

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEM3314T-G

15HP, 3500RPM, 3PH, 60HZ, 215TC, OPSB, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                     |
| <b>Frame</b>                          | 215TC                                    |
| <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>             | 15.000 HP @ 60 HZ                        |
| <b>Phase</b>                          | 3                                        |
| <b>Synchronous Speed @ Frequency</b>  | 3600 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>                 | Rigid                                    |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                  |
| <b>Blower</b>                         | None                                     |
| <b>Current @ Voltage</b>              | 35.000 A @ 230.0 V<br>17.500 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>         | 90.2 %                                   |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                |
| <b>Feedback Device</b>                | NO FEEDBACK                              |
| <b>Heater Indicator</b>               | No Heater                                |
| <b>High Voltage Full Load Amps</b>    | 17.5 a                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 37WGS867   |
| <b>Layout</b>       | 37LYK447   |
| <b>Eff. date</b>    | 06-11-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-08-2020 |

|                                   |                       |
|-----------------------------------|-----------------------|
| <b>Insulation Class</b>           | H                     |
| <b>Inverter Code</b>              | Inverter Ready        |
| <b>IP Rating</b>                  | NONE                  |
| <b>KVA Code</b>                   | G                     |
| <b>Lifting Lugs</b>               | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>   | Locked Bearing        |
| <b>Motor Lead Termination</b>     | Flying Leads          |
| <b>Motor Standards</b>            | NEMA                  |
| <b>Motor Type</b>                 | 3734M                 |
| <b>Mounting Arrangement</b>       | F1                    |
| <b>Number of Poles</b>            | 2                     |
| <b>Overall Length</b>             | 17.06 IN              |
| <b>Power Factor</b>               | 89                    |
| <b>Product Family</b>             | General Purpose       |
| <b>Pulley Face Code</b>           | C-Face                |
| <b>Rodent Screen</b>              | None                  |
| <b>Service Factor</b>             | 1.15                  |
| <b>Shaft Diameter</b>             | 1.375 IN              |
| <b>Shaft Ground Indicator</b>     | Shaft Grounding       |
| <b>Shaft Rotation</b>             | Reversible            |
| <b>Speed</b>                      | 3500 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**

| NP3553LUA                        |                               |             |            |            |   |              |       |  |  |
|----------------------------------|-------------------------------|-------------|------------|------------|---|--------------|-------|--|--|
| <b>CAT.NO.</b>                   | CEM3314T-G                    |             |            |            |   |              |       |  |  |
| <b>SPEC.</b>                     | 37-0000814                    |             |            |            |   |              |       |  |  |
| <b>HP</b>                        | 15                            |             |            |            |   |              |       |  |  |
| <b>VOLTS</b>                     | 230/460                       |             |            |            |   |              |       |  |  |
| <b>AMPS</b>                      | 35/17.5                       |             |            |            |   |              |       |  |  |
| <b>RPM</b>                       | 3500                          |             |            |            |   |              |       |  |  |
| <b>FRAME</b>                     | 215TC                         |             | <b>HZ</b>  | 60         |   | <b>PH</b>    | 3     |  |  |
| <b>SF</b>                        | 1.15                          | <b>CODE</b> | G          | <b>DES</b> | B | <b>CLASS</b> | H     |  |  |
| <b>NEMA NOM. EFF</b>             | 90.2                          | <b>PF</b>   | 89         |            |   |              |       |  |  |
| <b>RATING</b>                    | 40C AMB-CONT                  |             |            |            |   |              |       |  |  |
| <b>CC</b>                        | 010A                          |             |            |            |   |              |       |  |  |
| <b>ENCL</b>                      | OPSB                          | <b>SN</b>   |            |            |   |              |       |  |  |
| <b>DE</b>                        | 6307                          |             | <b>ODE</b> | 6206       |   |              |       |  |  |
| <b>VPWM INVERTER READY</b>       |                               |             |            |            |   |              |       |  |  |
| <b>CT30-60(2:1) VT3-60(20:1)</b> |                               |             |            |            |   |              |       |  |  |
| <b>USABLE AT</b>                 | 50HZ 15HP 190/380V 41.6/20.8A |             |            |            |   |              | SF1.0 |  |  |

**Parts List**

| Part number | Description                              | Quantity |
|-------------|------------------------------------------|----------|
| SA379794    | SA 37-0000814                            | 1.000 ea |
| RA369818    | RA 37-0000814                            | 1.000 ea |
| LC0005      | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea |
| NP3553LUA   | ALUM SUPER-E VPWM INV READY UL CC NEMA P | 1.000 ea |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| HA6361A01   | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC   | 2.000 ea |
| MJ1000A02   | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| HA3104A27   | THRUBOLT 5/16 18 X 12.438                | 4.000 ea |
| LB1459      | AEGIS SGR LABEL "AEGISLBL-100"           | 1.000 ea |
| XY3118A12   | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 ea |
| 37EP3203A00 | MASTER,ODE,206 BRG,GREASER               | 1.000 ea |
| HW5100A06   | W2420-025 WVY WSHR (WB)                  | 1.000 ea |
| HW4500A01   | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| 37EP3400A01 | FACE MT EP-OPEN-307 BRG-213-215TC W/GREA | 1.000 ea |
| 10XN2520A30 | HEX HD CAP SCREW-STD THD-.25 X 20 THD PE | 4.000 ea |
| HW1001A25   | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| HW4500A01   | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| FE-0000001  | ZRTG FE ASSEMBLY                         | 1.000 ea |
| 37CB3006    | 37 CB CASTING W/1.38 LEAD HOLE @ 6:00    | 1.000 ea |
| 51XW2520A10 | .25-20 X .62, TAPTITE II, HEX WSHR SLTD  | 2.000 ea |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 37CB4516    | LIPPED LID FOR 37 FRAME NEC KOBX         | 1.000 ea |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| 37AD2001A01 | BAFFLE PLATE, PLASTIC 0.63" WIDTH        | 1.000 ea |
| MG1050Y01   | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.022 ga |
| 37AD2001A01 | BAFFLE PLATE, PLASTIC 0.63" WIDTH        | 1.000 ea |
| 37PA1067    | PALLET PACK GROUP, PK1156A07, PK1900A06  | 1.000 ea |
| HW2501F21   | KEY, 5/16 SQ X 2.375                     | 1.000 ea |
| HA7000A02   | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 48209

Typical performance - not guaranteed values

| Winding: 37WGS867-R002 |    |         | Type: 3734M                              |                     | Enclosure: OPSB           |            |             |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|------------|-------------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |             |
| Rated Output (HP)      |    | 15      | Full Load Torque                         |                     | 22.6 LB-FT                |            |             |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line            |            |             |
| Full Load Amps         |    | 35/17.5 | Breakdown Torque                         |                     | 92 LB-FT                  |            |             |
| R.P.M.                 |    | 3500    | Pull-up Torque                           |                     | 28.5 LB-FT                |            |             |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                           | 37.5 LB-FT |             |
| NEMA Design Code       |    | B       | KVA Code                                 | G                   | Starting Current          |            | 109 A       |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 5.49 A                    |            |             |
| NEMA Nom. Eff.         |    | 90.2    | Power Factor                             | 89                  | Line-line Res. @ 25°C     |            | 0.675 Ω     |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 46°C        |
| S.F. Amps              |    |         |                                          |                     | Temp. Rise @ S.F. Load    |            | 58°C        |
|                        |    |         |                                          |                     | Locked-rotor Power Factor |            | 32.8        |
|                        |    |         |                                          |                     | Rotor inertia             |            | 0.31 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 15 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 58   | 78   | 86   | 89   | 89   | 88   | 89   |
| Efficiency      | 90.3 | 92.5 | 92.1 | 90.8 | 89.4 | 87.2 | 90   |
| Speed           | 3572 | 3545 | 3515 | 3480 | 3441 | 3399 | 3457 |
| Line amperes    | 6.69 | 9.59 | 13.2 | 17.3 | 22   | 27.3 | 20.1 |

ABB Motors and Mechanical Inc.

WINDING # 37WGS867

Typical performance - not guaranteed values.

15 HP 3 PH 60 HZ 3500 RPM 460 V 3734M

TORQUES (LB-FT): PO=92 PU=28.5 LR=37.5 LRA=109







