

BALDOR • RELIANCE

Customer information packet

CEM3581T

1HP, 1760RPM, 3PH, 60HZ, 143TC, 0520M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|---|
| Enclosure | TEFC |
| Frame | 143TC |
| 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 | 1.000 HP @ 60 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ |
| Voltage @ Frequency | 230.0 V @ 60 HZ 460.0 V @ 60 HZ |
| Agency Approvals | CSA EEV NEMA PREMIUM 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 | 3.260 A @ 230.0 V 3.200 A @ 208.0 V 1.630 A @ 460.0 V |
| Design Code | B |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 85.5 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Shaft Indicator | None |

Part detail

| | |
|--------------|------------|
| Revision | E |
| Type | AC |
| Mech. spec. | 05C052 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 05WGX508 |
| Layout | 05LYC052 |
| Eff. date | 04-29-2024 |
| CD Diagram | CD0005 |
| Poles | 04 |
| Leads | 9#18 |
| Proprietary | False |
| Created date | 09-29-2021 |

| | |
|-------------------------------|-----------------------|
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 1.6 a |
| Insulation Class | F |
| Inverter Code | Inverter Ready |
| KVA Code | N |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 0520M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 13.04 IN |
| Power Factor | 67 |
| 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 | 0.875 IN |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | No 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

NP3441LUA

| | | | | | | | |
|-----------------------------------|----------------------------|-------------|------|------------|---|--------------|-------|
| CAT.NO. | CEM3581T | | | | | | |
| SPEC | 05C052X508G1 | | | | | | |
| HP | 1 | | | | | | |
| VOLTS | 230/460 | | | | | | |
| AMPS | 3.26/1.63 | | | | | | |
| RPM | 1760 | | | | | | |
| FRAME | 143TC | HZ | 60 | PH | 3 | | |
| SF | 1.15 | CODE | N | DES | B | CLASS | F |
| NEMA NOM. EFF | 85.5 | PF | 67 | | | | |
| RATING | 40C AMB-CONT | | | | | | |
| CC | 010A | | | | | | |
| ENCL | TEFC | SER | | | | | |
| DE | 6205 | ODE | 6203 | | | | |
| VPWM INVERTER READY | SFA 3.52/1.76 | | | | | | |
| CT6-60H(10:1)VT3-60H(20:1) | 50HZ 1HP 190/380V 3.6/1.8A | | | | | | SF1.0 |

AC Induction Motor Performance Data

Record # 82131

Typical performance - not guaranteed values

| Winding: 05WGX508-R001 | | Type: 0520M | | Enclosure: TEFC | |
|-------------------------------|-----------------------|----------------------------|--|------------------------|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 1 | Full Load Torque | 2.979 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 3.2-3.2/1.6 | Breakdown Torque | 13.9 LB-FT | | |
| R.P.M. | 1760 | Pull-up Torque | 8 LB-FT | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 9.18 LB-FT | |
| NEMA Design Code | B KVA Code | N | Starting Current | 14.4 A | |
| Service Factor (S.F.) | | 1.15 | No-load Current | 1.11 A | |
| NEMA Nom. Eff. | 0 Power Factor | 0 | Line-line Res. @ 25°C | 16.215 Ω | |
| Rating - Duty | | 40C AMB-CONT | Temp. Rise @ Rated Load | 24°C | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 28°C | |
| | | | Locked-rotor Power Factor | 62 | |

Load Characteristics 460 V, 60 Hz, 1 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 29 | 46 | 59 | 68 | 74 | 79 | 72 |
| Efficiency | 71.2 | 81.4 | 84.6 | 85.5 | 85.4 | 84.7 | 85.4 |
| Speed | 1791.4 | 1784.2 | 1776.7 | 1768.6 | 1760 | 1750.7 | 1763 |
| Line amperes | 1.14 | 1.25 | 1.41 | 1.61 | 1.84 | 2.11 | 1.75 |

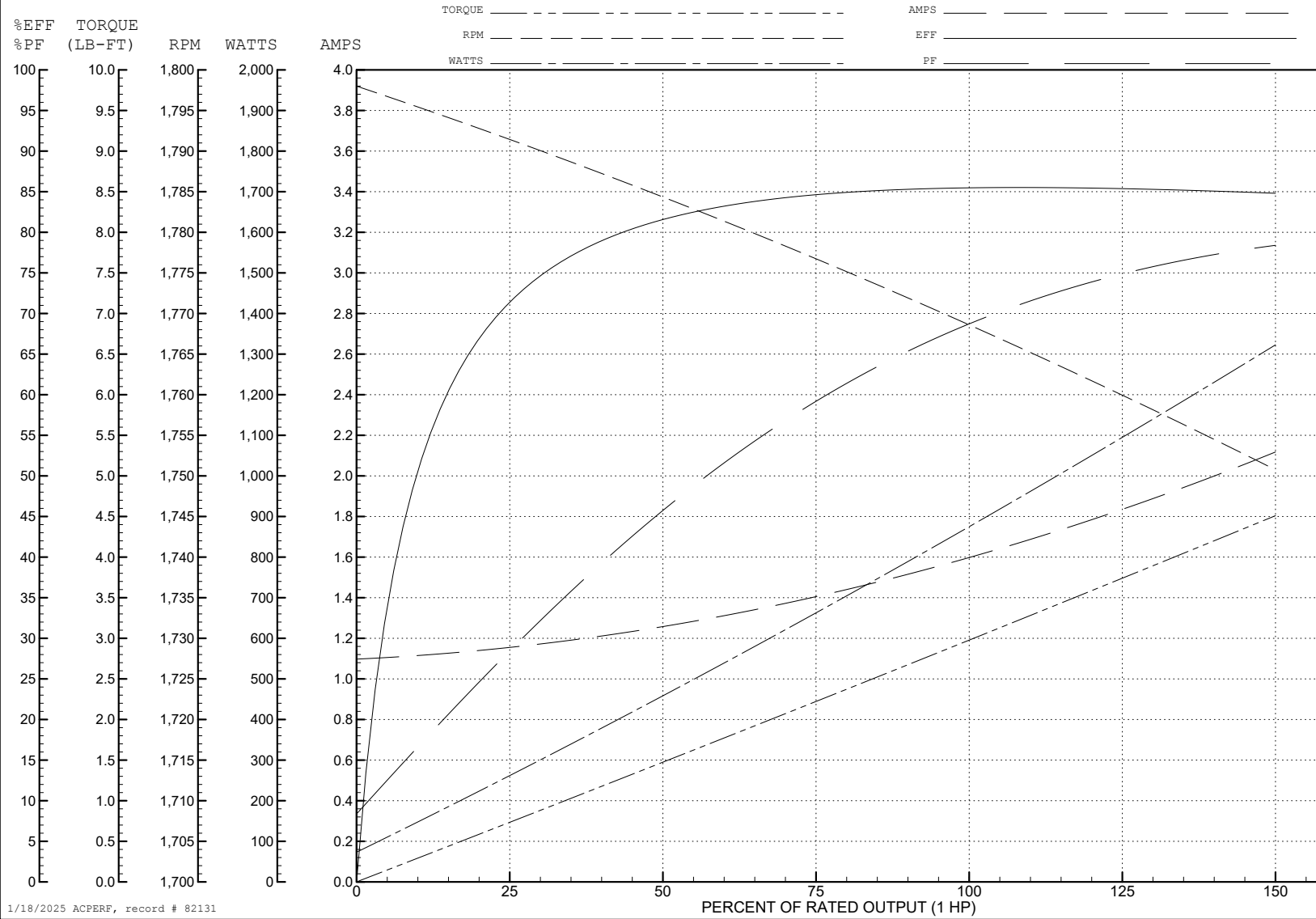
ABB Motors and Mechanical Inc.

WINDING # 05WGX508

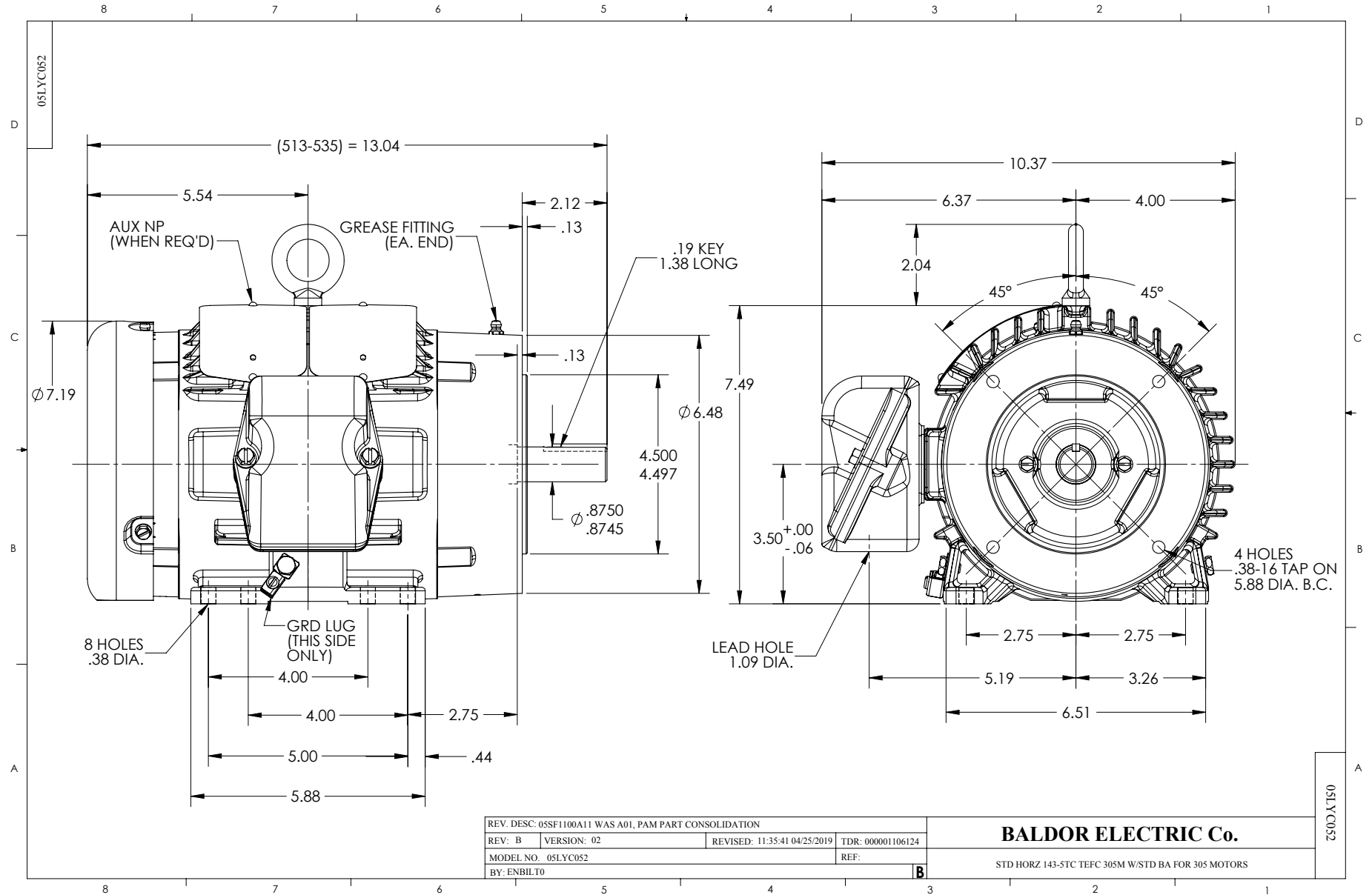
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1760 RPM 460 V 0520M

TORQUES (LB-FT): PO=13.9 PU=8 LR=9.18 LRA=14.4



1/18/2025 ACPERF, record # 82131



CD0005

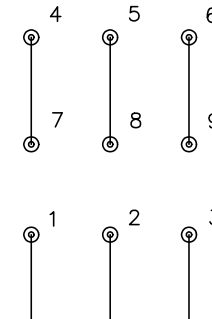


LOW VOLTAGE
(2Y)



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

| | | | |
|---|---------|-------------------------|--------------|
| 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