

# ABB BALDOR RELIANCE III

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## Customer information packet

### EJPM3615T

5HP, 1750RPM, 3PH, 60HZ, 184JP, 3644M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                          |
| <b>Frame</b>                          | 184JP                                                         |
| <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>              | 14.200 A @ 208.0 V<br>6.900 A @ 460.0 V<br>13.800 A @ 230.0 V |
| <b>Design Code</b>                    | A                                                             |
| <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>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36R059     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGR639   |
| <b>Layout</b>       | 36LYR059   |
| <b>Eff. date</b>    | 05-12-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 05-19-2015 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Heater Indicator</b>              | No Heater           |
| <b>High Voltage Full Load Amps</b>   | 6.9 a               |
| <b>Insulation Class</b>              | F                   |
| <b>Inverter Code</b>                 | Inverter Ready      |
| <b>KVA Code</b>                      | K                   |
| <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>                    | 3644M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 4                   |
| <b>Overall Length</b>                | 22.61 IN            |
| <b>Power Factor</b>                  | 76                  |
| <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 Extension Location</b>      | Pulley End          |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | Shaft 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.                   | EJPM3615T    |      |     |      |   |       |   |  |  |
| SPEC                      | 36R059R639G1 |      |     |      |   |       |   |  |  |
| HP                        | 5            |      |     |      |   |       |   |  |  |
| VOLTS                     | 230/460      |      |     |      |   |       |   |  |  |
| AMPS                      | 13.8/6.9     |      |     |      |   |       |   |  |  |
| RPM                       | 1750         |      |     |      |   |       |   |  |  |
| FRAME                     | 184JP        |      | HZ  | 60   |   | PH    | 3 |  |  |
| SF                        | 1.15         | CODE | K   | DES  | A | CLASS | F |  |  |
| NEMA NOM. EFF             | 89.5         | PF   | 76  |      |   |       |   |  |  |
| 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 16/8A   |              |      |     |      |   |       |   |  |  |
| SF1.0                     |              |      |     |      |   |       |   |  |  |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA301057      | SA 36R059R639G1                          | 1.000 ea |
| RA288128      | RA 36R059R639G1                          | 1.000 ea |
| 36FN3000C01SP | EXFN, PLASTIC, 5.25 OD, .912 ID          | 1.000 ea |
| 36CB3004      | 36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0 | 1.000 ea |
| 36GS1000SP    | GASKET-CONDUIT BOX, .06 THICK #SV-330 LE | 1.000 ea |
| 51XB1016A08   | 10-16X 1/2HXWSSLD SERTYB                 | 2.000 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 |
| 36EP3104A04   | FR ENDPLATE, FOR ROUTING                 | 1.000 ea |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| HW4500A17     | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HW5100A05     | WVY WSHR F/205 & 304 BRGS                | 1.000 ea |
| 36EP3405T03   | PUEP ENCL 207 BRG T'SLV,GRSR,REL,SLINGER | 1.000 ea |
| HW4500A01     | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| HW4500A17     | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| 10XN2520A24   | 1/4-20X 1 1/2 HEX HD X                   | 4.000 ea |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| 51XB1214A16   | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| 36FH4009A103  | IEC FH GREASER W/PRIMER                  | 1.000 ea |
| 51XW1032A06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 36CB4516      | 750LIPPED CB LID - GALVANNEAL            | 1.000 ea |
| 37GS1001SP    | GASKET, CONDUIT BOX LID, .06 THICK LEXID | 1.000 ea |
| 51XW0832A07   | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| HA2009A01     | ALUM SLINGER 307 BRG CLOSE CPL PUMP MOTO | 1.000 ea |
| 80XN1032J06   | 10-32 X 3/8 SET SCREW, HEX SOC, CUP PT   | 1.000 ea |
| HW2501D13     | KEY, 3/16 SQ X 1.375                     | 1.000 ea |
| HA7000A01     | KEY RETAINER 7/8" DIA SHAFT              | 1.000 ea |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| HW3200A01     | 3/8-16X3/4 EYEBOLT WELDED F/S            | 1.000 ea |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| MG1050Y01     | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.022 ga |

|           |                                          |          |
|-----------|------------------------------------------|----------|
| HA3101A28 | THRUBOLT 1/4-20 X 12.500 OHIO ROD        | 4.000 ea |
| LC0005    | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea |
| NP3441LUA | AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM | 1.000 ea |
| G0PA1000  | PKG GRP, PRINT PK1026A06                 | 1.000 ea |
| PK3085X   | FOAM SHAFT SUPPORT PRECUT 4-1/4 X 6-3/4  | 1.000 ea |
| MN416A01  | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| LB1624    | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 53352

Typical performance - not guaranteed values

| Winding: 36WGR639-R004 |    |          | Type: 3644M                              |                     | 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         |    | 13.8/6.9 | Breakdown Torque                         |                     | 57 LB-FT                |                       |        |        |
| R.P.M.                 |    | 1750     | Pull-up Torque                           |                     | 34.6 LB-FT              |                       |        |        |
| Hz                     | 60 | Phase    | 3                                        | Locked-rotor Torque |                         | 38.3 LB-FT            |        |        |
| NEMA Design Code       |    | A        | KVA Code                                 | K                   | Starting Current        |                       | 53.8 A |        |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                     | 3.62 A                  |                       |        |        |
| NEMA Nom. Eff.         |    | 89.5     | Power Factor                             |                     | 76                      | Line-line Res. @ 25°C |        | 2.12 Ω |
| Rating - Duty          |    | 40C      | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |                       | 71°C   |        |
| S.F. Amps              |    |          | Temp. Rise @ S.F. Load                   |                     | 85°C                    |                       |        |        |
|                        |    |          | Rotor inertia                            |                     | 0.41 LB-FT2             |                       |        |        |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 36   | 57   | 69   | 76   | 81   | 82   | 79   |
| Efficiency      | 83.9 | 89.2 | 90.3 | 89.7 | 89   | 87.3 | 89.3 |
| Speed           | 1790 | 1778 | 1765 | 1753 | 1737 | 1720 | 1743 |
| Line amperes    | 3.91 | 4.62 | 5.69 | 6.86 | 8.09 | 9.73 | 7.6  |



ABB Motors and Mechanical Inc.

WINDING # 36WGR639

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1750 RPM 460 V 3644M

TORQUES (LB-FT): PO=57 PU=34.6 LR=38.3 LRA=53.8





