

# ABB BALDOR RELIANCE III

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## Customer information packet

### EJMM4110T-G

54M 4P TEFC HOR 324JM SE

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                                 |
|---------------------------------------|-----------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                            |
| <b>Frame</b>                          | 324JM                                                           |
| <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>             | 40.000 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>              | 96.000 A @ 230.0 V<br>48.000 A @ 460.0 V<br>102.000 A @ 208.0 V |
| <b>Design Code</b>                    | A                                                               |
| <b>Drip Cover</b>                     | No Drip Cover                                                   |
| <b>Duty Rating</b>                    | CONT                                                            |
| <b>Efficiency @ 100% Load</b>         | 94.1 %                                                          |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                       |
| <b>Feedback Device</b>                | NO FEEDBACK                                                     |
| <b>Front Shaft Indicator</b>          | None                                                            |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | K          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 12H558     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 12WGY276   |
| <b>Layout</b>       | 12LYH558   |
| <b>Eff. date</b>    | 07-13-2026 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#8        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-03-2019 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 48.0 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| IP Rating                     | NONE                  |
| KVA Code                      | H                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Quantity/Wire Size | 9 @ 8 AWG             |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 1254M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 30.65 IN              |
| Power Factor                  | 82                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | C-Face                |
| Pulley Shaft Indicator        | Tapped & Key          |
| Rodent Screen                 | None                  |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.750 IN              |
| Shaft Ground Indicator        | Shaft Grounding       |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 1775 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Winding      | None                  |
| Vibration Sensor Indicator    | No Vibration Sensor   |
| Winding Thermal 1             | None                  |
| Winding Thermal 2             | None                  |

**Nameplate**

| NP3443LUA |                            |                         |                |                           |           |         |        |        |            |  |  |      |
|-----------|----------------------------|-------------------------|----------------|---------------------------|-----------|---------|--------|--------|------------|--|--|------|
| CAT.NO.   | EJMM4110T-G                |                         |                |                           | CUST. P/N |         |        |        | ENCL       |  |  | TEFC |
| SPEC.     | 12H558Y276G2               | CC                      | 010A           | FRAME                     | 324JM     | SER.NO. |        |        |            |  |  |      |
| HP        | 40                         |                         | CLASS          | H                         | HZ        | 60      |        |        |            |  |  |      |
| R.P.M.    | 1775                       |                         | PH.            | 3                         | DES.      | A       |        |        |            |  |  |      |
| VOLTS     | 230/460                    |                         |                | CODE                      | H         | ODE BRG | 6311   | DE BRG | 6312       |  |  |      |
| AMPS      | 96/48                      |                         |                |                           |           |         |        |        |            |  |  |      |
| RATING    | 40C AMB-CONT               |                         | NEMA NOM. EFF. |                           |           | 94.1    | GREASE |        | POLYREX EM |  |  |      |
| P.F.      | 82                         | SER.F.                  | 1.15           | CT6-60H(10:1)VT3-60H(20:1 |           |         |        |        |            |  |  |      |
| USABLE AT | 50HZ 40HP 190/380V 114/57A |                         |                | SF1.0                     |           |         |        |        |            |  |  |      |
| VOLTS     | AMPS                       | MAX. SPACE HEATER TEMP. |                |                           |           |         |        |        |            |  |  |      |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA368032      | SA 12H558Y276G2                          | 1.000 ea |
| RA357521      | RA 12H558Y276G2                          | 1.000 ea |
| 09FN3001B03SP | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 ea |
| 10CB3001      | CONDUIT BOX CAST W/2.500 LEAD HOLE       | 1.000 ea |
| 09GS1000      | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE    | 1.000 ea |
| 10XN3118K12   | 5/16-18 X .75 GRADE 5, ZINC PLATED       | 4.000 ea |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| 12EP1105A01   | PU ENDPLATE                              | 1.000 ea |
| BP5307        | SHAFT GRD BOLT THROUGH (SGR-71.5-3FH)    | 1.000 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 |
| 12EP1107A05   | FR ENDPLATE, MACH                        | 1.000 ea |
| HA3400A13     | STUD, 1/2-13 X 7" WELKER                 | 4.000 ea |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I | 4.000 ea |
| HW5100A13     | W4627-047 WVY WSHR                       | 1.000 ea |
| 10XN3118K40   | 5/16-18 X 2.25" HEX HD, GRADE 5          | 2.000 ea |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 ea |
| HW1001A31     | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| 10XN3118K40   | 5/16-18 X 2.75" HEX HD, GRADE 5          | 4.000 ea |
| 10XN5013K28   | 1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD   | 4.000 ea |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I | 4.000 ea |
| HW4600B41     | V-RING SLINGER 2.125 X 2.880 X 0.280     | 1.000 ea |
| 12FH1002SP    | FAN COVER, CAST                          | 1.000 ea |
| HW1001A50     | LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I | 4.000 ea |
| XY5013A12     | NUT,1/2-13,HEX,STEEL,ZINCPLATED          | 4.000 ea |
| 10CB3500SP    | CONDUIT BOX LID, CAST                    | 1.000 ea |
| 10GS1000      | GASKET, CONDUIT BOX LID                  | 1.000 ea |
| 51XW2520A12   | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 ea |
| HW2501E23     | KEY, 1/4 SQ X 2.625                      | 1.000 ea |
| HW4500A21     | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 ea |
| HA4017A01     | 1/8 X 4 GREASE EXT (F/S)                 | 1.000 ea |

|             |                                          |          |
|-------------|------------------------------------------|----------|
| HW4500A17   | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4054      | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| HA4054      | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| HA4051A00   | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| MJ1000A02   | GREASE, POLYREX EM EXXON                 | 0.200 lb |
| HW4500A03   | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HW4500A17   | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4051A00   | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW2500A25   | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB                | 1.000 ea |
| MG1050Y01   | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.080 ga |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0181      | CONNECTION LABEL                         | 1.000 ea |
| NP3443LUA   | SS SUPER-E,CURUS-EEV,NEMA PREM, CC       | 1.000 ea |
| 12PA1000    | PACKAGING GROUP PRINT PK1024A07          | 1.000 ea |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 48204

Typical performance - not guaranteed values

| Winding: 12WGY276-R010 |    |              | Type: 1254M  |                                          | Enclosure: TEFC |                |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------|----------------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                 |                |
| Rated Output (HP)      |    | 40           |              | Full Load Torque                         |                 | 118 LB-FT      |
| Volts                  |    | 230/460      |              | Start Configuration                      |                 | direct on line |
| Full Load Amps         |    | 96/48        |              | Breakdown Torque                         |                 | 386 LB-FT      |
| R.P.M.                 |    | 1775         |              | Pull-up Torque                           |                 | 193 LB-FT      |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                 | 216 LB-FT      |
| NEMA Design Code       |    | A            | KVA Code     | Starting Current                         |                 | 338 A          |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                 | 19.9 A         |
| NEMA Nom. Eff.         |    | 94.1         | Power Factor | Line-line Res. @ 25°C                    |                 | 0.14898 Ω      |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                 | 54°C           |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                 | 64°C           |
|                        |    |              |              | Locked-rotor Power Factor                |                 | 27             |
|                        |    |              |              | Rotor inertia                            |                 | 7.19 LB-FT2    |

**Load Characteristics 460 V, 60 Hz, 40 HP**

| % of Rated Load | 25     | 50   | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|------|--------|--------|--------|--------|------|
| Power Factor    | 47     | 69   | 78     | 83     | 85     | 85     | 84   |
| Efficiency      | 90.1   | 93.5 | 94.2   | 94.2   | 93.8   | 93.1   | 94   |
| Speed           | 1793.5 | 1788 | 1782.5 | 1776.6 | 1770.7 | 1764.1 | 1773 |
| Line amperes    | 22.9   | 29.5 | 38.4   | 48.1   | 59.2   | 70.8   | 54.8 |

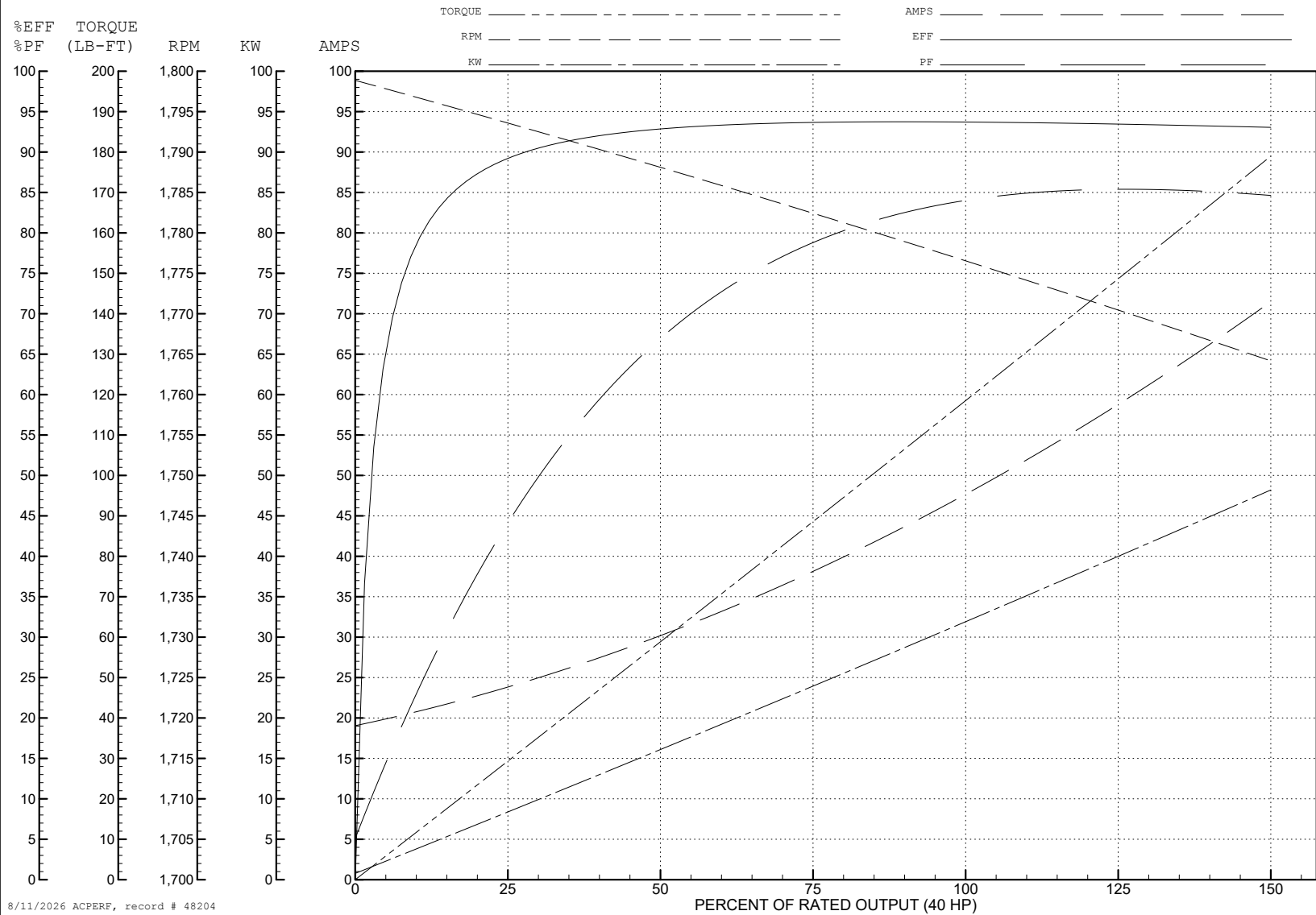
ABB Motors and Mechanical Inc.

WINDING # 12WGY276

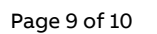
Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

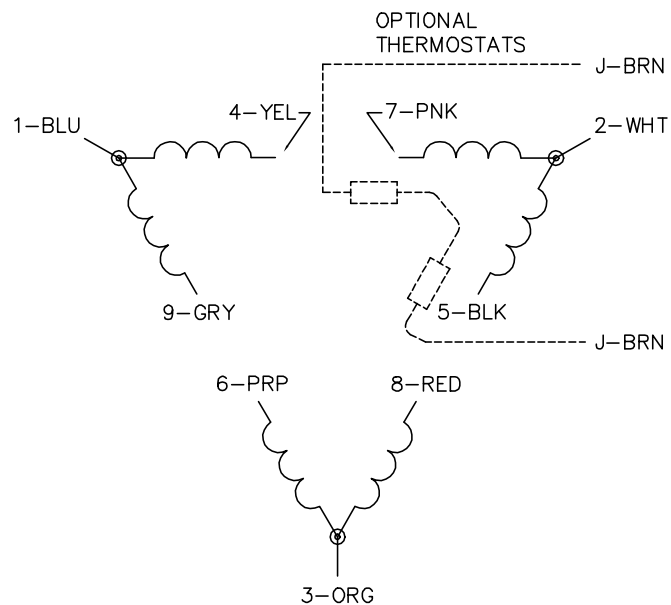
TORQUES (LB-FT): PO=386 PU=193 LR=216 LRA=338



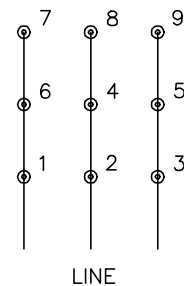




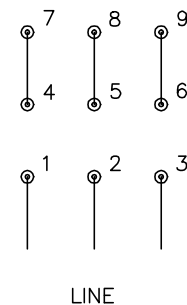
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



**NOTES:**

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —



**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1