



---

# Customer information packet

## CEM4104T

30HP, 1760RPM, 3PH, 60HZ, 286TC, 1056M, TEFC, F

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | TEFC                                                           |
| Frame                          | 286TC                                                          |
| 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             | 30.000 HP @ 60 HZ                                              |
| Phase                          | 3                                                              |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                               |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                             |
| Agency Approvals               | CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR                  |
| Ambient Temperature            | 40 °C                                                          |
| Auxillary Box                  | No Auxillary Box                                               |
| Auxillary Box Lead Termination | None                                                           |
| Base Indicator                 | Rigid                                                          |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                        |
| Blower                         | None                                                           |
| Current @ Voltage              | 78.000 A @ 208.0 V<br>76.000 A @ 230.0 V<br>38.000 A @ 460.0 V |
| Design Code                    | A                                                              |
| Drip Cover                     | No Drip Cover                                                  |
| Duty Rating                    | CONT                                                           |
| Efficiency @ 100% Load         | 93.6 %                                                         |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK                                                    |
| Front Face Code                | Standard                                                       |

## Part detail

|              |            |
|--------------|------------|
| Revision     | AH         |
| Type         | AC         |
| Mech. spec.  | 10C152     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 10WGY538   |
| Layout       | 10LYC152   |
| Eff. date    | 06-27-2024 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#8        |
| Proprietary  | False      |
| Created date | 05-17-2010 |

|                               |                       |
|-------------------------------|-----------------------|
| Front Shaft Indicator         | None                  |
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 38.0 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| IP Rating                     | NONE                  |
| KVA Code                      | J                     |
| 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                    | 1056M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 27.76 IN              |
| Power Factor                  | 80                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | C-Face                |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.875 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 1760 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

| NP3443LUA |                           |                         |                |                           |           |         |        |        |            |  |  |  |      |
|-----------|---------------------------|-------------------------|----------------|---------------------------|-----------|---------|--------|--------|------------|--|--|--|------|
| CAT.NO.   | CEM4104T                  |                         |                |                           | CUST. P/N |         |        |        | ENCL       |  |  |  | TEFC |
| SPEC.     | 10C152Y538G1              | CC                      | 010A           | FRAME                     | 286TC     | SER.NO. |        |        |            |  |  |  |      |
| HP        | 30                        |                         | CLASS          | F                         | HZ        | 60      |        |        |            |  |  |  |      |
| R.P.M.    | 1760                      |                         | PH.            | 3                         | DES.      | A       |        |        |            |  |  |  |      |
| VOLTS     | 230/460                   |                         |                | CODE                      | J         | ODE BRG | 6309   | DE BRG | 6311       |  |  |  |      |
| AMPS      | 76/38                     |                         |                |                           |           |         |        |        |            |  |  |  |      |
| RATING    | 40C AMB-CONT              |                         | NEMA NOM. EFF. |                           |           | 93.6    | GREASE |        | POLYREX EM |  |  |  |      |
| P.F.      | 80                        | SER.F.                  | 1.15           | CT6-60H(10:1)VT3-60H(20:1 |           |         |        |        |            |  |  |  |      |
| USABLE AT | 50Hz 30HP 190/380V 88/44A |                         |                | SF1.0                     |           |         |        |        |            |  |  |  |      |
| VOLTS     | AMPS                      | MAX. SPACE HEATER TEMP. |                |                           |           |         |        |        |            |  |  |  |      |

**AC Induction Motor Performance Data**

Record # 32189

Typical performance - not guaranteed values

| Winding: 10WGY538-R004 |  |              |  | Type: 1056M                              |  | Enclosure: TEFC     |  |                       |  |           |  |
|------------------------|--|--------------|--|------------------------------------------|--|---------------------|--|-----------------------|--|-----------|--|
| Nameplate Data         |  |              |  | 460 V, 60 Hz:<br>High Voltage Connection |  |                     |  |                       |  |           |  |
| Rated Output (HP)      |  | 30           |  | Full Load Torque                         |  | 88.7 LB-FT          |  |                       |  |           |  |
| Volts                  |  | 230/460      |  | Start Configuration                      |  | direct on line      |  |                       |  |           |  |
| Full Load Amps         |  | 76/38        |  | Breakdown Torque                         |  | 330 LB-FT           |  |                       |  |           |  |
| R.P.M.                 |  | 1760         |  | Pull-up Torque                           |  | 142 LB-FT           |  |                       |  |           |  |
| Hz                     |  | 60 Phase     |  | 3                                        |  | Locked-rotor Torque |  | 178 LB-FT             |  |           |  |
| NEMA Design Code       |  | A            |  | KVA Code                                 |  | J                   |  | Starting Current      |  | 270 A     |  |
| Service Factor (S.F.)  |  | 1.15         |  | No-load Current                          |  | 17.9 A              |  |                       |  |           |  |
| NEMA Nom. Eff.         |  | 93.6         |  | Power Factor                             |  | 80                  |  | Line-line Res. @ 25°C |  | 0.19377 Ω |  |
| Rating - Duty          |  | 40C AMB-CONT |  | Temp. Rise @ Rated Load                  |  | 64°C                |  |                       |  |           |  |
| S.F. Amps              |  |              |  | Temp. Rise @ S.F. Load                   |  | 76°C                |  |                       |  |           |  |
|                        |  |              |  | Locked-rotor Power Factor                |  | 30.9                |  |                       |  |           |  |
|                        |  |              |  | Rotor inertia                            |  | 4.47 LB-FT2         |  |                       |  |           |  |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 41     | 63     | 73     | 80     | 82     | 85     | 81   |
| Efficiency      | 87.6   | 92.3   | 93.5   | 93.7   | 93.4   | 92.9   | 93.5 |
| Speed           | 1792.2 | 1787.6 | 1782.4 | 1776.5 | 1770.3 | 1762.1 | 1773 |
| Line amperes    | 19.8   | 24.3   | 30.7   | 37.6   | 45.6   | 55.2   | 42.4 |

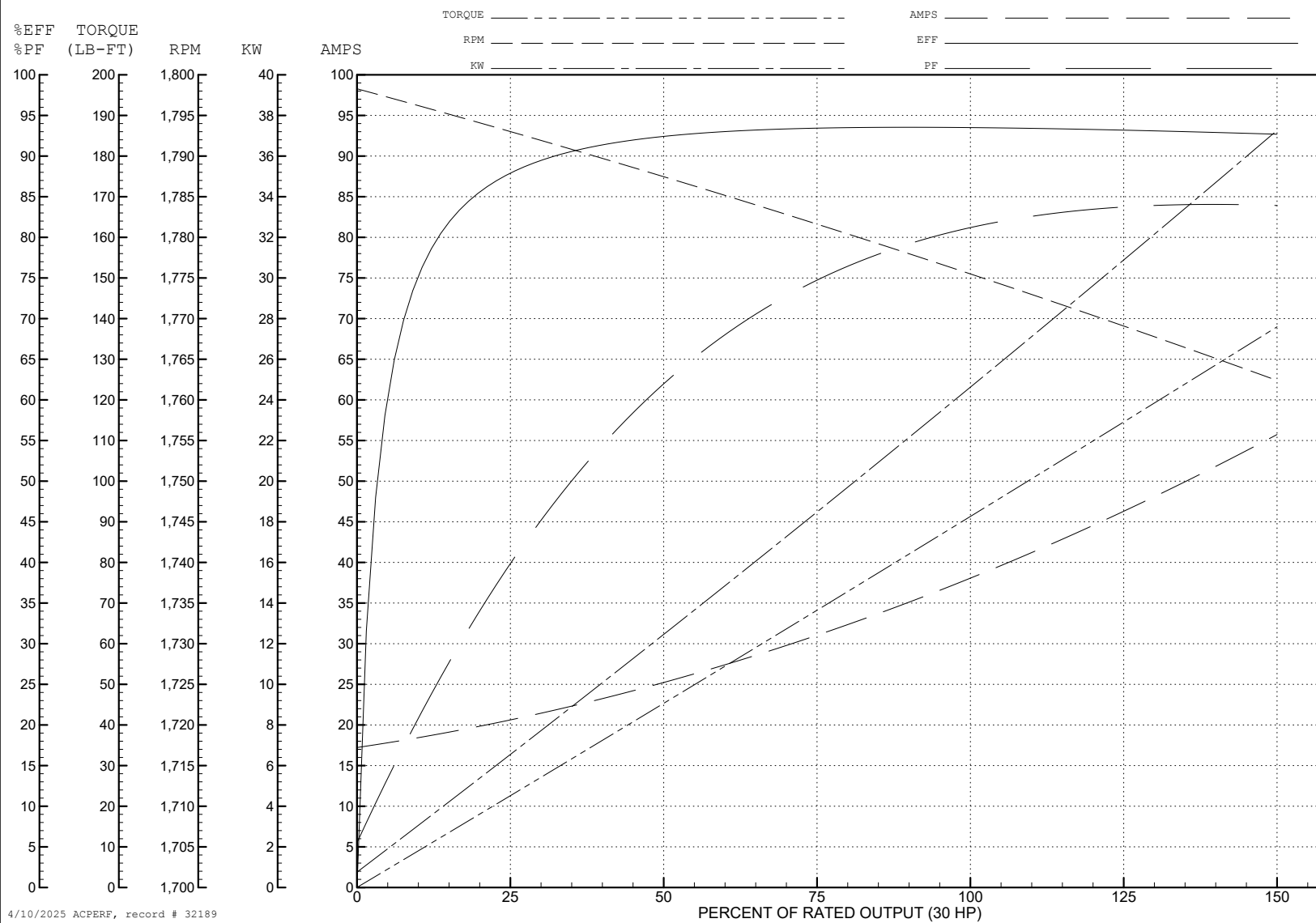
ABB Motors and Mechanical Inc.

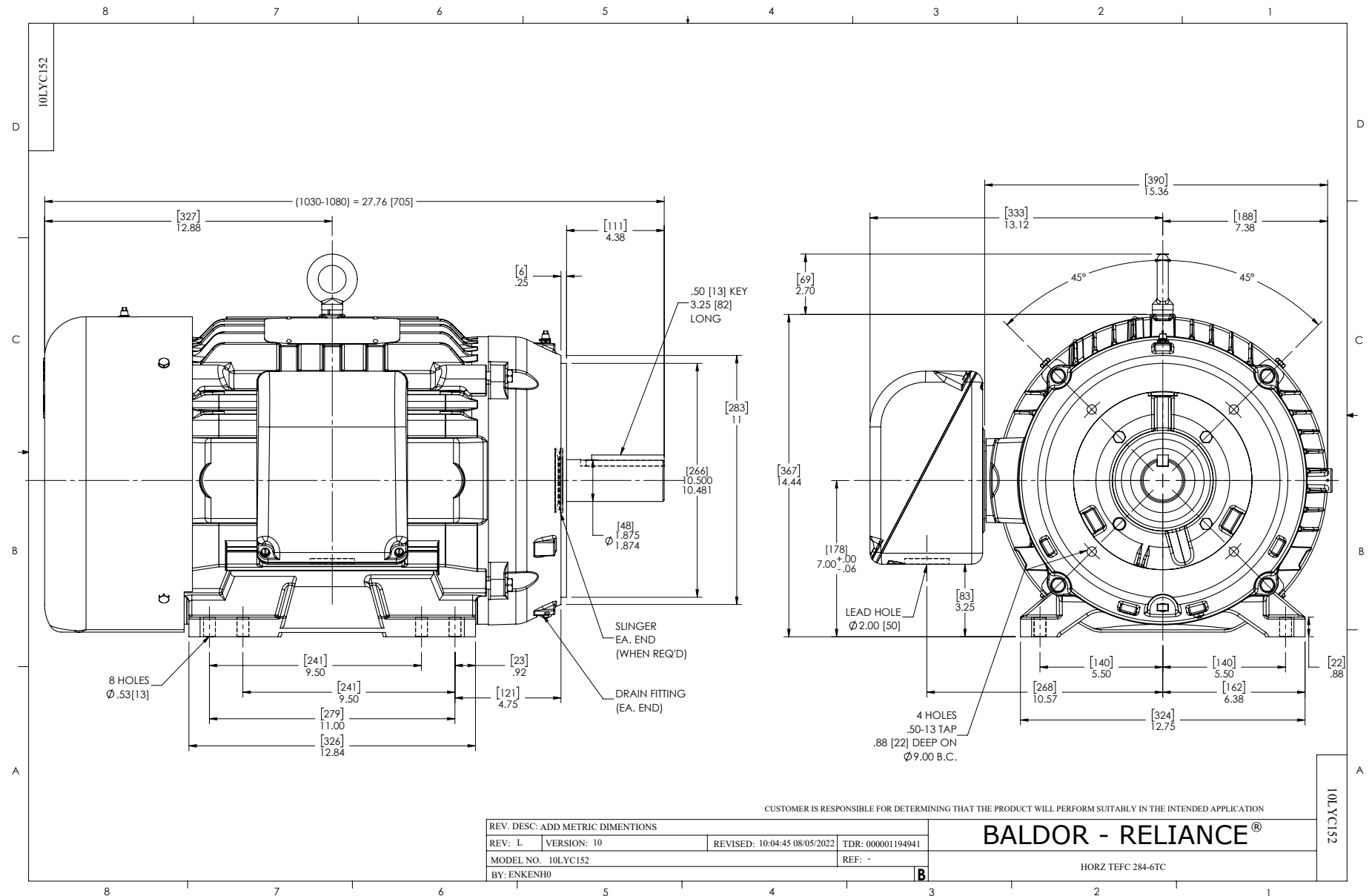
WINDING # 10WGY538

Typical performance - not guaranteed values.

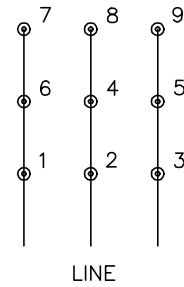
30 HP 3 PH 60 HZ 1760 RPM 460 V 1056M

TORQUES (LB-FT): PO=330 PU=142 LR=178 LRA=270





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.

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

CD0180