

# ABB BALDOR RELIANCE III

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## Customer information packet

### SUM70306

3HP, 1160RPM, 3PH, 60HZ, 180TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

**Specifications**

|                          |                         |
|--------------------------|-------------------------|
| Enclosure                | XPNV                    |
| Frame                    | 180TY                   |
| Frame Material           | Iron                    |
| Frequency                | 60.00 Hz                |
| Haz Area Class and Group | CLI GP C,D              |
| Haz Area Division        | Not Applicable          |
| Motor Letter Type        | Three Phase             |
| Phase                    | 3                       |
| Agency Approvals         | CCSA US                 |
| Base Indicator           | Rigid                   |
| Bearing Grease Type      | Polyrex EM (-20F +300F) |
| Design Code              | B                       |
| Drip Cover               | No Drip Cover           |
| Duty Rating              | CONT                    |
| Haz Area Temp Code       | T3C                     |
| Heater Indicator         | No Heater               |
| Insulation Class         | F                       |
| Inverter Code            | Not Inverter            |
| IP Rating                | IP68                    |
| KVA Code                 | H                       |
| Lifting Lugs             | Standard Lifting Lugs   |
| Motor Standards          | NEMA                    |
| Motor Type               | M                       |
| Mounting Arrangement     | V1                      |
| Number of Poles          | 6                       |
| Product Family           | Pump - Centrifugal      |
| Pulley End Bearing Type  | Ball                    |
| Pulley Face Code         | Standard                |
| Service Factor           | 1.15                    |
| Shaft Diameter           | 1.250 IN                |
| Shaft Rotation           | Reversible              |
| Shaft Slinger Indicator  | No Slinger              |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | C          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 85304      |
| Layout       | 619738-001 |
| Eff. date    | 06-03-2026 |
| CD Diagram   |            |
| Poles        | ///        |
| Leads        |            |
| Proprietary  | False      |
| Created date | 10-26-2021 |

|                          |                            |
|--------------------------|----------------------------|
| Speed Code               | Single Speed               |
| Starting Method          | Direct on line             |
| Thermal Device - Winding | Normally Closed Thermostat |

**Nameplate**

| 000613007MS     |                              |              |             |              |               |        |         |        |      |        |   |
|-----------------|------------------------------|--------------|-------------|--------------|---------------|--------|---------|--------|------|--------|---|
| CAT.NO.         | SUM70306                     |              |             | SPEC NO.     | S18-CWS0-0011 |        |         |        |      |        |   |
| SER.NO.         |                              |              |             |              | FRAME SIZE    | 180TY  |         |        |      |        |   |
| CONSTANT HP RPM | HP                           | RPM          | VOLTS       |              | AMPS          |        | HZ      |        | S.F. |        |   |
|                 | 3                            | 1160         | 230/460     |              | 9.4/4.7       |        | 6-60    |        | 1.00 |        |   |
|                 | 3                            | 1160         | 230/460     |              | 9.4/4.7       |        | 60      |        | 1.15 |        |   |
|                 | @                            |              |             | HZ           | CODE          | H      |         |        |      |        |   |
|                 | TYPE                         | P            | INSUL.CLASS |              | F             | TORQUE | 10:1_VT |        |      | DESIGN | B |
|                 | D.E. BRG.                    | 50BC02JPP30A |             |              | ENCL          | TENV   | DUTY    | 15 MIN |      | PH     | 3 |
| O.D.E. BRG.     | 25BC02JPG30A                 |              |             | MOTOR WEIGHT |               |        |         |        | AMB  | 40     |   |
|                 | FINAL CONN VOLTAGE = 230 *15 |              |             |              |               |        |         |        |      |        |   |
|                 | MIN IN AIR ;SUB. IN SEWAGE / |              |             |              |               |        |         |        |      |        |   |
|                 | WATER ONLY                   |              |             |              |               |        |         |        |      |        |   |

|                     |       |     |  |
|---------------------|-------|-----|--|
| 000613007RC         |       |     |  |
| CLASS I GROUP       | C D X | NO. |  |
| CLASS II GROUP      | X X X |     |  |
| OPERATING TEMP CODE | T3C   |     |  |

| 000692000MB                   |  |
|-------------------------------|--|
| SUITABLE FOR OPERATION ON PWM |  |
| INVERTER EQUIPPED WITH IGBT   |  |
| DEVICES AND CAPABLE OF        |  |
| CARRIER                       |  |
| FREQUENCY OF 2 KHZ MINIMUM    |  |
|                               |  |
|                               |  |

**000613007MS**

|                              |                 |              |             |              |               |         |        |    |   |
|------------------------------|-----------------|--------------|-------------|--------------|---------------|---------|--------|----|---|
| CAT.NO.                      | SUM70306        |              | SPEC NO.    |              | S18-CWS0-0011 |         |        |    |   |
|                              | SER.NO.         |              | FRAME SIZE  |              |               | 180TY   |        |    |   |
|                              |                 |              |             |              |               |         |        |    |   |
|                              | HP              | RPM          | VOLTS       | AMPS         | HZ            | S.F.    |        |    |   |
|                              | 3               | 1160         | 230/460     | 9.4/4.7      |               | 6-60    | 1.00   |    |   |
|                              | 3               | 1160         | 230/460     | 9.4/4.7      |               | 60      | 1.15   |    |   |
|                              | CONSTANT HP RPM |              | @           | HZ           | CODE          | H       |        |    |   |
|                              | TYPE            | P            | INSUL.CLASS | F            | TORQUE        | 10:1_VT | DESIGN | B  |   |
|                              | D.E. BRG.       | 50BC02JPP30A |             | ENCL         | TENV          | DUTY    | 15 MIN | PH | 3 |
|                              | O.D.E. BRG.     | 25BC02JPG30A |             | MOTOR WEIGHT |               |         | AMB    | 40 |   |
| FINAL CONN VOLTAGE = 230 *15 |                 |              |             |              |               |         |        |    |   |
| MIN IN AIR ;SUB. IN SEWAGE / |                 |              |             |              |               |         |        |    |   |
| WATER ONLY                   |                 |              |             |              |               |         |        |    |   |

**AC induction motor performance data**

Record #85304 - Typical performance - not guaranteed values

|           |           |
|-----------|-----------|
| Winding   | 06WGA0006 |
| Type      | 0636M     |
| Enclosure | TENV      |

## Nameplate data

|                |         |              |    |
|----------------|---------|--------------|----|
| Rated Output   | 3       |              |    |
| Volts          | 230/460 |              |    |
| Full Load Amps | 9.4/4.7 |              |    |
| R.P.M.         | 1160    |              |    |
| Hz             | 60      | Phase        | 3  |
| KVA Code       | H       |              |    |
| S.F.           | 1.15    |              |    |
| NEMA Nom. Eff. | 87.5    | Power Factor | 69 |
| Duty           | 15 MIN  |              |    |
| S.F. Amps      |         |              |    |

460 V, 60 Hz:

## High Voltage Connection

|                           |                |
|---------------------------|----------------|
| Full Load Torque          | 13.64 LB-FT    |
| Start Configuration       | direct on line |
| Breakdown Torque          | 38.33 LB-FT    |
| Pull-up Torque            | 21.74 LB-FT    |
| Locked-rotor Torque       | 27.7 LB-FT     |
| Starting Current          | 26.19 A        |
| No-load Current           | 2.57           |
| Line-line Res. @ 25°C     | 4.53 Ω         |
| Temp. Rise @ Rated Load   | 9°C            |
| Temp. Rise @ S.F. Load    | 10°C           |
| Locked-rotor Power Factor | 30.7           |
| Rotor inertia             | 0.338 lb-ft²   |

## Load Characteristics 460 V, 60 Hz, 3 HP

| % of Rated Load | NL   | 25   | 50   | 75   | 100  | 125  | 150  | SF   |
|-----------------|------|------|------|------|------|------|------|------|
| Power Factor    | 6    | 32   | 51   | 62   | 69   | 72   | 74   | 71   |
| Efficiency      | 0    | 82.7 | 87.5 | 88.3 | 87.5 | 85.9 | 83.5 | 86.5 |
| Speed           | 1199 | 1191 | 1182 | 1172 | 1162 | 1149 | 1132 | 1154 |
| Line amperes    | 2.57 | 2.76 | 3.21 | 3.88 | 4.69 | 5.69 | 6.86 | 5.29 |

**SPEED TORQUE / SPEED CURRENT CURVES**

**BALDOR • RELIANCE**

06WGA0006

3HP 460V 60HZ





