

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEM3615T-BG

5HP, 1750RPM, 3PH, 60HZ, 184TC, 3642M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                          |
| <b>Frame</b>                          | 184TC                                                         |
| <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>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                            |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<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>              | 13.900 A @ 208.0 V<br>6.700 A @ 460.0 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 Face Code</b>                | Standard                                                      |
| <b>Front Shaft Indicator</b>          | None                                                          |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | P          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36Q160     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGS268   |
| <b>Layout</b>       | 36LYQ160   |
| <b>Eff. date</b>    | 03-16-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-10-2013 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Heater Indicator</b>              | No Heater           |
| <b>High Voltage Full Load Amps</b>   | 6.7 a               |
| <b>Insulation Class</b>              | H                   |
| <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 Exit</b>               | Ko Box              |
| <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>                | 18.05 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>        | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>Service Factor</b>                | 1.15                |
| <b>Shaft Diameter</b>                | 1.125 IN            |
| <b>Shaft Extension Location</b>      | Pulley End          |
| <b>Shaft Ground Indicator</b>        | Shaft Grounding     |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 1750 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                |

Winding Thermal 2

None

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Nameplate

| NP3441LUA                 |                             |  |      |      |     |   |       |       |  |
|---------------------------|-----------------------------|--|------|------|-----|---|-------|-------|--|
| CAT.NO.                   | CEM3615T-BG                 |  |      |      |     |   |       |       |  |
| SPEC                      | 36Q160S268G1                |  |      |      |     |   |       |       |  |
| HP                        | 5                           |  |      |      |     |   |       |       |  |
| VOLTS                     | 230/460                     |  |      |      |     |   |       |       |  |
| AMPS                      | 13.4/6.7                    |  |      |      |     |   |       |       |  |
| RPM                       | 1750                        |  |      |      |     |   |       |       |  |
| FRAME                     | 184TC                       |  | HZ   | 60   |     |   | PH    | 3     |  |
| SF                        | 1.15                        |  | CODE | J    | DES | B | CLASS | H     |  |
| NEMA NOM. EFF             | 89.5                        |  | PF   | 78   |     |   |       |       |  |
| RATING                    | 40C AMB-CONT                |  |      |      |     |   |       |       |  |
| CC                        | 010A                        |  |      |      |     |   |       |       |  |
| ENCL                      | TEFC                        |  | SER  |      |     |   |       |       |  |
| DE                        | 6206                        |  | 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 # 52962

Typical performance - not guaranteed values

| Winding: 36WGS268-R078 |          |                   | Type: 3642M                              |  | Enclosure: TEFC |  |
|------------------------|----------|-------------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |          |                   | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | 5                 | Full Load Torque                         |  | 14.9 LB-FT      |  |
| Volts                  |          | 230/460           | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |          | 13.4/6.7          | Breakdown Torque                         |  | 52.2 LB-FT      |  |
| R.P.M.                 |          | 1750              | Pull-up Torque                           |  | 31.5 LB-FT      |  |
| Hz                     | 60 Phase | 3                 | Locked-rotor Torque                      |  | 34.9 LB-FT      |  |
| NEMA Design Code       |          | B KVA Code        | Starting Current                         |  | 49.1 A          |  |
| Service Factor (S.F.)  |          | 1.15              | No-load Current                          |  | 3.24 A          |  |
| NEMA Nom. Eff.         |          | 89.5 Power Factor | Line-line Res. @ 25°C                    |  | 2.27 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                |  | 39.8            |  |
|                        |          |                   | 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    | 39   | 60   | 72   | 78   | 83   | 83   | 81   |
| Efficiency      | 85   | 89.7 | 90.6 | 89.6 | 88.6 | 87   | 89   |
| Speed           | 1789 | 1776 | 1762 | 1750 | 1733 | 1714 | 1740 |
| Line amperes    | 3.55 | 4.31 | 5.43 | 6.65 | 7.94 | 9.64 | 7.42 |

ABB Motors and Mechanical Inc.

WINDING # 36WGS268

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1750 RPM 460 V 3642M

TORQUES (LB-FT) : PO=52.2 PU=31.5 LR=34.9 LRA=49.1





