

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM3211T-57

3HP, 1450RPM, 3PH, 50HZ, 182T, 3630M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                               |
|---------------------------------------|-----------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                          |
| <b>Frame</b>                          | 182T                                          |
| <b>Frame Material</b>                 | Steel                                         |
| <b>Frequency</b>                      | 50.00 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 @ 50 HZ                              |
| <b>Phase</b>                          | 3                                             |
| <b>Synchronous Speed @ Frequency</b>  | 1500 RPM @ 50 HZ                              |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 50 HZ<br>400.0 V @ 50 HZ            |
| <b>Agency Approvals</b>               | CE<br>CURUS<br>IE3<br>UKCA<br>WEEE<br>C UR US |
| <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>              | 8.400 A @ 230.0 V<br>4.850 A @ 400.0 V        |
| <b>Design Code</b>                    | B                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                 |
| <b>Duty Rating</b>                    | CONT                                          |
| <b>Efficiency @ 100% Load</b>         | 86.7 %                                        |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                     |
| <b>Feedback Device</b>                | NO FEEDBACK                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | F          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36B001     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 36WGR999   |
| <b>Layout</b>       | 36LYB001   |
| <b>Eff. date</b>    | 10-30-2025 |
| <b>CD Diagram</b>   | CD0022     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 6#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 12-22-2015 |

|                                      |                    |
|--------------------------------------|--------------------|
| <b>Front Face Code</b>               | Standard           |
| <b>Front Shaft Indicator</b>         | None               |
| <b>Heater Indicator</b>              | No Heater          |
| <b>High Voltage Full Load Amps</b>   | 4.9 a              |
| <b>Insulation Class</b>              | F                  |
| <b>Inverter Code</b>                 | Inverter Ready     |
| <b>IP Rating</b>                     | NONE               |
| <b>KVA Code</b>                      | J                  |
| <b>Lifting Lugs</b>                  | No Lifting Lugs    |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing  |
| <b>Motor Lead Exit</b>               | Ko Box             |
| <b>Motor Lead Quantity/Wire Size</b> | 6 @ 16 AWG         |
| <b>Motor Lead Termination</b>        | Flying Leads       |
| <b>Motor Standards</b>               | NEMA               |
| <b>Motor Type</b>                    | 3630M              |
| <b>Mounting Arrangement</b>          | F1                 |
| <b>Number of Poles</b>               | 4                  |
| <b>Overall Length</b>                | 15.00 IN           |
| <b>Power Factor</b>                  | 76                 |
| <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>RoHS Status</b>                   | ROHS COMPLIANT     |
| <b>Service Factor</b>                | 1.15               |
| <b>Shaft Diameter</b>                | 1.125 IN           |
| <b>Shaft Extension Location</b>      | Pulley End         |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding |
| <b>Shaft Rotation</b>                | Reversible         |
| <b>Shaft Slinger Indicator</b>       | No Slinger         |
| <b>Speed</b>                         | 1450 rpm           |
| <b>Speed Code</b>                    | Single Speed       |
| <b>Starting Method</b>               | 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**

| NP2716L        |                        |      |          |     |      |      |   |    |  |
|----------------|------------------------|------|----------|-----|------|------|---|----|--|
| CAT NO         | EM3211T-57             |      |          |     |      |      |   |    |  |
| SPEC.          | 36B001R999G1           |      |          |     |      |      |   |    |  |
| HP             | 3/2.2KW                |      |          |     |      | PH   | 3 |    |  |
| VOLTS          | 230/400                |      |          |     |      |      |   |    |  |
| AMP            | 8.4/4.85               |      |          |     |      |      |   |    |  |
| R.P.M. (1/MIN) | 1450                   |      |          |     |      |      |   |    |  |
| FRAME          | 182T                   |      | HZ       | 50  |      | I.P. |   | 23 |  |
| SER.F.         | 1.15                   | CODE | J        | DES | B    | CL   |   | F  |  |
| NOM.EFF.       | 86.7                   |      | % (100%) |     |      |      |   |    |  |
| PF             | 76                     |      |          |     |      |      |   |    |  |
| RATING         | 40C AMB-S1 CONT        |      |          |     | CC   |      |   |    |  |
| DE BRG         | 6206                   |      | ODE      |     | 6205 |      |   |    |  |
| ENCL           | OPEN                   | SN   |          |     |      |      |   |    |  |
| BLANK          | IE3-88.1(75%)86.8(50%) |      |          |     |      |      |   |    |  |
|                | IC01 34KG              |      |          |     |      |      |   |    |  |

**AC Induction Motor Performance Data**

Record # 54654

Typical performance - not guaranteed values

| Winding: 36WGR999-R001 |    |          | Type: 3630M                              |                     | Enclosure: OPEN           |            |              |
|------------------------|----|----------|------------------------------------------|---------------------|---------------------------|------------|--------------|
| Nameplate Data         |    |          | 400 V, 50 Hz:<br>High Voltage Connection |                     |                           |            |              |
| Rated Output (HP)      |    | 3        | Full Load Torque                         |                     | 10.8 LB-FT                |            |              |
| Volts                  |    | 230/400  | Start Configuration                      |                     | direct on line            |            |              |
| Full Load Amps         |    | 8.4/4.85 | Breakdown Torque                         |                     | 41 LB-FT                  |            |              |
| R.P.M.                 |    | 1450     | Pull-up Torque                           |                     | 19.5 LB-FT                |            |              |
| Hz                     | 50 | Phase    | 3                                        | Locked-rotor Torque |                           | 24.4 LB-FT |              |
| NEMA Design Code       |    | B        | KVA Code                                 | J                   | Starting Current          |            | 33.3 A       |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                     | 2.58 A                    |            |              |
| NEMA Nom. Eff.         |    | 86.7     | Power Factor                             | 76                  | Line-line Res. @ 25°C     |            | 3.77 Ω       |
| Rating - Duty          |    | 40C      | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 51°C         |
| S.F. Amps              |    |          |                                          |                     | Temp. Rise @ S.F. Load    |            | 62°C         |
|                        |    |          |                                          |                     | Locked-rotor Power Factor |            | 48.4         |
|                        |    |          |                                          |                     | Rotor inertia             |            | 0.279 LB-FT2 |

**Load Characteristics 400 V, 50 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 35   | 56   | 69   | 76   | 81   | 82   | 79   |
| Efficiency      | 80.5 | 86.8 | 88.1 | 87.8 | 86.4 | 84.8 | 87   |
| Speed           | 1489 | 1479 | 1467 | 1456 | 1442 | 1425 | 1448 |
| Line amperes    | 2.79 | 3.29 | 3.97 | 4.85 | 5.78 | 6.95 | 5.41 |

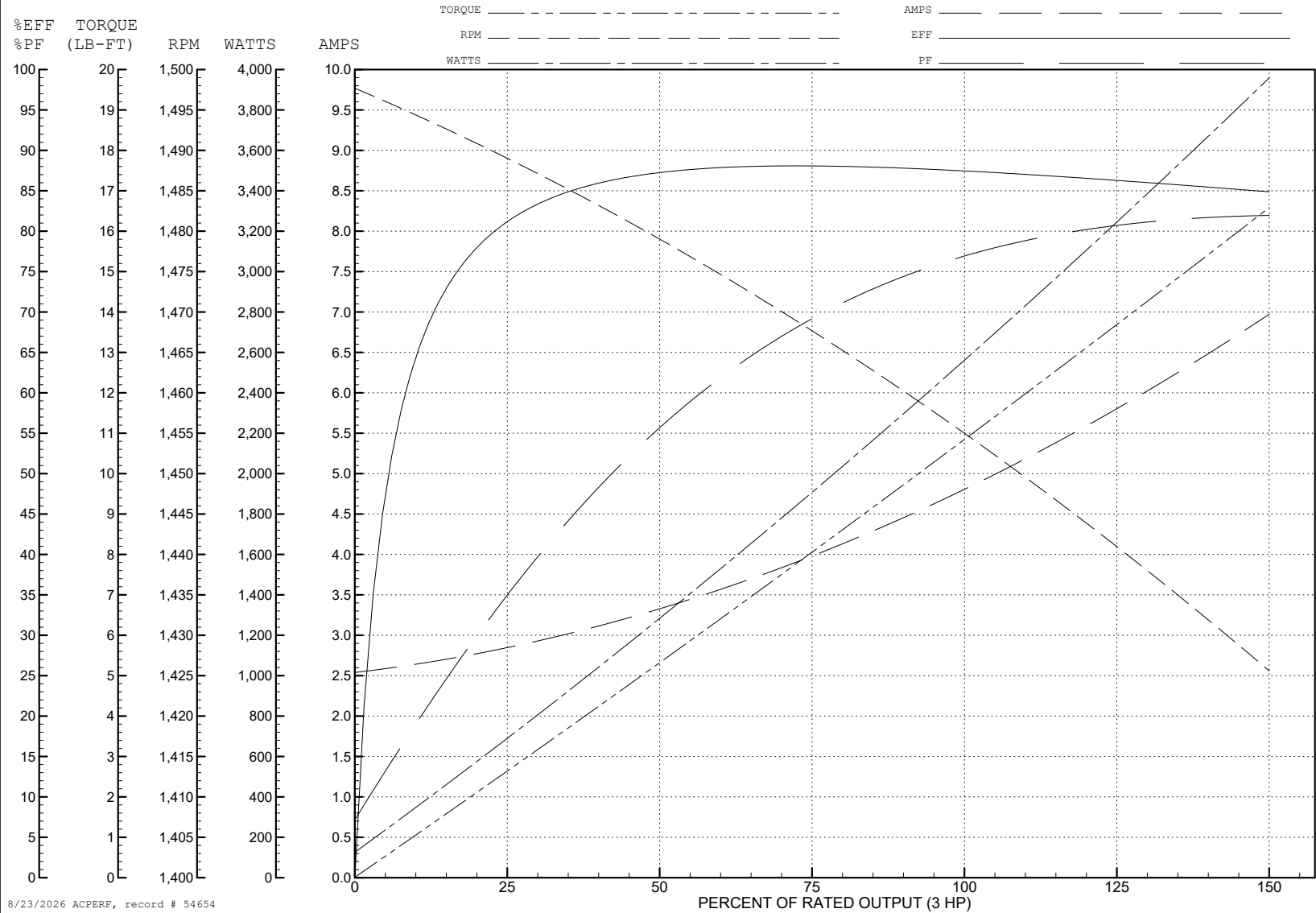
ABB Motors and Mechanical Inc.

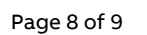
WINDING # 36WGR999

Typical performance - not guaranteed values.

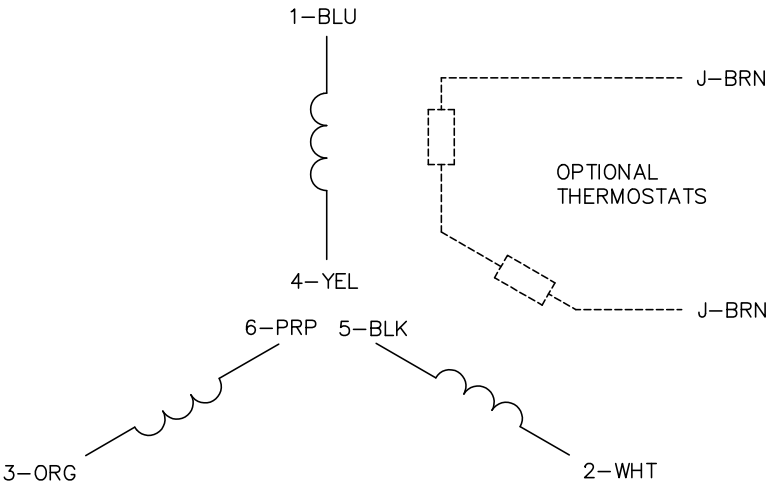
3 HP 3 PH 50 HZ 1450 RPM 400 V 3630M

TORQUES (LB-FT): PO=41 PU=19.5 LR=24.4 LRA=33.3

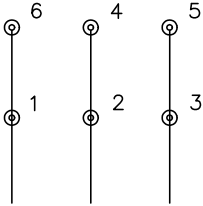




CD0022

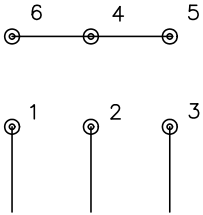


LOW VOLTAGE  
(1D)



LINE

HIGH VOLTAGE  
(1Y)



LINE

- NOTES:
1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
  2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
  3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
  4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: F

BY: JLP

REVISED: 01/21/99 3:54

TDR: 0171435

CD0022

FILE: AAA00005144

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 6 LEADS, DELTA/WYE CONNECTION

CD0022