

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEDM3704T

3HP, 1160RPM, 3PH, 60HZ, 213TC, 3738M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 213TC                                                       |
| <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>             | 3.000 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CCSA US<br>CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR    |
| <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>              | 9.600 A @ 208.0 V<br>9.200 A @ 230.0 V<br>4.600 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>         | 89.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | G          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 37N854     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 37WGS519   |
| <b>Layout</b>       | 37LYN854   |
| <b>Eff. date</b>    | 06-24-2021 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-14-2016 |

|                                      |                              |
|--------------------------------------|------------------------------|
| <b>Feedback Device</b>               | <b>NO FEEDBACK</b>           |
| <b>Front Face Code</b>               | <b>Standard</b>              |
| <b>Front Shaft Indicator</b>         | <b>None</b>                  |
| <b>Heater Indicator</b>              | <b>No Heater</b>             |
| <b>High Voltage Full Load Amps</b>   | <b>4.6 a</b>                 |
| <b>Insulation Class</b>              | <b>F</b>                     |
| <b>Inverter Code</b>                 | <b>Inverter Duty</b>         |
| <b>KVA Code</b>                      | <b>L</b>                     |
| <b>Lifting Lugs</b>                  | <b>Standard Lifting Lugs</b> |
| <b>Locked Bearing Indicator</b>      | <b>Locked Bearing</b>        |
| <b>Max Speed</b>                     | <b>1800 rpm</b>              |
| <b>Motor Lead Exit</b>               | <b>Ko Box</b>                |
| <b>Motor Lead Quantity/Wire Size</b> | <b>9 @ 14 AWG</b>            |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>          |
| <b>Motor Standards</b>               | <b>NEMA</b>                  |
| <b>Motor Type</b>                    | <b>3738M</b>                 |
| <b>Mounting Arrangement</b>          | <b>F1</b>                    |
| <b>Number of Poles</b>               | <b>6</b>                     |
| <b>Overall Length</b>                | <b>19.76 IN</b>              |
| <b>Power Factor</b>                  | <b>68</b>                    |
| <b>Product Family</b>                | <b>Dirty Duty Plus</b>       |
| <b>Pulley End Bearing Type</b>       | <b>Sealed Bearing</b>        |
| <b>Pulley Face Code</b>              | <b>C-Face</b>                |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>              |
| <b>Rodent Screen</b>                 | <b>None</b>                  |
| <b>RoHS Status</b>                   | <b>ROHS COMPLIANT</b>        |
| <b>Service Factor</b>                | <b>1.15</b>                  |
| <b>Shaft Diameter</b>                | <b>1.375 IN</b>              |
| <b>Shaft Extension Location</b>      | <b>Pulley End</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>1160 rpm</b>              |
| <b>Speed Code</b>                    | <b>Single Speed</b>          |

|                            |                     |
|----------------------------|---------------------|
| Starting Method            | Direct on line      |
| Thermal Device - Bearing   | None                |
| Thermal Device - Winding   | None                |
| Vibration Sensor Indicator | No Vibration Sensor |
| Winding Thermal 1          | None                |
| Winding Thermal 2          | None                |

**Nameplate**

| NP3504       |               |          |   |       |      |            |      |          |    |  |  |
|--------------|---------------|----------|---|-------|------|------------|------|----------|----|--|--|
| CAT NO       | CEDM3704T     |          |   |       |      |            |      |          |    |  |  |
| SPEC.        | 37N854S519G1  |          |   |       |      | ENCL       | TEFC |          |    |  |  |
| FRAME        | 213TC         | HP       | 3 |       |      |            |      |          |    |  |  |
| VOLTS        | 230/460       |          |   |       |      |            |      |          |    |  |  |
| FLA          | 9.2/4.6       |          |   |       | I.P. | 56         |      |          |    |  |  |
| RPM          | 1160          | RPM MAX  |   |       | 1800 |            |      |          |    |  |  |
| HZ           | 60            | PH       | 3 | CLASS |      | F          |      |          |    |  |  |
| SER.F.       | 1.15          | DES      | B | CC    | 010A |            |      |          |    |  |  |
| NEMA-NOM-EFF | 89.5          |          |   |       |      |            |      |          |    |  |  |
| RATING       | 40C AMB-CONT  |          |   |       |      |            |      |          |    |  |  |
| DE BRG       | 6307          | ODE BRG  |   |       |      | 6206       |      |          |    |  |  |
| GREASE       | POLYREX EM    |          |   |       |      |            |      |          |    |  |  |
| C HP FR      | 60            | C HP TO  |   | 90    |      |            |      |          |    |  |  |
| CT HZ FROM   | 6             | CT HZ TO |   |       | 60   | VT HZ FROM | 6    | VT HZ TO | 60 |  |  |
| SER.NO       | 50C AT 1.0 SF |          |   |       |      |            |      |          |    |  |  |

**AC Induction Motor Performance Data**

Record # 55776

Typical performance - not guaranteed values

| Winding: 37WGS519-R033 |      |              | Type: 3738M                              |                       | Enclosure: TEFC |  |
|------------------------|------|--------------|------------------------------------------|-----------------------|-----------------|--|
| Nameplate Data         |      |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |  |
| Rated Output (HP)      |      | 3            | Full Load Torque                         |                       | 13.4 LB-FT      |  |
| Volts                  |      | 230/460      | Start Configuration                      |                       | direct on line  |  |
| Full Load Amps         |      | 9.2/4.6      | Breakdown Torque                         |                       | 50.4 LB-FT      |  |
| R.P.M.                 |      | 1160         | Pull-up Torque                           |                       | 31.8 LB-FT      |  |
| Hz                     | 60   | Phase        | 3                                        | Locked-rotor Torque   | 33.9 LB-FT      |  |
| NEMA Design Code       | B    | KVA Code     | L                                        | Starting Current      | 34 A            |  |
| Service Factor (S.F.)  |      | 1.15         | No-load Current                          |                       | 2.56 A          |  |
| NEMA Nom. Eff.         | 89.5 | Power Factor | 68                                       | Line-line Res. @ 25°C | 2.67 Ω          |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load                  |                       | 38°C            |  |
| S.F. Amps              |      |              | Temp. Rise @ S.F. Load                   |                       | 45°C            |  |
|                        |      |              | Locked-rotor Power Factor                |                       | 22.9            |  |
|                        |      |              | Rotor inertia                            |                       | 0.945 LB-FT2    |  |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 30   | 50   | 62   | 69   | 73   | 75   | 70   |
| Efficiency      | 82.1 | 88.6 | 89.5 | 89.8 | 89.1 | 87.6 | 89.1 |
| Speed           | 1193 | 1186 | 1178 | 1170 | 1160 | 1149 | 1166 |
| Line amperes    | 2.74 | 3.19 | 3.82 | 4.53 | 5.44 | 6.41 | 5.14 |

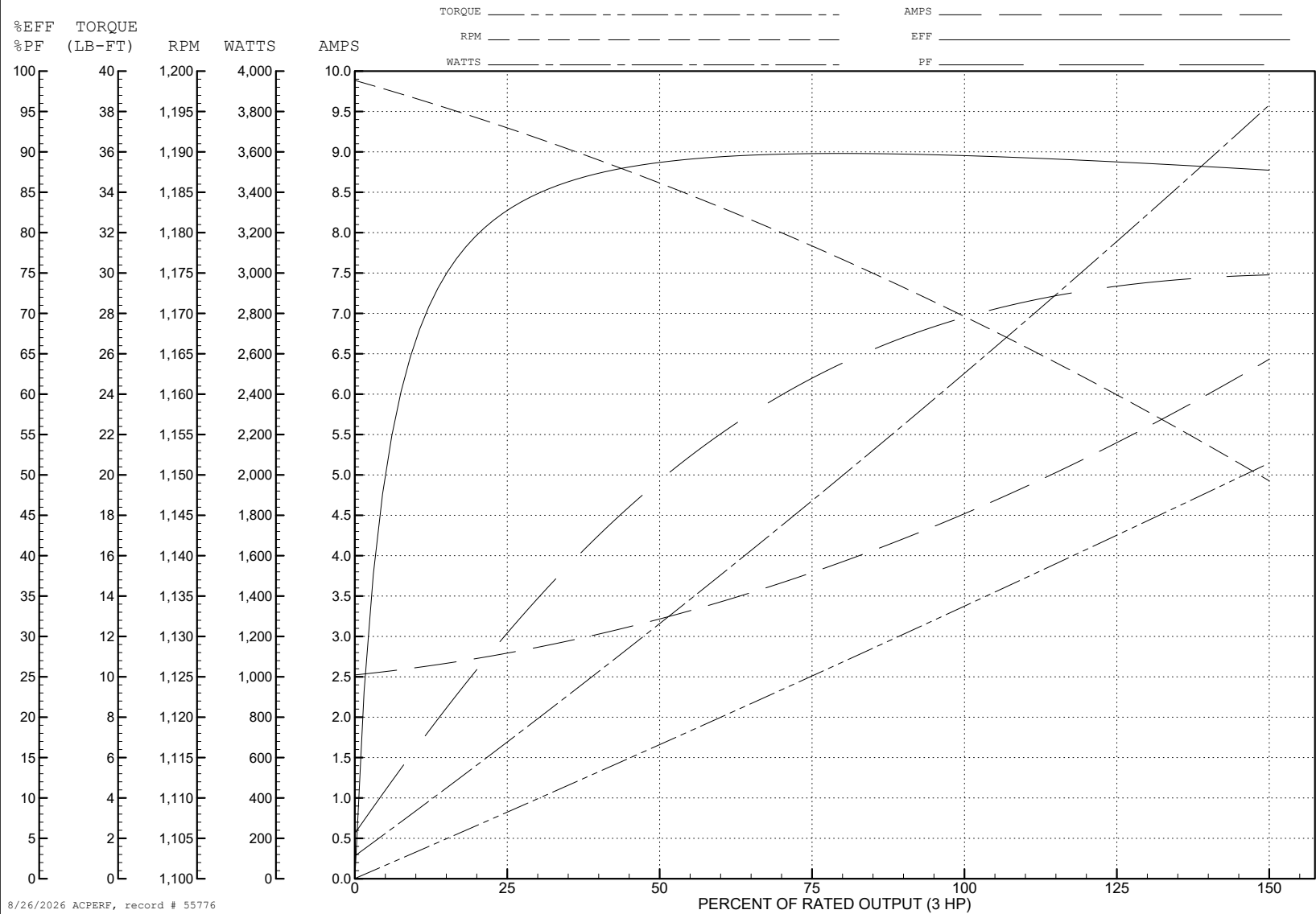
ABB Motors and Mechanical Inc.

WINDING # 37WGS519

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1160 RPM 460 V 3738M

TORQUES (LB-FT): PO=50.4 PU=31.8 LR=33.9 LRA=34





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