

BALDOR® • RELIANCE™

Customer information packet

CEM2539T

40HP, 1770RPM, 3PH, 60HZ, 324TC, 4064M, OPSB, F

Specifications

| | |
|--------------------------------|--|
| Enclosure | OPSB |
| Frame | 324TC |
| Frame Material | Steel |
| Frequency | 60.00 Hz |
| 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 230.0 V @ 60 HZ |
| Agency Approvals | CSA CSA EEV NEMA PREMIUM 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 | 99.000 A @ 208.0 V 98.000 A @ 230.0 V 49.000 A @ 460.0 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 |
| Heater Indicator | No Heater |

Part detail

| | |
|--------------|------------|
| Revision | Q |
| Type | AC |
| Mech. spec. | 40H06 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 40WGX166 |
| Layout | 40LYH006 |
| Eff. date | 02-11-2021 |
| CD Diagram | CD0005 |
| Poles | 04 |
| Leads | 9#8 |
| Proprietary | False |
| Created date | 09-19-2014 |

| | |
|-------------------------------|-----------------------|
| High Voltage Full Load Amps | 49.0 a |
| Insulation Class | F |
| 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 | 4064M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 27.19 IN |
| Power Factor | 82 |
| 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 | 2.125 IN |
| Shaft Extension Location | Pulley End |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | No Slinger |
| Speed | 1770 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. | CEM2539T | | | P/N | | | | ENCL | | OPSB | |
| SPEC. | 40H006X166G2 | CC | 010A | FRAME | | 324TC | SER.NO. | | | | |
| HP | 40 | CLASS | | F | HZ | 60 | | | | | |
| RPM | 1770 | PH | 3 | DES | | A | | | | | |
| VOLTS | 230/460 | | | CODE | | H | ODE BRG | 6309 | DE BRG | 6312 | |
| AMPS | 98/49 | | | USABLE AT 208V | | | 99 | | | | |
| RATING | 40C AMB-CONT | | | NEMA-NOM-EFF | | | 94.1 | GREASE | POLYREX EM | | |
| PF | 82 | SER.F. | 1.15 | CT30-60(2:1) VT3-60(20:1) | | | | | | | |
| USABLE AT | 50HZ 40HP 190/380V 114/57A | | | SF 1.0 | | | | | | | |
| HTR-VOLTS | HTR-AMPS | | MAX. SPACE HEATER TEMP. | | | | | | | | |

AC Induction Motor Performance Data

Record # 31313

Typical performance - not guaranteed values

| Winding: 40WGX166-R002 | | Type: 4064M | | Enclosure: OPSB | |
|-------------------------------|-----------------|----------------------------|--|------------------------------|-----------|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 40 | Full Load Torque | 119 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 98/49 | Breakdown Torque | 427 LB-FT | | |
| R.P.M. | 1770 | Pull-up Torque | 187 LB-FT | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 246 LB-FT | |
| NEMA Design Code | A | KVA Code | H | Starting Current | 330 A |
| Service Factor (S.F.) | 1.15 | | No-load Current | 21.1 A | |
| NEMA Nom. Eff. | 94.1 | Power Factor | 82 | Line-line Res. @ 25°C | 0.16236 Ω |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 41°C | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 51°C | |
| | | | Locked-rotor Power Factor | 31.9 | |
| | | | Rotor inertia | 5.09 LB-FT ² | |

Load Characteristics 460 V, 60 Hz, 40 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 43 | 65 | 76 | 82 | 85 | 85 | 84 |
| Efficiency | 91.1 | 94 | 94.5 | 94.2 | 93.6 | 92.8 | 93.8 |
| Speed | 1792.4 | 1785 | 1777.8 | 1770.2 | 1762.1 | 1752.8 | 1765 |
| Line amperes | 24.1 | 30.7 | 39.2 | 48.7 | 59.3 | 71.3 | 55.1 |

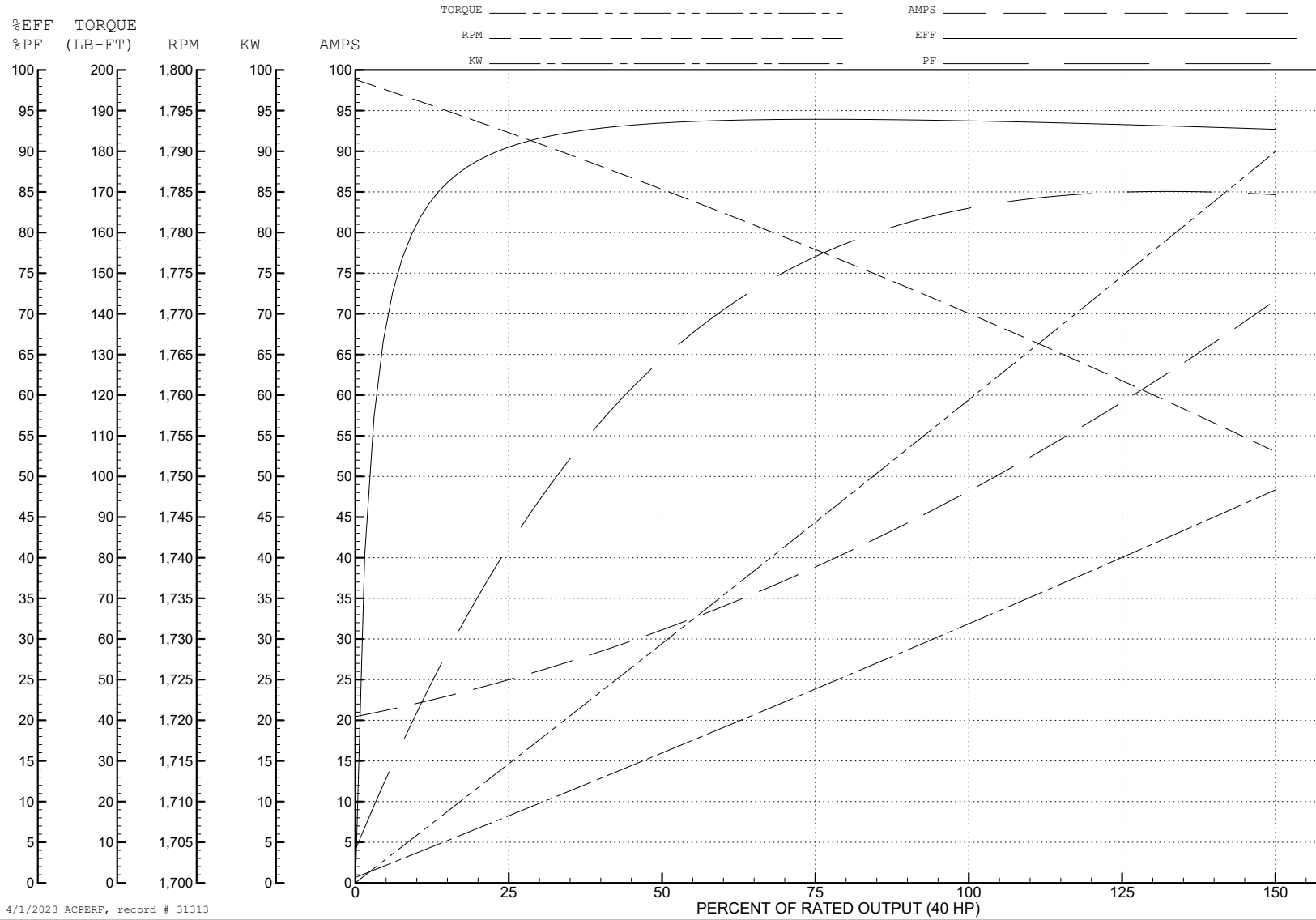
ABB Motors and Mechanical Inc.

WINDING # 40WGx166

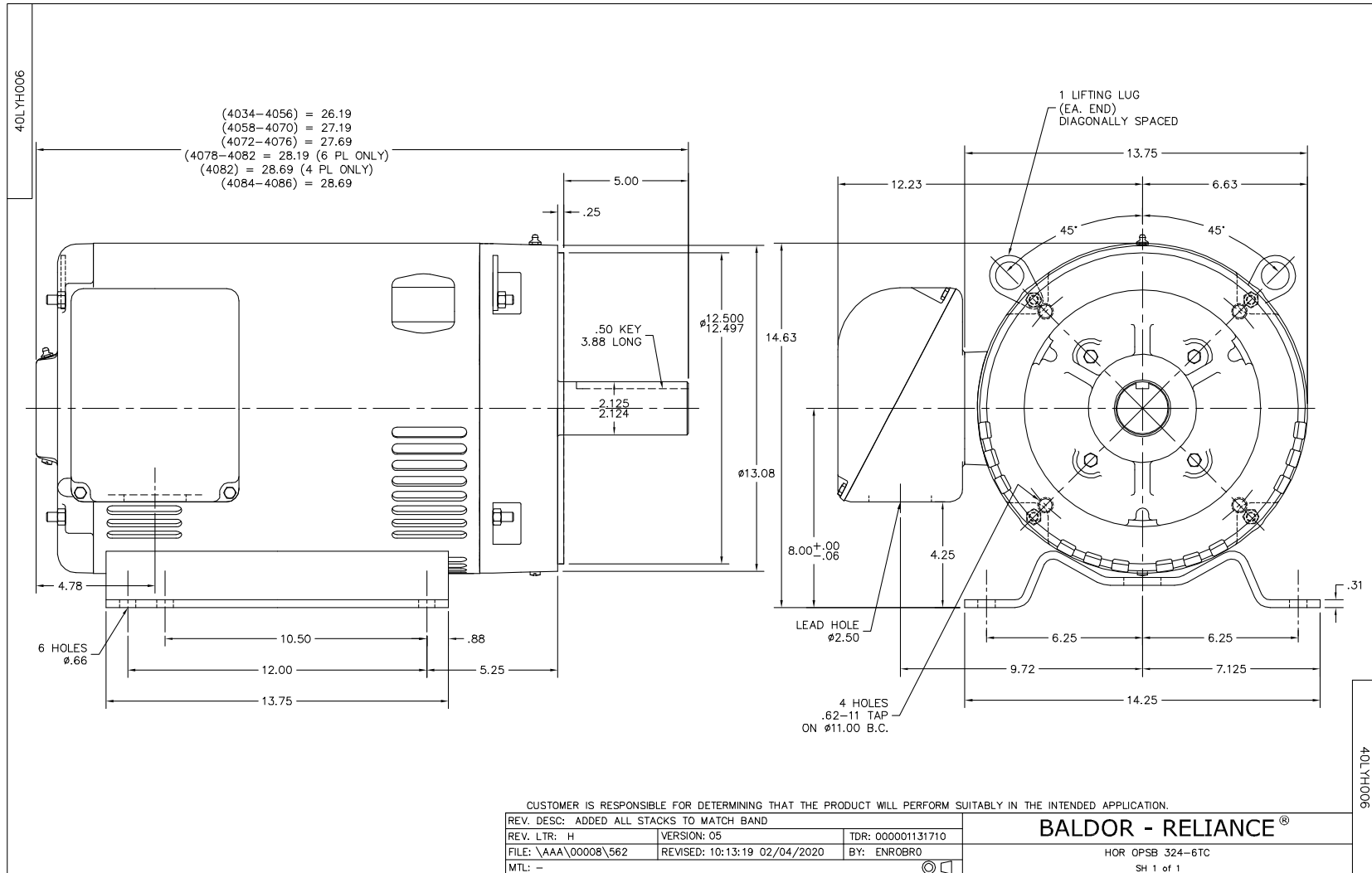
Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1770 RPM 460 V 4064M

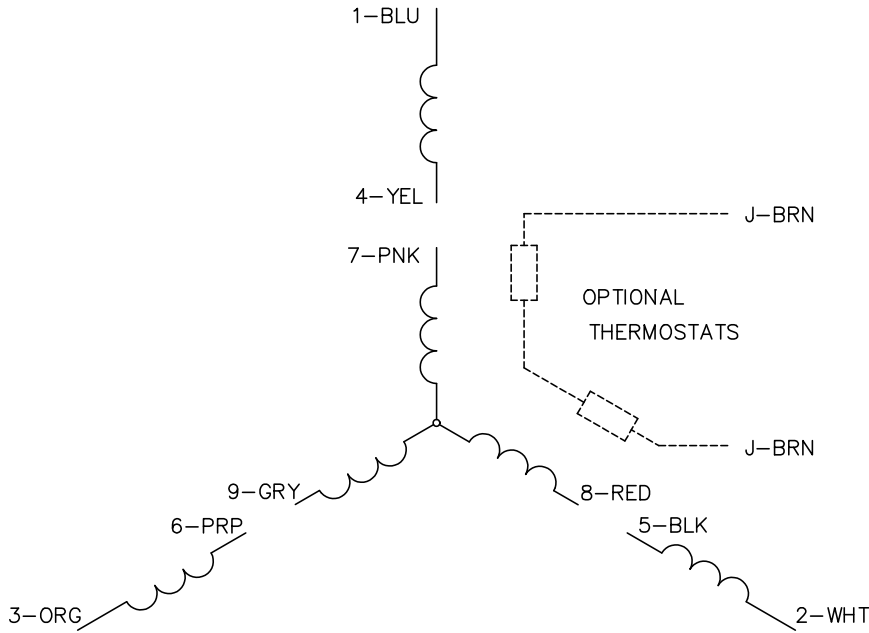
TORQUES (LB-FT): PO=427 PU=187 LR=246 LRA=330



4/1/2023 ACPERF, record # 31313



CD0005



LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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.

CD0005

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|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000 | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS