

# ABB BALDOR RELIANCE III

---

## Customer information packet

### DRX21144T

10HP, 1765//1465RPM, 3PH, 60HZ, 215T, XPFC, F1

Class - CLI GP C,D

Division - Division I

**Specifications**

|                                       |                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                                                 |
| <b>Frame</b>                          | 215T                                                                                 |
| <b>Frame Material</b>                 | Iron                                                                                 |
| <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>             | 7.500 HP @ 50 HZ<br>10.000 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>190.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>380.0 V @ 50 HZ             |
| <b>Agency Approvals</b>               | UL<br>CSA EEV                                                                        |
| <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>Constant Torque Speed Range</b>    | 6                                                                                    |
| <b>Current @ Voltage</b>              | 11.600 A @ 380.0 V<br>12.500 A @ 460.0 V<br>23.200 A @ 190.0 V<br>25.000 A @ 230.0 V |
| <b>Design Code</b>                    | A                                                                                    |
| <b>Drip Cover</b>                     | No Drip Cover                                                                        |
| <b>Duty Rating</b>                    | CONT                                                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 07WGX598   |
| <b>Layout</b>       | 07LYJ231   |
| <b>Eff. date</b>    | 02-14-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-01-2019 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Efficiency @ 100% Load</b>        | 91.7 %                     |
| <b>Electrically Isolated Bearing</b> | Not Electrically Isolated  |
| <b>Feedback Device</b>               | NO FEEDBACK                |
| <b>Haz Area Temp Code</b>            | T3C                        |
| <b>Heater Indicator</b>              | No Heater                  |
| <b>High Voltage Full Load Amps</b>   | 11.6 a                     |
| <b>Insulation Class</b>              | F                          |
| <b>Inverter Code</b>                 | Inverter Duty              |
| <b>IP Rating</b>                     | NONE                       |
| <b>KVA Code</b>                      | J                          |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs      |
| <b>Locked Bearing Indicator</b>      | Locked Bearing             |
| <b>Max Speed</b>                     | 2700 rpm                   |
| <b>Motor Lead Termination</b>        | Flying Leads               |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Motor Type</b>                    | 0750M                      |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 4                          |
| <b>Overall Length</b>                | 20.03 IN                   |
| <b>Power Factor</b>                  | 81                         |
| <b>Product Family</b>                | General Purpose            |
| <b>Pulley Face Code</b>              | Standard                   |
| <b>Rodent Screen</b>                 | None                       |
| <b>RoHS Status</b>                   | ROHS NON-COMPLIANT         |
| <b>Service Factor</b>                | 1.00                       |
| <b>Shaft Diameter</b>                | 1.375 IN                   |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding         |
| <b>Shaft Rotation</b>                | Reversible                 |
| <b>Speed</b>                         | 1765 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>      | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor        |



|                   |      |
|-------------------|------|
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

**Nameplate**

| NP1401XPSLEV |                    |        |   |              |     |                     |      |          |    |  |  |
|--------------|--------------------|--------|---|--------------|-----|---------------------|------|----------|----|--|--|
| NO.          |                    |        |   |              |     | CC                  | 010A |          |    |  |  |
| S/N          |                    |        |   |              |     | TEMP CODE           | T3C  |          |    |  |  |
| SPEC.        | 07-0000-0053       |        |   |              |     | INV.TYPE            | PWM  |          |    |  |  |
| CAT.NO.      | DRX21144T          |        |   |              |     | C HP FR             | 60   | C HP TO  | 90 |  |  |
| HP           | 10//7.5            |        |   |              |     | CT HZ FROM          | 6    | CT HZ TO | 60 |  |  |
| VOLTS        | 230/460//190/380   |        |   |              |     | VT HZ FROM          | 6    | VT HZ TO | 60 |  |  |
| AMPS         | 25/12.5//23.2/11.6 |        |   |              |     | MAG CUR             | 5.6  |          |    |  |  |
| RPM          | 1765//1465         |        |   |              |     | MX RPM              | 2700 |          |    |  |  |
| HZ           | 60//50             | PH     | 3 | CL           | F   | NOM.EFF.            | 91.7 |          |    |  |  |
| SER.F.       | 1.00               | DES    | A | SL HZ        | 1.2 | WK2                 | 1.18 |          |    |  |  |
| FRAME        | 215T               | 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 # 39054

Typical performance - not guaranteed values

| Winding: 07WGX598-R007 |        |                    |              | Type: 0750M                              |                       | Enclosure: XPFC |         |
|------------------------|--------|--------------------|--------------|------------------------------------------|-----------------------|-----------------|---------|
| Nameplate Data         |        |                    |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |         |
| Rated Output (HP)      |        | 10//7.5            |              | Full Load Torque                         |                       | 29.7 LB-FT      |         |
| Volts                  |        | 230/460//190/380   |              | Start Configuration                      |                       | direct on line  |         |
| Full Load Amps         |        | 24.6/12.3//23/11.5 |              | Breakdown Torque                         |                       | 94.2 LB-FT      |         |
| R.P.M.                 |        | 1765//1465         |              | Pull-up Torque                           |                       | 56.3 LB-FT      |         |
| Hz                     | 60//50 | Phase              | 3            | Locked-rotor Torque                      |                       | 62.4 LB-FT      |         |
| NEMA Design Code       |        | A                  | KVA Code     | J                                        | Starting Current      |                 | 95.7 A  |
| Service Factor (S.F.)  |        | 1.15               |              | No-load Current                          |                       | 5.6 A           |         |
| NEMA Nom. Eff.         |        | 92.4               | Power Factor | 81                                       | Line-line Res. @ 25°C |                 | 0.867 Ω |
| Rating - Duty          |        | 40C AMB-CONT       |              | Temp. Rise @ Rated Load                  |                       | 55°C            |         |
| S.F. Amps              |        |                    |              | Temp. Rise @ S.F. Load                   |                       | 70°C            |         |
|                        |        |                    |              | Locked-rotor Power Factor                |                       | 35              |         |
|                        |        |                    |              | Rotor inertia                            |                       | 1.23 LB-FT2     |         |

**Load Characteristics 460 V, 60 Hz, 10 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 41   | 64   | 76   | 81   | 84   | 85   | 83   |
| Efficiency      | 89.8 | 93.6 | 92.6 | 92.4 | 91.3 | 90.2 | 91.7 |
| Speed           | 1790 | 1782 | 1772 | 1764 | 1753 | 1743 | 1757 |
| Line amperes    | 6.28 | 7.9  | 10   | 12.5 | 15.3 | 18.3 | 14.2 |

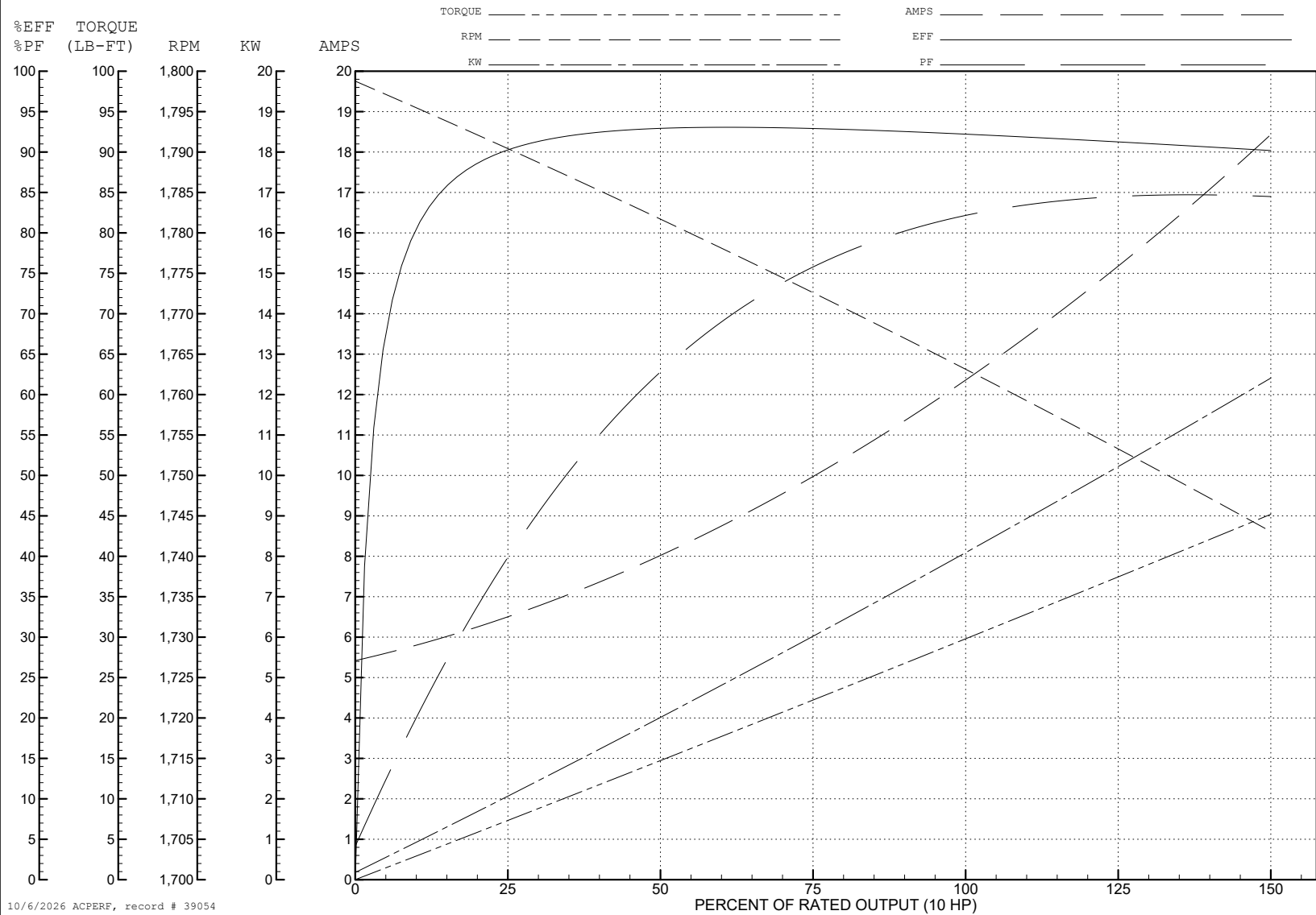
ABB Motors and Mechanical Inc.

WINDING # 07WGX598

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 1764 RPM 460 V 0750M

TORQUES (LB-FT) : PO=94.2 PU=56.3 LR=62.4 LRA=95.7



**AC Induction Motor Performance Data**

Record # 73683

Typical performance - not guaranteed values

| Winding: 07WGX598-R015 |  |                    | Type: 0750M                              |                                 | Enclosure: XPFC                   |                                   |
|------------------------|--|--------------------|------------------------------------------|---------------------------------|-----------------------------------|-----------------------------------|
| Nameplate Data         |  |                    | 460 V, 60 Hz:<br>High Voltage Connection |                                 |                                   |                                   |
| Rated Output (HP)      |  | 10//7.5            | Full Load Torque                         |                                 | 29.7 LB-FT                        |                                   |
| Volts                  |  | 230/460//190/380   | Start Configuration                      |                                 | direct on line                    |                                   |
| Full Load Amps         |  | 25/12.5//23.2/11.6 | Breakdown Torque                         |                                 | 94.2 LB-FT                        |                                   |
| R.P.M.                 |  | 1765//1465         | Pull-up Torque                           |                                 | 56.3 LB-FT                        |                                   |
| Hz                     |  | 60//50             | Phase                                    | 3                               | Locked-rotor Torque<br>62.4 LB-FT |                                   |
| NEMA Design Code       |  | A                  | KVA Code                                 |                                 | J                                 | Starting Current<br>95.7 A        |
| Service Factor (S.F.)  |  |                    |                                          |                                 | 1                                 | No-load Current<br>5.6 A          |
| NEMA Nom. Eff.         |  | 91.7               | Power Factor                             |                                 | 81                                | Line-line Res. @ 25°C<br>0.866 Ω  |
| Rating - Duty          |  | 40C AMB-CONT       |                                          | Temp. Rise @ Rated Load<br>55°C |                                   | Locked-rotor Power Factor<br>35.2 |
|                        |  |                    |                                          | Rotor inertia<br>1.23 LB-FT2    |                                   |                                   |

**Load Characteristics 460 V, 60 Hz, 10 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 41   | 64   | 76   | 81   | 84   | 85   |
| Efficiency      | 89.8 | 93.5 | 92.5 | 92.2 | 91.3 | 90.1 |
| Speed           | 1790 | 1782 | 1772 | 1764 | 1753 | 1743 |
| Line amperes    | 6.28 | 7.9  | 10   | 12.5 | 15.3 | 18.3 |

ABB Motors and Mechanical Inc.

WINDING # 07WGX598

Typical performance - not guaranteed values.

10 HP 3 PH 60 HZ 1764 RPM 460 V 0750M

TORQUES (LB-FT) : PO=94.2 PU=56.3 LR=62.4 LRA=95.7

