



---

# Customer information packet

## CEM2538T-G

40HP, 3530RPM, 3PH, 60HZ, 286TSC, OPSB, F1

## Specifications

|                                |                                          |
|--------------------------------|------------------------------------------|
| Enclosure                      | OPSB                                     |
| Frame                          | 286TSC                                   |
| Frame Material                 | Steel                                    |
| Frequency                      | 60.00 Hz                                 |
| Motor Letter Type              | Three Phase                              |
| Output @ Frequency             | 40.000 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<br>CSA EEV<br>NEMA PREMIUM<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              | 46.000 A @ 460.0 V<br>92.000 A @ 230.0 V |
| Design Code                    | B                                        |
| Drip Cover                     | No Drip Cover                            |
| Duty Rating                    | CONT                                     |
| Efficiency @ 100% Load         | 92.4 %                                   |
| Electrically Isolated Bearing  | Not Electrically Isolated                |
| Feedback Device                | NO FEEDBACK                              |
| Heater Indicator               | No Heater                                |
| High Voltage Full Load Amps    | 46.0 a                                   |
| Insulation Class               | H                                        |
| Inverter Code                  | Inverter Ready                           |

## Part detail

|              |              |
|--------------|--------------|
| Revision     | F            |
| Type         | AC           |
| Mech. spec.  |              |
| Base         |              |
| Status       | PRD/A        |
| Elec. spec.  | 40WGX194     |
| Layout       | 40LY-000-038 |
| Eff. date    | 06-27-2024   |
| CD Diagram   | CD0180       |
| Poles        | 02           |
| Leads        | 9#8          |
| Proprietary  | False        |
| Created date | 03-06-2020   |

|                            |                       |
|----------------------------|-----------------------|
| IP Rating                  | NONE                  |
| KVA Code                   | G                     |
| Lifting Lugs               | Standard Lifting Lugs |
| Locked Bearing Indicator   | Locked Bearing        |
| Motor Lead Termination     | Flying Leads          |
| Motor Standards            | NEMA                  |
| Motor Type                 | 4046M                 |
| Mounting Arrangement       | F1                    |
| Number of Poles            | 2                     |
| Overall Length             | 22.44 IN              |
| Power Factor               | 89                    |
| Product Family             | General Purpose       |
| Pulley Face Code           | C-Face                |
| Rodent Screen              | None                  |
| Service Factor             | 1.15                  |
| Shaft Diameter             | 1.625 IN              |
| Shaft Ground Indicator     | Shaft Grounding       |
| Shaft Rotation             | Reversible            |
| Speed                      | 3530 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

| NP3554LUA |                            |                         |              |                           |        |         |        |            |      |      |      |
|-----------|----------------------------|-------------------------|--------------|---------------------------|--------|---------|--------|------------|------|------|------|
| CAT.NO.   | CEM2538T-G                 |                         |              | P/N                       |        |         |        |            |      | ENCL | OPSB |
| SPEC.     | 40-0000837                 | CC                      | 010A         | FRAME                     | 286TSC | SER.NO. |        |            |      |      |      |
| HP        | 40                         |                         | CLASS        | H                         | HZ     | 60      |        |            |      |      |      |
| RPM       | 3530                       |                         | PH           | 3                         | DES    | B       |        |            |      |      |      |
| VOLTS     | 230/460                    |                         |              | CODE                      | G      | ODE BRG | 6309   | DE BRG     | 6311 |      |      |
| AMPS      | 92/46                      |                         |              |                           |        |         |        |            |      |      |      |
| RATING    | 40C AMB-CONT               |                         | NEMA-NOM-EFF |                           |        | 92.4    | GREASE | POLYREX EM |      |      |      |
| PF        | 89                         | SER.F.                  | 1.15         | CT30-60(2:1) VT3-60(20:1) |        |         |        |            |      |      |      |
| USABLE AT | 50HZ 40HP 190/380V 112/56A |                         |              | SF1.0                     |        |         |        |            |      |      |      |
| HTR-VOLTS | HTR-AMPS                   | MAX. SPACE HEATER TEMP. |              |                           |        |         |        |            |      |      |      |

**AC Induction Motor Performance Data**

Record # 53043

Typical performance - not guaranteed values

| Winding: 40WGX194-R006 |    |         | Type: 4046M                              |                     | Enclosure: OPSB           |           |             |
|------------------------|----|---------|------------------------------------------|---------------------|---------------------------|-----------|-------------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |           |             |
| Rated Output (HP)      |    | 40      | Full Load Torque                         |                     | 59.6 LB-FT                |           |             |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line            |           |             |
| Full Load Amps         |    | 92/46   | Breakdown Torque                         |                     | 207 LB-FT                 |           |             |
| R.P.M.                 |    | 3530    | Pull-up Torque                           |                     | 74.8 LB-FT                |           |             |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                           | 103 LB-FT |             |
| NEMA Design Code       |    | B       | KVA Code                                 | G                   | Starting Current          |           | 282 A       |
| Service Factor (S.F.)  |    | 1.15    | No-load Current                          |                     | 11.7 A                    |           |             |
| NEMA Nom. Eff.         |    | 92.4    | Power Factor                             | 89                  | Line-line Res. @ 25°C     |           | 0.1848 Ω    |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |           | 35°C        |
| S.F. Amps              |    |         |                                          |                     | Temp. Rise @ S.F. Load    |           | 44°C        |
|                        |    |         |                                          |                     | Locked-rotor Power Factor |           | 24          |
|                        |    |         |                                          |                     | Rotor inertia             |           | 1.97 LB-FT2 |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150  | S.F. |
|-----------------|--------|--------|--------|--------|--------|------|------|
| Power Factor    | 66     | 82     | 88     | 89     | 90     | 90   | 90   |
| Efficiency      | 91.4   | 93.7   | 93.7   | 93     | 92     | 90.7 | 92.4 |
| Speed           | 3580.7 | 3565.4 | 3547.1 | 3527.4 | 3504.7 | 3481 | 3514 |
| Line amperes    | 16.4   | 24.9   | 34.7   | 45.9   | 57     | 69.7 | 52.6 |

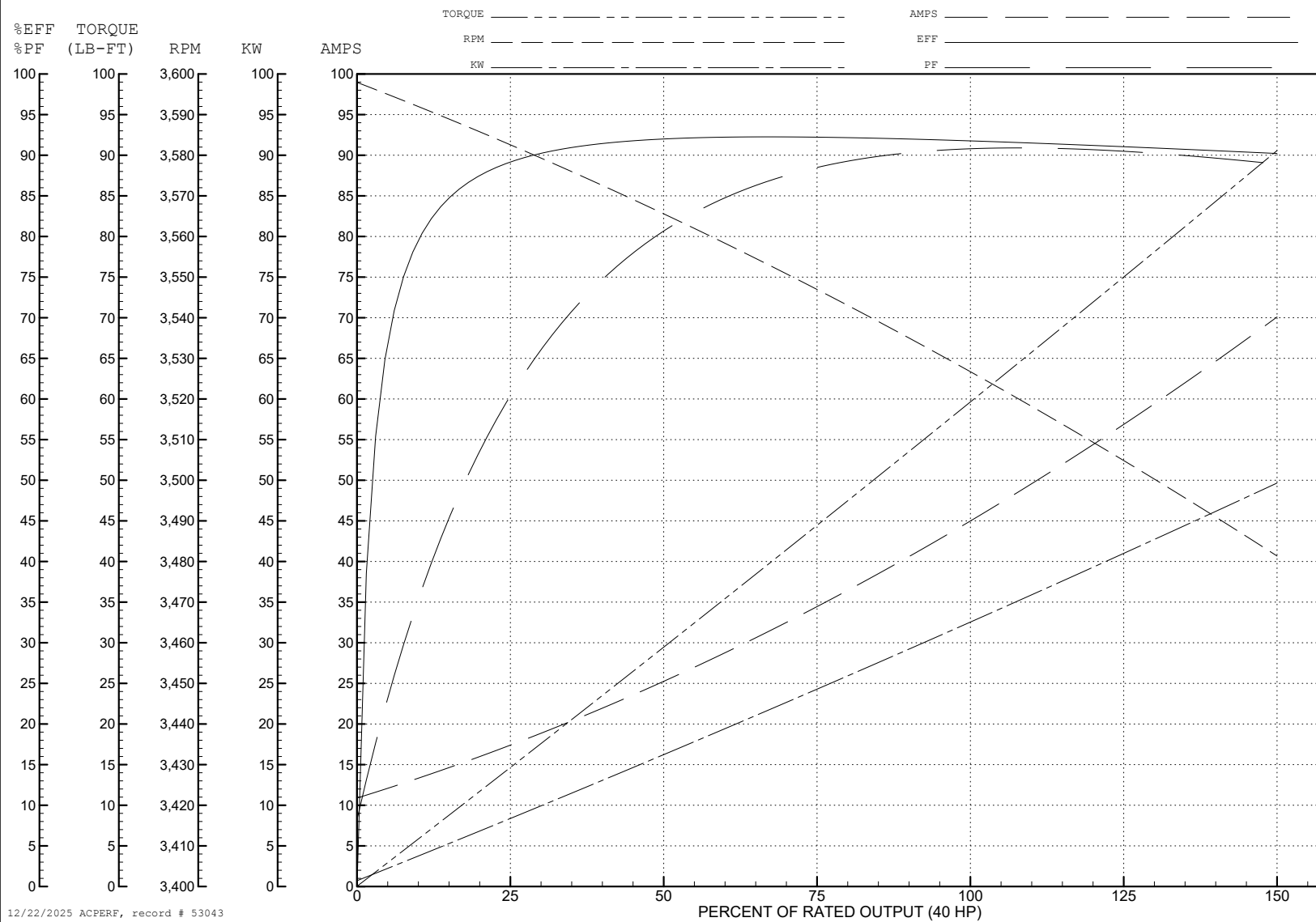
ABB Motors and Mechanical Inc.

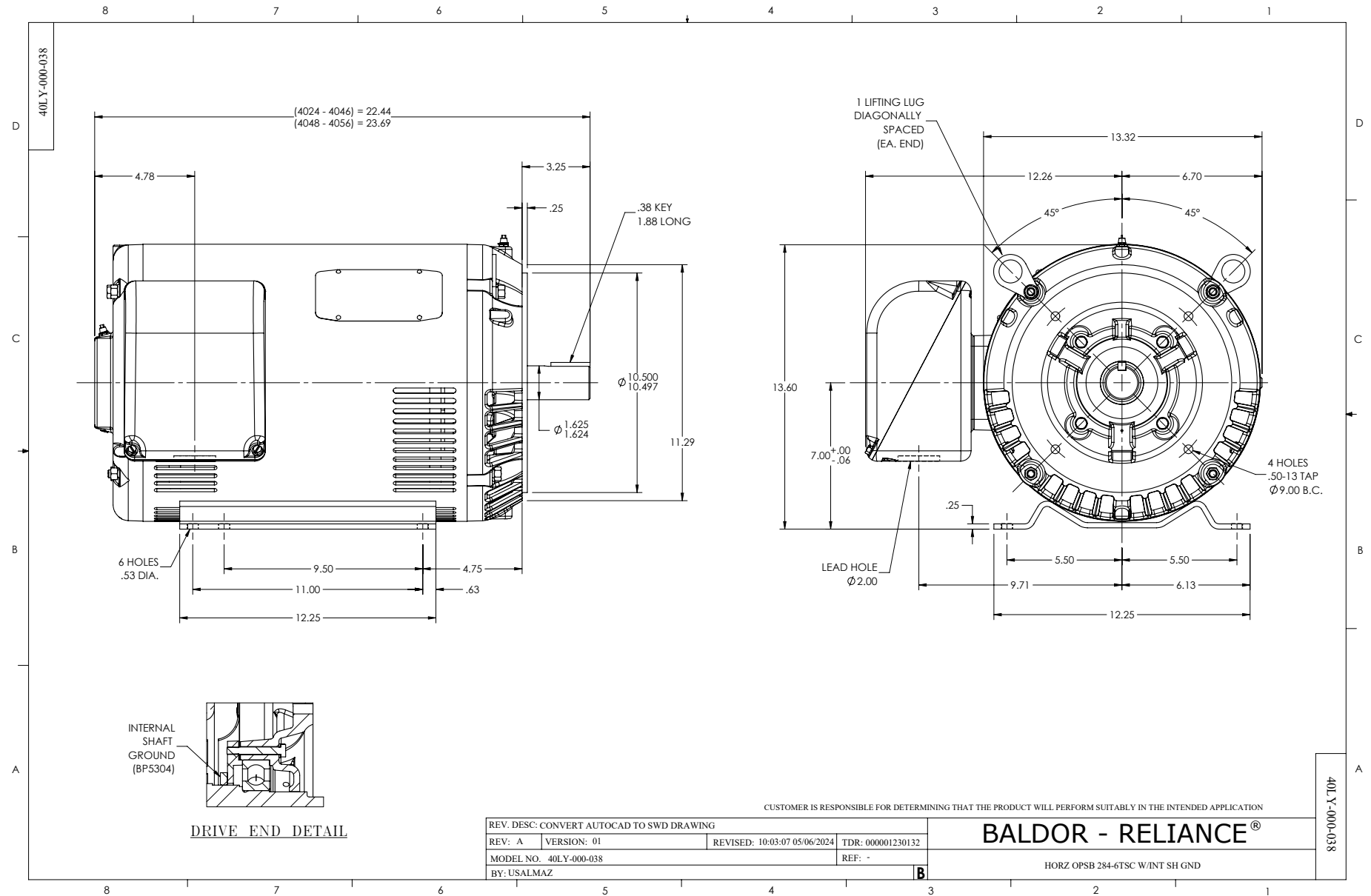
WINDING # 40WGX194

Typical performance - not guaranteed values.

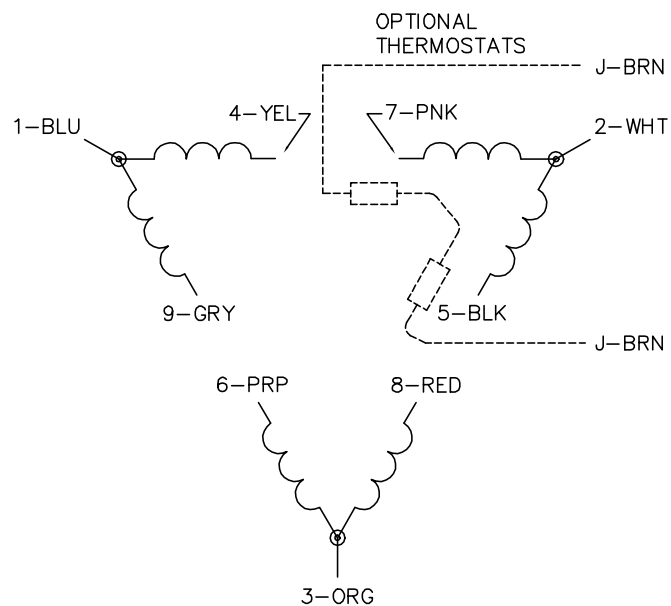
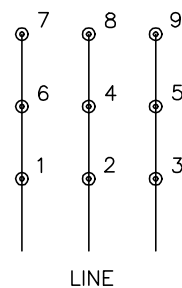
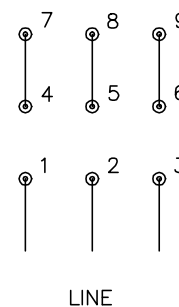
40 HP 3 PH 60 HZ 3530 RPM 460 V 4046M

TORQUES (LB-FT): PO=207 PU=74.8 LR=103 LRA=282





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