

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP2276T

7.5HP, 1180RPM, 3PH, 60HZ, 254T, 0954M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                           |
| <b>Frame</b>                          | 254T                                                           |
| <b>Frame Material</b>                 | Iron                                                           |
| <b>Frequency</b>                      | 60.00 Hz                                                       |
| <b>Haz Area Class and Group</b>       | CLI GP A,B,C,D                                                 |
| <b>Haz Area Division</b>              | Division II                                                    |
| <b>Motor Letter Type</b>              | Three Phase                                                    |
| <b>Output @ Frequency</b>             | 7.500 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>    | 1.0                                                            |
| <b>Current @ Voltage</b>              | 25.000 A @ 208.0 V<br>21.400 A @ 230.0 V<br>10.700 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                              |
| <b>Drip Cover</b>                     | No Drip Cover                                                  |
| <b>Duty Rating</b>                    | CONT                                                           |
| <b>Efficiency @ 100% Load</b>         | 91.0 %                                                         |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AZ         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 09J371     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 09WGX827   |
| <b>Layout</b>       | 09LYJ371   |
| <b>Eff. date</b>    | 09-16-2025 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#12       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 08-29-2010 |

| Enclosure Modification        | Severe Duty Features        |
|-------------------------------|-----------------------------|
| Feedback Device               | NO FEEDBACK                 |
| Front Face Code               | Standard                    |
| Front Shaft Indicator         | None                        |
| Haz Area Temp Code            | T3C                         |
| Heater Indicator              | No Heater                   |
| High Voltage Full Load Amps   | 10.7 a                      |
| Insulation Class              | F                           |
| Inverter Code                 | Inverter Duty               |
| KVA Code                      | J                           |
| Lifting Lugs                  | Standard Lifting Lugs       |
| Locked Bearing Indicator      | Locked Bearing              |
| Max Speed                     | 1800 rpm                    |
| Motor Lead Exit               | Ko Box                      |
| Motor Lead Quantity/Wire Size | 9 @ 12 AWG                  |
| Motor Lead Termination        | Flying Leads                |
| Motor Standards               | NEMA                        |
| Motor Type                    | 0954M                       |
| Mounting Arrangement          | F1                          |
| Number of Poles               | 6                           |
| Overall Length                | 24.78 IN                    |
| Power Factor                  | 71                          |
| Product Family                | Super-E Chemical Processing |
| Pulley End Bearing Type       | Ball                        |
| Pulley Face Code              | Standard                    |
| Pulley Shaft Indicator        | Standard                    |
| Rodent Screen                 | None                        |
| Service Factor                | 1.15                        |
| Shaft Diameter                | 1.625 IN                    |
| Shaft Extension Location      | Pulley End                  |
| Shaft Ground Indicator        | No Shaft Grounding          |
| Shaft Rotation                | Reversible                  |
| Shaft Slinger Indicator       | Shaft Slinger               |
| Speed                         | 1180 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**
**NP3995ABAL**

|                           |  |         |                             |            |      |           |      |        |               |                  |        |                       |      |                  |                |          |      |      |     |             |  |               |  |        |  |     |   |
|---------------------------|--|---------|-----------------------------|------------|------|-----------|------|--------|---------------|------------------|--------|-----------------------|------|------------------|----------------|----------|------|------|-----|-------------|--|---------------|--|--------|--|-----|---|
| CAT #                     |  |         |                             | ECP2276T   |      |           |      | SER    |               |                  |        | CC                    |      |                  |                | 010A     |      |      |     |             |  |               |  |        |  |     |   |
| SPEC                      |  |         |                             | 09J371X827 |      |           |      | RATING |               |                  |        | 40C AMB-CONT          |      |                  |                |          |      |      |     |             |  |               |  |        |  |     |   |
| HZ                        |  | VOLTS   |                             |            |      | AMPS      |      |        |               | RPM              |        | HP                    |      | CODE             |                | SF       |      | DES  |     | PF          |  | NEMA NOM. EFF |  |        |  |     |   |
| 60                        |  | 230/460 |                             |            |      | 21.4/10.7 |      |        |               | 1180             |        | 7.5                   |      | J                |                | 1.15     |      | A    |     | 71 %        |  | 91 %          |  |        |  |     |   |
|                           |  |         |                             |            |      |           |      |        |               |                  |        |                       |      |                  |                |          |      |      |     | % %         |  |               |  |        |  |     |   |
| PH                        |  | 3       | CL                          |            | F    | MAX RPM   |      | 1800   | MAX CORR KVAR |                  |        |                       | 4.15 |                  | USABLE AT 208V |          |      |      | N/A |             |  |               |  |        |  |     |   |
| IP55                      |  |         | FR                          |            | 254T |           | ENCL |        | TEFC          |                  | DE BRG |                       | 6309 |                  | ODE BRG        |          | 6309 |      |     |             |  |               |  |        |  |     |   |
| GREASE                    |  |         | POLYREX EM                  |            |      |           |      |        |               |                  |        |                       |      |                  | MTR WT         |          | 337  |      | LBS |             |  |               |  |        |  |     |   |
| USABLE AT                 |  |         | 50HZ 5HP 190/380V 18.6/9.3A |            |      |           |      |        |               |                  |        |                       |      |                  | SF1.0          |          |      |      |     |             |  |               |  |        |  |     |   |
|                           |  |         |                             |            |      |           |      |        |               |                  |        |                       |      |                  |                |          |      |      |     |             |  |               |  |        |  |     |   |
|                           |  |         |                             |            |      |           |      |        |               |                  |        |                       |      |                  |                |          |      |      |     |             |  |               |  |        |  |     |   |
|                           |  |         |                             |            |      |           |      |        |               |                  |        |                       |      |                  |                |          |      |      |     |             |  |               |  |        |  |     |   |
| CL I DIV 2 GRPS A,B,C,D   |  |         |                             |            |      |           |      |        |               |                  |        |                       |      | CL I ZONE 2 GRPS |                |          |      |      |     | IIA,IIB,IIC |  |               |  | TEMP T |  | 160 | C |
| 1.0 SF ON PWM INVERTER    |  |         |                             |            |      |           |      | POWER  |               |                  |        | INV TEMP CL           |      |                  |                | 180      |      | C    |     |             |  |               |  |        |  |     |   |
| CHP                       |  | 60-90   |                             | HZ         |      | 1.5:1     |      | CT     |               | 1.0-60           |        | HZ                    |      | 60:1             |                | VT       |      | 0-60 |     | HZ          |  | 1000:1        |  |        |  |     |   |
| SPACE HEATER LEADS H1-H2: |  |         |                             |            |      |           |      |        |               | TIE LIKE NUMBERS |        |                       |      |                  |                | TOGETHER |      |      |     |             |  |               |  |        |  |     |   |
| V                         |  |         |                             | A          |      |           |      | W      |               |                  |        | MAX SPACE HEATER TEMP |      |                  |                |          |      |      |     |             |  |               |  |        |  |     |   |

**AC Induction Motor Performance Data**

Record # 47260

Typical performance - not guaranteed values

| Winding: 09WGX827-R040 |    |              | Type: 0954M  |                                          | Enclosure: TEFC       |                |        |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------------|----------------|--------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |        |
| Rated Output (HP)      |    | 7.5          |              | Full Load Torque                         |                       | 32.4 LB-FT     |        |
| Volts                  |    | 230/460      |              | Start Configuration                      |                       | direct on line |        |
| Full Load Amps         |    | 21.4/10.7    |              | Breakdown Torque                         |                       | 99.2 LB-FT     |        |
| R.P.M.                 |    | 1180         |              | Pull-up Torque                           |                       | 39.4 LB-FT     |        |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                       | 57.8 LB-FT     |        |
| NEMA Design Code       |    | A            | KVA Code     | J                                        | Starting Current      |                | 69.7 A |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                       | 5.84 A         |        |
| NEMA Nom. Eff.         |    | 91           | Power Factor | 71                                       | Line-line Res. @ 25°C |                | 0.89 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                       | 31°C           |        |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                       | 36°C           |        |
|                        |    |              |              | Rotor inertia                            |                       | 4.34 LB-FT2    |        |

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 32   | 52   | 63   | 71   | 73   | 75   | 72   |
| Efficiency      | 83   | 89.7 | 91.5 | 91.5 | 91.8 | 91.2 | 91.9 |
| Speed           | 1196 | 1192 | 1189 | 1184 | 1179 | 1173 | 1181 |
| Line amperes    | 6.34 | 7.49 | 8.87 | 10.7 | 12.9 | 15.7 | 12   |

ABB Motors and Mechanical Inc.

WINDING # 09WGX827

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1180 RPM 460 V 0954M

TORQUES (LB-FT): PO=99.2 PU=39.4 LR=57.8 LRA=69.7





