

# ABB BALDOR RELIANCE III

---

## Customer information packet

EJMM4114T

50HP, 3540RPM, 3PH, 60HZ, 326JM, 1252M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                             |
| <b>Frame</b>                          | 326JM                                                            |
| <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>             | 50.000 HP @ 60 HZ                                                |
| <b>Phase</b>                          | 3                                                                |
| <b>Synchronous Speed @ Frequency</b>  | 3600 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>              | 124.000 A @ 208.0 V<br>56.000 A @ 460.0 V<br>112.000 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>         | 93.0 %                                                           |
| <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>     | U          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 12J43      |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 12WGY277   |
| <b>Layout</b>       | 12LYJ043   |
| <b>Eff. date</b>    | 10-21-2024 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#6        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-29-2010 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Heater Indicator</b>              | No Heater             |
| <b>High Voltage Full Load Amps</b>   | 56.0 a                |
| <b>Insulation Class</b>              | F                     |
| <b>Inverter Code</b>                 | Inverter Ready        |
| <b>KVA Code</b>                      | H                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | Locked Bearing        |
| <b>Motor Lead Exit</b>               | Ko Box                |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 6 AWG             |
| <b>Motor Lead Termination</b>        | Flying Leads          |
| <b>Motor Standards</b>               | NEMA                  |
| <b>Motor Type</b>                    | 1252M                 |
| <b>Mounting Arrangement</b>          | F1                    |
| <b>Number of Poles</b>               | 2                     |
| <b>Overall Length</b>                | 30.65 IN              |
| <b>Power Factor</b>                  | 89                    |
| <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>                | 1.375 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>                         | 3540 rpm              |
| <b>Speed Code</b>                    | Single Speed          |
| <b>Starting Method</b>               | Direct on line        |
| <b>Thermal Device - Bearing</b>      | NONE (OLD)            |
| <b>Thermal Device - Winding</b>      | None                  |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor   |
| <b>Winding Thermal 1</b>             | None                  |

Winding Thermal 2

None

---

**Nameplate**

| NP2138LUA    |                            |    |    |          |        |     |            |   |           |  |      |        |      |
|--------------|----------------------------|----|----|----------|--------|-----|------------|---|-----------|--|------|--------|------|
| CAT.NO.      | EJMM4114T                  |    |    | P/N      |        |     |            |   | ENCLOSURE |  |      | TEFC   |      |
| SPEC.        | 12J043Y277G1               |    | CC | 010A     | FRAME  |     | 326JM      |   | S/N       |  |      |        |      |
| HP           | 50                         |    |    | CLASS    |        | F   | HZ         |   | 60        |  |      |        |      |
| RPM          | 3540                       |    |    | PH       | 3      | DES |            | A |           |  |      |        |      |
| VOLT         | 230/460                    |    |    | KVA-CODE |        |     | H          |   | ODE BRG   |  | 6311 | DE BRG | 6312 |
| AMP          | 112/56                     |    |    |          |        |     |            |   |           |  |      |        |      |
| RATING       | 40C AMB-CONT               |    |    |          | GREASE |     | POLYREX EM |   |           |  |      |        |      |
| NEMA-NOM-EFF | 93                         | PF | 89 | SER.F.   | 1.15   |     |            |   |           |  |      |        |      |
|              | 50HZ 50HP 190/380V 136/68A |    |    |          |        |     | SF1.0      |   |           |  |      |        |      |
| HTR-VOLTS    | HTR-AMPS                   |    |    |          |        |     |            |   |           |  |      |        |      |

**Parts List**

| Part number | Description                              | Quantity |
|-------------|------------------------------------------|----------|
| SA194219    | SA 12J043Y277G1                          | 1.000 ea |
| RA181807    | RA 12J043Y277G1                          | 1.000 ea |
| 37FN3002C04 | EXFN, PLASTIC, 6.00 OD, 2.003 ID         | 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 |
| 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 |
| HW4600B41   | V-RING SLINGER 2.125 X 2.880 X 0.280     | 1.000 ea |
| HW5100A13   | W4627-047 WVY WSHER                      | 1.000 ea |
| 12EP1105A01 | PU ENDPLATE                              | 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 |
| 10XN3118K40 | 5/16-18 X 2.75" HEX HD, GRADE 5          | 4.000 ea |
| HW1001A31   | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 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 |
| 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 |
| 10CB3001A31 | KOBX, MACH W/2.50 LD HL,.38-16 GND       | 1.000 ea |
| WD1000B19   | TERMINAL BURNDY L250HP                   | 1.000 ea |
| 10XN3816K08 | 3/8-16 X .50 HEX HD CAP SCREW GRADE 5    | 1.000 ea |
| HW1001A38   | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 1.000 ea |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 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 |
| 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 |
| HA4054      | SHORT T-DRAIN FITTING, .125" N.P.T.      | 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 |
| NP2138LUA   | ALUM SUPER-E UL PREM CC (300SER)         | 1.000 ea |
| 12PA1000    | PACKAGING GROUP PRINT PK1024A07          | 1.000 ea |
| PE-0000013  | ZRTG PE ASSEMBLY                         | 1.000 ea |
| FE-0000022  | ZRTG FE ASSEMBLY                         | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 30950

Typical performance - not guaranteed values

| Winding: 12WGY277-R001 |    |              | Type: 1252M                              |                           | Enclosure: TEFC       |             |         |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|-------------|---------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |             |         |
| Rated Output (HP)      |    | 50           | Full Load Torque                         |                           | 74.1 LB-FT            |             |         |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |             |         |
| Full Load Amps         |    | 112/56       | Breakdown Torque                         |                           | 310 LB-FT             |             |         |
| R.P.M.                 |    | 3540         | Pull-up Torque                           |                           | 105 LB-FT             |             |         |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 144 LB-FT   |         |
| NEMA Design Code       |    | A            | KVA Code                                 | H                         | Starting Current      |             | 431 A   |
| Service Factor (S.F.)  |    | 1.15         |                                          | No-load Current           |                       | 18.9 A      |         |
| NEMA Nom. Eff.         |    | 93           | Power Factor                             | 89                        | Line-line Res. @ 25°C |             | 0.104 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 79°C        |         |
| S.F. Amps              |    |              |                                          | Temp. Rise @ S.F. Load    |                       | 95°C        |         |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 21          |         |
|                        |    |              |                                          | Rotor inertia             |                       | 4.07 LB-FT2 |         |

**Load Characteristics 460 V, 60 Hz, 50 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 56   | 78   | 85   | 89   | 90   | 90   | 90   |
| Efficiency      | 90.1 | 93.5 | 94.3 | 94.1 | 93.5 | 93   | 93.7 |
| Speed           | 3585 | 3574 | 3563 | 3552 | 3541 | 3530 | 3545 |
| Line amperes    | 23.2 | 32.3 | 43.6 | 56.3 | 69.6 | 83.1 | 64.3 |

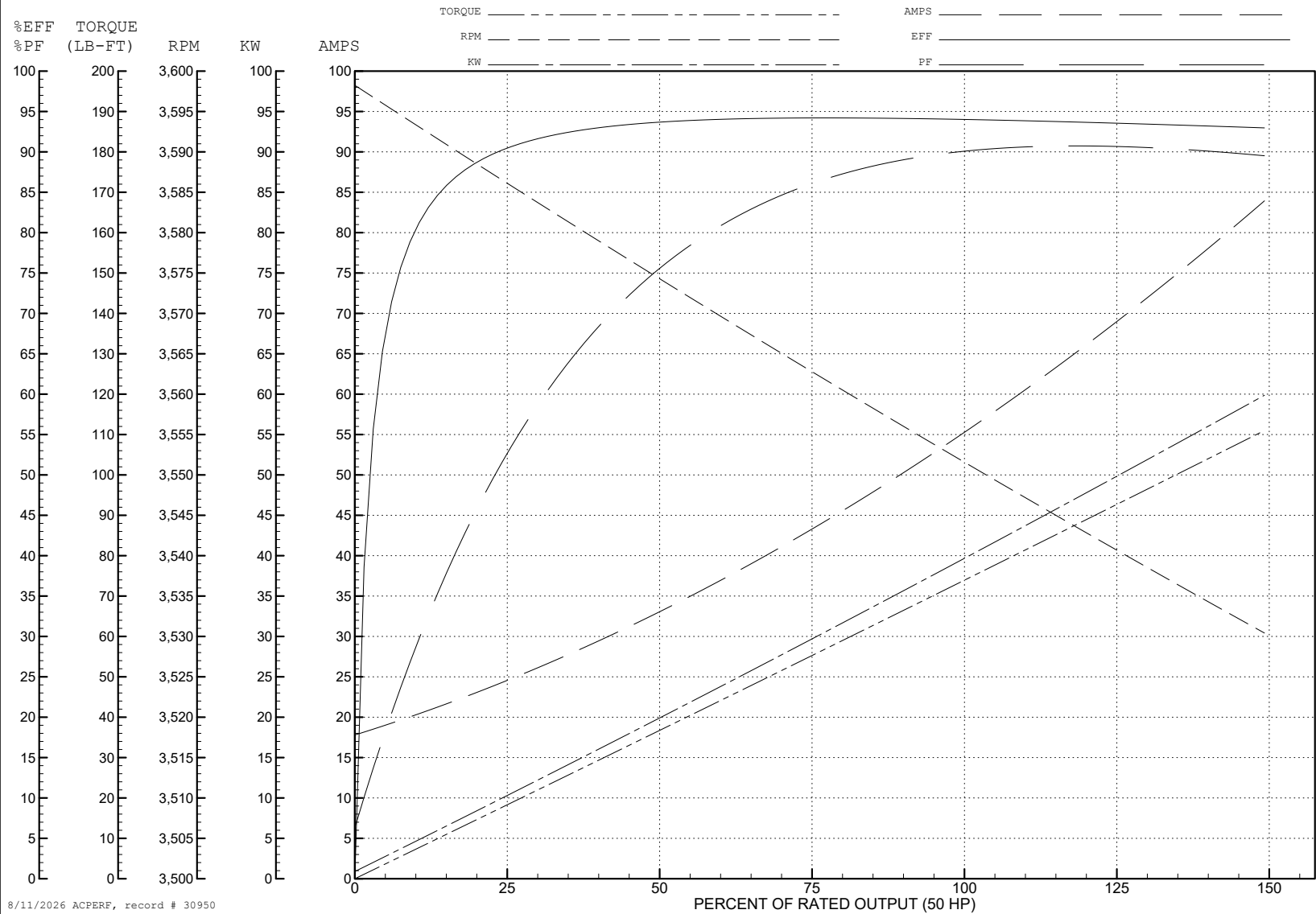
ABB Motors and Mechanical Inc.

WINDING # 12WGY277

Typical performance - not guaranteed values.

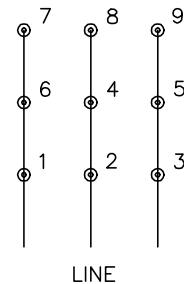
50 HP 3 PH 60 HZ 3540 RPM 460 V 1252M

TORQUES (LB-FT): PO=310 PU=105 LR=144 LRA=431





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