                                 | L                   | Starting Current          |            | 17.5 A       |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 1.6 A                     |            |              |
| NEMA Nom. Eff.         |    | 87.5    | Power Factor                             | 65                  | Line-line Res. @ 25°C     |            | 5.99 Ω       |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 32°C         |
| S.F. Amps              |    |         |                                          |                     | Temp. Rise @ S.F. Load    |            | 38°C         |
|                        |    |         |                                          |                     | Locked-rotor Power Factor |            | 29           |
|                        |    |         |                                          |                     | Rotor inertia             |            | 0.395 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 28   | 45   | 57   | 65   | 70   | 73   | 68   |
| Efficiency      | 78.4 | 85.7 | 87.6 | 87.9 | 87.2 | 86.2 | 87.5 |
| Speed           | 1193 | 1186 | 1179 | 1172 | 1163 | 1154 | 1167 |
| Line amperes    | 1.69 | 1.88 | 2.16 | 2.5  | 2.92 | 3.37 | 2.75 |

ABB Motors and Mechanical Inc.

WINDING # 36WGZ642

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1170 RPM 460 V 3642M

TORQUES (LB-FT): PO=26.6 PU=13.7 LR=16.8 LRA=17.5





