

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEWDM3705T

3HP, 865RPM, 3PH, 60HZ, 215TC, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                         |
|---------------------------------------|-----------------------------------------|
| <b>Enclosure</b>                      | TEFC                                    |
| <b>Frame</b>                          | 215TC                                   |
| <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>  | 900 RPM @ 60 HZ                         |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ      |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<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>              | 10.400 A @ 230.0 V<br>5.200 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>         | 86.5 %                                  |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated               |
| <b>Feedback Device</b>                | NO FEEDBACK                             |
| <b>Heater Indicator</b>               | No Heater                               |
| <b>High Voltage Full Load Amps</b>    | 5.2 a                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | B          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 37WGT944   |
| <b>Layout</b>       | 37LYE599   |
| <b>Eff. date</b>    | 02-14-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 08         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-04-2019 |

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Insulation Class</b>           | <b>F</b>                     |
| <b>Inverter Code</b>              | <b>Not Inverter</b>          |
| <b>KVA Code</b>                   | <b>H</b>                     |
| <b>Lifting Lugs</b>               | <b>Standard Lifting Lugs</b> |
| <b>Locked Bearing Indicator</b>   | <b>Locked Bearing</b>        |
| <b>Motor Lead Termination</b>     | <b>Flying Leads</b>          |
| <b>Motor Standards</b>            | <b>NEMA</b>                  |
| <b>Motor Type</b>                 | <b>3744M</b>                 |
| <b>Mounting Arrangement</b>       | <b>F1</b>                    |
| <b>Number of Poles</b>            | <b>8</b>                     |
| <b>Overall Length</b>             | <b>19.78 IN</b>              |
| <b>Power Factor</b>               | <b>62</b>                    |
| <b>Product Family</b>             | <b>Wash Down</b>             |
| <b>Pulley Face Code</b>           | <b>C-Face</b>                |
| <b>Rodent Screen</b>              | <b>None</b>                  |
| <b>Service Factor</b>             | <b>1.15</b>                  |
| <b>Shaft Diameter</b>             | <b>1.375 IN</b>              |
| <b>Shaft Ground Indicator</b>     | <b>No Shaft Grounding</b>    |
| <b>Shaft Rotation</b>             | <b>Reversible</b>            |
| <b>Speed</b>                      | <b>865 rpm</b>               |
| <b>Speed Code</b>                 | <b>Single Speed</b>          |
| <b>Starting Method</b>            | <b>Direct on line</b>        |
| <b>Thermal Device - Bearing</b>   | <b>None</b>                  |
| <b>Thermal Device - Winding</b>   | <b>None</b>                  |
| <b>Vibration Sensor Indicator</b> | <b>No Vibration Sensor</b>   |
| <b>Winding Thermal 1</b>          | <b>None</b>                  |
| <b>Winding Thermal 2</b>          | <b>None</b>                  |

Nameplate

| NP1669L      |                       |      |     |      |   |       |    |   |  |
|--------------|-----------------------|------|-----|------|---|-------|----|---|--|
| CAT.NO.      | CEWDM3705T            |      |     |      |   |       |    |   |  |
| SPEC.        | 37-0000-0175          |      |     |      |   |       |    |   |  |
| HP           | 3                     |      |     |      |   |       |    |   |  |
| VOLTS        | 230/460               |      |     |      |   |       |    |   |  |
| AMP          | 10.4/5.2              |      |     |      |   |       |    |   |  |
| RPM          | 865                   |      |     |      |   |       |    |   |  |
| FRAME        | 215TC                 |      | HZ  | 60   |   |       | PH | 3 |  |
| SER.F.       | 1.15                  | CODE | H   | DES  | B | CLASS | F  |   |  |
| NEMA-NOM-EFF | 86.5                  | PF   | 62  |      |   |       |    |   |  |
| RATING       | 40C AMB-CONT          |      |     |      |   |       |    |   |  |
| CC           | 010A                  |      |     |      |   |       |    |   |  |
| DE           | 6307                  |      | ODE | 6206 |   |       |    |   |  |
| ENCL         | TEFC                  | SN   |     |      |   |       |    |   |  |
| BLANK        | 10:1CT, 10:1VT,1.00SF |      |     |      |   |       |    |   |  |

**AC Induction Motor Performance Data**

Record # 49977

Typical performance - not guaranteed values

| Winding: 37WGT944-R007 |  |          | Type: 3744M                              |  | Enclosure: TEFC         |                       |            |
|------------------------|--|----------|------------------------------------------|--|-------------------------|-----------------------|------------|
| Nameplate Data         |  |          | 460 V, 60 Hz:<br>High Voltage Connection |  |                         |                       |            |
| Rated Output (HP)      |  | 3        | Full Load Torque                         |  | 18.3 LB-FT              |                       |            |
| Volts                  |  | 230/460  | Start Configuration                      |  | direct on line          |                       |            |
| Full Load Amps         |  | 10.4/5.2 | Breakdown Torque                         |  | 49 LB-FT                |                       |            |
| R.P.M.                 |  | 865      | Pull-up Torque                           |  | 27.6 LB-FT              |                       |            |
| Hz                     |  | 60       | Phase                                    |  | 3                       | Locked-rotor Torque   | 30.6 LB-FT |
| NEMA Design Code       |  | B        | KVA Code                                 |  | H                       | Starting Current      | 25.6 A     |
| Service Factor (S.F.)  |  | 1.15     | No-load Current                          |  | 3.21 A                  |                       |            |
| NEMA Nom. Eff.         |  | 86.5     | Power Factor                             |  | 62                      | Line-line Res. @ 25°C | 3.5 Ω      |
| Rating - Duty          |  | 40C      | AMB-CONT                                 |  | Temp. Rise @ Rated Load |                       | 34°C       |
| S.F. Amps              |  |          | Temp. Rise @ S.F. Load                   |  | 41°C                    |                       |            |
|                        |  |          | Locked-rotor Power Factor                |  | 33.3                    |                       |            |
|                        |  |          | Rotor inertia                            |  | 1.09 LB-FT2             |                       |            |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150 | S.F. |
|-----------------|------|------|------|------|------|-----|------|
| Power Factor    | 27   | 43   | 55   | 62   | 66   | 69  | 64   |
| Efficiency      | 78.9 | 85.6 | 87   | 86.8 | 85.6 | 83  | 86.1 |
| Speed           | 891  | 884  | 875  | 865  | 853  | 840 | 858  |
| Line amperes    | 3.39 | 3.82 | 4.45 | 5.25 | 6.18 | 7.3 | 5.81 |

ABB Motors and Mechanical Inc.

WINDING # 37WGT944

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 865 RPM 460 V 3744M

TORQUES (LB-FT): PO=49 PU=27.6 LR=30.6 LRA=25.6





