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# Customer information packet

## EM4110T-G

40HP, 1775RPM, 3PH, 60HZ, 324T, 1254M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                 |
|--------------------------------|-----------------------------------------------------------------|
| Enclosure                      | TEFC                                                            |
| Frame                          | 324T                                                            |
| Frame Material                 | Iron                                                            |
| Frequency                      | 60.00 Hz                                                        |
| Haz Area Class and Group       | None                                                            |
| Haz Area Division              | Not Applicable                                                  |
| Motor Letter Type              | Three Phase                                                     |
| Output @ Frequency             | 40.000 HP @ 60 HZ                                               |
| Phase                          | 3                                                               |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                                |
| Voltage @ Frequency            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                              |
| Agency Approvals               | CSA<br>CSA EEV<br>UR                                            |
| 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              | 48.000 A @ 460.0 V<br>96.000 A @ 230.0 V<br>102.000 A @ 208.0 V |
| Design Code                    | A                                                               |
| Drip Cover                     | No Drip Cover                                                   |
| Duty Rating                    | CONT                                                            |
| Efficiency @ 100% Load         | 94.1 %                                                          |
| Electrically Isolated Bearing  | Not Electrically Isolated                                       |
| Feedback Device                | NO FEEDBACK                                                     |
| Front Face Code                | Standard                                                        |
| Front Shaft Indicator          | None                                                            |

## Part detail

|              |            |
|--------------|------------|
| Revision     | W          |
| Type         | AC         |
| Mech. spec.  | 12F882     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 12WGY276   |
| Layout       | 12LYF882   |
| Eff. date    | 03-10-2025 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#8        |
| Proprietary  | False      |
| Created date | 06-06-2013 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 48.0 a                |
| Insulation Class              | H                     |
| 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                    | 1254M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 30.28 IN              |
| Power Factor                  | 82                    |
| 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                | 2.125 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | Shaft Grounding       |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 1775 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Bearing      | NONE (OLD)            |
| Thermal Device - Winding      | None                  |
| Vibration Sensor Indicator    | No Vibration Sensor   |
| Winding Thermal 1             | None                  |

Winding Thermal 2

None

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## Nameplate

| NP3443LUA |                            |                         |                |                           |      |         |        |            |      |      |      |
|-----------|----------------------------|-------------------------|----------------|---------------------------|------|---------|--------|------------|------|------|------|
| CAT.NO.   | EM4110T-G                  |                         |                | CUST. P/N                 |      |         |        |            |      | ENCL | TEFC |
| SPEC.     | 12F882Y276G1               | CC                      | 010A           | FRAME                     | 324T | SER.NO. |        |            |      |      |      |
| HP        | 40                         |                         | CLASS          | H                         | HZ   | 60      |        |            |      |      |      |
| R.P.M.    | 1775                       |                         | PH.            | 3                         | DES. | A       |        |            |      |      |      |
| VOLTS     | 230/460                    |                         |                | CODE                      | H    | ODE BRG | 6311   | DE BRG     | 6312 |      |      |
| AMPS      | 96/48                      |                         |                |                           |      |         |        |            |      |      |      |
| RATING    | 40C AMB-CONT               |                         | NEMA NOM. EFF. |                           |      | 94.1    | GREASE | POLYREX EM |      |      |      |
| P.F.      | 82                         | SER.F.                  | 1.15           | CT6-60H(10:1)VT3-60H(20:1 |      |         |        |            |      |      |      |
| USABLE AT | 50HZ 40HP 190/380V 114/57A |                         |                | SF1.0                     |      |         |        |            |      |      |      |
| VOLTS     | AMPS                       | MAX. SPACE HEATER TEMP. |                |                           |      |         |        |            |      |      |      |

## AC Induction Motor Performance Data

Record # 48204

Typical performance - not guaranteed values

| Winding: 12WGY276-R010 |  |         |  | Type: 1254M                              |  | Enclosure: TEFC           |  |
|------------------------|--|---------|--|------------------------------------------|--|---------------------------|--|
| Nameplate Data         |  |         |  | 460 V, 60 Hz:<br>High Voltage Connection |  |                           |  |
| Rated Output (HP)      |  | 40      |  | Full Load Torque                         |  | 118 LB-FT                 |  |
| Volts                  |  | 230/460 |  | Start Configuration                      |  | direct on line            |  |
| Full Load Amps         |  | 96/48   |  | Breakdown Torque                         |  | 386 LB-FT                 |  |
| R.P.M.                 |  | 1775    |  | Pull-up Torque                           |  | 193 LB-FT                 |  |
| Hz                     |  | 60      |  | Phase                                    |  | 3                         |  |
| NEMA Design Code       |  | A       |  | KVA Code                                 |  | H                         |  |
| Service Factor (S.F.)  |  | 1.15    |  | Locked-rotor Torque                      |  | 216 LB-FT                 |  |
| NEMA Nom. Eff.         |  | 94.1    |  | Power Factor                             |  | 82                        |  |
| Rating - Duty          |  | 40C     |  | AMB-CONT                                 |  | Starting Current          |  |
| S.F. Amps              |  |         |  |                                          |  | 338 A                     |  |
|                        |  |         |  |                                          |  | No-load Current           |  |
|                        |  |         |  |                                          |  | 19.9 A                    |  |
|                        |  |         |  |                                          |  | Line-line Res. @ 25°C     |  |
|                        |  |         |  |                                          |  | 0.14898 Ω                 |  |
|                        |  |         |  |                                          |  | Temp. Rise @ Rated Load   |  |
|                        |  |         |  |                                          |  | 54°C                      |  |
|                        |  |         |  |                                          |  | Temp. Rise @ S.F. Load    |  |
|                        |  |         |  |                                          |  | 64°C                      |  |
|                        |  |         |  |                                          |  | Locked-rotor Power Factor |  |
|                        |  |         |  |                                          |  | 27                        |  |
|                        |  |         |  |                                          |  | Rotor inertia             |  |
|                        |  |         |  |                                          |  | 7.19 LB-FT <sup>2</sup>   |  |

## Load Characteristics 460 V, 60 Hz, 40 HP

| % of Rated Load | 25     | 50   | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|------|--------|--------|--------|--------|------|
| Power Factor    | 47     | 69   | 78     | 83     | 85     | 85     | 84   |
| Efficiency      | 90.1   | 93.5 | 94.2   | 94.2   | 93.8   | 93.1   | 94   |
| Speed           | 1793.5 | 1788 | 1782.5 | 1776.6 | 1770.7 | 1764.1 | 1773 |
| Line amperes    | 22.9   | 29.5 | 38.4   | 48.1   | 59.2   | 70.8   | 54.8 |

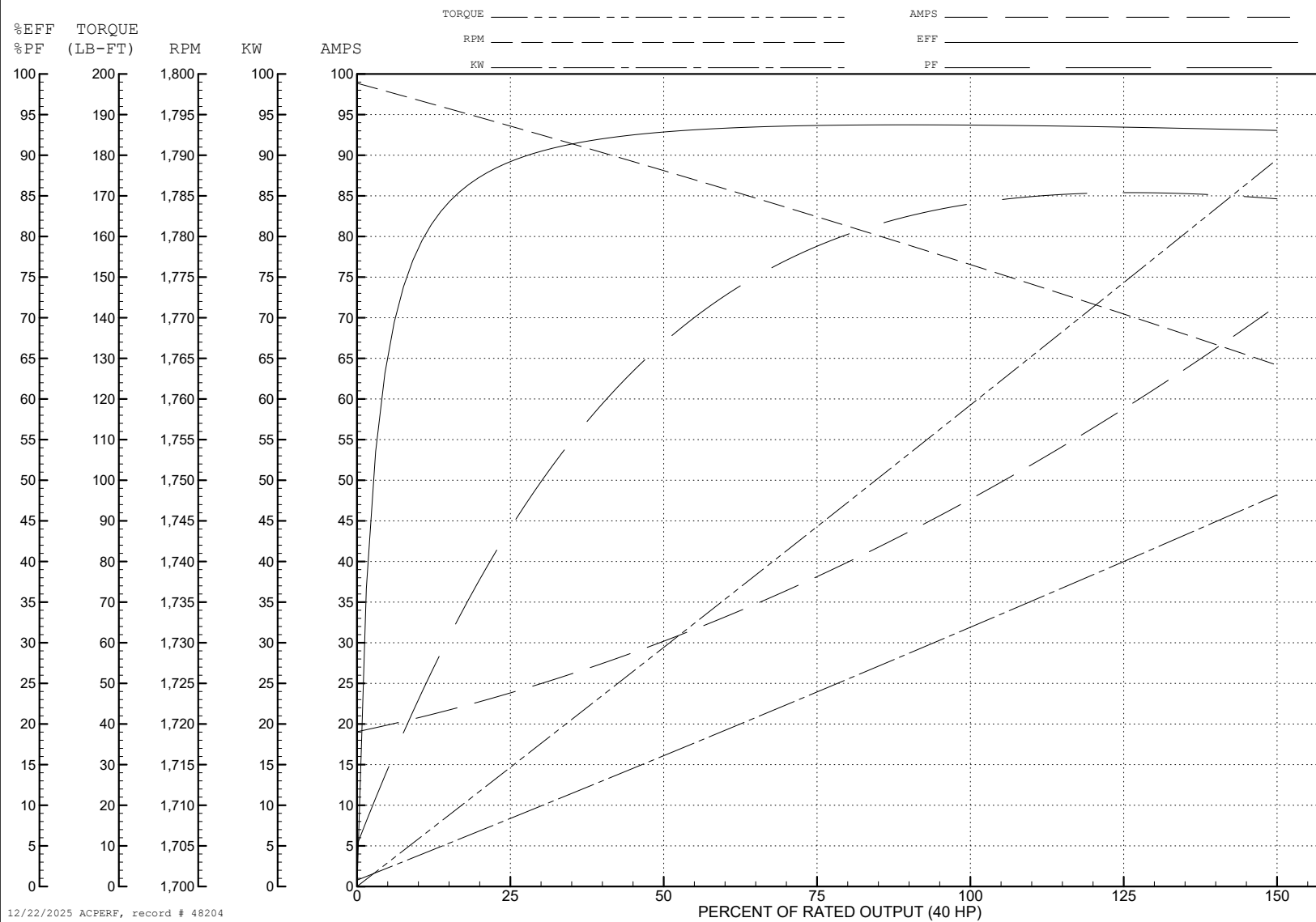
ABB Motors and Mechanical Inc.

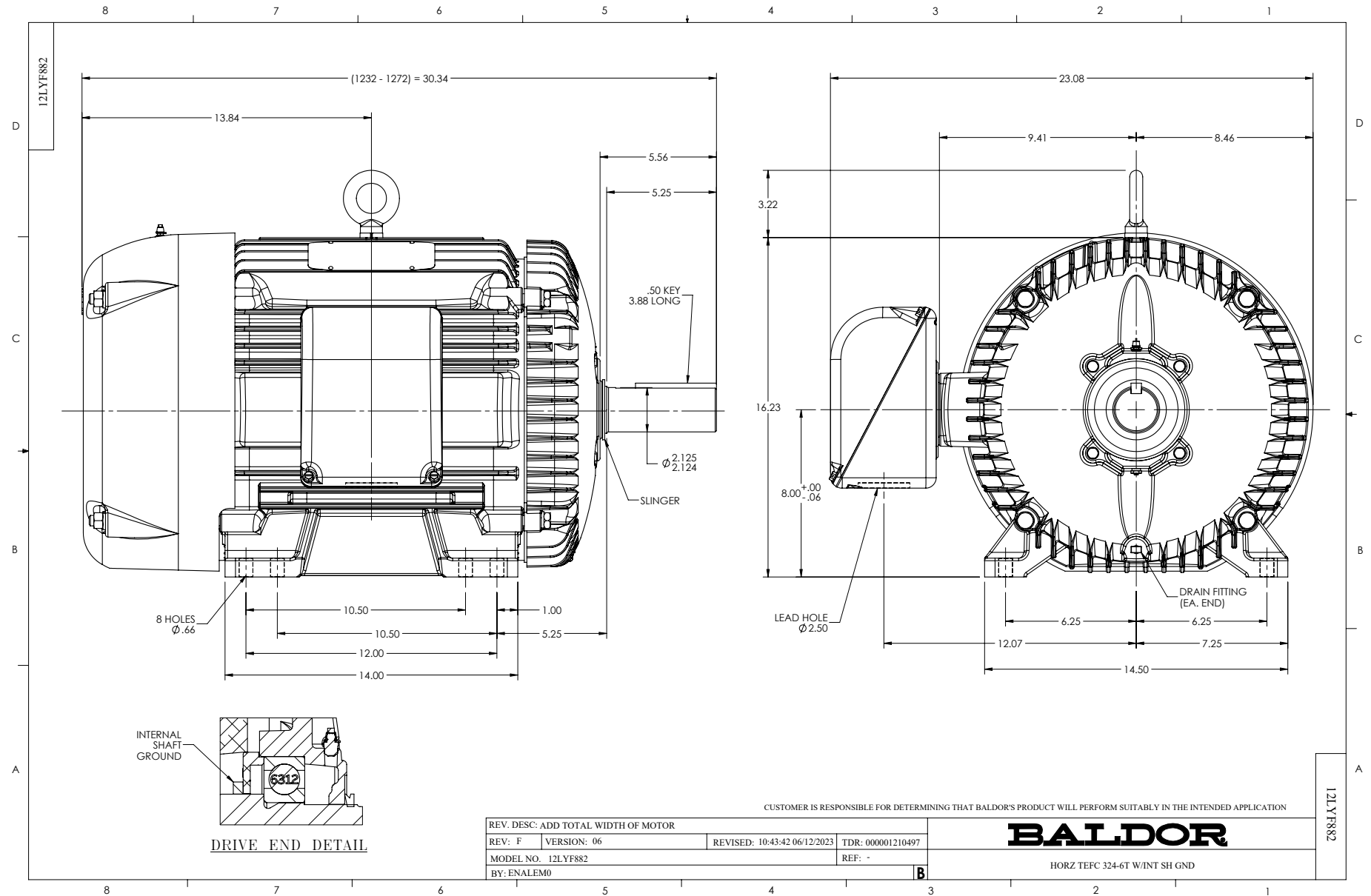
WINDING # 12WGY276

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

TORQUES (LB-FT): PO=386 PU=193 LR=216 LRA=338





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

SH 1 of 1