

# ABB BALDOR RELIANCE III

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## Customer information packet

JMEWDM4104T

30HP, 1770RPM, 3PH, 60HZ, 286JM, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                     |
| <b>Frame</b>                          | 286JM                                    |
| <b>Frame Material</b>                 | Iron                                     |
| <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>             | 30.000 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>                 | Rigid                                    |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                  |
| <b>Blower</b>                         | None                                     |
| <b>Current @ Voltage</b>              | 72.000 A @ 230.0 V<br>36.000 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>         | 93.6 %                                   |
| <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>    | 36.0 a                                   |

**Part Detail**

|                     |              |
|---------------------|--------------|
| <b>Revision</b>     | F            |
| <b>Type</b>         | AC           |
| <b>Mech. spec.</b>  |              |
| <b>Base</b>         |              |
| <b>Status</b>       | PRD/A        |
| <b>Elec. spec.</b>  | 10WGZ506     |
| <b>Layout</b>       | 10LY-000-754 |
| <b>Eff. date</b>    | 10-08-2025   |
| <b>CD Diagram</b>   | CD0005       |
| <b>Poles</b>        | 04           |
| <b>Leads</b>        | 9#10         |
| <b>Proprietary</b>  | False        |
| <b>Created date</b> | 01-16-2020   |

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Insulation Class</b>           | <b>F</b>                     |
| <b>Inverter Code</b>              | <b>Inverter Duty</b>         |
| <b>IP Rating</b>                  | <b>NONE</b>                  |
| <b>KVA Code</b>                   | <b>G</b>                     |
| <b>Lifting Lugs</b>               | <b>Standard Lifting Lugs</b> |
| <b>Locked Bearing Indicator</b>   | <b>Locked Bearing</b>        |
| <b>Motor Lead Termination</b>     | <b>Flying Leads</b>          |
| <b>Motor Standards</b>            | <b>NEMA</b>                  |
| <b>Motor Type</b>                 | <b>1060M</b>                 |
| <b>Mounting Arrangement</b>       | <b>F1</b>                    |
| <b>Number of Poles</b>            | <b>4</b>                     |
| <b>Overall Length</b>             | <b>28.44 IN</b>              |
| <b>Power Factor</b>               | <b>84</b>                    |
| <b>Product Family</b>             | <b>Washdown Features</b>     |
| <b>Pulley Face Code</b>           | <b>C-Face</b>                |
| <b>Rodent Screen</b>              | <b>None</b>                  |
| <b>Service Factor</b>             | <b>1.00</b>                  |
| <b>Shaft Diameter</b>             | <b>1.250 IN</b>              |
| <b>Shaft Ground Indicator</b>     | <b>No Shaft Grounding</b>    |
| <b>Shaft Rotation</b>             | <b>Reversible</b>            |
| <b>Speed</b>                      | <b>1770 rpm</b>              |
| <b>Speed Code</b>                 | <b>Single Speed</b>          |
| <b>Starting Method</b>            | <b>Direct on line</b>        |
| <b>Thermal Device - Bearing</b>   | <b>None</b>                  |
| <b>Thermal Device - Winding</b>   | <b>None</b>                  |
| <b>Vibration Sensor Indicator</b> | <b>No Vibration Sensor</b>   |
| <b>Winding Thermal 1</b>          | <b>None</b>                  |
| <b>Winding Thermal 2</b>          | <b>None</b>                  |

**Nameplate**

| NP1669L      |                   |      |     |      |   |       |    |   |  |
|--------------|-------------------|------|-----|------|---|-------|----|---|--|
| CAT.NO.      | JMEWDM4104T       |      |     |      |   |       |    |   |  |
| SPEC.        | 10-0000-1311      |      |     |      |   |       |    |   |  |
| HP           | 30                |      |     |      |   |       |    |   |  |
| VOLTS        | 230/460           |      |     |      |   |       |    |   |  |
| AMP          | 72/36             |      |     |      |   |       |    |   |  |
| RPM          | 1770              |      |     |      |   |       |    |   |  |
| FRAME        | 286JM             |      | HZ  | 60   |   |       | PH | 3 |  |
| SER.F.       | 1.00              | CODE | G   | DES  | B | CLASS | F  |   |  |
| NEMA-NOM-EFF | 93.6              | PF   | 84  |      |   |       |    |   |  |
| RATING       | 40C AMB-CONT      |      |     |      |   |       |    |   |  |
| CC           | 010A              |      |     |      |   |       |    |   |  |
| DE           | 6312              |      | ODE | 6309 |   |       |    |   |  |
| ENCL         | TEFC              | SN   |     |      |   |       |    |   |  |
| BLANK        | 20:1CT,VT, 1.00SF |      |     |      |   |       |    |   |  |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA378832      | SA 10-0000-1311                          | 1.000 ea |
| RA368804      | RA 10-0000-1311                          | 1.000 ea |
| LC0005E01     | SPL CONN.DIA./WARN.LABEL(LC0005/LB1119)  | 1.000 ea |
| NP1669L       | SS WD SUPER-E UL PREM REV MTG            | 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 |
| 10FH1007WP    | FAN COVER, W/WHITE EPOXY, PRIMED CASTING | 1.000 ea |
| HW1001S31     | WASHER, 5/16 SPLT LK, STAINLESS STEEL    | 3.000 ea |
| 10XN3118S24   | 5/16-18 X 1 1/2 HEX HD SS                | 3.000 ea |
| 09FN3001C02   | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 ea |
| HW2500A25     | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| MJ1000A02     | GREASE, POLYREX EM EXXON                 | 0.130 lb |
| WD4100A02     | DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL  | 1.000 ea |
| 10EP1104A42WP | FREP, MACH W/O GRSRS & RET HLS W/WHITE E | 1.000 ea |
| 10XN3816S32   | 3/8-16 X 2 HEX HD CAP SCREW, STAINLE     | 4.000 ea |
| HW1001S38     | WASHER, 3/8 SPLT LK, STAINLESS STEEL     | 4.000 ea |
| HW4600B67     | V-RING SLINGER 1.770 X 2.170 X .28 VITON | 1.000 ea |
| HW5100A11     | W3917-042 WVY WSHR (WB)                  | 1.000 ea |
| HA4054        | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| 10EP1304A04P  | PU ENDPLATE, MACH W/EPOXY, PRIMED CASTIN | 1.000 ea |
| 10XN3816S28   | 3/8-16 X 1 3/4 HEX HD CAP SCREW, STAINLE | 4.000 ea |
| HW4600B41     | V-RING SLINGER 2.125 X 2.880 X 0.280     | 1.000 ea |
| HW4600B14     | 22358 SEAL (CHIC. RAW)                   | 1.000 ea |
| 10XN3118S44   | 5/16-18 X 2 3/4 HEX HEAD SS              | 4.000 ea |
| HA4054        | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| 10CB1000A352P | CONDUIT BOX, MACH W/EPOXY PRIMER         | 1.000 ea |
| 09GS1010      | GASKET, DWG, LEADWIRE SEPERATOR          | 1.000 ea |
| 10XN3118K16   | 5/16-18 X 1' GRADE #5, STL, ZINC PLATE   | 4.000 ea |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| WD1000B25     | GND LUG, BURNDY L125HP OR T&B L125HP-BB  | 1.000 ea |
| 19XW3118G08   | .31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN   | 1.000 ea |

|             |                                          |          |
|-------------|------------------------------------------|----------|
| 10CB1503P   | CONDUIT BOX LIPPED, CAST W/EPOXY PRIMER  | 1.000 ea |
| 14GS1003    | GASKET CONDUIT BOX LID, NEOP             | 1.000 ea |
| 10XN2520S16 | 1/4-20 X 1 HEX HEAD SS                   | 4.000 ea |
| HW1001S25   | WASHER, 1/4 SPLT LK, STAINLESS STEEL     | 4.000 ea |
| MG1025W01   | WILKOFASST, 781.01, SIGNAL WHITE #9003   | 0.125 ga |
| MJ5001A27   | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.031 qt |
| MJ5002A01   | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.033 ea |
| MJ5002A01   | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 1.000 ea |
| 10PA1000    | PACKAGING GROUP COMBINED PRINT PK1023A07 | 1.000 ea |
| HW2502E21   | SS KEY 1/4 X 2.375                       | 1.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| 51XB1214S20 | 12-14X1.25 HXWSSLD SERTYB, SS            | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 74724

Typical performance - not guaranteed values

| Winding: 10WGZ506-R010 |    |              | Type: 1060M                              |                           | Enclosure: TEFC       |             |         |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|-------------|---------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |             |         |
| Rated Output (HP)      |    | 30           | Full Load Torque                         |                           | 88.64 LB-FT           |             |         |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |             |         |
| Full Load Amps         |    | 72/36        | Breakdown Torque                         |                           | 267 LB-FT             |             |         |
| R.P.M.                 |    | 1770         | Pull-up Torque                           |                           | 116 LB-FT             |             |         |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 142 LB-FT   |         |
| NEMA Design Code       |    | B            | KVA Code                                 | G                         | Starting Current      |             | 215 A   |
| Service Factor (S.F.)  |    | 1            | No-load Current                          |                           | 13.5 A                |             |         |
| NEMA Nom. Eff.         |    | 93.6         | Power Factor                             | 84                        | Line-line Res. @ 25°C |             | 0.234 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 62°C        |         |
| S.F. Amps              |    |              |                                          | Temp. Rise @ S.F. Load    |                       | 77°C        |         |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 29.7        |         |
|                        |    |              |                                          | Rotor inertia             |                       | 4.77 LB-FT2 |         |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 48   | 71   | 80   | 84   | 85   | 85   |
| Efficiency      | 91   | 93.9 | 94.3 | 93.9 | 93.6 | 91.9 |
| Speed           | 1793 | 1787 | 1779 | 1772 | 1764 | 1753 |
| Line amperes    | 15.8 | 21.1 | 27.8 | 35.6 | 44   | 53.5 |

ABB Motors and Mechanical Inc.

WINDING # 10WGZ506

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 1770 RPM 460 V 1060M

TORQUES (LB-FT): PO=267 PU=116 LR=142 LRA=215







