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# Customer information packet

## EM3613T-5

5HP, 3450RPM, 3PH, 60HZ, 184T, 3630M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                           |
|--------------------------------|-----------------------------------------------------------|
| Enclosure                      | TEFC                                                      |
| Frame                          | 184T                                                      |
| Frame Material                 | Steel                                                     |
| Frequency                      | 60.00 Hz                                                  |
| Haz Area Class and Group       | None                                                      |
| Haz Area Division              | Not Applicable                                            |
| Motor Letter Type              | Three Phase                                               |
| Output @ Frequency             | 5.000 HP @ 60 HZ                                          |
| Phase                          | 3                                                         |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                                          |
| Voltage @ Frequency            | 575.0 V @ 60 HZ                                           |
| Agency Approvals               | CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR<br>CSA EEV |
| Ambient Temperature            | 40 °C                                                     |
| Auxiliary Box                  | NO AUXILLARY BOX                                          |
| Auxiliary Box Lead Termination | None                                                      |
| Base Indicator                 | Rigid                                                     |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                   |
| Blower                         | None                                                      |
| Current @ Voltage              | 4.700 A @ 575.0 V                                         |
| Design Code                    | A                                                         |
| Drip Cover                     | No Drip Cover                                             |
| Duty Rating                    | CONT                                                      |
| Efficiency @ 100% Load         | 88.5 %                                                    |
| Electrically Isolated Bearing  | Not Electrically Isolated                                 |
| Feedback Device                | NO FEEDBACK                                               |
| Front Face Code                | Standard                                                  |
| Front Shaft Indicator          | None                                                      |
| Heater Indicator               | No Heater                                                 |

## Part detail

|              |            |
|--------------|------------|
| Revision     | M          |
| Type         | AC         |
| Mech. spec.  | 36A001     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 36WGS505   |
| Layout       | 36LYA001   |
| Eff. date    | 05-20-2025 |
| CD Diagram   | CD0006     |
| Poles        | 02         |
| Leads        | 3#16       |
| Proprietary  | False      |
| Created date | 08-04-2010 |

|                               |                     |
|-------------------------------|---------------------|
| High Voltage Full Load Amps   | 4.7 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Inverter Ready      |
| KVA Code                      | L                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | No Locked Bearing   |
| Motor Lead Exit               | Ko Box              |
| Motor Lead Quantity/Wire Size | 3 @ 16 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3630M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 2                   |
| Overall Length                | 16.54 IN            |
| Power Factor                  | 91                  |
| 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                         | 3450 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

| NP3441L                   |              |      |     |      |   |    |   |  |  |
|---------------------------|--------------|------|-----|------|---|----|---|--|--|
| CAT.NO.                   | EM3613T-5    |      |     |      |   |    |   |  |  |
| SPEC.                     | 36A001S505G1 |      |     |      |   |    |   |  |  |
| HP                        | 5            |      |     |      |   |    |   |  |  |
| VOLTS                     | 575          |      |     |      |   |    |   |  |  |
| AMP                       | 4.7          |      |     |      |   |    |   |  |  |
| RPM                       | 3450         |      |     |      |   |    |   |  |  |
| FRAME                     | 184T         |      | HZ  | 60   |   | PH | 3 |  |  |
| SER.F.                    | 1.15         | CODE | L   | DES  | A | CL | F |  |  |
| NEMA-NOM-EFF              | 88.5         | PF   | 91  |      |   |    |   |  |  |
| RATING                    | 40C AMB-CONT |      |     |      |   |    |   |  |  |
| CC                        | 010A         |      |     |      |   |    |   |  |  |
| DE                        | 6206         |      | ODE | 6205 |   |    |   |  |  |
| ENCL                      | TEFC         | SN   |     |      |   |    |   |  |  |
| VPWM INVERTER READY       |              |      |     |      |   |    |   |  |  |
| CT6-60H(10:1)VT3-60H(20:1 |              |      |     |      |   |    |   |  |  |
|                           |              |      |     |      |   |    |   |  |  |

**AC Induction Motor Performance Data**

Record # 31109

Typical performance - not guaranteed values

| Winding: 36WGS505-R001 |                   | Type: 3630M                           | Enclosure: TEFC          |
|------------------------|-------------------|---------------------------------------|--------------------------|
| Nameplate Data         |                   | 575 V, 60 Hz:<br>Single Voltage Motor |                          |
| Rated Output (HP)      | 5                 | Full Load Torque                      | 7.64 LB-FT               |
| Volts                  | 575               | Start Configuration                   | direct on line           |
| Full Load Amps         | 4.7               | Breakdown Torque                      | 33.7 LB-FT               |
| R.P.M.                 | 3450              | Pull-up Torque                        | 23.5 LB-FT               |
| Hz                     | 60 Phase          | Locked-rotor Torque                   | 27.5 LB-FT               |
| NEMA Design Code       | A KVA Code        | Starting Current                      | 45.7 A                   |
| Service Factor (S.F.)  | 1.15              | No-load Current                       | 1.34 A                   |
| NEMA Nom. Eff.         | 88.5 Power Factor | Line-line Res. @ 25°C                 | 3.57 Ω                   |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load               | 72°C                     |
| S.F. Amps              |                   | Temp. Rise @ S.F. Load                | 88°C                     |
|                        |                   | Locked-rotor Power Factor             | 45                       |
|                        |                   | Rotor inertia                         | 0.134 LB-FT <sup>2</sup> |

**Load Characteristics 575 V, 60 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 63   | 81   | 88   | 91   | 93   | 93   | 92   |
| Efficiency      | 83.2 | 88.4 | 89.1 | 88.5 | 87   | 85.7 | 87.5 |
| Speed           | 3569 | 3537 | 3504 | 3466 | 3428 | 3385 | 3443 |
| Line amperes    | 1.79 | 2.61 | 3.58 | 4.68 | 5.81 | 7.05 | 5.36 |

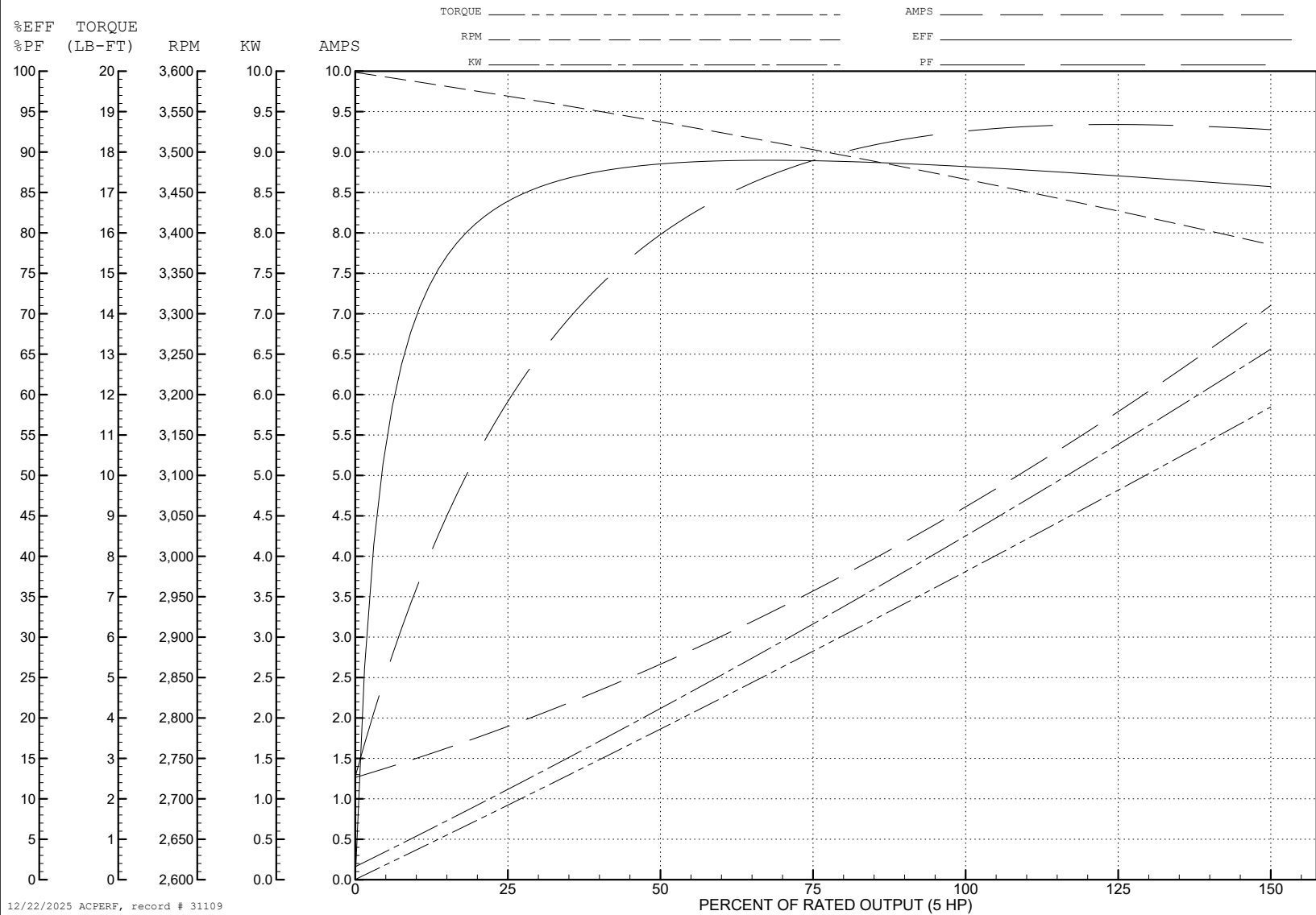
ABB Motors and Mechanical Inc.

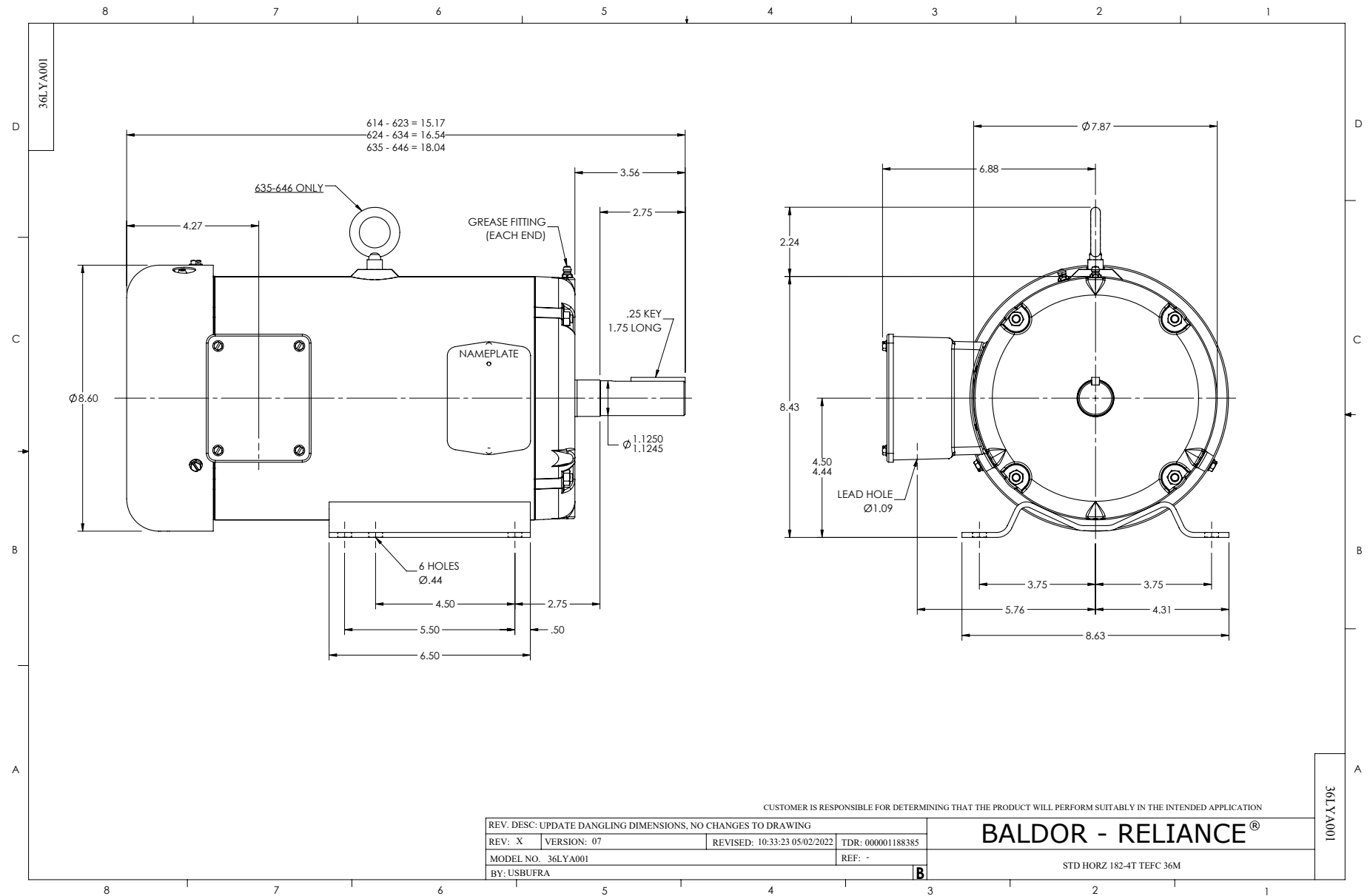
WINDING # 36WGS505

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 3450 RPM 575 V 3630M

TORQUES (LB-FT): PO=33.7 PU=23.5 LR=27.5 LRA=45.7





CD0006



- NOTES:
- 1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
  - 2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
  - 3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
  - 4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
  - 5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

|                                   |                                |                   |
|-----------------------------------|--------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 |                                |                   |
| REV. LTR: E                       | VERSION: 01                    | TDR: 000001099922 |
| FILE: \AAA\00005\141              | REVISED: 10: 24: 49 02/19/2019 | BY: ENBRIRO       |
| MTL: —                            |                                |                   |

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1