



Customer information packet

EM4314T

60HP, 1780RPM, 3PH, 60HZ, 364T, A3658M, TEFC, F

Class - None

Division - Not Applicable

Specifications

| | |
|-------------------------------|--|
| Enclosure | TEFC |
| Frame | 364T |
| 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 | 60.000 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 | CCSAUSEEV NEMA PREMIUM NEMA_PREMIUM UR |
| Ambient Temperature | 40 °C |
| Auxillary Box | No Auxillary Box |
| Base Indicator | Rigid |
| Bearing Grease Type | Polyrex EM (-20F +300F) |
| Current @ Voltage | 140.000 A @ 230.0 V 152.000 A @ 208.0 V 70.000 A @ 460.0 V |
| Design Code | B |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 95.0 % |
| Enclosure Modification | Severe Duty Features |
| Feedback Device | NO FEEDBACK |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 70.0 a |
| Insulation Class | F |

Part detail

| | |
|--------------|------------|
| Revision | S |
| Type | AC |
| Mech. spec. | |
| Base | |
| Status | PRD/A |
| Elec. spec. | A36WG4075 |
| Layout | 617428-012 |
| Eff. date | 02-13-2025 |
| CD Diagram | CD0180 |
| Poles | 04 |
| Leads | 3#4,6#6 Y |
| Proprietary | False |
| Created date | 05-16-2019 |

| | |
|--------------------------------------|--------------------|
| Inverter Code | Inverter Ready |
| IP Rating | NONE |
| KVA Code | G |
| Lifting Lugs | No Lifting Lugs |
| Max Speed | 2700 rpm |
| Motor Lead Quantity/Wire Size | 3 @ 4 AWG |
| Motor Standards | NEMA |
| Motor Type | A3658M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 33.48 IN |
| Power Factor | 84 |
| Pulley End Bearing Type | Ball |
| Pulley Face Code | Standard |
| Service Factor | 1.15 |
| Shaft Diameter | 2.375 IN |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | No Slinger |
| Speed | 1780 rpm |
| Speed Code | Single Speed |
| Starting Method | Direct on line |
| Thermal Device - Bearing | None |
| Thermal Device - Winding | None |

Nameplate

NP3979LUA

| | | | | | | | | | | | | | |
|----------------------|----------------------------|-----------|---------------|----------------------|---------------|-------------|------------|------------|------------|----------------------|-----------|-------|--------------------|
| CAT # | EM4314T | | SER | | | CC | 010A | | | | | | |
| SPEC | A36-6172-4075 | | RATING | 40C AMB-CONT | | | | | | | | | |
| HZ | VOLTS | | AMPS | RPM | HP | CODE | SF | DES | PF | NEMA NOM. EFF | | | |
| 60 | 230/460 | | 140/70 | 1780 | 60 | G | 1.15 | B | 84 % | 95 % | | | |
| | - | | | | | | | | % | | % | | |
| PH | 3 | CL | F | MAX CORR KVAR | 15 | | | | | | | | |
| BRG | DE | 6313 | ODE | 6313 | ENCL | TEFC | FR | 364T | | 54 | | | |
| GREASE | POLYREX EM | | | | MTR WT | 912 | LBS | | | | | | |
| USABLE AT | 50HZ 50HP 190/380V 138/69A | | | | SF1.0 | | | | | | | | |
| INVERTER DUTY | CT | 15-60 | HZ | 4:1 | VT | 3-60 | HZ | 20:1 | CHP | 60-90 | HZ | 1.5:1 | 1.0 SF VPWM |
| MAX RPM | 2700 | | | | | | | | | | | | |

AC induction motor performance data

Record #72794 - Typical performance - not guaranteed values

| | |
|-----------|-----------|
| Winding | A36WG4075 |
| Type | A3658M |
| Enclosure | TEFC |

Nameplate data

| | | | |
|----------------|----|--------------|---------|
| Rated Output | | | 60 |
| Volts | | | 230/460 |
| Full Load Amps | | | 140/70 |
| R.P.M. | | | 1780 |
| Hz | 60 | Phase | 3 |
| KVA Code | | | G |
| S.F. | | | 1.15 |
| NEMA Nom. Eff. | 95 | Power Factor | 84 |
| Duty | | | CONT |
| S.F. Amps | | | |

460 V, 60 Hz:

High Voltage Connection

| | |
|---------------------------|----------------|
| Full Load Torque | 176.4 LB-FT |
| Start Configuration | direct on line |
| Breakdown Torque | 422 LB-FT |
| Pull-up Torque | 276 LB-FT |
| Locked-rotor Torque | 352 LB-FT |
| Starting Current | 462 A |
| No-load Current | 24.8 |
| Line-line Res. @ 25°C | 0.10816 Ω |
| Temp. Rise @ Rated Load | 56°C |
| Temp. Rise @ S.F. Load | 70°C |
| Locked-rotor Power Factor | 32.3 |
| Rotor inertia | 0 |

Load Characteristics 460 V, 60 Hz, 60 HP

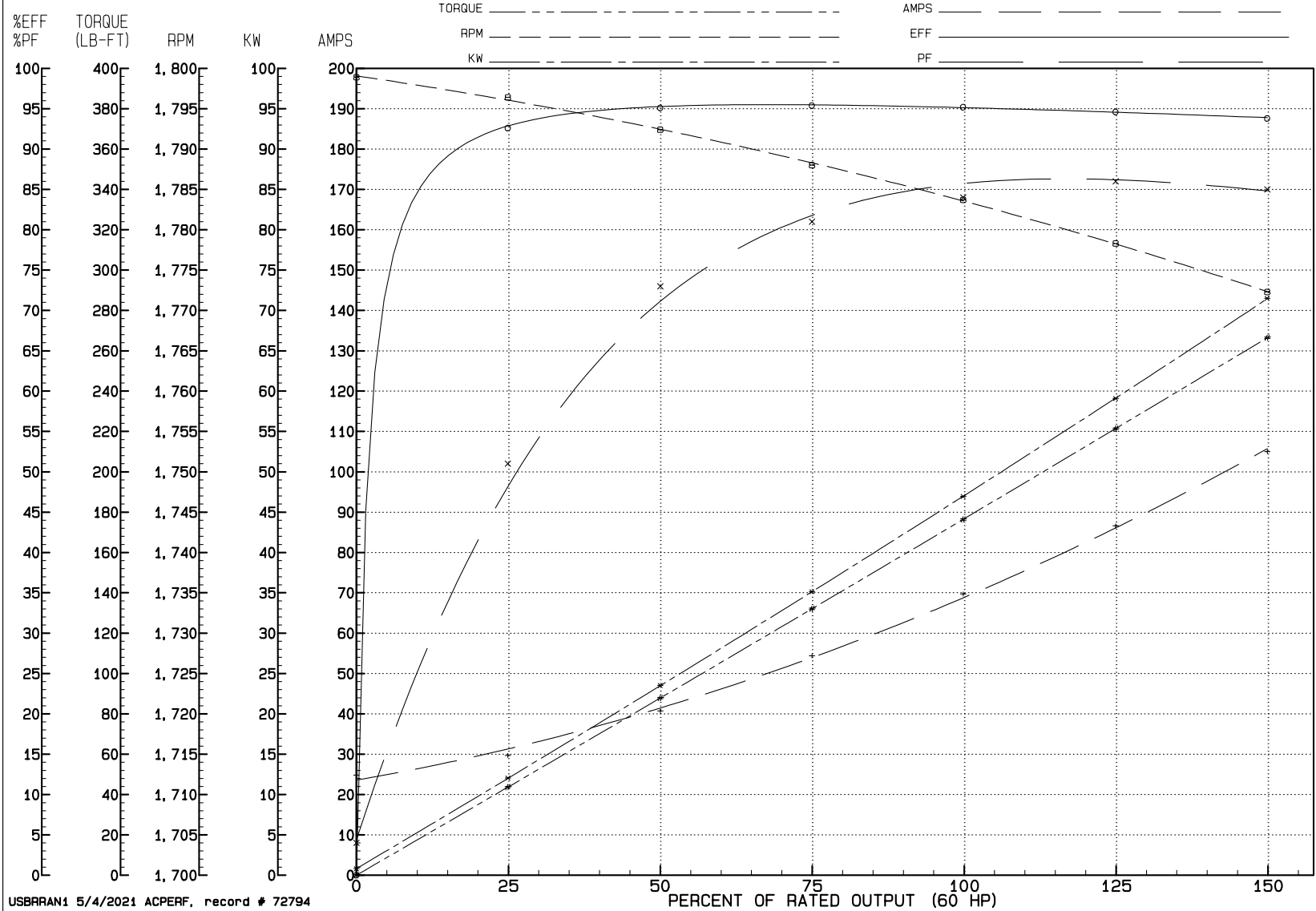
| % of Rated Load | NL | 25 | 50 | 75 | 100 | 125 | 150 | SF |
|-----------------|--------|--------|--------|------|--------|--------|--------|------|
| Power Factor | 4 | 51 | 73 | 81 | 84 | 86 | 85 | 85 |
| Efficiency | 0 | 92.6 | 95.1 | 95.4 | 95.2 | 94.6 | 93.8 | 94.8 |
| Speed | 1798.9 | 1796.4 | 1792.4 | 1788 | 1783.7 | 1778.3 | 1772.3 | 1780 |
| Line amperes | 24.8 | 29.7 | 40.7 | 54.4 | 69.7 | 86.6 | 105 | 79.8 |

REVIEW

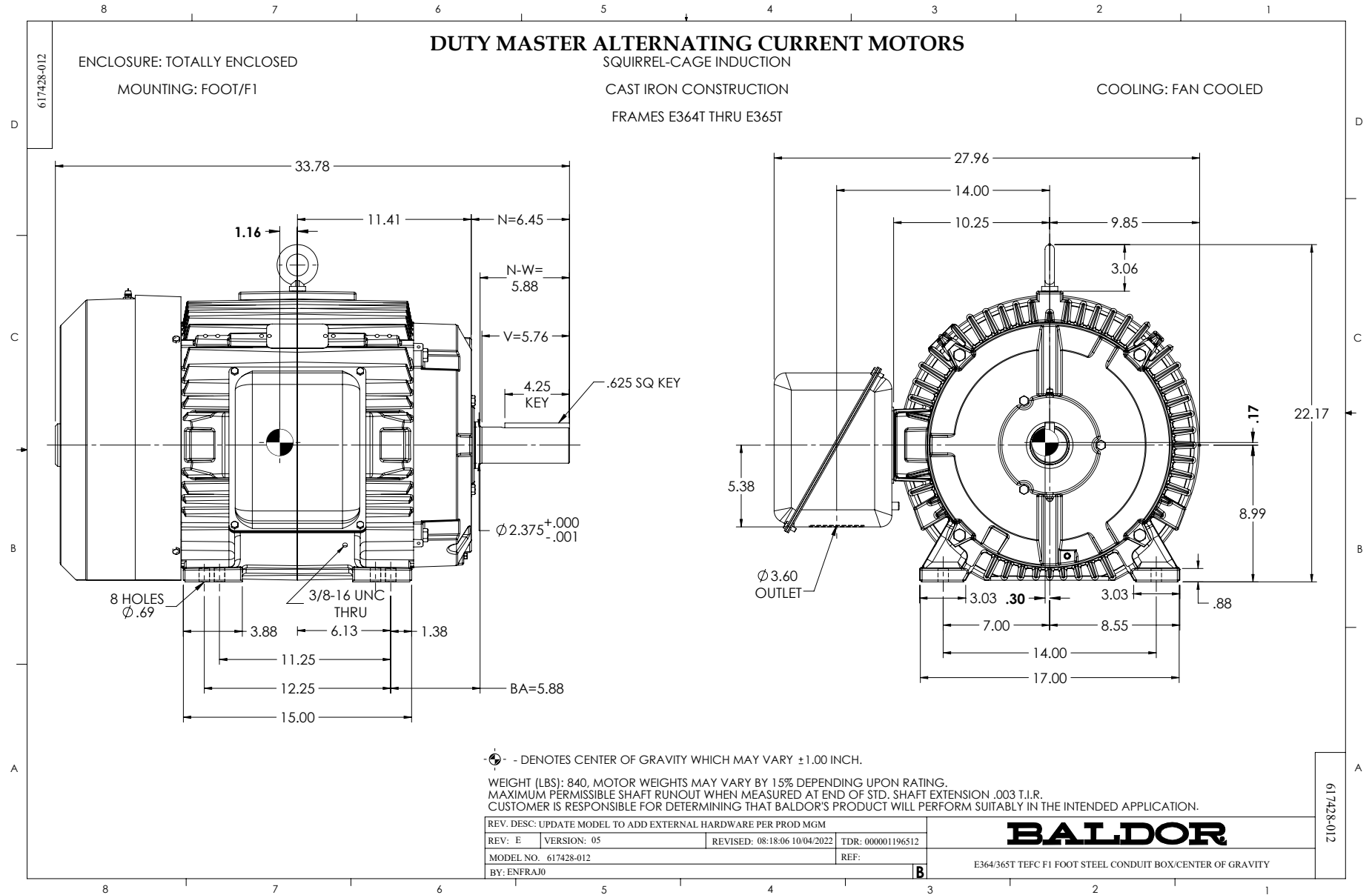
WINDING # A36WG4075

60 HP 3 PH 60 HZ 1780 RPM 460 V A3658M

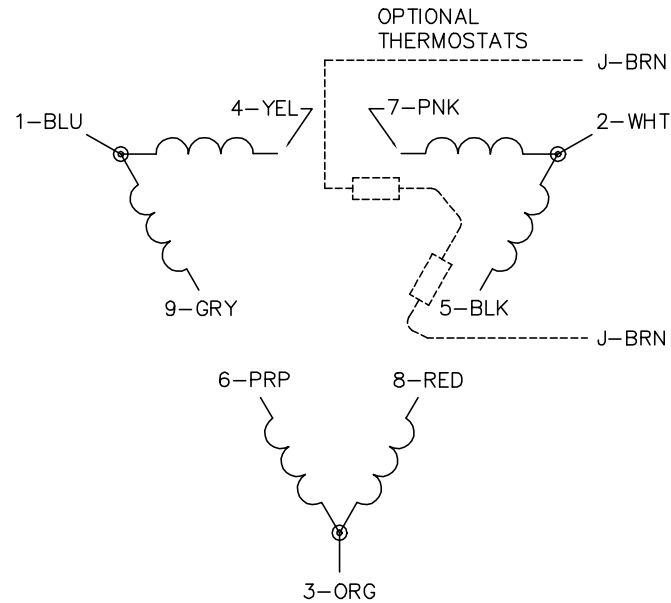
TORQUES (LB-FT): P0=422.00 PU=276.00 LR=352.00 LRA=462.00



USBRRAN1 5/4/2021 ACPERF, record # 72794



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