

# ABB BALDOR RELIANCE III

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## Customer information packet

### DRX141544T

1.5//1HP, 1770//1475RPM, 3PH, 60//50HZ, 145T

Class - CLI GP C,D

Division - Division I

**Specifications**

|                                       |                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                                                                  |
| <b>Frame</b>                          | 145T                                                                                                  |
| <b>Frame Material</b>                 | Steel                                                                                                 |
| <b>Frequency</b>                      | 50.00 Hz<br>60.00 Hz                                                                                  |
| <b>Haz Area Class and Group</b>       | CLI GP C,D                                                                                            |
| <b>Haz Area Division</b>              | Division I                                                                                            |
| <b>Motor Letter Type</b>              | Three Phase                                                                                           |
| <b>Output @ Frequency</b>             | 1.500 HP @ 60 HZ<br>1.000 HP @ 50 HZ                                                                  |
| <b>Phase</b>                          | 3                                                                                                     |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                                                                      |
| <b>Voltage @ Frequency</b>            | 190.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>380.0 V @ 50 HZ<br>460.0 V @ 60 HZ                              |
| <b>Agency Approvals</b>               | CSA EEV<br>UL                                                                                         |
| <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>              | 4.640 A @ 208.0 V<br>4.600 A @ 230.0 V<br>4.000 A @ 190.0 V<br>2.300 A @ 460.0 V<br>2.000 A @ 380.0 V |
| <b>Design Code</b>                    | B                                                                                                     |
| <b>Drip Cover</b>                     | No Drip Cover                                                                                         |
| <b>Duty Rating</b>                    | CONT                                                                                                  |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35X081     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 35WGL955   |
| <b>Layout</b>       | 35LYX081   |
| <b>Eff. date</b>    | 05-20-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 02-23-2023 |

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Efficiency @ 100% Load</b>        | 86.5 %                    |
| <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>   | 2.0 a                     |
| <b>Insulation Class</b>              | F                         |
| <b>Inverter Code</b>                 | Inverter Duty             |
| <b>KVA Code</b>                      | M                         |
| <b>Lifting Lugs</b>                  | No Lifting Lugs           |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing         |
| <b>Max Speed</b>                     | 2700 rpm                  |
| <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>                    | 3526M                     |
| <b>Mounting Arrangement</b>          | F1                        |
| <b>Number of Poles</b>               | 4                         |
| <b>Overall Length</b>                | 15.09 IN                  |
| <b>Power Factor</b>                  | 72                        |
| <b>Product Family</b>                | Hazardous Location Motor  |
| <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 NON-COMPLIANT        |
| <b>Service Factor</b>                | 1.00                      |
| <b>Shaft Diameter</b>                | 0.875 IN                  |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding        |
| <b>Shaft Rotation</b>                | Reversible                |
| <b>Speed</b>                         | 1475 rpm<br>1770 rpm      |
| <b>Speed Code</b>                    | Single Speed              |
| <b>Starting Method</b>               | Direct on line            |

|                            |                            |
|----------------------------|----------------------------|
| Thermal Device - Bearing   | None                       |
| Thermal Device - Winding   | Normally Closed Thermostat |
| Vibration Sensor Indicator | No Vibration Sensor        |
| Winding Thermal 1          | None                       |
| Winding Thermal 2          | None                       |

**Nameplate**

| NP1401XPSLEV |                  |        |   |              |         |                     |       |          |    |  |    |
|--------------|------------------|--------|---|--------------|---------|---------------------|-------|----------|----|--|----|
| NO.          |                  |        |   |              |         | CC                  |       |          |    |  |    |
| S/N          |                  |        |   |              |         | TEMP CODE           | T3C   |          |    |  |    |
| SPEC.        | 35X081L955       |        |   |              |         | INV.TYPE            | PWM   |          |    |  |    |
| CAT.NO.      | DRX141544T       |        |   |              |         | C HP FR             | 60    | C HP TO  | 90 |  |    |
| HP           | 1.5//1           |        |   |              |         | CT HZ FROM          | 6     | CT HZ TO |    |  | 60 |
| VOLTS        | 230/460//190/380 |        |   |              |         | VT HZ FROM          | 6     | VT HZ TO |    |  | 60 |
| AMPS         | 4.6/2.3//4/2     |        |   |              | MAG CUR | 3/1.5               |       |          |    |  |    |
| RPM          | 1770//1475       |        |   |              | MX RPM  | 2700                |       |          |    |  |    |
| HZ           | 60//50           | PH     | 3 | CL           | F       | NOM.EFF.            | 86.5  |          |    |  |    |
| SER.F.       | 1.00             | DES    | B | SL HZ        | 1       | WK2                 | 0.174 |          |    |  |    |
| FRAME        | 145T             | RATING |   | 40C AMB-CONT |         |                     |       |          |    |  |    |
|              | 55C AMB @ 1.0 SF |        |   |              |         |                     |       |          |    |  |    |
|              | 1.15 SF SINEWAVE |        |   |              |         | NEMA MG-1 PT 5,IP55 |       |          |    |  |    |

**AC Induction Motor Performance Data**

Record # 73666

Typical performance - not guaranteed values

| Winding: 35WGL155-R039 |  |                  | Type: 3526M  |                                          | Enclosure: XPFC     |                       |            |        |
|------------------------|--|------------------|--------------|------------------------------------------|---------------------|-----------------------|------------|--------|
| Nameplate Data         |  |                  |              | 460 V, 60 Hz:<br>High Voltage Connection |                     |                       |            |        |
| Rated Output (HP)      |  | 1.5//1           |              | Full Load Torque                         |                     | 4.46 LB-FT            |            |        |
| Volts                  |  | 230/460//190/380 |              | Start Configuration                      |                     | direct on line        |            |        |
| Full Load Amps         |  | 4.4/2.2//4/2     |              | Breakdown Torque                         |                     | 20.6 LB-FT            |            |        |
| R.P.M.                 |  | 1760//1460       |              | Pull-up Torque                           |                     | 10.1 LB-FT            |            |        |
| Hz                     |  | 60//50           | Phase        | 3                                        | Locked-rotor Torque |                       | 14.4 LB-FT |        |
| NEMA Design Code       |  | B                |              | KVA Code                                 | M                   | Starting Current      |            | 19.3 A |
| Service Factor (S.F.)  |  | 1                |              | No-load Current                          |                     | 1.46 A                |            |        |
| NEMA Nom. Eff.         |  | 86.5             | Power Factor |                                          | 71                  | Line-line Res. @ 25°C |            | 8.81 Ω |
| Rating - Duty          |  | 40C AMB-CONT     |              | Temp. Rise @ Rated Load                  |                     | 42°C                  |            |        |
|                        |  |                  |              | Locked-rotor Power Factor                |                     | 49.6                  |            |        |
|                        |  |                  |              | Rotor inertia                            |                     | 0.154 LB-FT2          |            |        |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 30   | 49   | 63   | 71   | 77   | 82   |
| Efficiency      | 76.3 | 84.6 | 87   | 87.5 | 87   | 86   |
| Speed           | 1791 | 1782 | 1772 | 1762 | 1750 | 1738 |
| Line amperes    | 1.53 | 1.68 | 1.92 | 2.24 | 2.62 | 3    |

ABB Motors and Mechanical Inc.

WINDING # 35WGL155

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1762 RPM 460 V 3526M

TORQUES (LB-FT): PO=20.6 PU=10.1 LR=14.4 LRA=19.3





