

# ABB BALDOR RELIANCE III

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## Customer information packet

### SPM3455

.25HP, 1150RPM, 3PH, 60HZ, 48, 3420M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                |                                       |
|--------------------------------|---------------------------------------|
| Enclosure                      | TEFC                                  |
| Frame                          | 48                                    |
| Frame Material                 | Steel                                 |
| Frequency                      | 60.00 Hz                              |
| Haz Area Class and Group       | None                                  |
| Haz Area Division              | Not Applicable                        |
| Motor Letter Type              | Three Phase                           |
| Output @ Frequency             | .250 HP @ 60 HZ                       |
| Phase                          | 3                                     |
| Synchronous Speed @ Frequency  | 1200 RPM @ 60 HZ                      |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ    |
| Agency Approvals               | WEEE<br>C UR US                       |
| Ambient Temperature            | 40 °C                                 |
| Auxiliary Box                  | NO AUXILLARY BOX                      |
| Auxiliary Box Lead Termination | None                                  |
| Base Indicator                 | Rigid                                 |
| Bearing Grease Type            | Polyrex EM (-20F +300F)               |
| Blower                         | None                                  |
| Current @ Voltage              | .650 A @ 460.0 V<br>1.300 A @ 230.0 V |
| Design Code                    | B                                     |
| Drip Cover                     | No Drip Cover                         |
| Duty Rating                    | CONT                                  |
| Efficiency @ 100% Load         | 74.0 %                                |
| Electrically Isolated Bearing  | Not Electrically Isolated             |
| Feedback Device                | NO FEEDBACK                           |
| Front Shaft Indicator          | None                                  |
| Heater Indicator               | No Heater                             |
| High Voltage Full Load Amps    | 0.7 a                                 |
| Insulation Class               | B                                     |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | C          |
| Type         | AC         |
| Mech. spec.  | 34T121     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WGR775   |
| Layout       | 34LYT121   |
| Eff. date    | 10-29-2024 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 09-12-2023 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Inverter Code</b>                 | Not Inverter        |
| <b>KVA Code</b>                      | N                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing   |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 18 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3420M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 6                   |
| <b>Overall Length</b>                | 10.72 IN            |
| <b>Power Factor</b>                  | 41                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | Standard            |
| <b>Pulley Shaft Indicator</b>        | Standard            |
| <b>Rodent Screen</b>                 | None                |
| <b>RoHS Status</b>                   | ROHS COMPLIANT      |
| <b>Service Factor</b>                | 1.35                |
| <b>Shaft Diameter</b>                | 0.500 IN            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 1150 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                |
| <b>Winding Thermal 2</b>             | None                |

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**AC Induction Motor Performance Data**

Record # 100830

Preliminary Data Sheet

| Winding: 34WGR775-R001 |    |              | Type: 3420M                              |                           | Enclosure: TEFC       |               |        |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|---------------|--------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |               |        |
| Rated Output (HP)      |    | .25          | Full Load Torque                         |                           | 1.12 LB-FT            |               |        |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |               |        |
| Full Load Amps         |    | 1.3/.65      | Breakdown Torque                         |                           | 5.8 LB-FT             |               |        |
| R.P.M.                 |    | 1150         | Pull-up Torque                           |                           | 4.3 LB-FT             |               |        |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 4.6 LB-FT     |        |
| NEMA Design Code       |    | B            | KVA Code                                 | N                         | Starting Current      |               | 3.7 A  |
| Service Factor (S.F.)  |    | 1.35         |                                          | No-load Current           |                       | 0.65 A        |        |
| NEMA Nom. Eff.         |    | 74           | Power Factor                             | 41                        | Line-line Res. @ 25°C |               | 45.8 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 25°C          |        |
| S.F. Amps              |    | 1.5/.75      |                                          | Temp. Rise @ S.F. Load    |                       | 30°C          |        |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 59.9          |        |
|                        |    |              |                                          | Rotor inertia             |                       | 0.0475 lb-ft² |        |

**Load Characteristics 460 V, 60 Hz, 0.25 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F.  |
|-----------------|------|------|------|------|------|------|-------|
| Power Factor    | 19   | 28   | 35   | 41   | 48   | 51   | 49    |
| Efficiency      | 48.2 | 62.2 | 70   | 74.5 | 75.7 | 77.4 | 76.4  |
| Speed           | 1188 | 1176 | 1165 | 1149 | 1139 | 1120 | 1131  |
| Line amperes    | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | 0.84 | 0.804 |

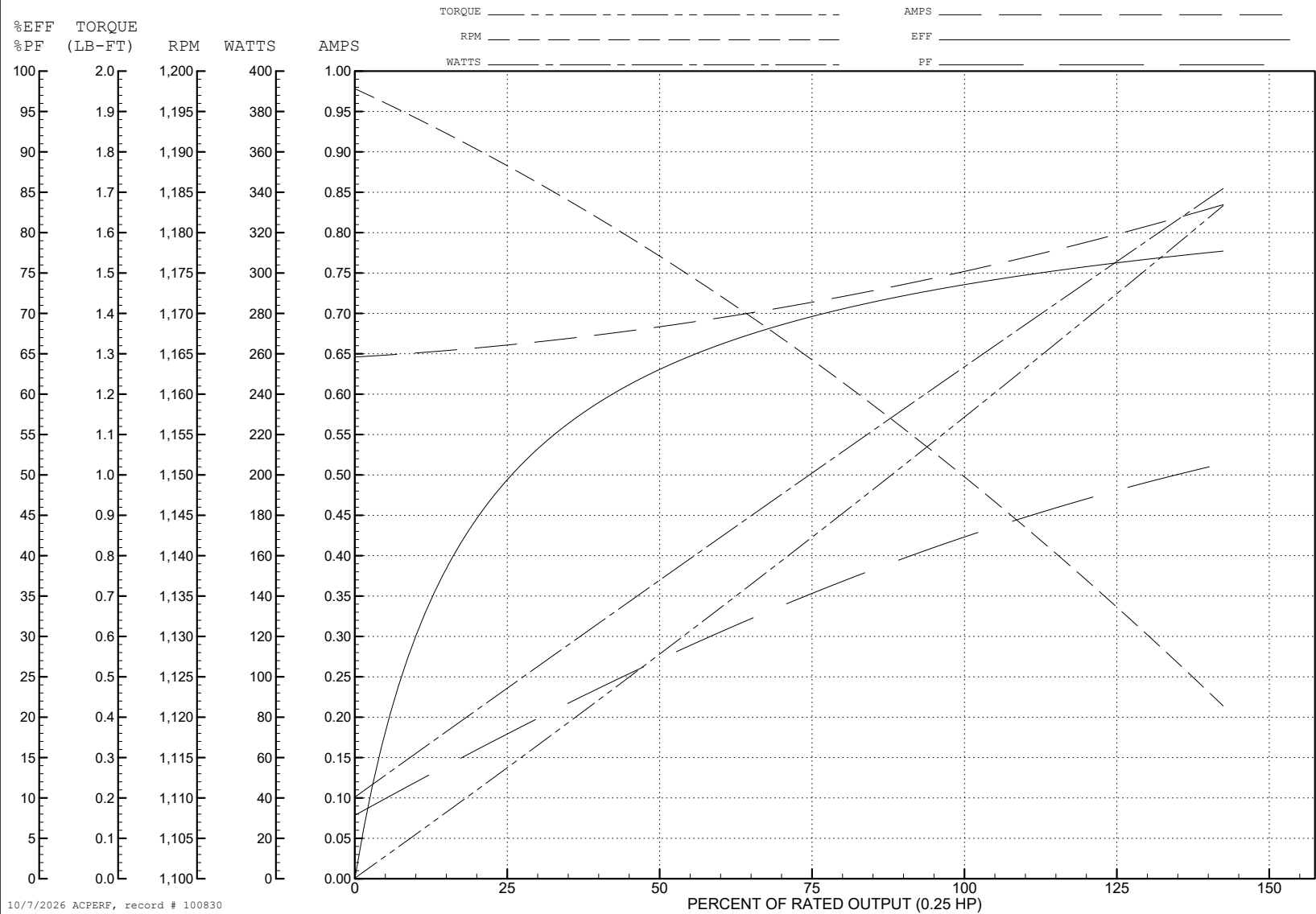
ABB Motors and Mechanical Inc.

WINDING # 34WGR775

0.25 HP 3 PH 60 HZ 1150 RPM 460 V 3420M

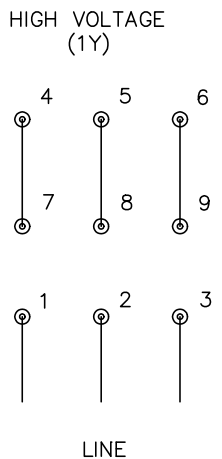
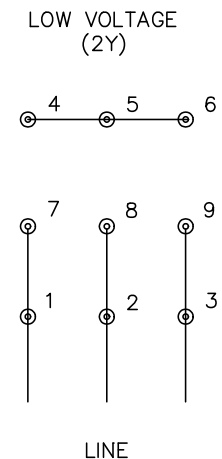
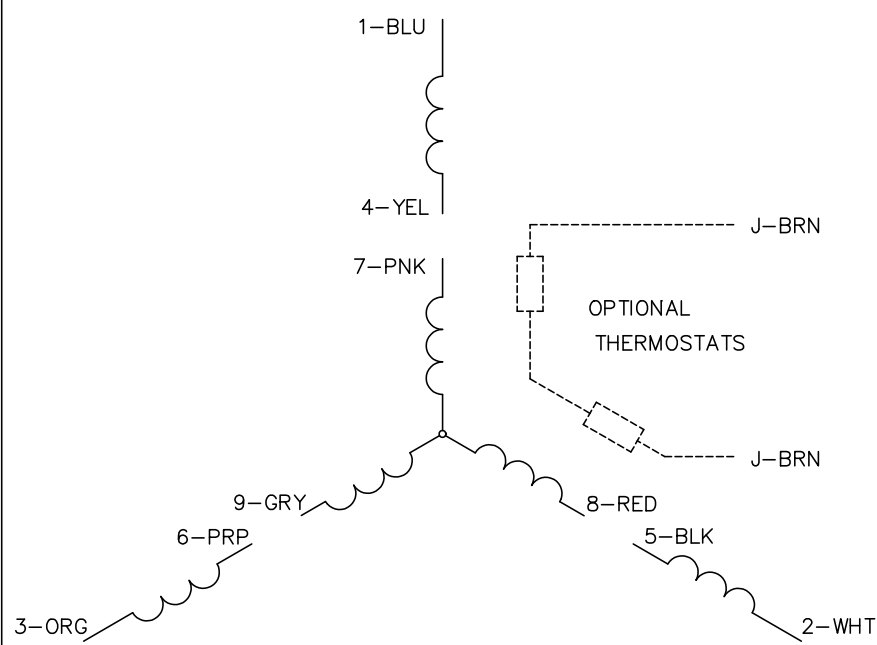
Typical performance - not guaranteed values.

TORQUES (LB-FT) : PO=5.8 PU=4.3 LR=4.6 LRA=3.7





CD0005



- 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.

|                                           |         |                         |              |
|-------------------------------------------|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000                                    |         | FILE: AAA00005140       | MDL: -       |
|                                           |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005