

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM3661T

32M 4P TEFC HOR 182T SUPER E

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 182T                                                        |
| <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>             | 3.000 HP @ 60 HZ                                            |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| <b>Agency Approvals</b>               | CURUSEEV<br>NEMA PREMIUM                                    |
| <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 @ 208.0 V<br>8.200 A @ 230.0 V<br>4.100 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                                   |
| <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>    | 4.1 a                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | E          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 06C101     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 06WGX181   |
| <b>Layout</b>       | 06LYC101   |
| <b>Eff. date</b>    | 08-05-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-14-2018 |

|                               |                       |
|-------------------------------|-----------------------|
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| IP Rating                     | NONE                  |
| KVA Code                      | J                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | No Locked Bearing     |
| Motor Lead Quantity/Wire Size | 9 @ 16 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 0632M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 15.24 IN              |
| Power Factor                  | 77                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| RoHS Status                   | ROHS COMPLIANT        |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.125 IN              |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 1755 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**

| NP3441LUA                  |              |      |      |     |   |       |   |  |       |
|----------------------------|--------------|------|------|-----|---|-------|---|--|-------|
| CAT.NO.                    | EM3661T      |      |      |     |   |       |   |  |       |
| SPEC                       | 06C101X181G4 |      |      |     |   |       |   |  |       |
| HP                         | 3            |      |      |     |   |       |   |  |       |
| VOLTS                      | 230/460      |      |      |     |   |       |   |  |       |
| AMPS                       | 8.2/4.1      |      |      |     |   |       |   |  |       |
| RPM                        | 1755         |      |      |     |   |       |   |  |       |
| FRAME                      | 182T         |      | HZ   | 60  |   | PH    | 3 |  |       |
| SF                         | 1.15         | CODE | J    | DES | B | CLASS | F |  |       |
| NEMA NOM. EFF              | 89.5         | PF   | 77   |     |   |       |   |  |       |
| RATING                     | 40C AMB-CONT |      |      |     |   |       |   |  |       |
| CC                         | 010A         |      |      |     |   |       |   |  |       |
| ENCL                       | TEFC         | SER  |      |     |   |       |   |  |       |
| DE                         | 6206         | ODE  | 6205 |     |   |       |   |  |       |
| VPWM INVERTER READY        | SFA 9.2/4.6  |      |      |     |   |       |   |  |       |
| CT6-60H(10:1)VT3-60H(20:1  |              |      |      |     |   |       |   |  |       |
| 50HZ 3HP 190/380V 9.6/4.8A |              |      |      |     |   |       |   |  | SF1.0 |

**Accessories**

| Part number | Description | Multiplier |
|-------------|-------------|------------|
| 36-1749     | C FACE KIT  | A8         |

**AC Induction Motor Performance Data**

Record # 35861

Typical performance - not guaranteed values

| Winding: 06WGX181-R006 |  |         | Type: 0632M                              |  | Enclosure: TEFC         |                       |            |        |
|------------------------|--|---------|------------------------------------------|--|-------------------------|-----------------------|------------|--------|
| Nameplate Data         |  |         | 460 V, 60 Hz:<br>High Voltage Connection |  |                         |                       |            |        |
| Rated Output (HP)      |  | 3       | Full Load Torque                         |  | 9.06 LB-FT              |                       |            |        |
| Volts                  |  | 230/460 | Start Configuration                      |  | direct on line          |                       |            |        |
| Full Load Amps         |  | 8.2/4.1 | Breakdown Torque                         |  | 33.1 LB-FT              |                       |            |        |
| R.P.M.                 |  | 1755    | Pull-up Torque                           |  | 18.2 LB-FT              |                       |            |        |
| Hz                     |  | 60      | Phase                                    |  | 3                       | Locked-rotor Torque   | 20.4 LB-FT |        |
| NEMA Design Code       |  | B       | KVA Code                                 |  | J                       | Starting Current      |            | 29.8 A |
| Service Factor (S.F.)  |  | 1.15    | No-load Current                          |  | 2.14 A                  |                       |            |        |
| NEMA Nom. Eff.         |  | 89.5    | Power Factor                             |  | 77                      | Line-line Res. @ 25°C |            | 3.94 Ω |
| Rating - Duty          |  | 40C     | AMB-CONT                                 |  | Temp. Rise @ Rated Load |                       | 35°C       |        |
| S.F. Amps              |  |         | Temp. Rise @ S.F. Load                   |  | 42°C                    |                       |            |        |
|                        |  |         | Locked-rotor Power Factor                |  | 41.4                    |                       |            |        |
|                        |  |         | Rotor inertia                            |  | 0.298 lb-ft²            |                       |            |        |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 38   | 58   | 70   | 77   | 81   | 83   | 79   |
| Efficiency      | 83.2 | 88.3 | 89.8 | 89.7 | 89.1 | 87.7 | 89.3 |
| Speed           | 1790 | 1779 | 1769 | 1757 | 1744 | 1730 | 1749 |
| Line amperes    | 2.34 | 2.79 | 3.39 | 4.1  | 4.91 | 5.86 | 4.59 |

ABB Motors and Mechanical Inc.

WINDING # 06WGX181

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1755 RPM 460 V 0632M

TORQUES (LB-FT): PO=33.1 PU=18.2 LR=20.4 LRA=29.8





