

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM31112A

.75HP, 1730RPM, 3PH, 60HZ, 56, 3516M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                                        |
| <b>Frame</b>                          | 56                                                          |
| <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>             | .750 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<br>208.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | CURUSEEV                                                    |
| <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>              | 2.200 A @ 208.0 V<br>2.000 A @ 230.0 V<br>1.000 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>         | 81.1 %                                                      |
| <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>    | 1.0 a                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | -          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35B011     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGK919   |
| <b>Layout</b>       | 35LYB011   |
| <b>Eff. date</b>    | 07-10-2025 |
| <b>CD Diagram</b>   | CD0007     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 12#18 Y    |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 11-14-2024 |

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| <b>Insulation Class</b>              | <b>F</b>                          |
| <b>Inverter Code</b>                 | <b>Not Inverter</b>               |
| <b>KVA Code</b>                      | <b>J</b>                          |
| <b>Lifting Lugs</b>                  | <b>No Lifting Lugs</b>            |
| <b>Locked Bearing Indicator</b>      | <b>No Locked Bearing</b>          |
| <b>Motor Lead Quantity/Wire Size</b> | <b>12 @ 18 AWG</b>                |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>               |
| <b>Motor Standards</b>               | <b>NEMA</b>                       |
| <b>Motor Type</b>                    | <b>3516M</b>                      |
| <b>Mounting Arrangement</b>          | <b>F1</b>                         |
| <b>Number of Poles</b>               | <b>4</b>                          |
| <b>Overall Length</b>                | <b>11.07 IN</b>                   |
| <b>Power Factor</b>                  | <b>81</b>                         |
| <b>Product Family</b>                | <b>General Purpose</b>            |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                       |
| <b>Pulley Face Code</b>              | <b>Standard</b>                   |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>                   |
| <b>Rodent Screen</b>                 | <b>None</b>                       |
| <b>Service Factor</b>                | <b>1.25</b>                       |
| <b>Shaft Diameter</b>                | <b>0.625 IN</b>                   |
| <b>Shaft Ground Indicator</b>        | <b>No Shaft Grounding</b>         |
| <b>Shaft Rotation</b>                | <b>Reversible</b>                 |
| <b>Shaft Slinger Indicator</b>       | <b>No Slinger</b>                 |
| <b>Speed</b>                         | <b>1730 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>Automatic Thermal Overload</b> |
| <b>Winding Thermal 1 Location</b>    | <b>SB</b>                         |
| <b>Winding Thermal 2</b>             | <b>None</b>                       |

Nameplate

| NP3273L        |                 |  |      |      |     |   |    |    |   |  |  |
|----------------|-----------------|--|------|------|-----|---|----|----|---|--|--|
| CAT.NO.        | EM31112A        |  |      |      |     |   |    |    |   |  |  |
| SPEC.          | 35B011K919      |  |      |      |     |   |    |    |   |  |  |
| HP             | .75             |  |      |      |     |   |    |    |   |  |  |
| VOLTS          | 208-230/460     |  |      |      |     |   |    |    |   |  |  |
| AMP            | 2.2-2/1         |  |      |      |     |   |    |    |   |  |  |
| RPM            | 1730            |  |      |      |     |   |    |    |   |  |  |
| FRAME          | 56              |  | HZ   | 60   |     |   |    | PH | 3 |  |  |
| SER.F.         | 1.25            |  | CODE | J    | DES | B | CL | F  |   |  |  |
| F.L. AVG. EFF. | 81.1            |  | PF   | 81   |     |   |    |    |   |  |  |
| RATING         | 40C AMB-CONT    |  |      |      |     |   |    |    |   |  |  |
| CC             |                 |  |      |      |     |   |    |    |   |  |  |
| DE             | 6205            |  | ODE  | 6203 |     |   |    |    |   |  |  |
| ENCL           | OPEN            |  | SN   |      |     |   |    |    |   |  |  |
|                | SFA 2.8-2.4/1.2 |  |      |      |     |   |    |    |   |  |  |

**Parts List**

| <b>Part number</b> | <b>Description</b>                       | <b>Quantity</b> |
|--------------------|------------------------------------------|-----------------|
| SA439342           | SA 35B011K919                            | 1.000 ea        |
| RA431719           | RA 35B011K919                            | 1.000 ea        |
| NS2512A01          | INSULATOR, CONDUIT BOX X                 | 1.000 ea        |
| 35CB3007           | 35 CB CASTING W/.88 DIA. LEAD HOLE       | 1.000 ea        |
| 51XB1016A06        | 10-16X3/8 HXWSSLD SERTYB                 | 2.000 ea        |
| 11XW1032G06        | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea        |
| 35EP3209G00        | MASTER ODE,203 BRG                       | 1.000 ea        |
| HW5100A03          | WAVY WASHER (W1543-017)                  | 1.000 ea        |
| 35EP3210B00        | MASTER DE,205 BRG,1.000SH                | 1.000 ea        |
| XY1032A02          | 10-32 HEX NUT DIRECTIONAL SERRATION      | 4.000 ea        |
| 35CB4521           | 35 LIPPED CB LID (GALV & PHOSPH)         | 1.000 ea        |
| 51XW0832A07        | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea        |
| HW2501D13          | KEY, 3/16 SQ X 1.375                     | 1.000 ea        |
| HA7000A04          | KEY RETAINER 0.625 DIA SHAFTS            | 1.000 ea        |
| 85XU0407S04        | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea        |
| MJ1000A02          | GREASE, POLYREX EM EXXON                 | 0.050 lb        |
| MG1050Y01          | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.017 ga        |
| HA3100A15          | THRUBOLT 10-32 X 8.375                   | 4.000 ea        |
| LB1118             | LABEL,WARNING (ROLL LABEL)               | 1.000 ea        |
| LC0007             | CONNECTION LABEL                         | 1.000 ea        |
| NP3273L            | ALUM SUPER-E THERMALLY PROTECTED, LASER  | 1.000 ea        |
| 36PA1000           | PKG GRP, PRINT PK1016A08                 | 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 # 111887

Typical performance - not guaranteed values

| Winding: 35WGK919-R001 |          |                   | Type: 3516M                              |  | Enclosure: OPEN       |  |          |
|------------------------|----------|-------------------|------------------------------------------|--|-----------------------|--|----------|
| Nameplate Data         |          |                   | 460 V, 60 Hz:<br>High Voltage Connection |  |                       |  |          |
| Rated Output (HP)      |          | .75               | Full Load Torque                         |  | 2.303 LB-FT           |  |          |
| Volts                  |          | 208-230/460       | Start Configuration                      |  | direct on line        |  |          |
| Full Load Amps         |          | 2.2-2/1           | Breakdown Torque                         |  | 8.65 LB-FT            |  |          |
| R.P.M.                 |          | 1730              | Pull-up Torque                           |  | 4.81 LB-FT            |  |          |
| Hz                     | 60 Phase | 3                 | Locked-rotor Torque                      |  | 5.57 LB-FT            |  |          |
| NEMA Design Code       |          | B KVA Code        | J                                        |  | Starting Current      |  | 7.36 A   |
| Service Factor (S.F.)  |          | 1.25              | No-load Current                          |  | 0.571 A               |  |          |
| NEMA Nom. Eff.         |          | 81.1 Power Factor | 81                                       |  | Line-line Res. @ 25°C |  | 31.981 Ω |
| Rating - Duty          |          | 40C AMB-CONT      | Temp. Rise @ Rated Load                  |  | 28°C                  |  |          |
| S.F. Amps              |          | 2.8-2.6/1.3       | Temp. Rise @ S.F. Load                   |  | 40°C                  |  |          |
|                        |          |                   | Locked-rotor Power Factor                |  | 71.6                  |  |          |
|                        |          |                   | Rotor inertia                            |  | 0.116 lb-ft²          |  |          |

**Load Characteristics 460 V, 60 Hz, 0.75 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 39     | 60     | 73     | 81     | 86     | 88     | 86   |
| Efficiency      | 76.8   | 83.5   | 84.5   | 83.7   | 81.8   | 79.1   | 81.8 |
| Speed           | 1780.7 | 1765.2 | 1747.8 | 1728.5 | 1706.8 | 1680.3 | 1707 |
| Line amperes    | 0.613  | 0.713  | 0.86   | 1.04   | 1.26   | 1.52   | 1.26 |

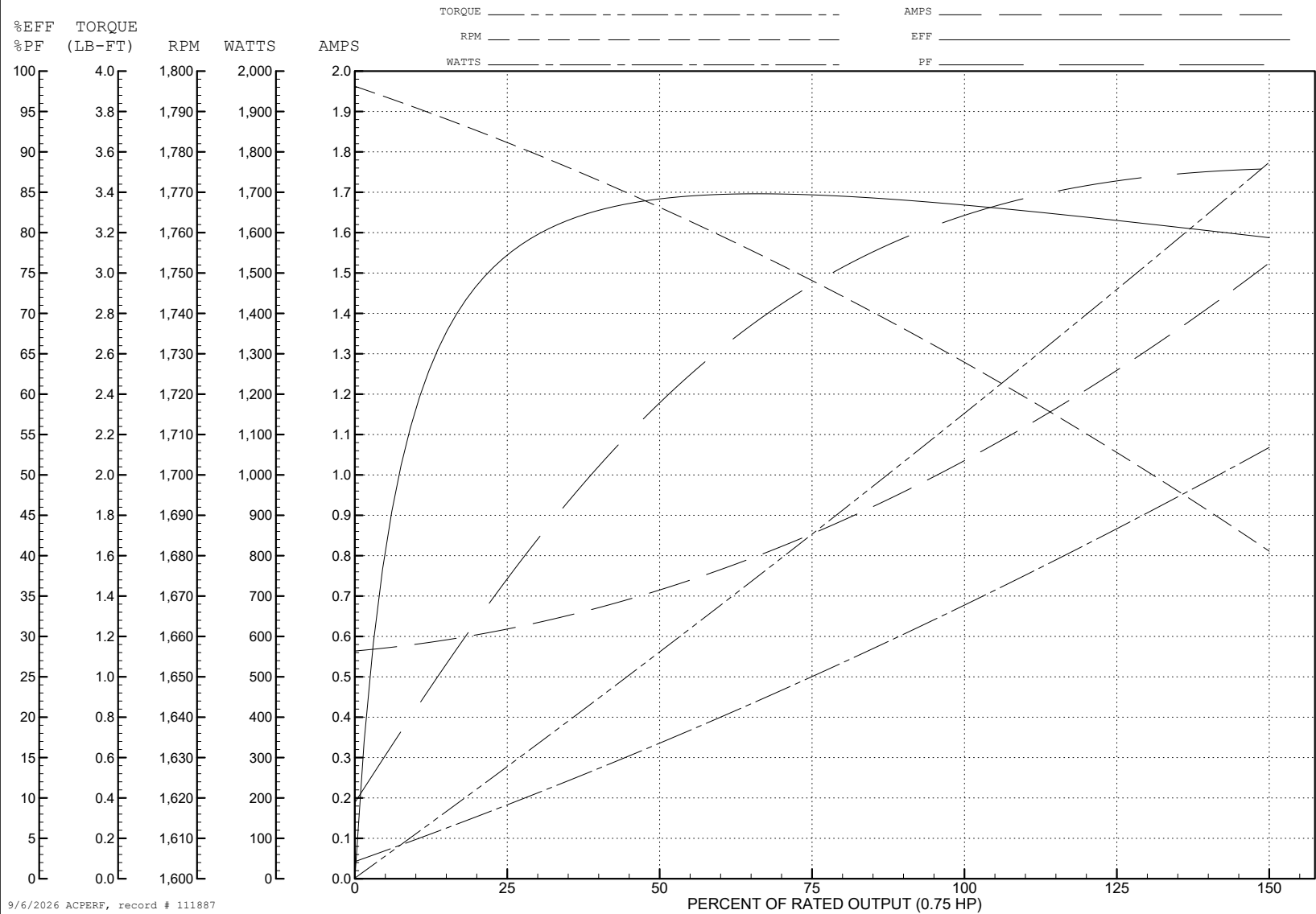
ABB Motors and Mechanical Inc.

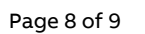
WINDING # 35WGK919

Typical performance - not guaranteed values.

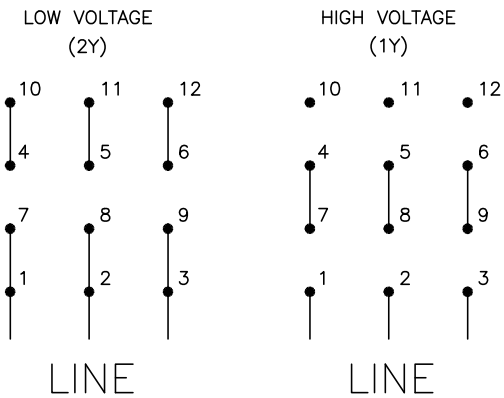
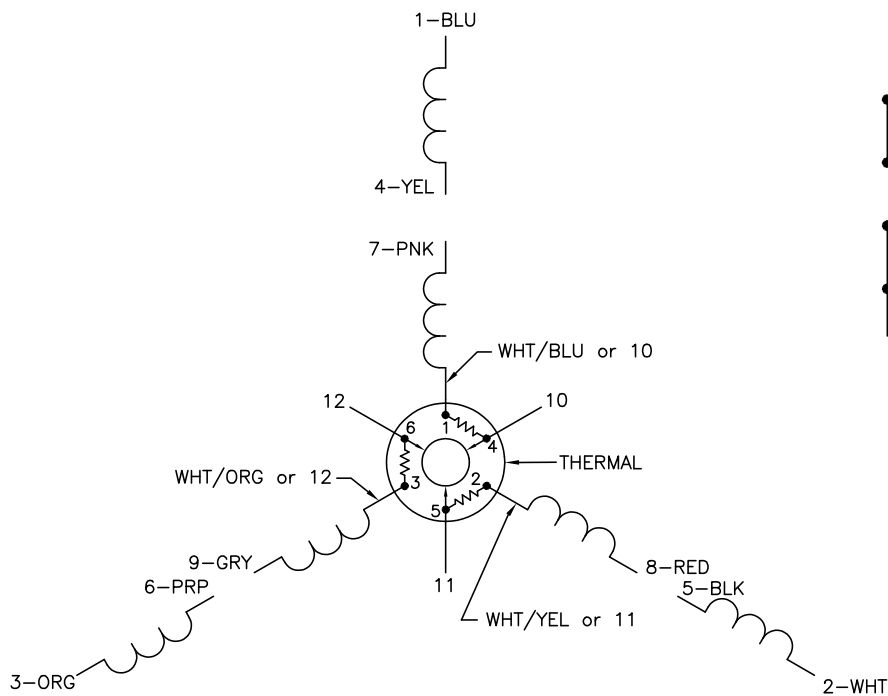
0.75 HP 3 PH 60 HZ 1730 RPM 460 V 3516M

TORQUES (LB-FT) : PO=8.65 PU=4.81 LR=5.57 LRA=7.36





CD0007



- NOTES:
1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
  2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
  3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0007

|                                  |         |                        |              |
|----------------------------------|---------|------------------------|--------------|
| REV. DESC: ADDED "CK" PLANT CODE |         |                        |              |
| REV. LTR: E                      | BY: EAH | REVISED: 05/06/99 17:1 | TDR: 0181040 |
| 200000                           |         | FILE: AAA00008370      | MDL: -       |
|                                  |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, DV, THERMAL, 12 LEADS