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# Customer information packet

## EJMM2542T

50HP, 3550RPM, 3PH, 60HZ, 324JM, 4248M, OPSB, F

## Specifications

|                                |                                           |
|--------------------------------|-------------------------------------------|
| Enclosure                      | OPSB                                      |
| Frame                          | 324JM                                     |
| Frame Material                 | Steel                                     |
| Frequency                      | 60.00 Hz                                  |
| Motor Letter Type              | Three Phase                               |
| Output @ Frequency             | 50.000 HP @ 60 HZ                         |
| Phase                          | 3                                         |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                          |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ        |
| Agency Approvals               | CSA EEV<br>UR<br>CSA                      |
| 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              | 116.000 A @ 230.0 V<br>58.000 A @ 460.0 V |
| Design Code                    | A                                         |
| Drip Cover                     | No Drip Cover                             |
| Duty Rating                    | CONT                                      |
| Efficiency @ 100% Load         | 93.0 %                                    |
| Electrically Isolated Bearing  | Not Electrically Isolated                 |
| Feedback Device                | NO FEEDBACK                               |
| Front Face Code                | Standard                                  |
| Front Shaft Indicator          | None                                      |
| Heater Indicator               | No Heater                                 |
| High Voltage Full Load Amps    | 58.0 a                                    |
| Insulation Class               | F                                         |

## Part detail

|              |            |
|--------------|------------|
| Revision     | N          |
| Type         | AC         |
| Mech. spec.  | 42F59      |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 42WGW284   |
| Layout       | 42LYF059   |
| Eff. date    | 11-29-2023 |
| CD Diagram   | CD0180     |
| Poles        | 02         |
| Leads        | 9#6        |
| Proprietary  | False      |
| Created date | 05-14-2012 |

|                               |                       |
|-------------------------------|-----------------------|
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | H                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Exit               | Ko Box                |
| Motor Lead Quantity/Wire Size | 9 @ 8 AWG             |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 4248M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 2                     |
| Overall Length                | 26.94 IN              |
| Power Factor                  | 87                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | C-Face                |
| Pulley Shaft Indicator        | Tapped & Key          |
| Rodent Screen                 | Included              |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.250 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 3550 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

| NP2138LUA    |                            |    |    |          |        |     |            |   |           |  |      |        |      |
|--------------|----------------------------|----|----|----------|--------|-----|------------|---|-----------|--|------|--------|------|
| CAT.NO.      | EJMM2542T                  |    |    | P/N      |        |     |            |   | ENCLOSURE |  | OPSB |        |      |
| SPEC.        | 42F059W284G1               |    | CC | 010A     | FRAME  |     | 324JM      |   | S/N       |  |      |        |      |
| HP           | 50                         |    |    | CLASS    |        | F   | HZ         |   | 60        |  |      |        |      |
| RPM          | 3550                       |    |    | PH       | 3      | DES |            | A |           |  |      |        |      |
| VOLT         | 230/460                    |    |    | KVA-CODE |        |     | H          |   | ODE BRG   |  | 6311 | DE BRG | 6312 |
| AMP          | 116/58                     |    |    |          |        |     |            |   |           |  |      |        |      |
| RATING       | 40C AMB-CONT               |    |    |          | GREASE |     | POLYREX EM |   |           |  |      |        |      |
| NEMA-NOM-EFF | 93                         | PF | 87 | SER.F.   | 1.15   |     |            |   |           |  |      |        |      |
|              | 50HZ 50HP 190/380V 138/69A |    |    |          |        |     | SF1.0      |   |           |  |      |        |      |
| HTR-VOLTS    | HTR-AMPS                   |    |    |          |        |     |            |   |           |  |      |        |      |

**AC Induction Motor Performance Data**

Record # 85565

Typical performance - not guaranteed values

| Winding: 42WGW284-R002 |    |              | Type: 4248M  |                                          | Enclosure: OPSB |                |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------|----------------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                 |                |
| Rated Output (HP)      |    | 50           |              | Full Load Torque                         |                 | 73.94 LB-FT    |
| Volts                  |    | 230/460      |              | Start Configuration                      |                 | direct on line |
| Full Load Amps         |    | 116/58       |              | Breakdown Torque                         |                 | 191 LB-FT      |
| R.P.M.                 |    | 3550         |              | Pull-up Torque                           |                 | 99 LB-FT       |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                 | 111 LB-FT      |
| NEMA Design Code       |    | A            | KVA Code     | Starting Current                         |                 | 414 A          |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                 | 18 A           |
| NEMA Nom. Eff.         |    | 93           | Power Factor | Line-line Res. @ 25°C                    |                 | 0.13749 Ω      |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                 | 32°C           |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                 | 39°C           |
|                        |    |              |              | Locked-rotor Power Factor                |                 | 23.4           |

**Load Characteristics 460 V, 60 Hz, 50 HP**

| % of Rated Load | 25     | 50     | 75     | 100  | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|------|--------|--------|------|
| Power Factor    | 58     | 78     | 85     | 88   | 89     | 89     | 89   |
| Efficiency      | 90.7   | 93.8   | 94.3   | 94.2 | 93.7   | 92.9   | 93.9 |
| Speed           | 3587.7 | 3577.2 | 3567.7 | 3556 | 3544.5 | 3531.2 | 3549 |
| Line amperes    | 22.8   | 32.2   | 43.7   | 56.5 | 70     | 84.3   | 64.6 |

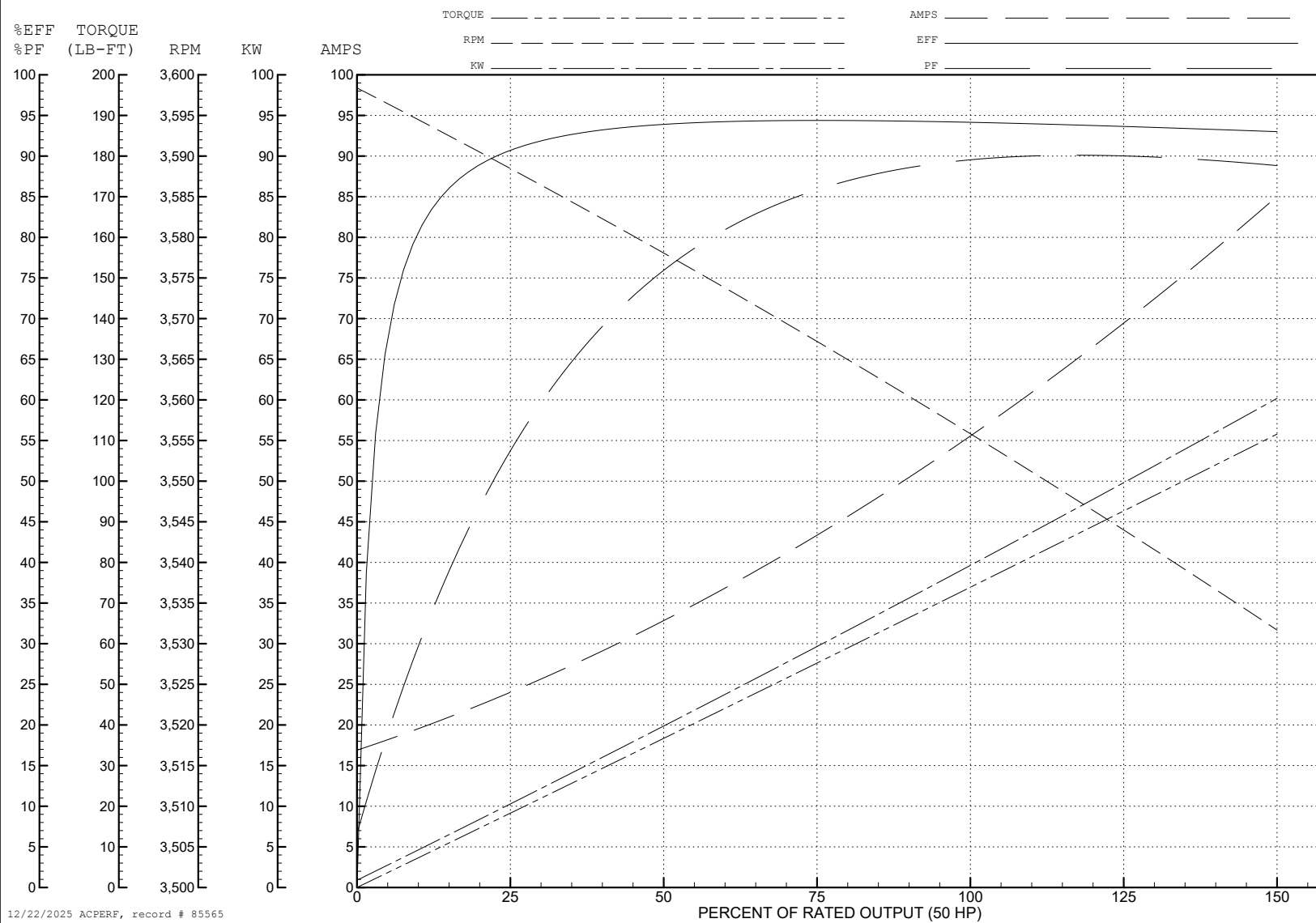
ABB Motors and Mechanical Inc.

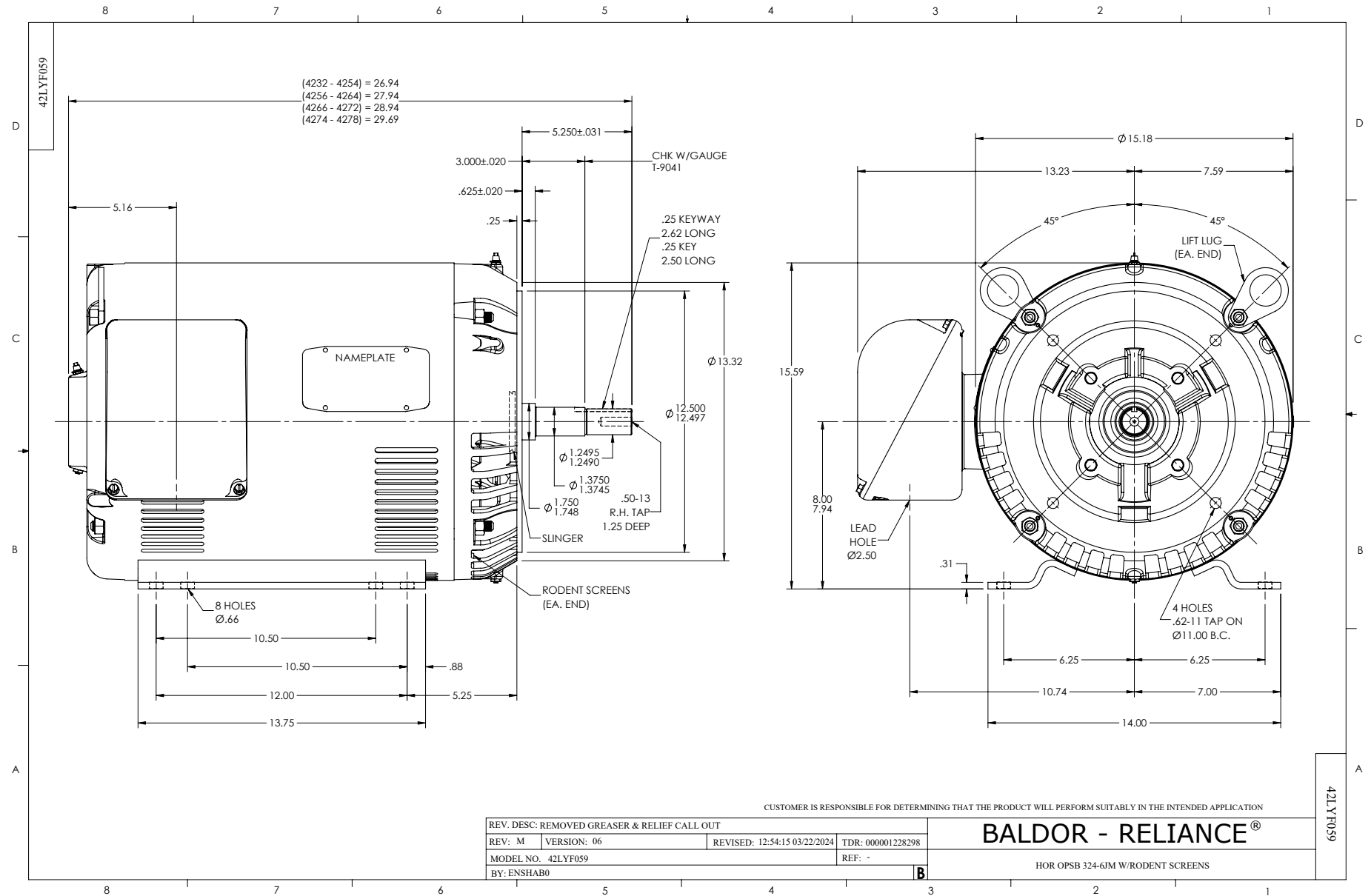
WINDING # 42GW284

Typical performance - not guaranteed values.

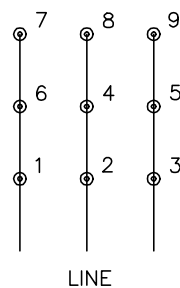
50 HP 3 PH 60 HZ 3550 RPM 460 V 4248M

TORQUES (LB-FT): PO=191 PU=99 LR=111 LRA=414





CD0180

LOW VOLTAGE  
(2D)HIGH VOLTAGE  
(1D)

## 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.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —

**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

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