

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM3616T

7.5HP, 3488RPM, 3PH, 60HZ, 184T, 3640M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                     |
| <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>             | 7.500 HP @ 60 HZ                         |
| <b>Phase</b>                          | 3                                        |
| <b>Synchronous Speed @ Frequency</b>  | 3600 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>              | 22.600 A @ 230.0 V<br>11.300 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>         | 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>    | 11.3 a                                   |
| <b>Insulation Class</b>               | F                                        |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | B          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36G271     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGZ654   |
| <b>Layout</b>       | 36LYG271   |
| <b>Eff. date</b>    | 09-14-2026 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 9#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 11-07-2025 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Inverter Code</b>                 | Inverter Ready        |
| <b>KVA Code</b>                      | L                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing     |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 16 AWG            |
| <b>Motor Lead Termination</b>        | Flying Leads          |
| <b>Motor Standards</b>               | NEMA                  |
| <b>Motor Type</b>                    | 3640M                 |
| <b>Mounting Arrangement</b>          | F1                    |
| <b>Number of Poles</b>               | 2                     |
| <b>Overall Length</b>                | 18.04 IN              |
| <b>Power Factor</b>                  | 86                    |
| <b>Product Family</b>                | General Purpose       |
| <b>Pulley End Bearing Type</b>       | Ball                  |
| <b>Pulley Face Code</b>              | Standard              |
| <b>Pulley Shaft Indicator</b>        | Standard              |
| <b>Rodent Screen</b>                 | None                  |
| <b>Service Factor</b>                | 1.15                  |
| <b>Shaft Diameter</b>                | 1.125 IN              |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding    |
| <b>Shaft Rotation</b>                | Reversible            |
| <b>Shaft Slinger Indicator</b>       | No Slinger            |
| <b>Speed</b>                         | 3488 rpm              |
| <b>Speed Code</b>                    | Single Speed          |
| <b>Starting Method</b>               | Direct on line        |
| <b>Thermal Device - Bearing</b>      | None                  |
| <b>Thermal Device - Winding</b>      | None                  |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor   |
| <b>Winding Thermal 1</b>             | None                  |
| <b>Winding Thermal 2</b>             | None                  |

**Nameplate**

| NP3441LUA                        |                              |             |            |            |   |              |       |  |  |
|----------------------------------|------------------------------|-------------|------------|------------|---|--------------|-------|--|--|
| <b>CAT.NO.</b>                   | EM3616T                      |             |            |            |   |              |       |  |  |
| <b>SPEC</b>                      | 36G271Z654                   |             |            |            |   |              |       |  |  |
| <b>HP</b>                        | 7.5                          |             |            |            |   |              |       |  |  |
| <b>VOLTS</b>                     | 230/460                      |             |            |            |   |              |       |  |  |
| <b>AMPS</b>                      | 17.6/8.8                     |             |            |            |   |              |       |  |  |
| <b>RPM</b>                       | 3490                         |             |            |            |   |              |       |  |  |
| <b>FRAME</b>                     | 184T                         |             | <b>HZ</b>  | 60         |   | <b>PH</b>    | 3     |  |  |
| <b>SF</b>                        | 1.15                         | <b>CODE</b> | L          | <b>DES</b> | A | <b>CLASS</b> | F     |  |  |
| <b>NEMA NOM. EFF</b>             | 89.5                         | <b>PF</b>   | 86         |            |   |              |       |  |  |
| <b>RATING</b>                    | 40C AMB-CONT                 |             |            |            |   |              |       |  |  |
| <b>CC</b>                        | 010A                         |             |            |            |   |              |       |  |  |
| <b>ENCL</b>                      | TEFC                         | <b>SER</b>  |            |            |   |              |       |  |  |
| <b>DE</b>                        | 6206                         |             | <b>ODE</b> | 6205       |   |              |       |  |  |
| <b>VPWM INVERTER READY</b>       |                              |             |            |            |   |              |       |  |  |
| <b>CT6-60H(10:1)VT3-60H(20:1</b> |                              |             |            |            |   |              |       |  |  |
|                                  | 50HZ 7.5HP 190/380V 21/10.5A |             |            |            |   |              | SF1.0 |  |  |

**AC Induction Motor Performance Data**

Record # 115765

Typical performance - not guaranteed values

| Winding: 36WGZ654-R001 |    |              | Type: 3640M                              |                     | Enclosure: TEFC           |            |      |
|------------------------|----|--------------|------------------------------------------|---------------------|---------------------------|------------|------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |      |
| Rated Output (HP)      |    | 7.5          | Full Load Torque                         |                     | 11.39 LB-FT               |            |      |
| Volts                  |    | 208-230/460  | Start Configuration                      |                     | direct on line            |            |      |
| Full Load Amps         |    | 25-22.6/11.3 | Breakdown Torque                         |                     | 76.7 LB-FT                |            |      |
| R.P.M.                 |    | 3488         | Pull-up Torque                           |                     | 45.1 LB-FT                |            |      |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque |                           | 57.2 LB-FT |      |
| NEMA Design Code       |    | A            | KVA Code                                 |                     | L                         |            |      |
| Service Factor (S.F.)  |    | 1.15         | No-load Current                          |                     | 3.6 A                     |            |      |
| NEMA Nom. Eff.         |    | 89.5         | Power Factor                             |                     | 86                        |            |      |
| Rating - Duty          |    | 40C          | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 75°C |
| S.F. Amps              |    |              |                                          |                     | Temp. Rise @ S.F. Load    |            | 93°C |
|                        |    |              |                                          |                     | Locked-rotor Power Factor |            | 50   |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 51     | 73     | 83     | 89     | 91     | 92     | 90   |
| Efficiency      | 84.8   | 89.7   | 90.4   | 90     | 88.9   | 87.5   | 89.3 |
| Speed           | 3571.6 | 3545.5 | 3517.7 | 3488.2 | 3456.6 | 3423.4 | 3469 |
| Line amperes    | 4.17   | 5.41   | 7.06   | 8.89   | 10.9   | 13     | 10.1 |

ABB Motors and Mechanical Inc.

WINDING # 36WGZ654

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3488 RPM 460 V 3640M

TORQUES (LB-FT): PO=76.7 PU=45.1 LR=57.2 LRA=109





