

ABB BALDOR RELIANCE III

Customer information packet

DRX36744T

75HP, 1785RPM, 3PH, 60HZ, 365T, A36070M, TEFC

Class - CLI GP C,D

Division - Division I

Specifications

| | |
|-------------------------------|--|
| Enclosure | TEFC |
| Frame | 365T |
| Frame Material | Iron |
| Frequency | 60.00 Hz |
| Haz Area Class and Group | CLI GP C,D |
| Haz Area Division | Division I |
| Motor Letter Type | Three Phase |
| Output @ Frequency | 75.000 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 UL CCSAUSEEV |
| Ambient Temperature | 40 °C |
| Auxiliary Box | NO AUXILLARY BOX |
| Base Indicator | Rigid |
| Bearing Grease Type | Polyrex EM (-20F +300F) |
| Constant Torque Speed Range | 15-60 |
| Current @ Voltage | 171.000 A @ 230.0 V 188.000 A @ 208.0 V 85.600 A @ 460.0 V |
| Design Code | B |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 95.4 % |
| Feedback Device | NO FEEDBACK |
| Haz Area Temp Code | T3C |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 85.6 a |
| Insulation Class | F |

Part Detail

| | |
|--------------|------------|
| Revision | - |
| Type | AC |
| Mech. spec. | |
| Base | |
| Status | PRD/A |
| Elec. spec. | A36WG4076 |
| Layout | 611742-772 |
| Eff. date | 07-28-2025 |
| CD Diagram | 416820-002 |
| Poles | 04 |
| Leads | 3#4,6#6 |
| Proprietary | False |
| Created date | 07-25-2025 |

| | |
|--------------------------------------|----------------------------|
| Inverter Code | Inverter Ready |
| KVA Code | G |
| Lifting Lugs | Standard Lifting Lugs |
| Max Speed | 2700 rpm |
| Motor Lead Quantity/Wire Size | 3 @ 4 AWG |
| Motor Standards | NEMA |
| Motor Type | A36070M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 33.48 IN |
| Power Factor | 86 |
| Product Family | General Industrial |
| Pulley End Bearing Type | Ball |
| Pulley Face Code | Standard |
| Service Factor | 1.00 |
| Shaft Diameter | 2.374 IN |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | Shaft Slinger |
| Speed | 1785 rpm |
| Speed Code | Single Speed |
| Starting Method | Direct on line |
| Thermal Device - Bearing | None |
| Thermal Device - Winding | Normally Closed Thermostat |

Nameplate

| |
|------------------|
| NP2496L |
| MOBIL POLYREX EM |

000692000FX

000613006PC

| | | | |
|----------------------------|-------|------------|--|
| CLASS I GROUP | C D X | NO. | |
| CLASS II GROUP | X X X | | |
| OPERATING TEMP CODE | T3C | | |

NP3140L

| | | | | | | | | | |
|-----------------------------|---------------|--------------|-------------|---------------------|--------------------|---------------|---------------------|--------------|------|
| SPEC NO. | A36-7734-4076 | | | CAT.NO. | DRX36744T | | | FRAME | 365T |
| HP | 75 | VOLTS | 230/460 | PHASE | 3 | DESIGN | B | TYPE | P |
| RPM | 1785 | AMPS | 171/85.6 | HZ | 60 | AMB | 40 | SF | 1.00 |
| DRIVE END BEARING | 65BC03J30X | | DUTY | CONT | INSUL.CLASS | | F | | |
| OPP D.E. BEARING | 65BC03J30X | | ENCL | TEFC | CODE | G | | | |
| SF | 1.15 | WK2 | 16.2 | MAG CUR | 55.2/27.6 | | RPM MAX | 2700 | |
| CT HZ | 15-60 | VT HZ | 0-60 | CHP HZ | 60-90 | | NEMA-NOM-EFF | 95.4 | |
| SUIT FOR 55C AMB AT 1.00 SF | | | | | IP55 | | | | |
| SER.NO. | | | | MOTOR WEIGHT | 965 | | | | |

AC induction motor performance data

Record #83267 - Typical performance - not guaranteed values

| | |
|-----------|-----------|
| Winding | A36WG4073 |
| Type | A3670M |
| Enclosure | TEFC |

Nameplate data

| | | | |
|-----------------------|------|--------------|----------|
| Rated Output | | | 75 |
| Volts | | | 230/460 |
| Full Load Amps | | | 172/86.2 |
| R.P.M. | | | 1780 |
| Hz | 60 | Phase | 3 |
| KVA Code | | | H |
| Service Factor (S.F.) | | | 1 |
| NEMA Nom. Eff. | 95.4 | Power Factor | 85 |
| Duty | | | CONT |
| S.F. Amps | | | |

460 V, 60 Hz:

High Voltage Connection

| | |
|---------------------------|-------------------------|
| Full Load Torque | 220.5 LB-FT |
| Start Configuration | direct on line |
| Breakdown Torque | 646 LB-FT |
| Pull-up Torque | 387 LB-FT |
| Locked-rotor Torque | 499 LB-FT |
| Starting Current | 627 A |
| No-load Current | 30.8 |
| Line-line Res. @ 25°C | 0.07769 Ω |
| Temp. Rise @ Rated Load | 61°C |
| Temp. Rise @ S.F. Load | 0°C |
| Locked-rotor Power Factor | 32.9 |
| Rotor inertia | 16.2 lb-ft ² |

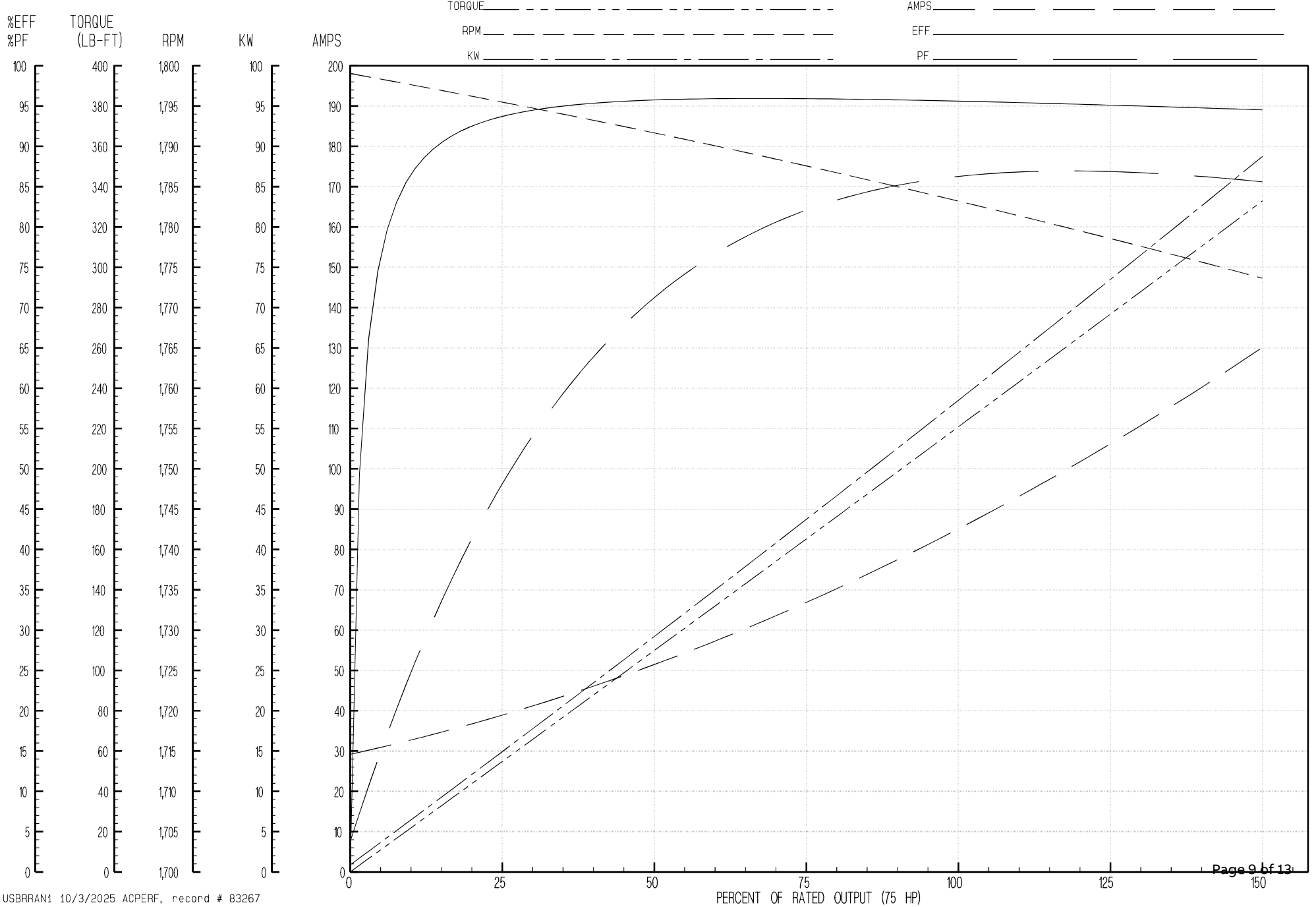
Load Characteristics 460 V, 60 Hz, 75 HP

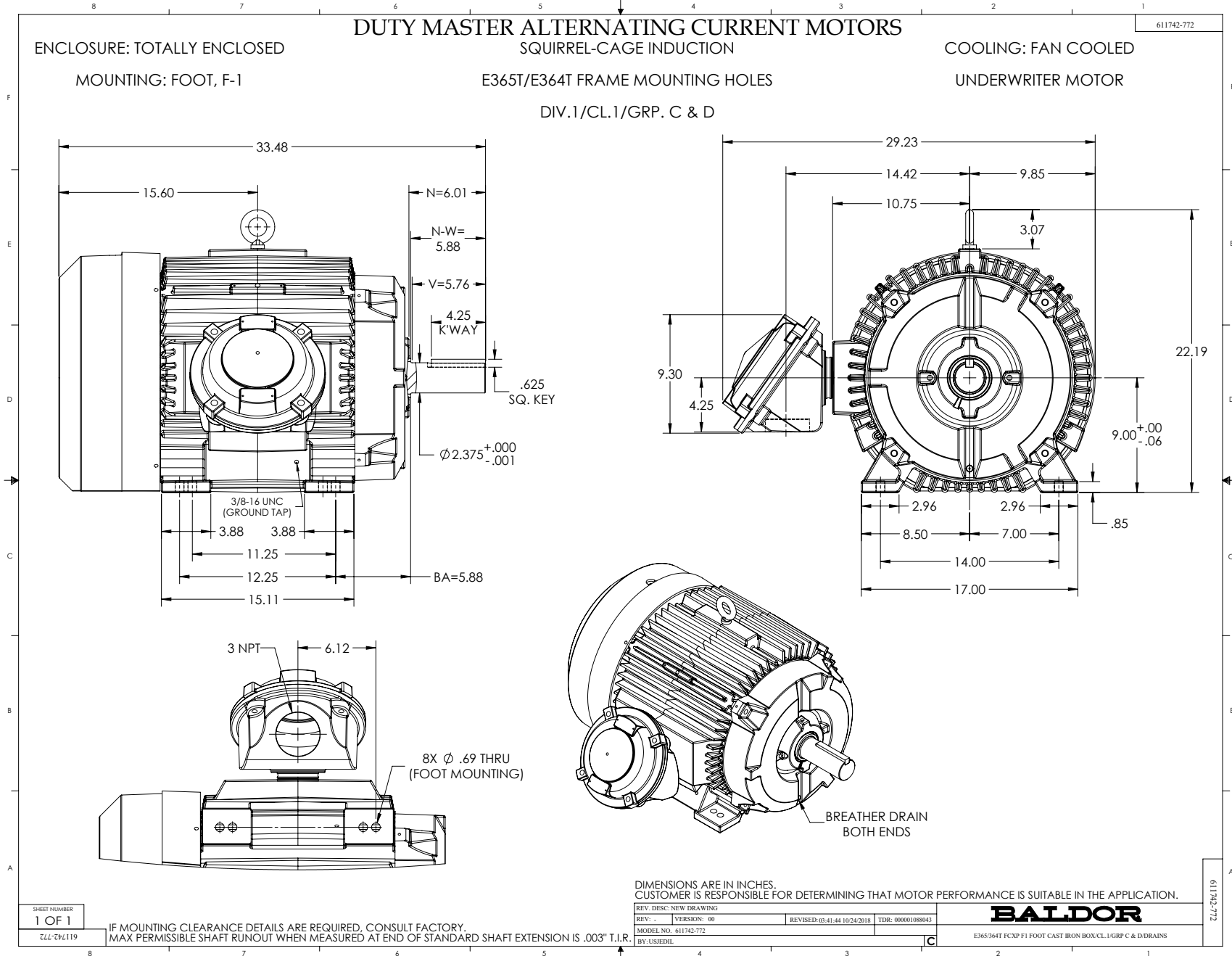
| % of Rated Load | NL | 25 | 50 | 75 | 100 | 125 | 150 | SF |
|-----------------|--------|--------|--------|--------|--------|--------|--------|----|
| Power Factor | 3 | 51 | 73 | 81 | 85 | 86 | 86 | 0 |
| Efficiency | 0 | 93.5 | 95.6 | 95.9 | 95.6 | 95.1 | 94.4 | 0 |
| Speed | 1798.9 | 1795.7 | 1791.7 | 1787.7 | 1782.8 | 1778.9 | 1773.6 | 0 |
| Line amperes | 30.8 | 36.9 | 50.3 | 67.3 | 86.2 | 107 | 129 | 0 |

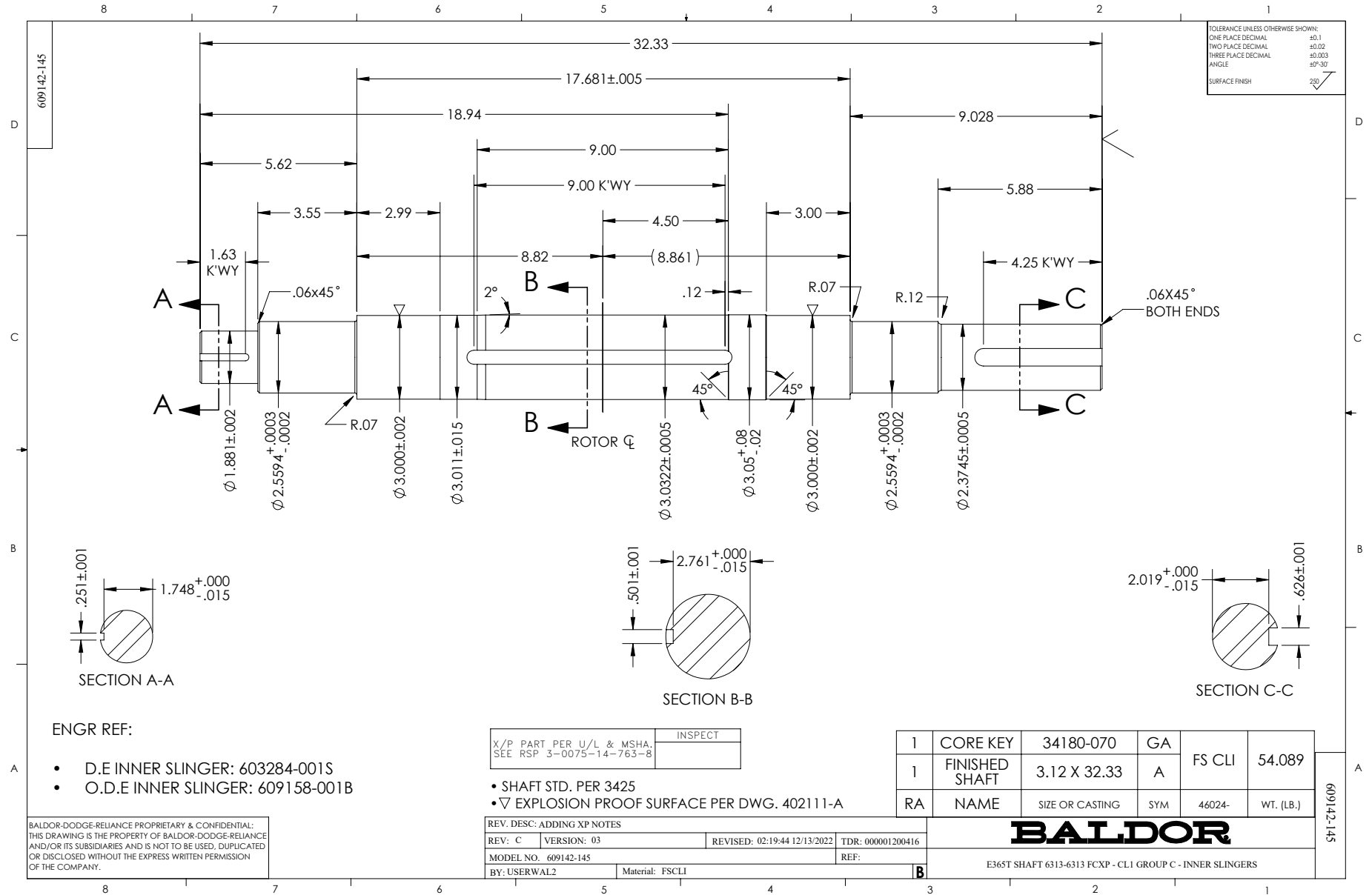
75 HP 3 PH 60 HZ 1780 RPM 460 V A3670M

TORQUES (LB-FT): P0=646.00 PU=387.00 LR=499.00 LRA=627.00

Typical performance - not guaranteed values.







ENGR REF:

- D.E INNER SLINGER: 603284-001S
- O.D.E INNER SLINGER: 609158-001B

| | |
|---|---------|
| X/P PART PER U/L & MSHA. SEE RSP 3-0075-14-763-8 | INSPECT |
|---|---------|

- SHAFT STD. PER 3425
- ▽ EXPLOSION PROOF SURFACE PER DWG. 402111-A

| | | | | | |
|----|----------------|-----------------|-----|--------|-----------|
| 1 | CORE KEY | 34180-070 | GA | | |
| 1 | FINISHED SHAFT | 3.12 X 32.33 | A | FS CLI | 54.089 |
| RA | NAME | SIZE OR CASTING | SYM | 46024- | WT. (LB.) |

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| | | | |
|----------------------------|-----------------|------------------------------|-------------------|
| REV. DESC: ADDING XP NOTES | | | |
| REV: C | VERSION: 03 | REVISED: 02:19:44 12/13/2022 | TDR: 000001200416 |
| MODEL NO. 609142-145 | | REF: | |
| BY: USERWAL2 | Material: FSCLI | | |

BALDOR

E365T SHAFT 6313-6313 FCXP - CL1 GROUP C - INNER SLINGERS

CONNECTION DIAGRAM ACCESSORIES

| | |
|---------------------------|-----------------------|
| MOTOR WINDING THERMOSTATS | |
| CONTACTS _____ @ _____ °C | |
| FIGURE NUMBER _____ | |
| CONTACT RATING | |
| VOLTS | CONTINUOUS AMPERES |
| 110-120 | 3.0 |
| 220-240 | 1.5 |
| 440-480 | 0.75 |
| 550-600 | 0.60 |
| | INRUSH AMPERES |
| | 30 |
| | 15 |
| | 7.5 |
| | 6.0 |

| NORMALLY CLOSED | THERMOSTATS | NORMALLY OPEN |
|-----------------|-------------|---------------|
| FIGURE 1 | | FIGURE 4 |
| FIGURE 2 | | FIGURE 5 |
| FIGURE 3 | | FIGURE 6 |
| FIGURE 7 | | FIGURE 8 |

CUSTOMER _____ CUSTOMER ORDER NO. _____ S.O. NO. _____

418174-006

418174-006

| | | |
|--------------------------|------------------------------|-------------------|
| REV. DESC: LOADED TO BUS | | |
| REV. LTR: A | VERSION: 01 | TDR: 000000570390 |
| FILE: \RAG\00013\849 | REVISED: 10:16:21 12/07/2010 | BY: RAGDRF |
| MTL: - | | |

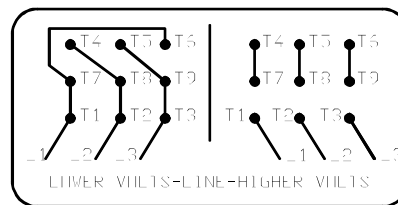
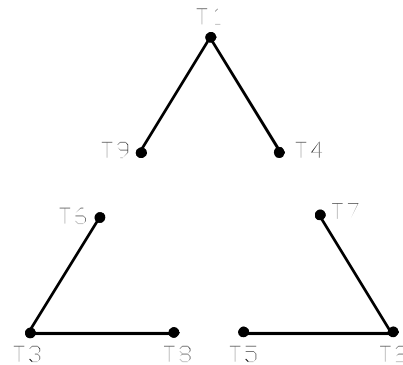
BALDOR

A-C MOTOR CONNECTION ACCESSORIES

SH 1 of 1

416820-002

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 9 LEAD DELTA-CONNECTED



LOWER VOLTS-LINE-HIGHER VOLTS

(N.P. 1575-B)

416820-002

| | | |
|---|------------------------------|-------------------|
| REV. DESC: FONT CHANGE FOR PDF SEARCHABLE | | |
| REV. LTR: A | VERSION: 01 | TDR: 000001009382 |
| FILE: \MGA\00000\661 | REVISED: 02:46:19 02/13/2020 | BY: MGHMTT |
| MTL: - | | © □ |

BALDOR - RELIANCE®

CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH 1 of 1