

# ABB BALDOR RELIANCE III

---

## Customer information packet

EHM3311T

7.5HP, 1770RPM, 3PH, 60HZ, 213T, 3734M, OPSB, F

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                                          |
| <b>Frame</b>                          | 213T                                                          |
| <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>             | 7.500 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>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>              | 19.600 A @ 230.0 V<br>20.600 A @ 208.0 V<br>9.800 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                                 |
| <b>Duty Rating</b>                    | CONT                                                          |
| <b>Efficiency @ 100% Load</b>         | 91.0 %                                                        |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                     |
| <b>Feedback Device</b>                | NO FEEDBACK                                                   |
| <b>Front Shaft Indicator</b>          | None                                                          |
| <b>Heater Indicator</b>               | No Heater                                                     |
| <b>High Voltage Full Load Amps</b>    | 9.8 a                                                         |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 37J637     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 37WGL863   |
| <b>Layout</b>       | 37LYJ637   |
| <b>Eff. date</b>    | 07-10-2025 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 11-10-2020 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Insulation Class</b>              | F                     |
| <b>Inverter Code</b>                 | Inverter Ready        |
| <b>KVA Code</b>                      | J                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing     |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 14 AWG            |
| <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>               | 4                     |
| <b>Overall Length</b>                | 16.32 IN              |
| <b>Power Factor</b>                  | 79                    |
| <b>Product Family</b>                | General Purpose       |
| <b>Pulley End Bearing Type</b>       | Ball                  |
| <b>Pulley Face Code</b>              | Standard              |
| <b>Pulley Shaft Indicator</b>        | Standard              |
| <b>Rodent Screen</b>                 | None                  |
| <b>Service Factor</b>                | 1.15                  |
| <b>Shaft Diameter</b>                | 1.375 IN              |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding    |
| <b>Shaft Rotation</b>                | Reversible            |
| <b>Shaft Slinger Indicator</b>       | No Slinger            |
| <b>Speed</b>                         | 1770 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**

| NP2094E06B03        |                 |               |                       |             |   |           |     |  |  |
|---------------------|-----------------|---------------|-----------------------|-------------|---|-----------|-----|--|--|
| <b>CAT.NO.</b>      | EHM3311T        |               |                       |             |   |           |     |  |  |
| <b>SPEC.</b>        | 37J637L863G1    |               |                       |             |   |           |     |  |  |
| <b>HP</b>           | 7.5             |               |                       |             |   |           |     |  |  |
| <b>VOLTS</b>        | 230/460         |               |                       |             |   |           |     |  |  |
| <b>AMPS</b>         | 19.6/9.8        |               |                       |             |   |           |     |  |  |
| <b>RPM</b>          | 1770            |               |                       |             |   |           |     |  |  |
| <b>FRAME</b>        | 213T            |               | <b>HZ</b>             | 60          |   | <b>PH</b> | 3   |  |  |
| <b>SER.F.</b>       | 1.15            | <b>CODE</b>   | J                     | <b>DES</b>  | A | <b>CL</b> | F   |  |  |
| <b>NEMA-NOM-EFF</b> | 91              |               | <b>PF</b>             | 79          |   |           |     |  |  |
| <b>RATING</b>       | 40C AMB-CONT    |               |                       |             |   |           |     |  |  |
| <b>CC</b>           | 010A            |               | <b>USABLE AT 208V</b> |             |   |           | N/A |  |  |
| <b>DE</b>           | 6307            |               | <b>ODE</b>            | 6206        |   |           |     |  |  |
| <b>AUTO</b>         | N               | <b>MANUAL</b> | N                     | <b>NONE</b> | Y |           |     |  |  |
| <b>ENCL</b>         | OPSB            | <b>SN</b>     |                       |             |   |           |     |  |  |
| <b>BLANK</b>        | SFA 22.18/11.09 |               |                       |             |   |           |     |  |  |

**Parts List**

| Part number  | Description                              | Quantity |
|--------------|------------------------------------------|----------|
| SA387930     | SA 37J637L863G1                          | 1.000 ea |
| RA378270     | RA 37J637L863G1                          | 1.000 ea |
| HA6361A01    | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC   | 2.000 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  | 4.000 ea |
| 11XW1032G06  | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HW3001B01    | BRASS CUP WASHER, FOR #10 SCREW          | 1.000 ea |
| 37EP3203D00  | MASTER,ODE,206 BRG,GREASER,RELIEF        | 1.000 ea |
| HW4500A19    | 1/4-28X1/4 SLOTTED PLUG F/S              | 1.000 ea |
| HW4500A20    | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| HW5100A06    | W2420-025 WVY WSHR (WB)                  | 1.000 ea |
| 37EP3204A00  | MASTER,DE,307 BRG,GREASER,RELIEF,AEGIS H | 1.000 ea |
| HW4500A19    | 1/4-28X1/4 SLOTTED PLUG F/S              | 1.000 ea |
| HW4500A20    | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| 91XN0540J08  | SCREW, 5-40 X 1/2", FHC, AS              | 4.000 ea |
| 91XN0632J04  | SCREW, 6-32 X 1/4", FHC, AS              | 2.000 ea |
| XY3118A12    | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 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 |
| 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 |
| MJ1000A02    | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| MG1050G01    | CELEROL MEDIUM CHARCOAL METALLIC GRAY    | 0.028 ga |
| 37AD2001A01  | BAFFLE PLATE, PLASTIC 0.63" WIDTH        | 2.000 ea |
| HA3104A39    | THRUBOLT-5/16-18 X 12.250                | 4.000 ea |
| LC0005       | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea |
| NP2094E06B03 | NP LABEL W/BARCODE (PREM EFF HVAC MTR)   | 1.000 ea |
| 36PA1001     | PKG GRP, PRINT PK1017A07                 | 1.000 ea |
| MN416A01     | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| FE-0000001   | ZRTG FE ASSEMBLY                         | 1.000 ea |
| PE-0000001   | ZRTG PE ASSEMBLY                         | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 85452

Preliminary Data Sheet

| Winding: 37WGL863-R001 |          |              | Type: 3734M                              |  | Enclosure: OPSB |  |
|------------------------|----------|--------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |          |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | 7.5          | Full Load Torque                         |  | 22.2 LB-FT      |  |
| Volts                  |          | 230/460      | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |          | 19.6/9.8     | Breakdown Torque                         |  | 74.8 LB-FT      |  |
| R.P.M.                 |          | 1770         | Pull-up Torque                           |  | 37.1 LB-FT      |  |
| Hz                     | 60 Phase | 3            | Locked-rotor Torque                      |  | 45.4 LB-FT      |  |
| NEMA Design Code       |          | A            | KVA Code                                 |  | J               |  |
| Service Factor (S.F.)  |          | 1.15         | Starting Current                         |  | 72 A            |  |
| NEMA Nom. Eff.         |          | 91           | Power Factor                             |  | 79              |  |
| Rating - Duty          |          | 40C AMB-CONT | Line-line Res. @ 25°C                    |  | 1.67 Ω          |  |
| S.F. Amps              |          | 22.0/11.0    | Temp. Rise @ Rated Load                  |  | 35°C            |  |
|                        |          |              | Temp. Rise @ S.F. Load                   |  | 47°C            |  |
|                        |          |              | Locked-rotor Power Factor                |  | 45.8            |  |
|                        |          |              | Rotor inertia                            |  | 0.836 lb-ft²    |  |

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 39   | 60   | 73   | 79   | 82   | 83   | 81   |
| Efficiency      | 85   | 90.1 | 91.1 | 90.9 | 90.1 | 89   | 90.3 |
| Speed           | 1793 | 1786 | 1779 | 1772 | 1764 | 1755 | 1766 |
| Line amperes    | 5.34 | 6.47 | 7.99 | 9.87 | 11.9 | 14.2 | 11.1 |

ABB Motors and Mechanical Inc.

WINDING # 37WGL863

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3734M

TORQUES (LB-FT): PO=74.8 PU=37.1 LR=45.4 LRA=72







