

BALDOR® • RELIANCE 

Product Information Packet

ECP4316T

75HP,1780RPM,3PH,60HZ,365T,TEFC,FOOT

| Part Detail | | | | | | | |
|-------------|----|-------------|------------|-------------|------------|---------------|------------|
| Revision: | Q | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | A36WG0172 | CD Diagram: | 416820-002 | Mfg Plant: | |
| Mech. Spec: | | Layout: | 617428-034 | Poles: | 04 | Created Date: | 10-19-2010 |
| Base: | | Eff. Date: | 02-28-2018 | Leads: | 3#4,6#6 | | |

| Specs | | | |
|--------------------------------|-------------------------|--------------------------------|--------------------|
| Catalog Number: | ECP4316T | Feedback Device: | NO FEEDBACK |
| Enclosure: | TEFC | Heater Indicator: | No Heater |
| Frame: | 365T | Insulation Class: | F |
| Frame Material: | Iron | Inverter Code: | Inverter Ready |
| Output @ Frequency: | 75.000 HP @ 60 HZ | KVA Code: | G |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Lifting Lugs: | No Lifting Lugs |
| Voltage @ Frequency: | 230.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 3 @ 4 AWG |
| | 460.0 V @ 60 HZ | Motor Type: | A36070M |
| XP Class and Group: | None | Mounting Arrangement: | F1 |
| XP Division: | Division II | Power Factor: | 86 |
| Agency Approvals: | CSA EEV | Pulley End Bearing Type: | Ball |
| Auxillary Box: | No Auxillary Box | Pulley Face Code: | Standard |
| Base Indicator: | Rigid | Shaft Ground Indicator: | No Shaft Grounding |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Shaft Rotation: | Reversible |
| Constant Torque Speed Range: | 30-60 | Shaft Slinger Indicator: | Shaft Slinger |
| Current @ Voltage: | 171.000 A @ 230.0 V | Speed Code: | Single Speed |
| | 85.900 A @ 460.0 V | Motor Standards: | NEMA |
| Design Code: | B | Starting Method: | Direct on line |

| | | | |
|---------------------|---------------|----------------------------------|------------|
| Drip Cover: | No Drip Cover | Thermal Device - Bearing: | NONE (OLD) |
| Duty Rating: | CONT | Thermal Device - Winding: | None |
| | | XP Temp Code: | T3 |

| Nameplate NP3238 | | | | | | | | | |
|--------------------|------------|-----------------|----------|---------------|---------|-----------------------|------|---------------------|------|
| CAT NO | ECP4316T | SPEC NO. | P36G3364 | | | | | | |
| HP | 75 | AMPS | 171/85.9 | VOLTS | 230/460 | DESIGN | B | | |
| FRAME | 365T | RPM | 1780 | HZ | 60 | AMB | 40 | SF | 1.15 |
| D.E. BRG.DATA | 6313 | O.D.E. BRG.DATA | 6313 | PH | 3 | DUTY | CONT | INSUL.CLASS | F |
| D.E. BRG. | 65BC03J30X | TYPE | P | ENCL | TEFC | CODE | G | NEMA NOM EFFICIENCY | 95.4 |
| O.D.E. BRG. | 65BC03J30X | POWER FACTOR | 86 | MAX CORR KVAR | 16.0 | GUARANTEED EFFICIENCY | 95.0 | | |
| 3/4 LOAD EFF. | 95.8 | TEMP | = 200 | | | | | | |
| TEMP CODE | T3 | CT HZ | 30-60 | VT HZ | 0-60 | | | | |
| CHP HZ | 60-90 | | | | | | | | |
| INVERTER-TEMP-CODE | T3 | | | | | | | | |
| SER.NO. | | MOTOR WEIGHT | | | | | | | |

| Parts List | | |
|-------------|-------------------------------|----------|
| Part Number | Description | Quantity |
| SA209361 | SA P36G3364 | 1.000 EA |
| RA196623 | RA P36G3364 | 1.000 EA |
| NP3238 | SS CP XEX SEVERE DUTY MAIN NP | 1.000 EA |
| 000692000VD | LABEL WARNING | 1.000 EA |
| 421948032 | LABEL, MYLAR | 1.000 EA |
| 004824015A | GREASE POLYREX EM | 0.544 LB |
| 032018008AK | HHCS 1/4-20X1 PLATED | 4.000 EA |
| 032018012DK | HHCS 1/2-13X1-1/2 PLTD. | 4.000 EA |
| 032018024CK | HHCS 3/8-16X3 PLTD. | 3.000 EA |
| 034180012DA | KEY 1X4X1/4X1-1/2 L | 1.000 EA |
| 032018012DK | HHCS 1/2-13X1-1/2 PLTD. | 4.000 EA |
| 032018024CK | HHCS 3/8-16X3 PLTD. | 3.000 EA |
| 034530052AB | P/NIP 1/8X6-1/2 GALV. | 1.000 EA |
| 078559034A | +F/C A 078559001A - 360 | 1.000 EA |
| 085922073B | BRKT 360 085922072WCC KB | 1.000 EA |
| 410700004F | WSHR | 1.000 EA |
| 415045002E | SLGR | 1.000 EA |
| 415072001B | CLAMP | 1.000 EA |
| 415096002A | CPLG 1/8 HEX TYPE | 1.000 EA |
| 418151057A | PLASTIC DRAIN,ODE BRKT | 1.000 EA |
| 702676001C | FAN 360 | 1.000 EA |
| 415045002E | SLGR | 1.000 EA |
| 415096002A | CPLG 1/8 HEX TYPE | 1.000 EA |
| 418151057A | PLASTIC DRAIN,ODE BRKT | 1.000 EA |

| Parts List (continued) | | |
|------------------------|--|----------|
| Part Number | Description | Quantity |
| 032018010CK | HHCS 3/8-16X1-1/4 PLTD. | 4.000 EA |
| 033512008LB | HHTTS 1/4-20X1 PLATED | 4.000 EA |
| 034000014AB | WSH ID.406 OD.812 TH.065 | 4.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 065776000C | TERBD 320-400 | 1.000 EA |
| 067053000B | GASK 320-400 | 1.000 EA |
| 076708000BB | C/B - 360 | 1.000 EA |
| 076709000A | C/B Cover - 360 | 1.000 EA |
| 406099000A | PLUG - FAN COVER 320-440 | 1.000 EA |
| 415000103H | 415000103H | 1.000 EA |
| 418150003A | GREASE FITTING CAP | 1.000 EA |
| 033775004EA | DRSCR #6-1/4 304 S.S. | 4.000 EA |
| 418150003A | GREASE FITTING CAP | 1.000 EA |
| 034530020AB | P/NIP 1/8X2-1/2 PLTED | 1.000 EA |
| 085922073B | BRKT 360 085922072WCC KB | 1.000 EA |
| 034180034HA | KEY 5/8X5/8X4-1/4 L | 1.000 EA |
| MG1025N19 | WILKO 778.50 BLUE GREEN - 55 GAL DRUMS | 0.250 GA |
| 004824003CBY | WILKO PAINT 060.02 - ACTIVATOR | 0.063 GA |
| 14PA1000 | PACKAGING 314 GROUP COMBINED PRINT | 1.000 EA |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 EA |
| LB1449 | DIV-2/NEC WARNING LABEL | 1.000 EA |
| 034530032BB | P/NIP 1/4X4" SCHED 40 | 1.000 EA |
| 034631002AB | BUSH 1/4 TO 1/8 PLTD. | 1.000 EA |

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| | | |
|-------------|---------------------------------------|----------|
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 EA |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 EA |
| 034631002AB | BUSH 1/4 TO 1/8 PLTD. | 1.000 EA |
| 034530020BB | P/NIP 1/4X2-1/2 PLATED | 1.000 EA |
| 032018005DL | 1/2-13 X 5/8 SILICON BRONZE HHCS | 1.000 EA |

| | | | | | | |
|-----------|-------------|-------------------|-----------|---------------------------------------|-------------|---------|
| REL. S.O. | FRAME | HP | TYPE | PHASE/HERTZ | RPM | VOLTS |
| | 365T | 75 | P | 3/60 | 1780 | 230/460 |
| AMPS | DUTY | AMB °C/ INSUL. | S.F. | NEMA DESIGN | CODE LETTER | ENCL. |
| 171/85.9 | CONT | 40/F | 1.15 | B | G | TEFC |
| E/S | ROTOR | TEST S.O. | TEST DATE | STATOR RES. @25 °C (BETWEEN LINES) | | |
| 892008 | 418141043EE | --- | --- | .0210/.0843 | | |

PERFORMANCE

| LOAD | HP | AMPERES | RPM | POWER FACTOR % | EFFICIENCY % |
|---------|------|---------|------|----------------|--------------|
| NO LOAD | 0 | 26.1 | 1800 | 3.86 | 0 |
| 1/4 | 18.8 | 33.4 | 1796 | 56.1 | 93.8 |
| 2/4 | 37.5 | 47.7 | 1791 | 77.0 | 95.7 |
| 3/4 | 56.2 | 65.8 | 1786 | 83.5 | 95.8 |
| 4/4 | 75.0 | 85.9 | 1781 | 85.6 | 95.4 |
| 5/4 | 93.8 | 107 | 1776 | 86.7 | 94.8 |

SPEED TORQUE

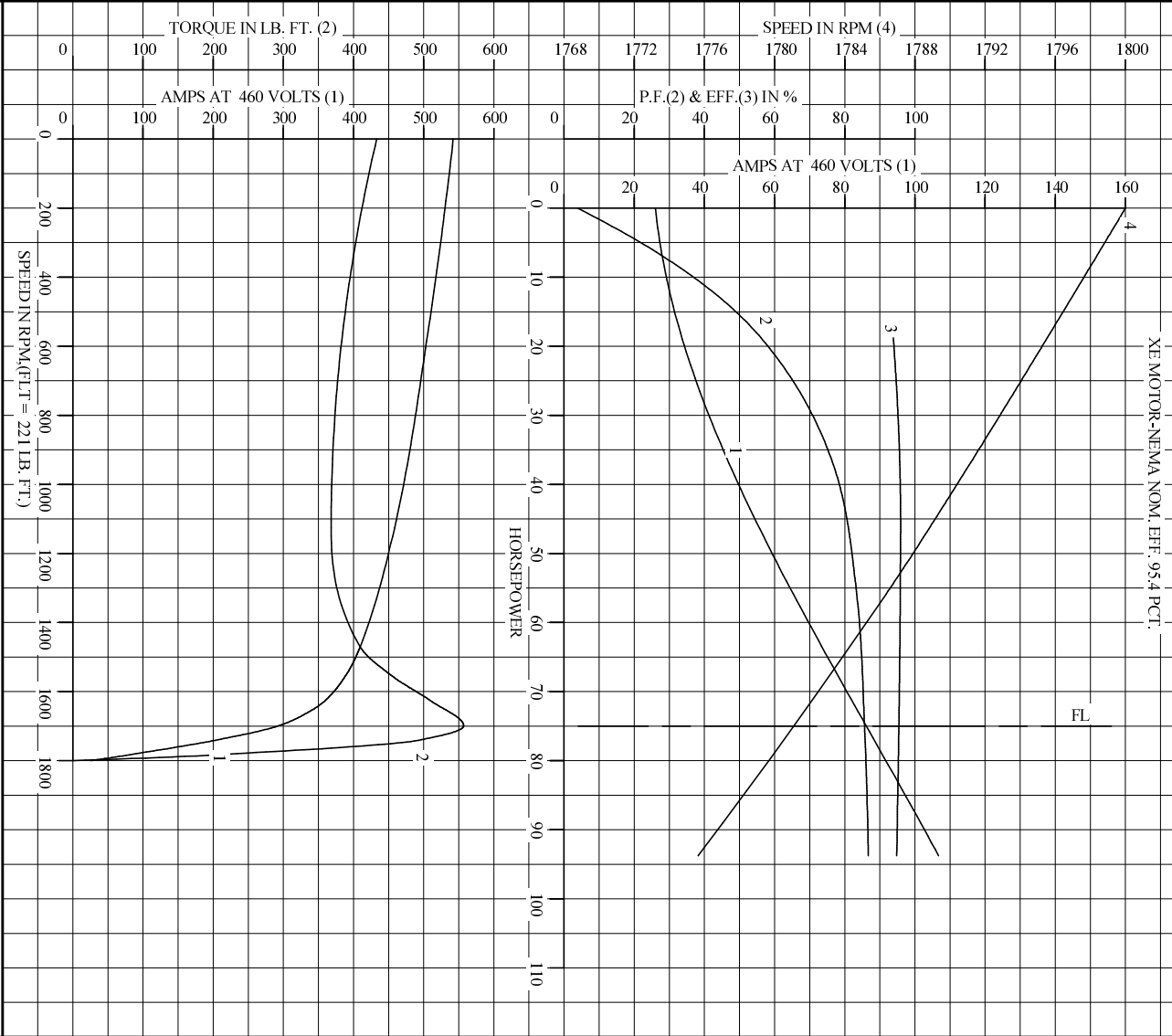
| | RPM | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES |
|--------------|------|--------------------|----------------|---------|
| LOCKED ROTOR | 0 | 196 | 433 | 542 |
| PULL UP | 1130 | 166 | 368 | 458 |
| BREAKDOWN | 1699 | 252 | 557 | 293 |
| FULL LOAD | 1781 | 100 | 221 | 85.9 |

AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: TYPICAL DATA
XE MOTOR-NEMA NOM. EFF. 95.4 PCT.

| | | | | |
|---------------|----------|----------------|------------------|-------------------------|
| BALDOR | DR. BY | W. L. SMITH | A-C MOTOR | |
| | CK. BY | J. J. HARRISON | | PERFORMANCE DATA |
| | APP. BY | W. L. SMITH | | |
| DATE | 12/20/05 | ISSUE DATE | 12/14/10 | |

REL. S.O. _____ RPM 1780 S.F. 1.15 ROTOR 418141043EE
 FRAME 365T VOLTS 230/460 NEMA DESIGN B TEST S.O. TYPICAL DATA
 HP 75 AMPS 171/85.9 CODE LETTER G TEST DATE ---
 TYPE P DUTY CONT ENCLOSURE TEFC STATOR RES. @ 25 °C .0210/.0843
 PHASE/HERTZ 3/60 AMB °C/INSUL 40/F E/S 892008 OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

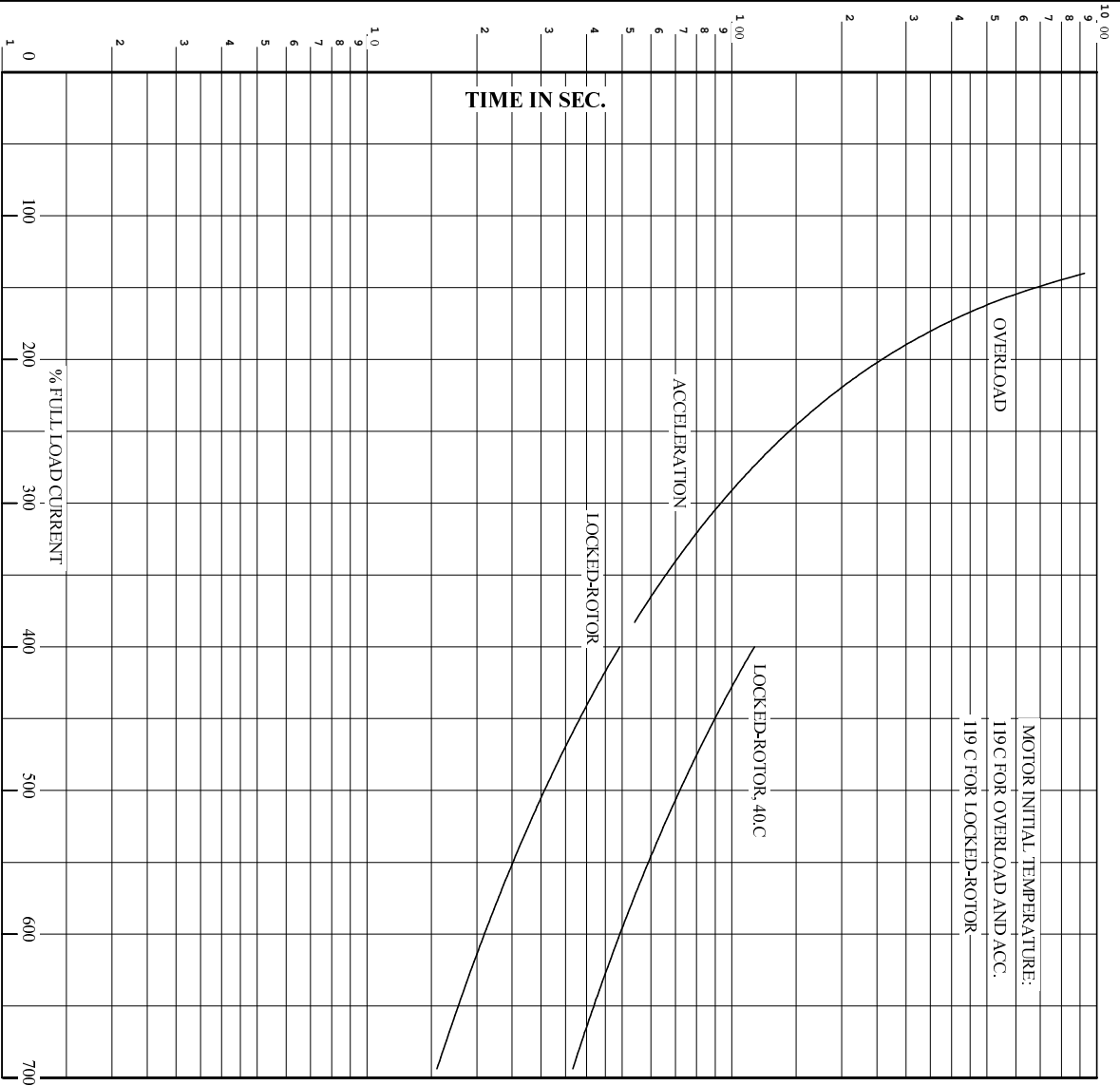
BALDOR

DR. BY W.L. SMITH
 CK. BY J.H. HARRISON
 App. BY W.L. SMITH
 DATE 12/20/05

A-C MOTOR PERFORMANCE CURVES A36WG0172-R001
 ISSUE DATE 12/14/10

Printed on 12/14/10 16:51 @ psecs-motorengr

REL. S.O. RPM 1780 S.F. 1.15 ROTOR 418141043EE
 FRAME 365T VOLTS 230/460 NEMA DESIGN B TEST S.O. TYPICAL DATA
 HP 75 AMPS 171/85.9 CODE LETTER G TEST DATE ---
 TYPE P DUTY CONT ENCLOSURE TEFC STATOR RES. @ 25 C. 0.210/.0843
 PHASE/HERTZ 3/60 AMB C/INSUL 40/F E/S 892008 OHMS (BETWEEN LINES)



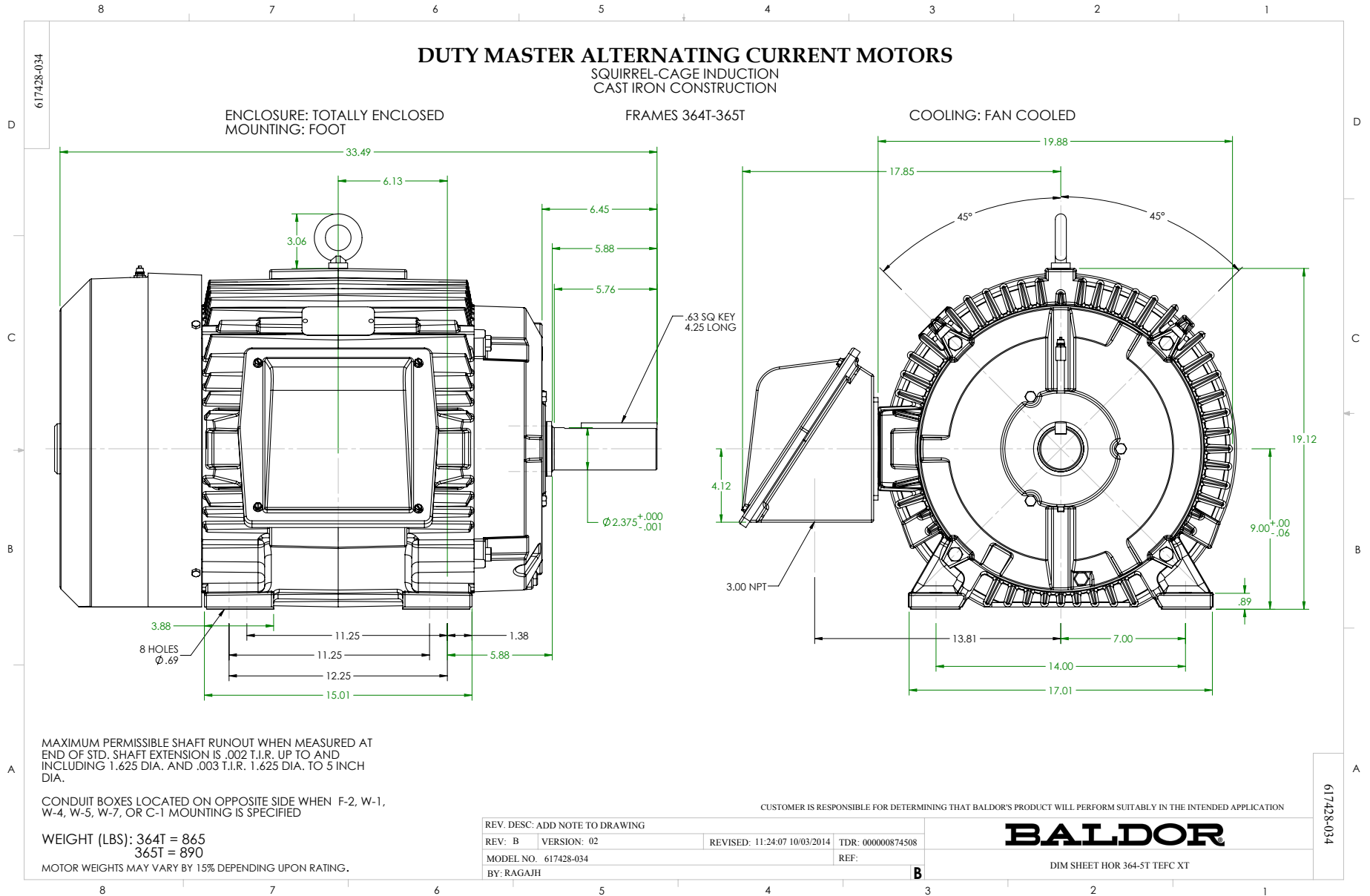
REMARKS: THERMAL LIMIT CURVE
 XE MOTOR-NEMA NOM. EFF. 95.4 PCT.

AMPERES SHOWN FOR 400 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



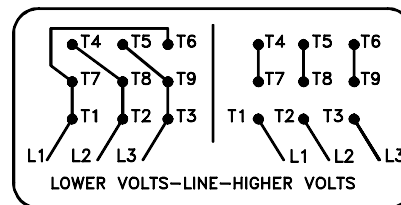
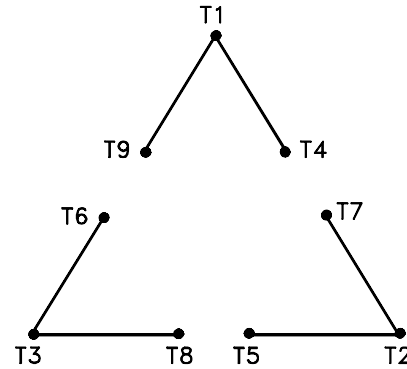
DR. BY W.L. SMITH
 CK. BY J.HARRISON
 App. BY W.L. SMITH
 DATE 12/20/05

A-C MOTOR
PERFORMANCE A36WG0172-R001
CURVES ISSUE DATE 12/14/10



416820-002

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



(N.P. 1575-B)

416820-002

| | | |
|--------------------------------------|------------------------------|-------------------|
| REV. DESC: LOADED TO BUS, C/R 335225 | | |
| REV. LTR: - | VERSION: 00 | TDR: 000000538207 |
| FILE: \MGA\00000\661 | REVISED: 10:47:51 04/30/2010 | |
| MTL: - | BY: RAGRA | |

BALDOR

CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH 1 of 1

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