

BALDOR • RELIANCE

Customer information packet

CEM3713T

15HP, 3500RPM, 3PH, 60HZ, 215TC, 3752M, TEFC, F

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|--|
| Enclosure | TEFC |
| Frame | 215TC |
| 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 | 15.000 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 EEV CURUSEEV 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 | 34.000 A @ 230.0 V 36.800 A @ 208.0 V 17.000 A @ 460.0 V |
| Design Code | A |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 91.0 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |

Part detail

| | |
|--------------|------------|
| Revision | P |
| Type | AC |
| Mech. spec. | 37G814 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 37WGR228 |
| Layout | 37LYG814 |
| Eff. date | 05-02-2024 |
| CD Diagram | CD0180 |
| Poles | 02 |
| Leads | 9#14 |
| Proprietary | False |
| Created date | 03-01-2012 |

| | |
|-------------------------------|-----------------------|
| Front Face Code | Standard |
| Front Shaft Indicator | None |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 17.0 a |
| Insulation Class | F |
| Inverter Code | Inverter Ready |
| KVA Code | J |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Motor Lead Exit | Ko Box |
| Motor Lead Quantity/Wire Size | 9 @ 14 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 3752M |
| Mounting Arrangement | F1 |
| Number of Poles | 2 |
| Overall Length | 21.26 IN |
| Power Factor | 89 |
| 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 | 1.375 IN |
| Shaft Extension Location | Pulley End |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | No Slinger |
| Speed | 3500 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. | CEM3713T | | | | | | |
| SPEC | 37G814R228G1 | | | | | | |
| HP | 15 | | | | | | |
| VOLTS | 230/460 | | | | | | |
| AMPS | 34/17 | | | | | | |
| RPM | 3500 | | | | | | |
| FRAME | 215TC | HZ | 60 | PH | 3 | | |
| SF | 1.15 | CODE | J | DES | A | CLASS | F |
| NEMA NOM. EFF | 91 | PF | 89 | | | | |
| 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 15HP 190/380V 40.8/20.4A | | | | | | SF1.0 |

AC Induction Motor Performance Data

Record # 53380

Typical performance - not guaranteed values

| Winding: 37WGR228-R023 | | Type: 3752M | Enclosure: TEFC | |
|------------------------|-----------------|--|---------------------------|--------------------------|
| Nameplate Data | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 15 | Full Load Torque | 22.12 LB-FT | |
| Volts | 230/460 | Start Configuration | direct on line | |
| Full Load Amps | 34/17 | Breakdown Torque | 103 LB-FT | |
| R.P.M. | 3500 | Pull-up Torque | 40.16 LB-FT | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 57.59 LB-FT |
| NEMA Design Code | A KVA Code | J | Starting Current | 150 A |
| Service Factor (S.F.) | | 1.15 | No-load Current | 5.55 A |
| NEMA Nom. Eff. | 91 Power Factor | 89 | Line-line Res. @ 25°C | 0.47 Ω |
| Rating - Duty | | 40C AMB-CONT | Temp. Rise @ Rated Load | 68°C |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 79°C |
| | | | Locked-rotor Power Factor | 30.9 |
| | | | Rotor inertia | 0.474 LB-FT ² |

Load Characteristics 460 V, 60 Hz, 15 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|-------|-------|-------|-------|------|
| Power Factor | 56 | 78 | 85 | 89 | 90 | 90 | 89 |
| Efficiency | 86.8 | 91 | 91.9 | 91.4 | 90.8 | 89.8 | 91.3 |
| Speed | 3579 | 3557 | 3534 | 3500 | 3484 | 3456 | 3495 |
| Line amperes | 6.7 | 9.57 | 13.19 | 17.03 | 21.12 | 25.61 | 19.5 |

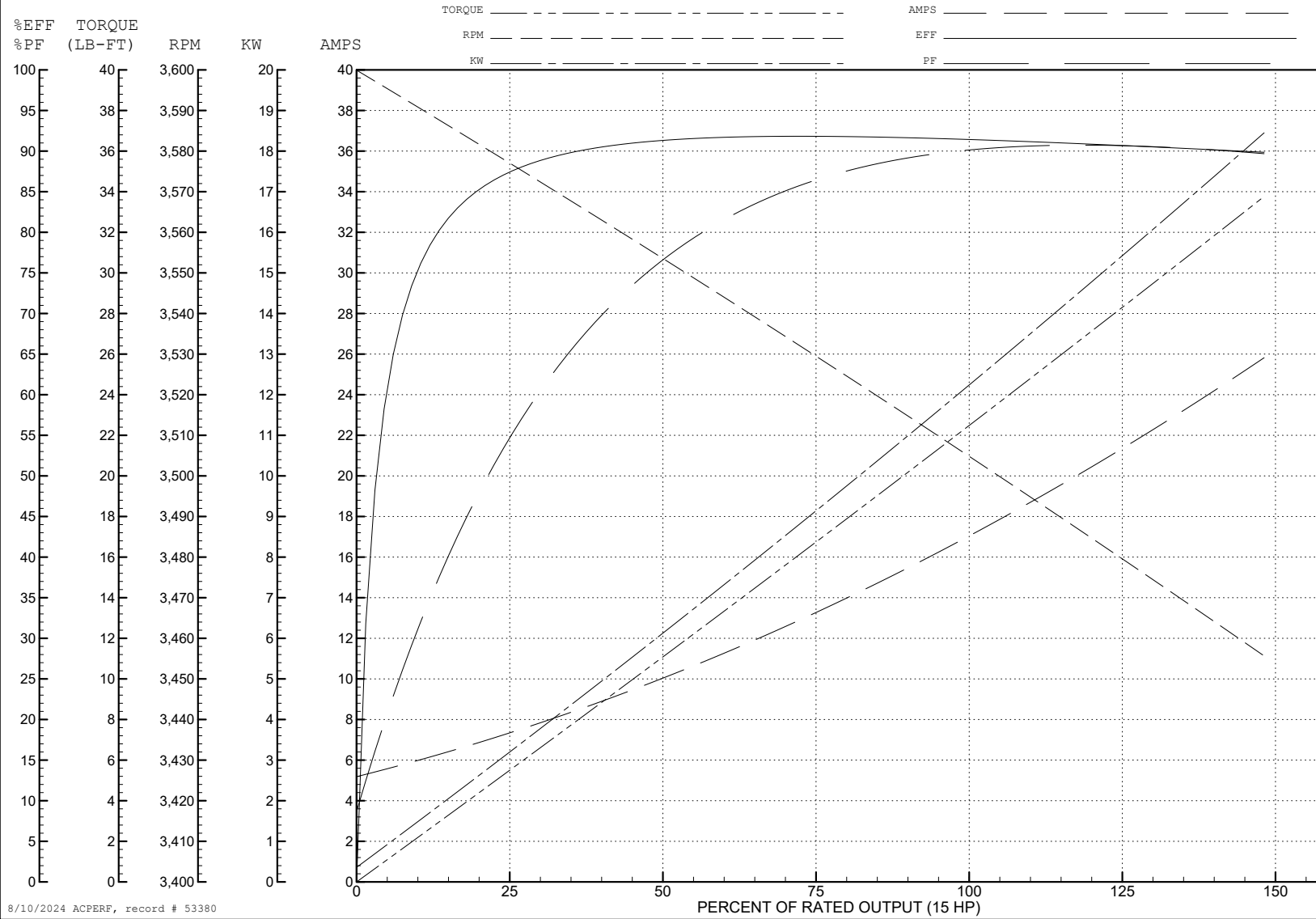
ABB Motors and Mechanical Inc.

WINDING # 37WGR228

Typical performance - not guaranteed values.

15 HP 3 PH 60 HZ 3500 RPM 460 V 3752M

TORQUES (LB-FT): PO=103 PU=40.16 LR=57.59 LRA=150



8/10/2024 ACPERF, record # 53380

AC Induction Motor Performance Data

Record # 57899

Typical performance - not guaranteed values

| Winding: 37WGR228-R023 | | Type: 3752M | | Enclosure: TEFC | |
|-------------------------------|------------------------|----------------------------------|---|------------------------|--|
| Nameplate Data | | | 230 V, 60 Hz: Low Voltage Connection | | |
| Rated Output (HP) | 15 | Full Load Torque | 22.1 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 34/17 | Breakdown Torque | 104 LB-FT | | |
| R.P.M. | 3500 | Pull-up Torque | 40.3 LB-FT | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 57.8 LB-FT | |
| NEMA Design Code | A KVA Code | J | Starting Current | 300 A | |
| Service Factor (S.F.) | 1.15 | No-load Current | 11.1 A | | |
| NEMA Nom. Eff. | 91 Power Factor | 89 | Line-line Res. @ 25°C | 0.111 Ω | |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 67°C | | |
| S.F. Amps | | Temp. Rise @ S.F. Load | 82°C | | |
| | | Locked-rotor Power Factor | 30.3 | | |
| | | Rotor inertia | 0.474 LB-FT ² | | |

Load Characteristics 230 V, 60 Hz, 15 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 56 | 77 | 85 | 89 | 90 | 90 | 90 |
| Efficiency | 86.8 | 91.1 | 92 | 91.8 | 91 | 90 | 91.3 |
| Speed | 3579 | 3558 | 3534 | 3510 | 3485 | 3456 | 3495 |
| Line amperes | 13.4 | 19.1 | 26.4 | 34 | 42.2 | 51.2 | 38.9 |

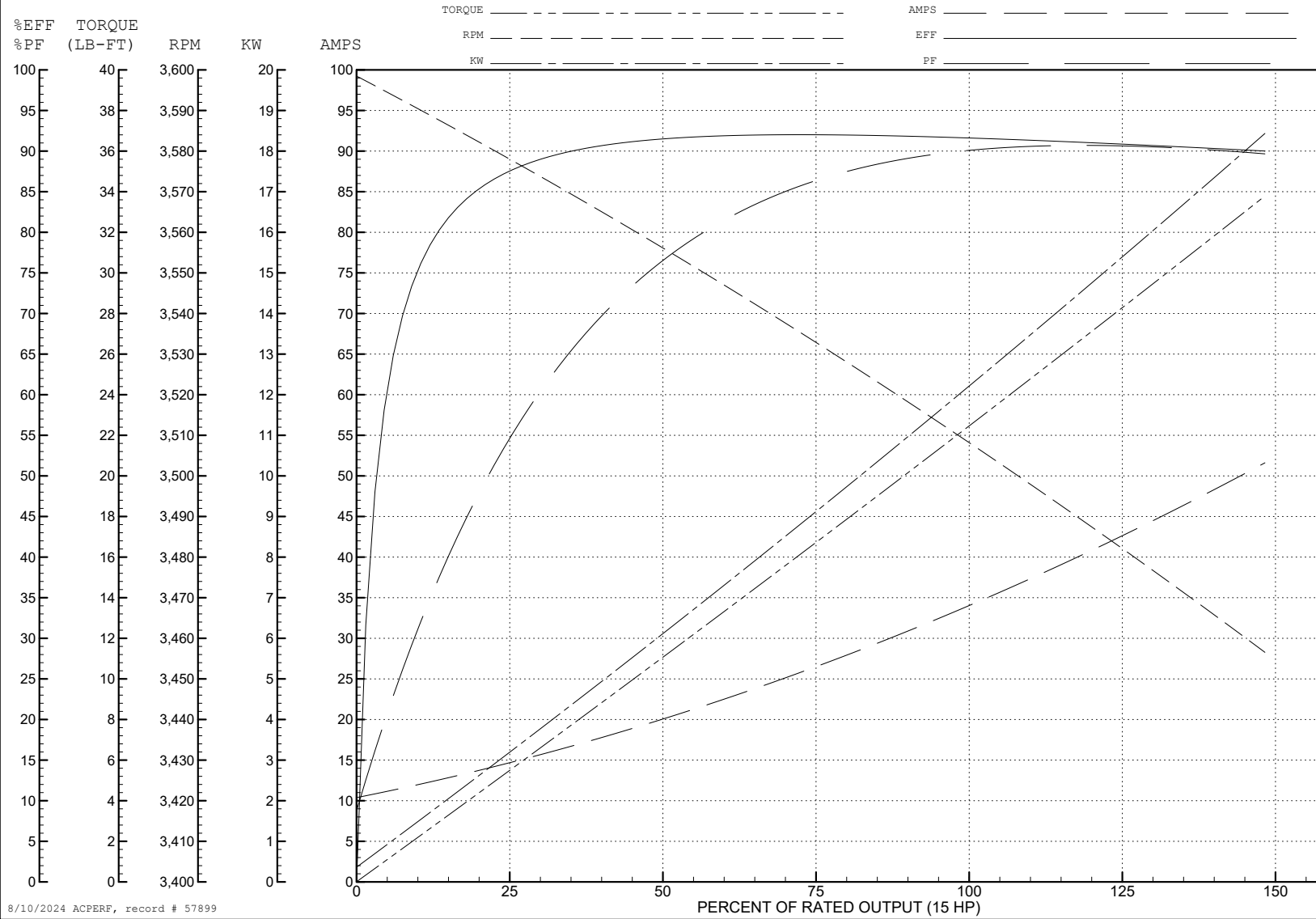
ABB Motors and Mechanical Inc.

WINDING # 37WGR228

Typical performance - not guaranteed values.

15 HP 3 PH 60 HZ 3500 RPM 230 V 3752M

TORQUES (LB-FT): PO=104 PU=40.3 LR=57.8 LRA=300



8/10/2024 ACPERF, record # 57899

AC Induction Motor Performance Data

Record # 70097

Typical performance - not guaranteed values

| Winding: 37WGR228-RXXX | | Type: 3752M | Enclosure: TEFC | |
|------------------------|-----------------|---------------------------|--|-------------|
| Nameplate Data | | | 380 V, 50 Hz: High Voltage Connection | |
| Rated Output (HP) | 15 | Full Load Torque | 17.68 LB-FT | |
| Volts | 230/460 | Start Configuration | direct on line | |
| Full Load Amps | 34/17 | Breakdown Torque | 98.71 LB-FT | |
| R.P.M. | 3500 | Pull-up Torque | 42.31 LB-FT | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 60.68 LB-FT |
| NEMA Design Code | A KVA Code | J | Starting Current | 146 A |
| Service Factor (S.F.) | 1.15 | No-load Current | 5.43 A | |
| NEMA Nom. Eff. | 91 Power Factor | 89 | Line-line Res. @ 25°C | 0.47 Ω |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 52°C | |
| S.F. Amps | | Temp. Rise @ S.F. Load | 63°C | |
| | | Locked-rotor Power Factor | 34.6 | |
| | | Rotor inertia | 0.474 LB-FT ² | |

Load Characteristics 380 V, 50 Hz, 10 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|-------|-------|-------|-------|------|
| Power Factor | 51 | 73 | 82 | 87 | 89 | 90 | 88 |
| Efficiency | 81.7 | 88 | 89.8 | 89.9 | 89.6 | 88.9 | 89.7 |
| Speed | 2982 | 2964 | 2945 | 2918 | 2905 | 2883 | 2910 |
| Line amperes | 6.27 | 8.45 | 11.29 | 14.27 | 17.46 | 20.98 | 16.2 |

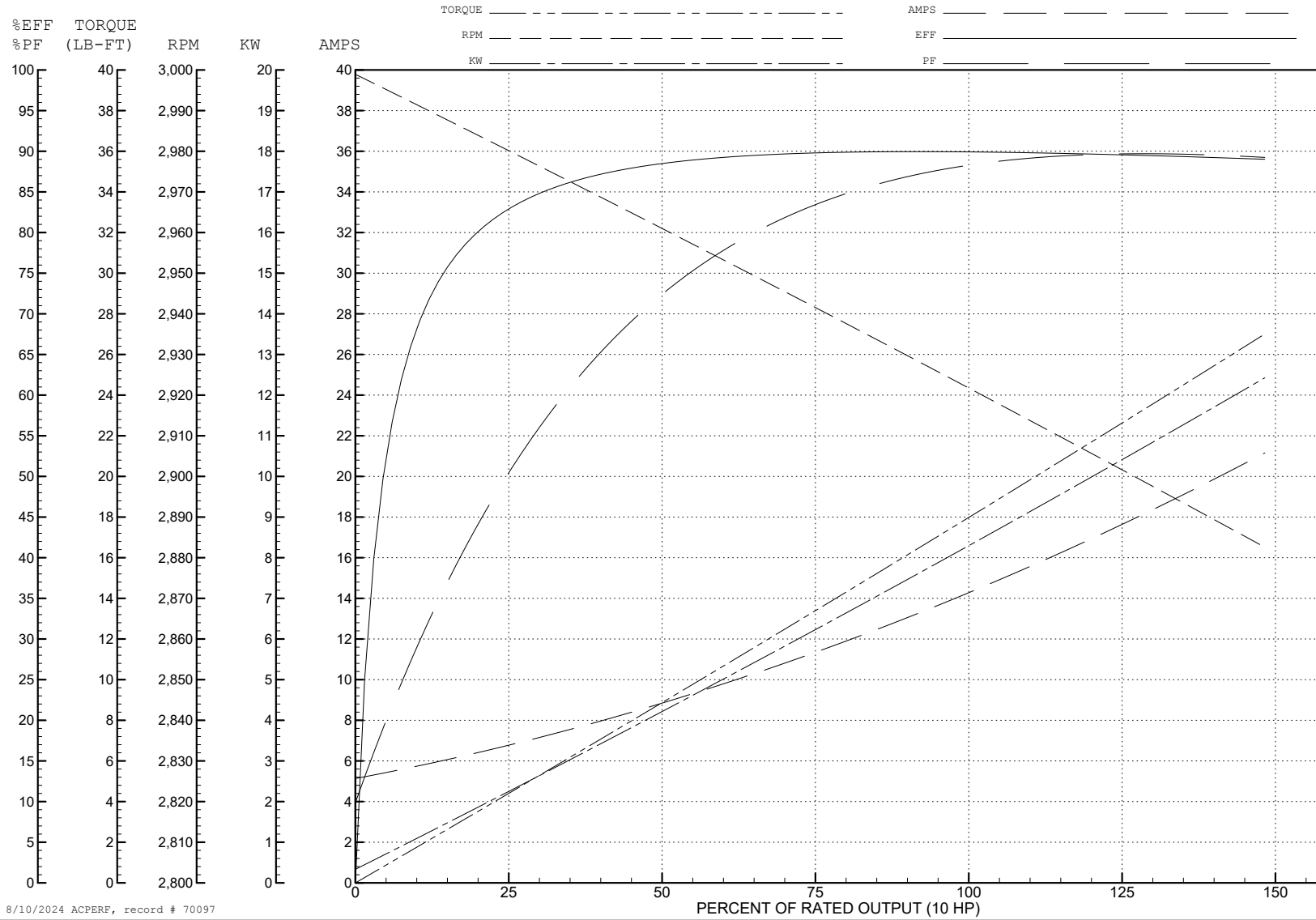
ABB Motors and Mechanical Inc.

WINDING # 37WGR228

Typical performance - not guaranteed values.

10 HP 3 PH 50 HZ 3500 RPM 380 V 3752M

TORQUES (LB-FT): PO=98.71 PU=42.31 LR=60.68 LRA=146



8/10/2024 ACPERF, record # 70097

AC Induction Motor Performance Data

Record # 73419

Typical performance - not guaranteed values

| Winding: 37WGR228-RXXX | | Type: 3752M | | Enclosure: TEFC | |
|-------------------------------|--------------|----------------------------|--|----------------------------------|--------------------------|
| Nameplate Data | | | 480 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 15 | Full Load Torque | 22.12 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 34/17 | Breakdown Torque | 113 LB-FT | | |
| R.P.M. | 3500 | Pull-up Torque | 44.76 LB-FT | | |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 64.18 LB-FT |
| NEMA Design Code | A | KVA Code | J | Starting Current | 159 A |
| Service Factor (S.F.) | | | 1.15 | No-load Current | 6.32 A |
| NEMA Nom. Eff. | 91 | Power Factor | 89 | Line-line Res. @ 25°C | 0.47 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 67°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 83°C |
| | | | | Locked-rotor Power Factor | 31.2 |
| | | | | Rotor inertia | 0.474 LB-FT ² |

Load Characteristics 480 V, 60 Hz, 15 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 50 | 72 | 82 | 86 | 88 | 89 | 87 |
| Efficiency | 86.2 | 90.7 | 91.8 | 91.5 | 90.9 | 90.1 | 91.1 |
| Speed | 3580 | 3560 | 3538 | 3506 | 3491 | 3465 | 3497 |
| Line amperes | 7.28 | 9.85 | 13.18 | 16.77 | 20.58 | 24.75 | 19.1 |

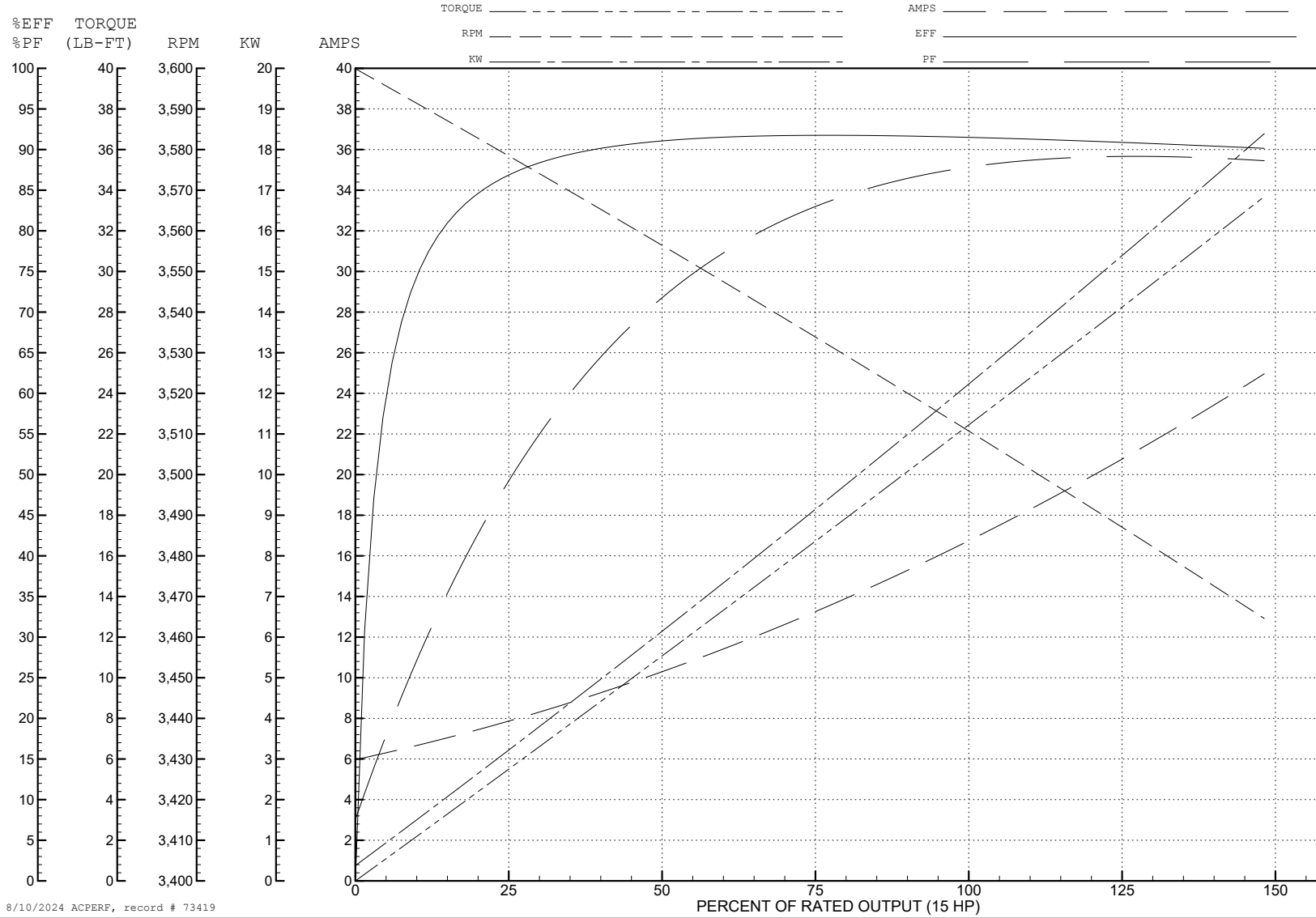
ABB Motors and Mechanical Inc.

WINDING # 37WGR228

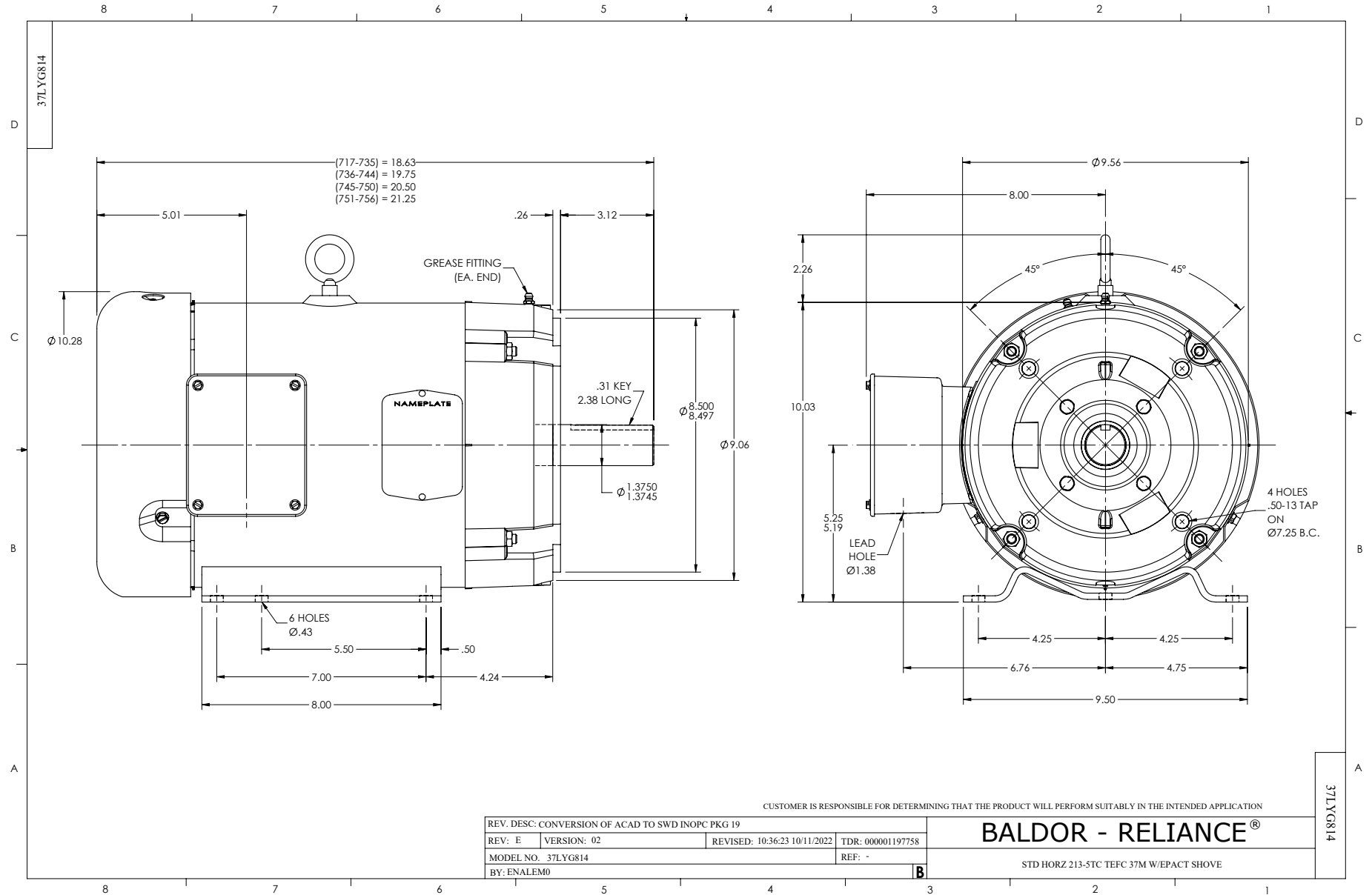
Typical performance - not guaranteed values.

15 HP 3 PH 60 HZ 3500 RPM 480 V 3752M

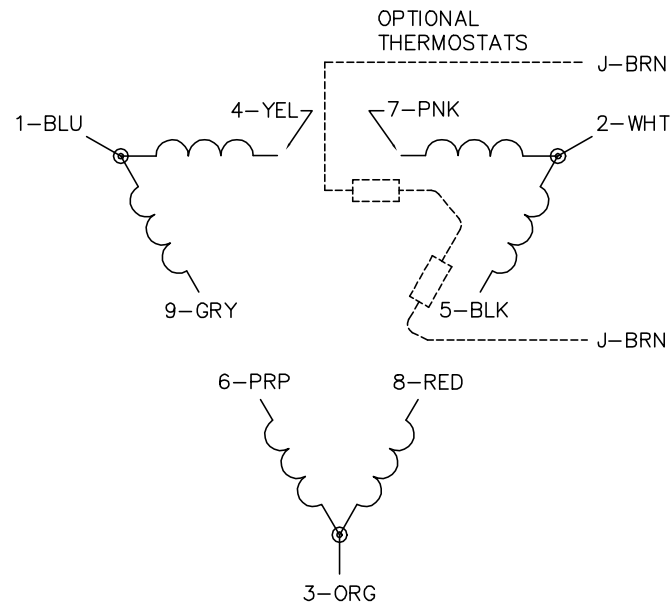
TORQUES (LB-FT): PO=113 PU=44.76 LR=64.18 LRA=159



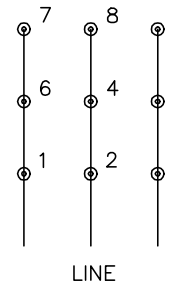
8/10/2024 ACPERF, record # 73419



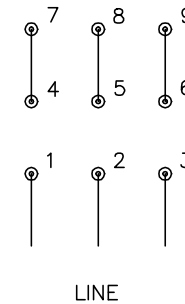
CD0180



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

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BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1