

# ABB BALDOR RELIANCE III

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## Customer information packet

### EBM3248T

5HP, 1750RPM, 3PH, 60HZ, 184T, 3640M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                                          |
| <b>Frame</b>                          | 184T                                                          |
| <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>             | 5.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                             |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                              |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                            |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<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>Brake Torque</b>                   | 15.0 lb-ft                                                    |
| <b>Current @ Voltage</b>              | 13.600 A @ 208.0 V<br>6.400 A @ 460.0 V<br>12.800 A @ 230.0 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 Face Code</b>                | Brake Mounting                                                |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | F          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36B021     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGY404   |
| <b>Layout</b>       | 36LYB021   |
| <b>Eff. date</b>    | 05-01-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-12-2010 |

|                               |                       |
|-------------------------------|-----------------------|
| Front Shaft Indicator         | None                  |
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 6.4 a                 |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | J                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | No Locked Bearing     |
| Motor Lead Exit               | Ko Box                |
| Motor Lead Quantity/Wire Size | 9 @ 16 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 3640M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 21.06 IN              |
| Power Factor                  | 81                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.125 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | No Slinger            |
| Speed                         | 1750 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**

| NP1259L      |              |      |     |      |   |    |   |    |   |  |  |
|--------------|--------------|------|-----|------|---|----|---|----|---|--|--|
| CAT.NO.      | EBM3248T     |      |     |      |   |    |   |    |   |  |  |
| SPEC.        | 36B021Y404G2 |      |     |      |   |    |   |    |   |  |  |
| HP           | 5            |      |     |      |   |    |   |    |   |  |  |
| VOLTS        | 230/460      |      |     |      |   |    |   |    |   |  |  |
| AMP          | 12.8/6.4     |      |     |      |   |    |   |    |   |  |  |
| RPM          | 1750         |      |     |      |   |    |   |    |   |  |  |
| FRAME        | 184T         |      | HZ  | 60   |   |    |   | PH | 3 |  |  |
| SER.F.       | 1.15         | CODE | J   | DES  | B | CL | F |    |   |  |  |
| NEMA-NOM-EFF | 89.5         | PF   | 81  |      |   |    |   |    |   |  |  |
| RATING       | 40C AMB-CONT |      |     |      |   |    |   |    |   |  |  |
| CC           | 010A         |      |     |      |   |    |   |    |   |  |  |
| DE           | 6206         |      | ODE | 6205 |   |    |   |    |   |  |  |
| ENCL         | OPEN         | SN   |     |      |   |    |   |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 53376

Typical performance - not guaranteed values

| Winding: 36WGY404-R037 |    |          | Type: 3640M                              |                         | Enclosure: OPSB |          |
|------------------------|----|----------|------------------------------------------|-------------------------|-----------------|----------|
| Nameplate Data         |    |          | 460 V, 60 Hz:<br>High Voltage Connection |                         |                 |          |
| Rated Output (HP)      |    | 5        | Full Load Torque                         |                         | 15 LB-FT        |          |
| Volts                  |    | 230/460  | Start Configuration                      |                         | direct on line  |          |
| Full Load Amps         |    | 12.8/6.4 | Breakdown Torque                         |                         | 52 LB-FT        |          |
| R.P.M.                 |    | 1750     | Pull-up Torque                           |                         | 30 LB-FT        |          |
| Hz                     | 60 | Phase    | 3                                        | Locked-rotor Torque     |                 | 32 LB-FT |
| NEMA Design Code       |    | B        | KVA Code                                 | Starting Current        |                 | 48 A     |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                         | 3.2 A           |          |
| NEMA Nom. Eff.         |    | 89.5     | Power Factor                             | Line-line Res. @ 25°C   |                 | 2.5 Ω    |
| Rating - Duty          |    | 40C      | AMB-CONT                                 | Temp. Rise @ Rated Load |                 | 38°C     |
| S.F. Amps              |    |          | Temp. Rise @ S.F. Load                   |                         | 46°C            |          |
|                        |    |          | Locked-rotor Power Factor                |                         | 52              |          |
|                        |    |          | Rotor inertia                            |                         | 0.372 LB-FT2    |          |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 38   | 61   | 73   | 81   | 84   | 86   | 83   |
| Efficiency      | 85   | 89.8 | 90.5 | 90   | 88.8 | 87.3 | 89.3 |
| Speed           | 1786 | 1773 | 1761 | 1747 | 1732 | 1715 | 1738 |
| Line amperes    | 3.5  | 4.2  | 5.2  | 6.4  | 7.8  | 9.3  | 7.2  |

ABB Motors and Mechanical Inc.

WINDING # 36WGY404

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1750 RPM 460 V 3640M

TORQUES (LB-FT) : PO=52 PU=30 LR=32 LRA=48





