

BALDOR • RELIANCE

Customer information packet

EM2542T-G

50HP, 3525RPM, 3PH, 60HZ, 324TS, 4058M, OPSB, F

Specifications

| | |
|--------------------------------|--|
| Enclosure | OPSB |
| Frame | 324TS |
| 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 460.0 V @ 60 HZ |
| Agency Approvals | CSA CSA EEV 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 | 124.000 A @ 208.0 V 56.000 A @ 460.0 V 112.000 A @ 230.0 V |
| Design Code | B |
| 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 | 56.0 a |

Part detail

| | |
|--------------|------------|
| Revision | U |
| Type | AC |
| Mech. spec. | 40E295 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 40WGW803 |
| Layout | 40LYE295 |
| Eff. date | 06-27-2024 |
| CD Diagram | CD0180 |
| Poles | 02 |
| Leads | 9#8 |
| Proprietary | False |
| Created date | 12-09-2011 |

| | |
|--------------------------------------|-----------------------|
| Insulation Class | H |
| Inverter Code | Inverter Ready |
| KVA Code | G |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | No 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 | 4058M |
| Mounting Arrangement | F1 |
| Number of Poles | 2 |
| Overall Length | 25.69 IN |
| Power Factor | 90 |
| 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 | 1.875 IN |
| Shaft Extension Location | Pulley End |
| Shaft Ground Indicator | Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | No Slinger |
| Speed | 3525 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. | EM2542T-G | P/N | | ENCL | OPSB |
| SPEC. | 40E295W803G1 | CC | 010A | FRAME | 324TS |
| HP | 50 | CLASS | H | HZ | 60 |
| RPM | 3525 | PH | 3 | DES | A |
| VOLTS | 230/460 | CODE | G | ODE BRG | 6309 |
| AMPS | 112/56 | DE BRG | | | 6312 |
| RATING | 40C AMB-CONT | NEMA-NOM-EFF | 93 | GREASE | POLYREX EM |
| PF | 90 | SER.F. | 1.15 | CT30-60(2:1) VT3-60(20:1) | |
| USABLE AT | 50HZ 50HP 190/380V 138/69A | | SF1.0 | | |
| HTR-VOLTS | HTR-AMPS | MAX. SPACE HEATER TEMP. | | | |

AC Induction Motor Performance Data

Record # 53039

Typical performance - not guaranteed values

| Winding: 40GWG803-R006 | | Type: 4058M | Enclosure: OPSB | |
|------------------------|-----------------|---------------------------|--|-----------|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | |
| Rated Output (HP) | 50 | Full Load Torque | 74.7 LB-FT | |
| Volts | 230/460 | Start Configuration | direct on line | |
| Full Load Amps | 112/56 | Breakdown Torque | 168 LB-FT | |
| R.P.M. | 3525 | Pull-up Torque | 115 LB-FT | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 135 LB-FT |
| NEMA Design Code | A KVA Code | G | Starting Current | 376 A |
| Service Factor (S.F.) | 1.15 | No-load Current | 14.2 A | |
| NEMA Nom. Eff. | 93 Power Factor | 90 | Line-line Res. @ 25°C | 0.1415 Ω |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 47°C | |
| S.F. Amps | | Temp. Rise @ S.F. Load | 60°C | |
| | | Locked-rotor Power Factor | 23.2 | |
| | | Rotor inertia | 2.49 LB-FT ² | |

Load Characteristics 460 V, 60 Hz, 50 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor | 66 | 83 | 88 | 90 | 90 | 90 | 90 |
| Efficiency | 92.9 | 94.4 | 94.1 | 93.3 | 92.2 | 90.5 | 92.6 |
| Speed | 3581.7 | 3565.2 | 3545.9 | 3526.6 | 3505.2 | 3475.1 | 3514 |
| Line amperes | 20 | 30.4 | 42.8 | 56.3 | 70.7 | 89.9 | 64.9 |

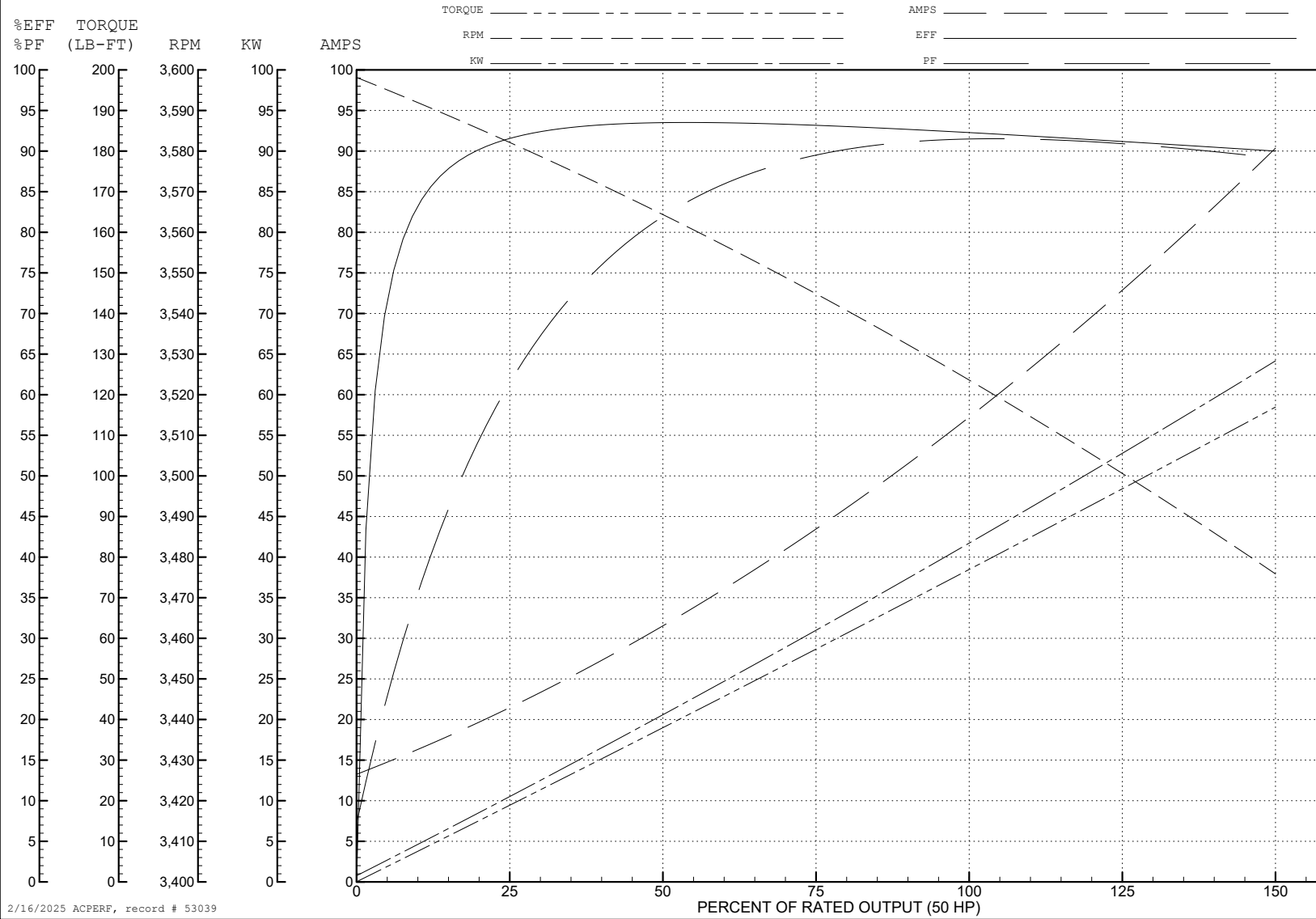
ABB Motors and Mechanical Inc.

WINDING # 40WGW803

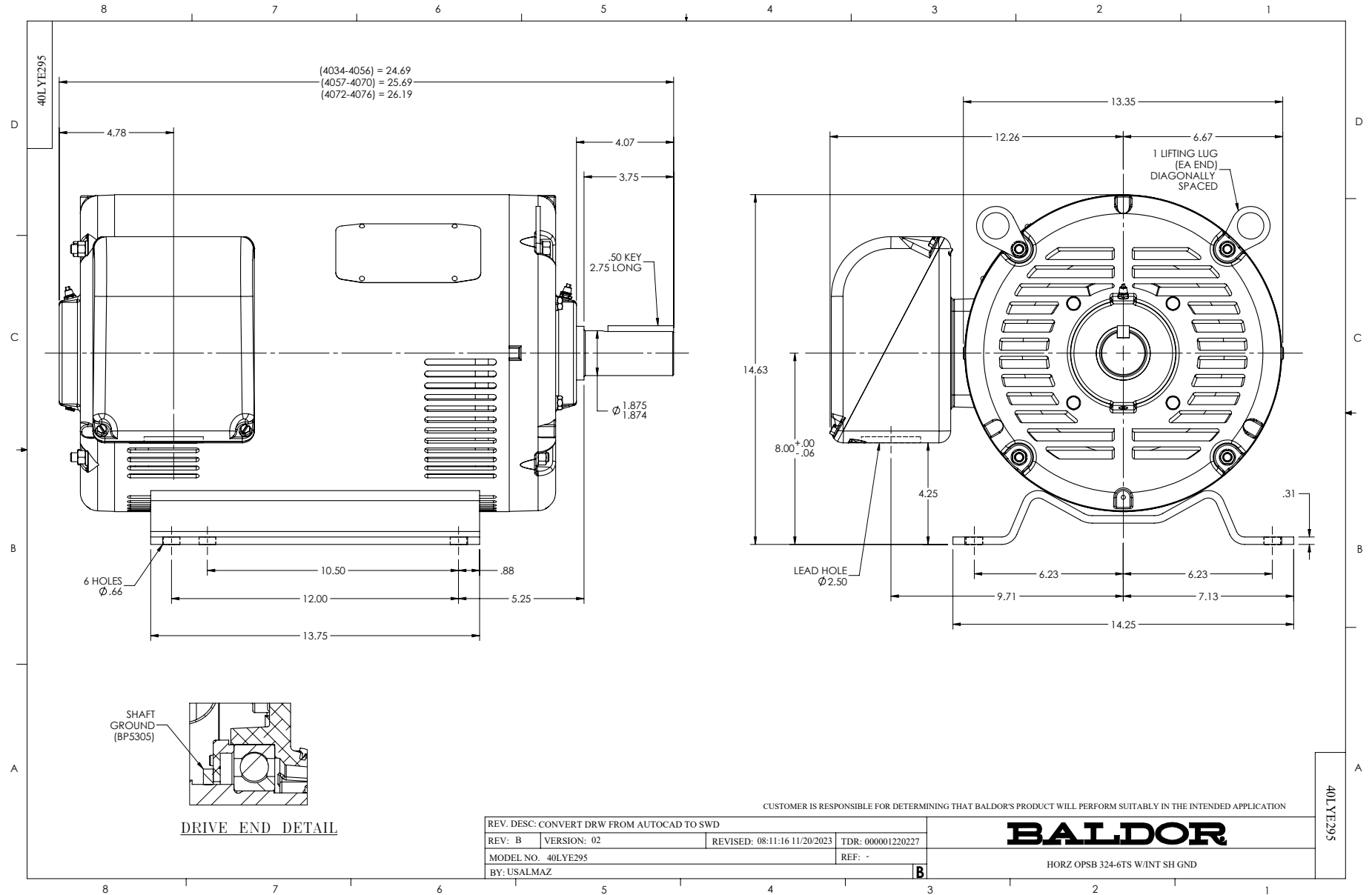
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3525 RPM 460 V 4058M

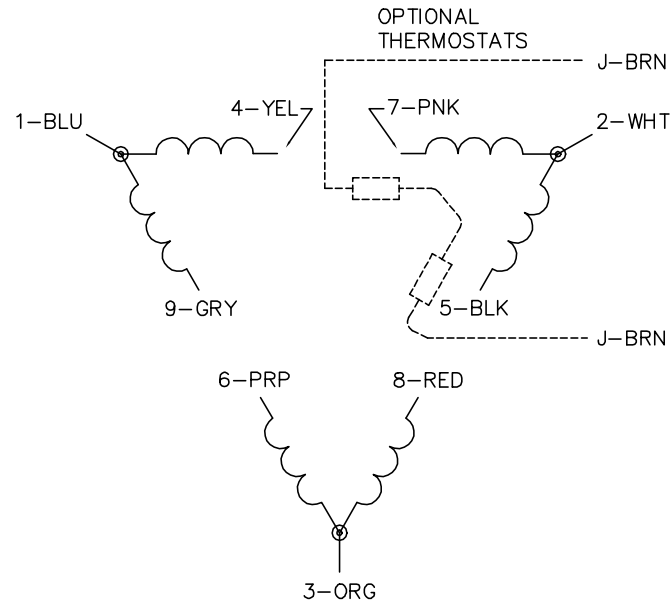
TORQUES (LB-FT): PO=168 PU=115 LR=135 LRA=376



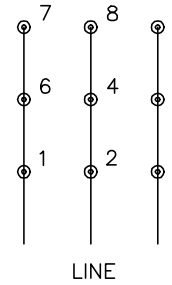
2/16/2025 ACPERF, record # 53039



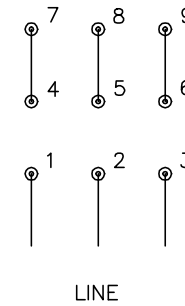
CD0180



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