

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEWDM2280T

52M 8P TEFC HOR 254TC SP#9(HOSE DOWN

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                          |
| <b>Frame</b>                          | 254TC                                                         |
| <b>Frame Material</b>                 | Iron                                                          |
| <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>             | 5.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                             |
| <b>Synchronous Speed @ Frequency</b>  | 900 RPM @ 60 HZ                                               |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                            |
| <b>Agency Approvals</b>               | 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>Current @ Voltage</b>              | 8.600 A @ 460.0 V<br>17.800 A @ 208.0 V<br>17.200 A @ 230.0 V |
| <b>Design Code</b>                    | A                                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                                 |
| <b>Duty Rating</b>                    | CONT                                                          |
| <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                                                          |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 09N67      |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 09WGT414   |
| <b>Layout</b>       | 09LYN067   |
| <b>Eff. date</b>    | 02-14-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 08         |
| <b>Leads</b>        | 9#12       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-20-2021 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 8.6 a                 |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | K                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Quantity/Wire Size | 9 @ 12 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 0952M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 8                     |
| Overall Length                | 23.57 IN              |
| Power Factor                  | 61                    |
| Product Family                | Washdown Features     |
| Pulley End Bearing Type       | Sealed Bearing        |
| Pulley Face Code              | C-Face                |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.625 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 880 rpm               |
| Speed Code                    | Single Speed          |
| 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**

| NP1669L      |              |      |     |      |   |       |    |   |  |
|--------------|--------------|------|-----|------|---|-------|----|---|--|
| CAT.NO.      | CEWDM2280T   |      |     |      |   |       |    |   |  |
| SPEC.        | 09N067T414   |      |     |      |   |       |    |   |  |
| HP           | 5            |      |     |      |   |       |    |   |  |
| VOLTS        | 230/460      |      |     |      |   |       |    |   |  |
| AMP          | 17.2/8.6     |      |     |      |   |       |    |   |  |
| RPM          | 880          |      |     |      |   |       |    |   |  |
| FRAME        | 254TC        |      | HZ  | 60   |   |       | PH | 3 |  |
| SER.F.       | 1.15         | CODE | K   | DES  | A | CLASS | F  |   |  |
| NEMA-NOM-EFF | 86.5         | PF   | 61  |      |   |       |    |   |  |
| RATING       | 40C AMB-CONT |      |     |      |   |       |    |   |  |
| CC           | 010A         |      |     |      |   |       |    |   |  |
| DE           | 6309         |      | ODE | 6208 |   |       |    |   |  |
| ENCL         | TEFC         | SN   |     |      |   |       |    |   |  |
| BLANK        | 10:1 CT/VT   |      |     |      |   |       |    |   |  |

**AC Induction Motor Performance Data**

Record # 62448

Typical performance - not guaranteed values

| Winding: 09WGT414-R001 |          |              | Type: 0952M                              |  | Enclosure: TEFC |                       |          |
|------------------------|----------|--------------|------------------------------------------|--|-----------------|-----------------------|----------|
| Nameplate Data         |          |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |                       |          |
| Rated Output (HP)      |          | 5            | Full Load Torque                         |  | 29.55 LB-FT     |                       |          |
| Volts                  |          | 230/460      | Start Configuration                      |  | direct on line  |                       |          |
| Full Load Amps         |          | 17.2/8.6     | Breakdown Torque                         |  | 82 LB-FT        |                       |          |
| R.P.M.                 |          | 880          | Pull-up Torque                           |  | 46.8 LB-FT      |                       |          |
| Hz                     | 60 Phase | 3            | Locked-rotor Torque                      |  | 72.2 LB-FT      |                       |          |
| NEMA Design Code       |          | A            | KVA Code                                 |  | K               | Starting Current      | 53.5 A   |
| Service Factor (S.F.)  |          | 1.15         | No-load Current                          |  | 5.53 A          |                       |          |
| NEMA Nom. Eff.         |          | 86.5         | Power Factor                             |  | 61              | Line-line Res. @ 25°C | 1.6349 Ω |
| Rating - Duty          |          | 40C AMB-CONT | Temp. Rise @ Rated Load                  |  | 42°C            |                       |          |
| S.F. Amps              |          | 19/9.5       | Temp. Rise @ S.F. Load                   |  | 50°C            |                       |          |
|                        |          |              | Locked-rotor Power Factor                |  | 27.3            |                       |          |
|                        |          |              | Rotor inertia                            |  | 4.19 lb-ft²     |                       |          |

**Load Characteristics 460 V, 60 Hz, 5 HP**

| % of Rated Load | 25    | 50    | 75    | 100  | 125   | 150   | S.F. |
|-----------------|-------|-------|-------|------|-------|-------|------|
| Power Factor    | 26    | 42    | 54    | 61   | 66    | 70    | 64   |
| Efficiency      | 78.6  | 86    | 87.9  | 88.2 | 87.6  | 86.6  | 87.8 |
| Speed           | 896.5 | 893.4 | 889.8 | 886  | 882.1 | 877.6 | 884  |
| Line amperes    | 5.8   | 6.45  | 7.42  | 8.62 | 10    | 11.7  | 9.45 |

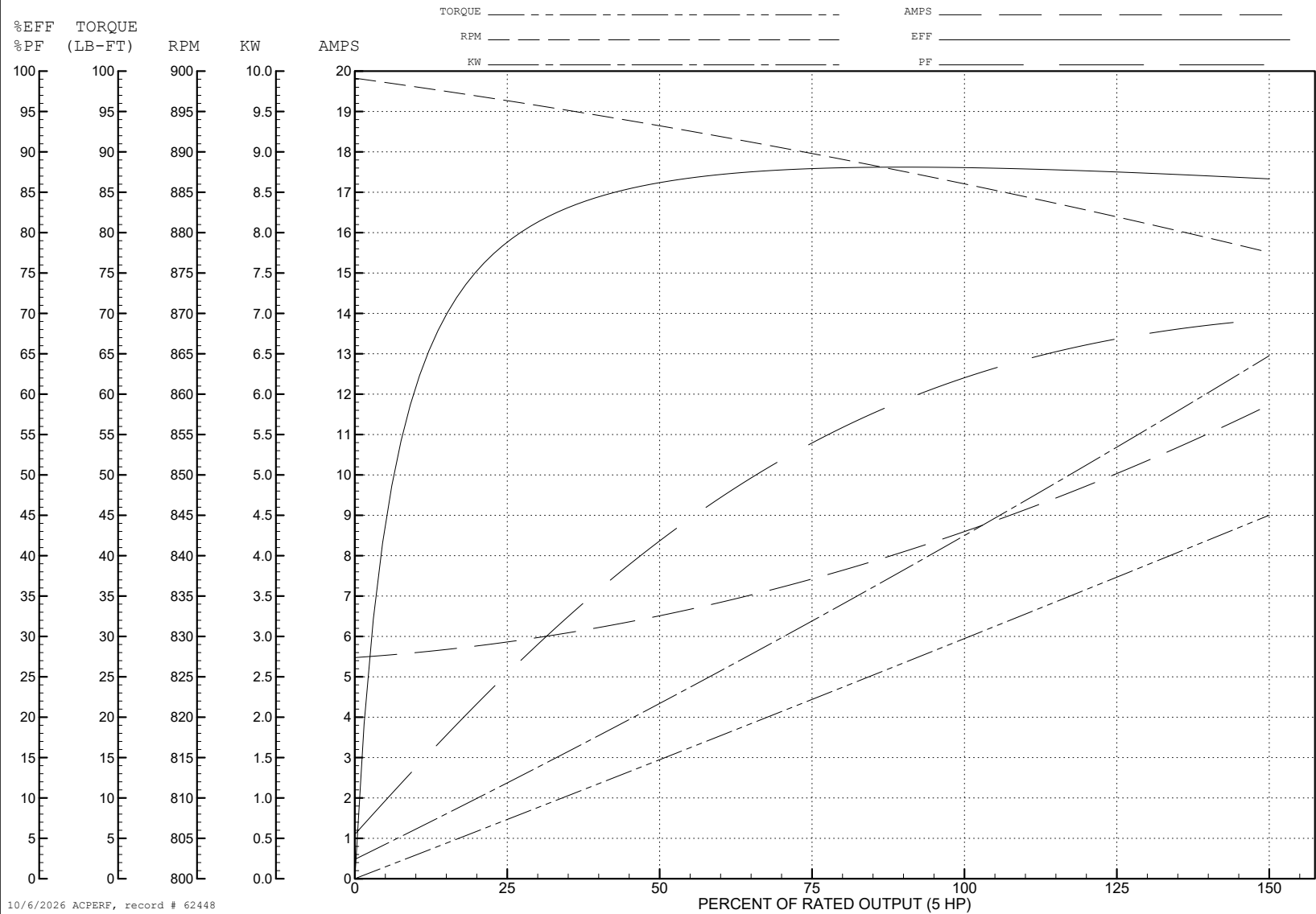
ABB Motors and Mechanical Inc.

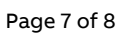
WINDING # 09WGT414

Typical performance - not guaranteed values.

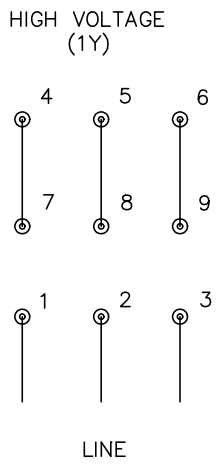
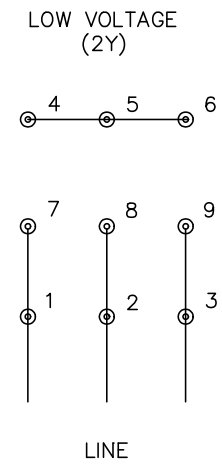
5 HP 3 PH 60 HZ 880 RPM 460 V 0952M

TORQUES (LB-FT): PO=82 PU=46.8 LR=72.2 LRA=53.5





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 |
| S00000                                    |         | FILE: AAA00005140       | MDL: -       |
|                                           |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005