



Customer information packet

CEM3709T-G

7.5HP, 3520RPM, 3PH, 60HZ, 213TC, TEFC, F1

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|---|
| Enclosure | TEFC |
| Frame | 213TC |
| Frame Material | Steel |
| Frequency | 60.00 Hz |
| Haz Area Class and Group | None |
| Haz Area Division | Not Applicable |
| Motor Letter Type | Three Phase |
| Output @ Frequency | 7.500 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 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 | 9.000 A @ 460.0 V 18.000 A @ 230.0 V |
| Design Code | A |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 89.5 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 9.0 a |

Part detail

| | |
|--------------|------------|
| Revision | E |
| Type | AC |
| Mech. spec. | |
| Base | |
| Status | PRD/A |
| Elec. spec. | 37WGR224 |
| Layout | 37LYJ841 |
| Eff. date | 05-01-2024 |
| CD Diagram | CD0005 |
| Poles | 02 |
| Leads | 9#14 |
| Proprietary | False |
| Created date | 12-17-2019 |

| | |
|-----------------------------------|-----------------------|
| Insulation Class | H |
| Inverter Code | Inverter Ready |
| IP Rating | NONE |
| KVA Code | J |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 3728M |
| Mounting Arrangement | F1 |
| Number of Poles | 2 |
| Overall Length | 18.63 IN |
| Power Factor | 84 |
| Product Family | General Purpose |
| Pulley Face Code | C-Face |
| Rodent Screen | None |
| Service Factor | 1.15 |
| Shaft Diameter | 1.375 IN |
| Shaft Ground Indicator | Shaft Grounding |
| Shaft Rotation | Reversible |
| Speed | 3520 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. | CEM3709T-G | | | | | | |
| SPEC | 37-0000-0186 | | | | | | |
| HP | 7.5 | | | | | | |
| VOLTS | 230/460 | | | | | | |
| AMPS | 18/9 | | | | | | |
| RPM | 3520 | | | | | | |
| FRAME | 213TC | HZ | 60 | PH | 3 | | |
| SF | 1.15 | CODE | J | DES | A | CLASS | H |
| NEMA NOM. EFF | 89.5 | PF | 84 | | | | |
| RATING | 40C AMB-CONT | | | | | | |
| CC | 010A | | | | | | |
| ENCL | TEFC | SER | | | | | |
| DE | 6307 | ODE | 6206 | | | | |
| VPWM INVERTER READY | | | | | | | |
| CT6-60H(10:1)VT3-60H(20:1 | 50HZ 7.5HP 190/380V 21.2/10.6A | | | | | | SF1.0 |

AC Induction Motor Performance Data

Record # 53379

Typical performance - not guaranteed values

| Winding: 37WGR224-R034 | | Type: 3728M | | Enclosure: TEFC | |
|-------------------------------|----------|----------------------------------|--|------------------------|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 7.5 | Full Load Torque | 10.9 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 18/9 | Breakdown Torque | 40.4 LB-FT | | |
| R.P.M. | 3520 | Pull-up Torque | 20.6 LB-FT | | |
| Hz | 60 | Locked-rotor Torque | 21.8 LB-FT | | |
| NEMA Design Code | A | Starting Current | 68.4 A | | |
| Service Factor (S.F.) | 1.15 | No-load Current | 3.73 A | | |
| NEMA Nom. Eff. | 89.5 | Line-line Res. @ 25°C | 1.1531 Ω | | |
| Rating - Duty | 40C | Temp. Rise @ Rated Load | 45°C | | |
| S.F. Amps | AMB-CONT | Temp. Rise @ S.F. Load | 54°C | | |
| | | Locked-rotor Power Factor | 33 | | |
| | | Rotor inertia | 0.255 LB-FT ² | | |

Load Characteristics 460 V, 60 Hz, 7.5 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 45 | 69 | 79 | 84 | 87 | 89 | 86 |
| Efficiency | 81.5 | 88.8 | 90.5 | 90.6 | 90.1 | 89.2 | 90.3 |
| Speed | 3580.5 | 3562.7 | 3541.6 | 3520.3 | 3496.3 | 3470.9 | 3506 |
| Line amperes | 4.22 | 5.36 | 7.03 | 8.94 | 11 | 13.1 | 10.2 |

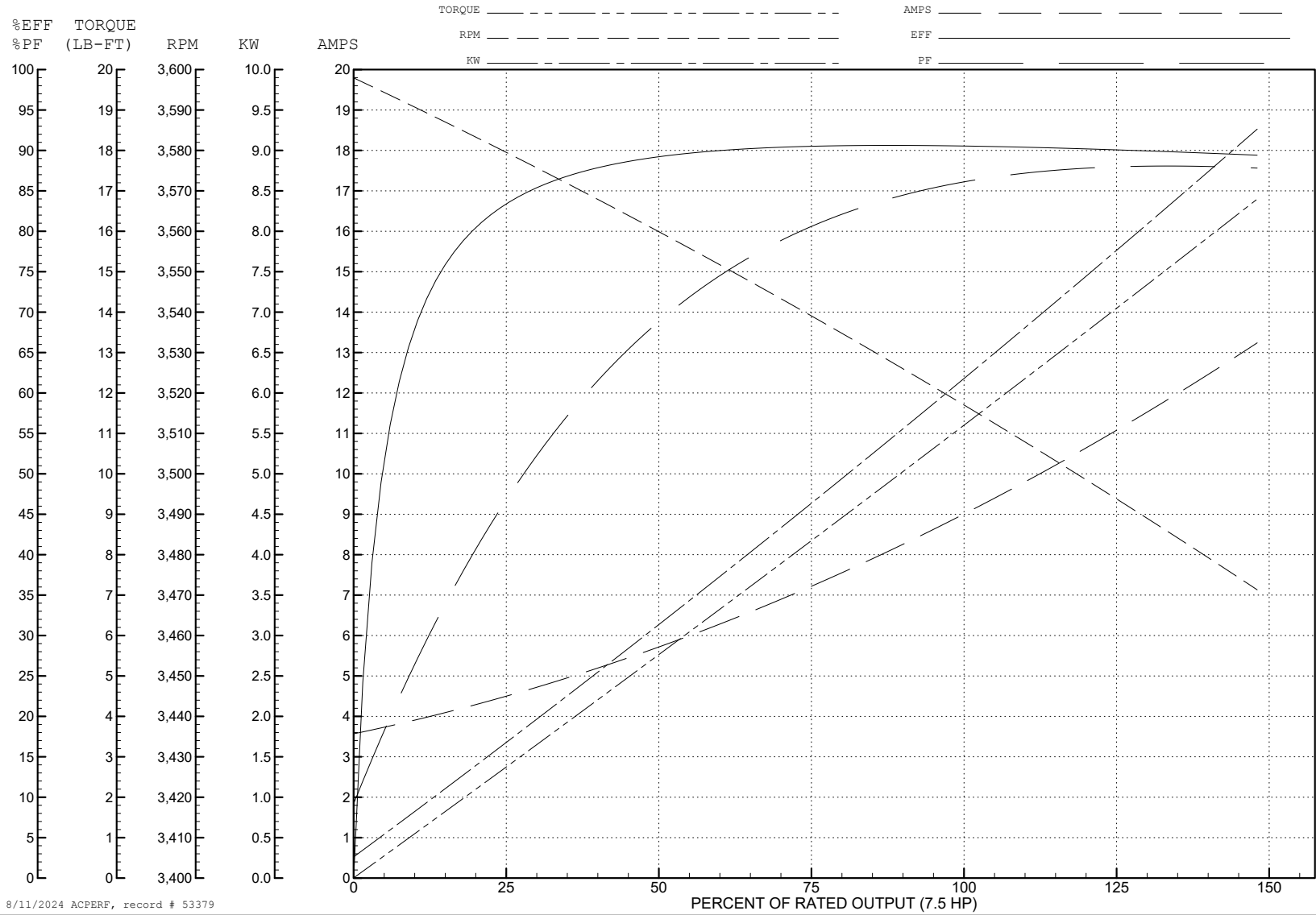
ABB Motors and Mechanical Inc.

WINDING # 37WGR224

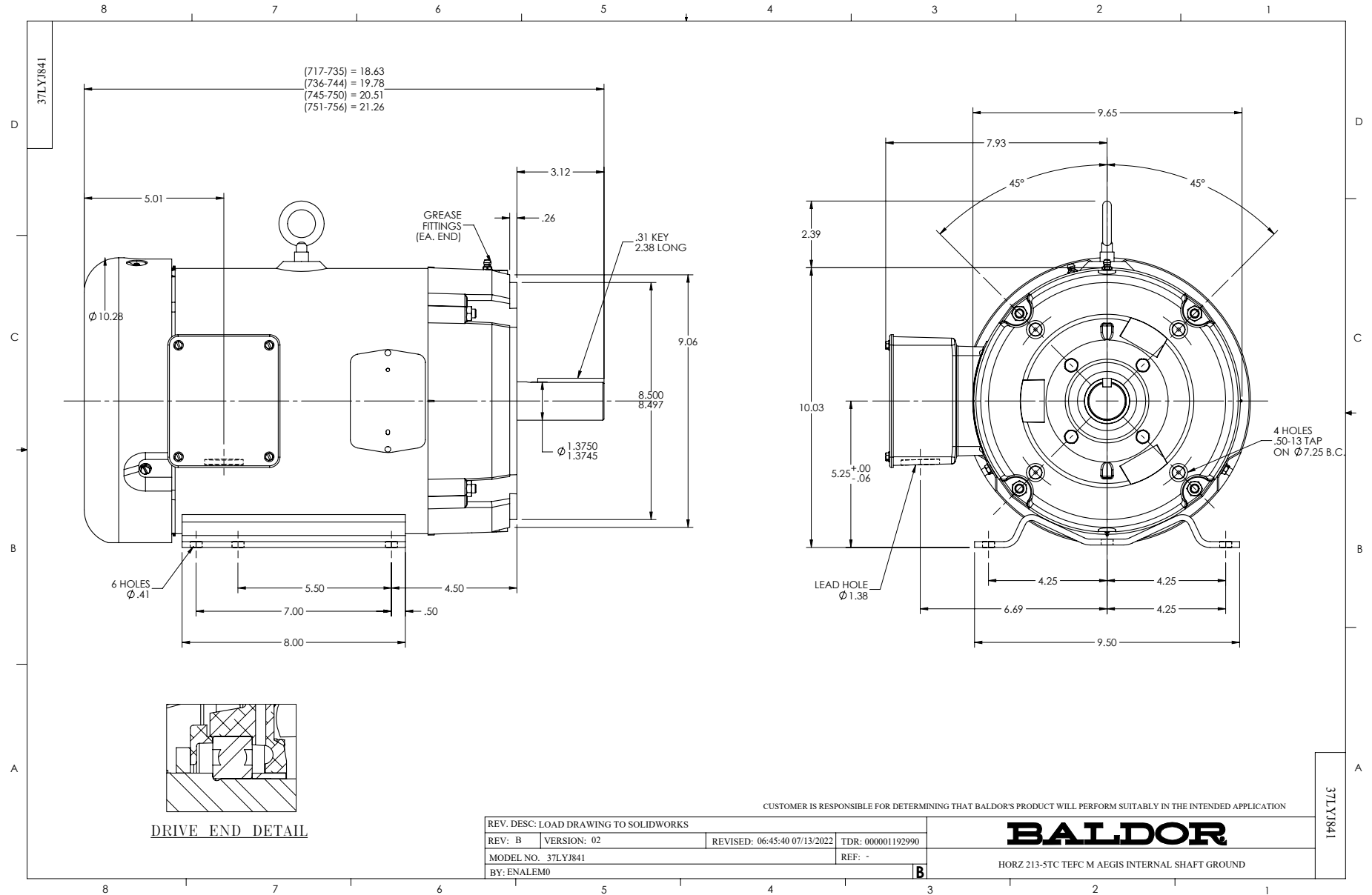
7.5 HP 3 PH 60 HZ 3520 RPM 460 V 3728M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=40.4 PU=20.6 LR=21.8 LRA=68.4



8/11/2024 ACPERF, record # 53379



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