

# ABB BALDOR RELIANCE III

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## Customer information packet

### VEJMM3615T

5HP, 1755RPM, 3PH, 60HZ, 184JM, 3642M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                          |
| <b>Frame</b>                          | 184JM                                                         |
| <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>             | 5.000 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>               | CSA<br>CSA EEV<br>NEMA PREMIUM<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>                 | No Mounting                                                   |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                       |
| <b>Blower</b>                         | None                                                          |
| <b>Current @ Voltage</b>              | 6.700 A @ 460.0 V<br>14.000 A @ 208.0 V<br>13.400 A @ 230.0 V |
| <b>Design Code</b>                    | B                                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                                 |
| <b>Duty Rating</b>                    | CONT                                                          |
| <b>Efficiency @ 100% Load</b>         | 89.5 %                                                        |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                     |
| <b>Feedback Device</b>                | NO FEEDBACK                                                   |
| <b>Front Shaft Indicator</b>          | None                                                          |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36S067     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGQ032   |
| <b>Layout</b>       | 36LYS067   |
| <b>Eff. date</b>    | 08-21-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-03-2020 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Heater Indicator</b>              | No Heater           |
| <b>High Voltage Full Load Amps</b>   | 6.7 a               |
| <b>Insulation Class</b>              | F                   |
| <b>Inverter Code</b>                 | Inverter Ready      |
| <b>KVA Code</b>                      | J                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <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>               | 4                   |
| <b>Overall Length</b>                | 19.55 IN            |
| <b>Power Factor</b>                  | 78                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | C-Face              |
| <b>Pulley Shaft Indicator</b>        | Tapped & Key        |
| <b>Rodent Screen</b>                 | None                |
| <b>Service Factor</b>                | 1.15                |
| <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>                         | 1755 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**

| NP3441LUA                   |              |     |      |      |     |   |       |   |       |
|-----------------------------|--------------|-----|------|------|-----|---|-------|---|-------|
| CAT.NO.                     | VEJMM3615T   |     |      |      |     |   |       |   |       |
| SPEC                        | 36S067Q032G1 |     |      |      |     |   |       |   |       |
| HP                          | 5            |     |      |      |     |   |       |   |       |
| VOLTS                       | 230/460      |     |      |      |     |   |       |   |       |
| AMPS                        | 13.4/6.7     |     |      |      |     |   |       |   |       |
| RPM                         | 1755         |     |      |      |     |   |       |   |       |
| FRAME                       | 184JM        |     | HZ   | 60   |     |   | PH    | 3 |       |
| SF                          | 1.15         |     | CODE | J    | DES | B | CLASS | F |       |
| NEMA NOM. EFF               | 89.5         |     | PF   | 78   |     |   |       |   |       |
| RATING                      | 40C AMB-CONT |     |      |      |     |   |       |   |       |
| CC                          | 010A         |     |      |      |     |   |       |   |       |
| ENCL                        | TEFC         | SER |      |      |     |   |       |   |       |
| DE                          | 6207         |     | ODE  | 6205 |     |   |       |   |       |
| VPWM INVERTER READY         |              |     |      |      |     |   |       |   |       |
| CT6-60H(10:1)VT3-60H(20:1   |              |     |      |      |     |   |       |   |       |
| 50HZ 5HP 190/380V 15.6/7.8A |              |     |      |      |     |   |       |   | SF1.0 |

**AC Induction Motor Performance Data**

Record # 89917

Typical performance - not guaranteed values

| Winding: 36WGQ032-R001 |    |          | Type: 3642M                              |                     | Enclosure: TEFC           |            |              |
|------------------------|----|----------|------------------------------------------|---------------------|---------------------------|------------|--------------|
| Nameplate Data         |    |          | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |              |
| Rated Output (HP)      |    | 5        | Full Load Torque                         |                     | 15 LB-FT                  |            |              |
| Volts                  |    | 230/460  | Start Configuration                      |                     | direct on line            |            |              |
| Full Load Amps         |    | 13.4/6.7 | Breakdown Torque                         |                     | 53.1 LB-FT                |            |              |
| R.P.M.                 |    | 1755     | Pull-up Torque                           |                     | 23.4 LB-FT                |            |              |
| Hz                     | 60 | Phase    | 3                                        | Locked-rotor Torque |                           | 34.7 LB-FT |              |
| NEMA Design Code       |    | B        | KVA Code                                 | J                   | Starting Current          |            | 49.8 A       |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                     | 3.31 A                    |            |              |
| NEMA Nom. Eff.         |    | 89.5     | Power Factor                             | 78                  | Line-line Res. @ 25°C     |            | 2.4 Ω        |
| Rating - Duty          |    | 40C      | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 71°C         |
| S.F. Amps              |    |          |                                          |                     | Temp. Rise @ S.F. Load    |            | 86°C         |
|                        |    |          |                                          |                     | Locked-rotor Power Factor |            | 40.6635      |
|                        |    |          |                                          |                     | Rotor inertia             |            | 0.391 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 38   | 60   | 72   | 79   | 82   | 84   | 81   |
| Efficiency      | 83.8 | 88.9 | 89.8 | 89.5 | 88.4 | 86.8 | 88.8 |
| Speed           | 1789 | 1778 | 1766 | 1753 | 1738 | 1722 | 1744 |
| Line amperes    | 3.64 | 4.39 | 5.45 | 6.66 | 8.08 | 9.67 | 7.51 |

ABB Motors and Mechanical Inc.

WINDING # 36WGQ032

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1755 RPM 460 V 3642M

TORQUES (LB-FT) : PO=53.1 PU=23.4 LR=34.7 LRA=49.8





