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# Explosion Proof Motors

**Model No:** 213TTGND16001
**Catalog No:** C305B

Explosion Proof Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 213TC Frame, EPFC

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## Product Information Packet: Model No: 213TTGND16001, Catalog No: C305B  Explosion Proof Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 213TC Frame, EPFC

### Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | **3** | Output HP | **7.50 & 5 Hp** |
| Output KW | **5.6 & 3.7 kW** | Voltage | **230/460 & 190/380 V** |
| Speed | **3525 & 2935 r/min** | Synchronous RPM | **3600 & 3000 r/min** |
| Service Factor | **1.00 & 1.00** | Frame | **213TC** |
| Enclosure | **Explosion Proof Fan cooled** | Thermal Protection | **Thermostat** |
| Efficiency | **89.5 & 88 %** | Ambient Temperature | **40 °C** |
| Frequency | **60 & 50 Hz** | Current | **18.2/9.1 & 15.6/7.8 A** |
| Power Factor | **86.2** | Duty | **Continuous** |
| Insulation Class | **F** | Design Code | **B** |
| KVA Code | **H** | Drive End Bearing Size | **6309** |
| Opp Drive End Bearing Size | **6208** | UL | **UL Listed; also, UL Certified for Canada** |
| CSA | **N** | CE | **N** |
| IP Code | **54** | Number of Speeds | **1** |
| Hazardous Location | **DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B** | | |

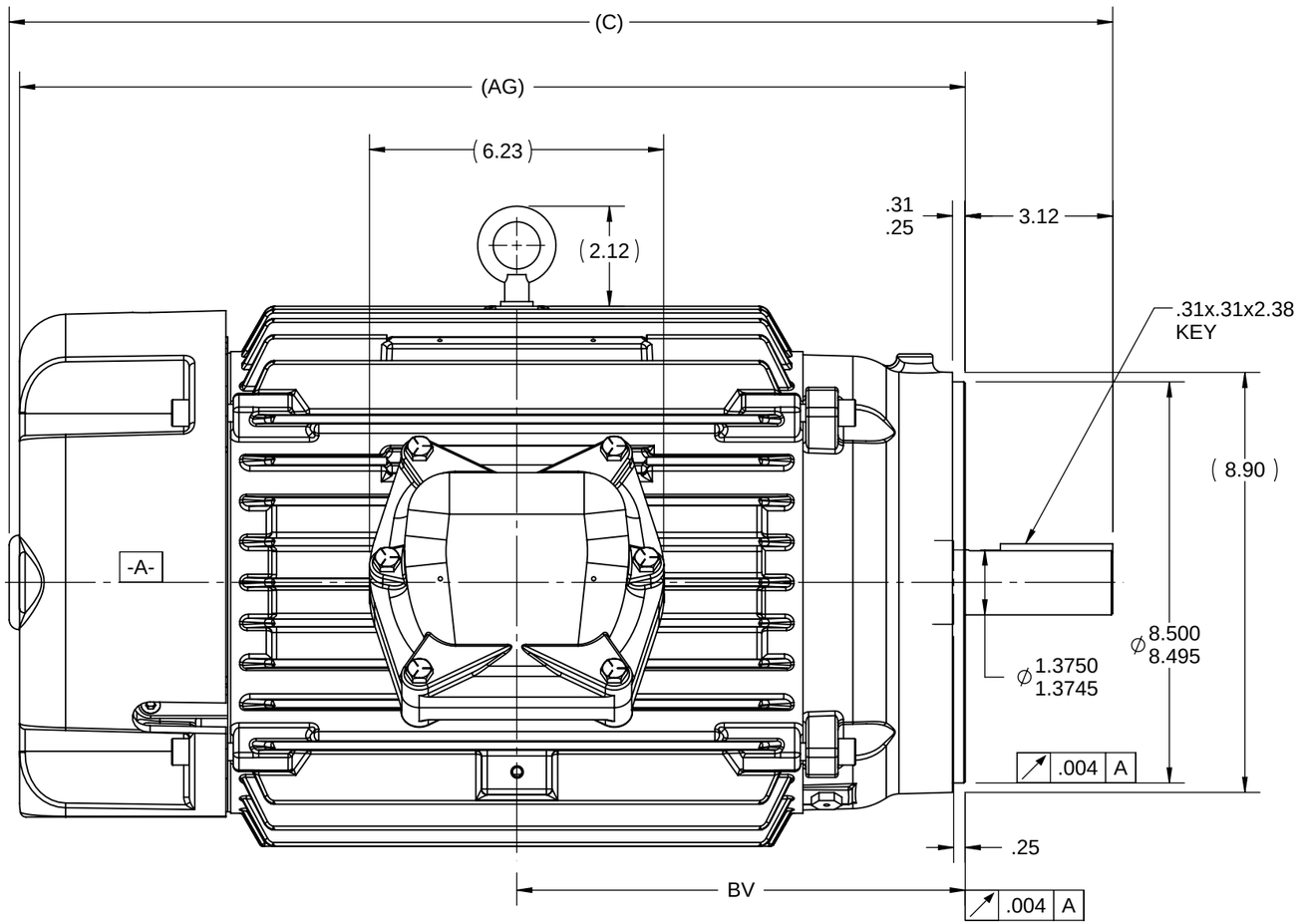
### Technical Specifications

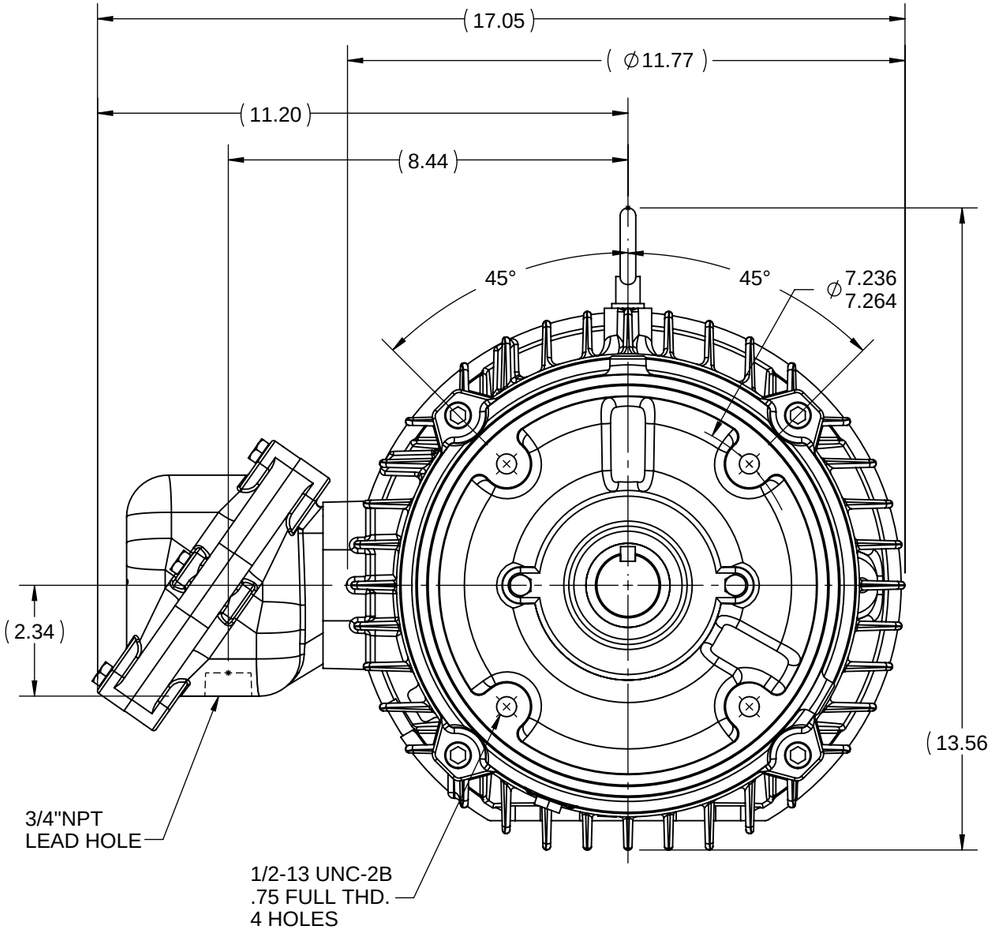
| | | | |
|---|---|---|---|
| Electrical Type | **Squirrel Cage Inverter Rated** | Starting Method | **Line Or Inverter** |
| Poles | **2** | Rotation | **Reversible** |
| Resistance Main | **1.823 O** | Mounting | **Round** |
| Motor Orientation | **Horizontal** | Drive End Bearing | **Ball** |
| Opp Drive End Bearing | **Ball** | Frame Material | **Cast Iron** |
| Shaft Type | **T** | Overall Length | **23.45 in** |
| Frame Length | **12.12 in** | Shaft Diameter | **1 3/8 in** |
| Shaft Extension | **3.12 in** | Assembly/Box Mounting | **F1 Only** |
| Inverter Load | **Constant 10:1** | | |

### Drawings

| | | | |
|---|---|---|---|
| Connection Drawing | **EE7308T** | Outline Drawing | **037703-1212** |

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED IN OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°. THIS MODIFICATION CAN BE PERFORMED ONLY BY THE ORGINAL EQUIPMENT MANUFACTURER, OR BY A FACILITY THAT IS COVERED UNDER UNDERWRITERS LABORATORIES INC. CATEGORY PTKQ, TITLED "MOTOR AND GENERATORS,.REBUILT FOR USE IN HAZARDOUS LOCATION".
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| 1212 | 213/215 | 23.45 | 20.11 | 9.5 |
|---|---|---|---|---|
| DASH | FRAME | C | AG | BV |

| DRAWING REVISION | REVISION BY | REV DATE/© DATE |
|---|---|---|
| E | SB | 12/22/2025 |
| REQUEST NUMBER | APPROVED BY | DATE |
| CR-0024964 | RMS | 12/22/2025 |

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

| DEC. | INCH | mm | ANGLE |
|---|---|---|---|
| .X | ±0.1 | [±3] | ±7' 30" |
| .XX | ±0.03 | [±0.8] | |
| .XXX | ±0.005 | [±0.13] | |
| .XXXX | ±0.0005 | [±0.013] | |

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 / 5.1 / INCH / mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

| | |
|---|---|
| DRAWN BY | VV |
| DATE | 06/05/08 |
| APPROVED BY | |
| DATE | |
| REFERENCE | |
| THIRD ANGLE PROJECTION | |

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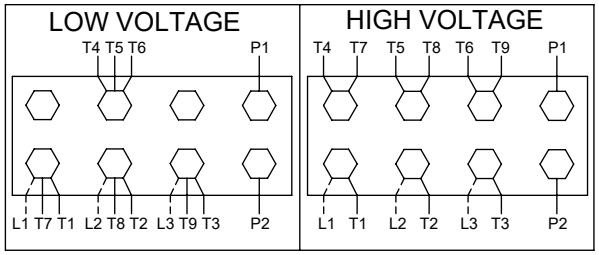
DESCRIPTION
OUTLINE
213T/215T FRAME- EPFC - C-FACE

| MATERIAL | PROCESS/FINISH |
|---|---|
| STANDARD WITH BASE | |

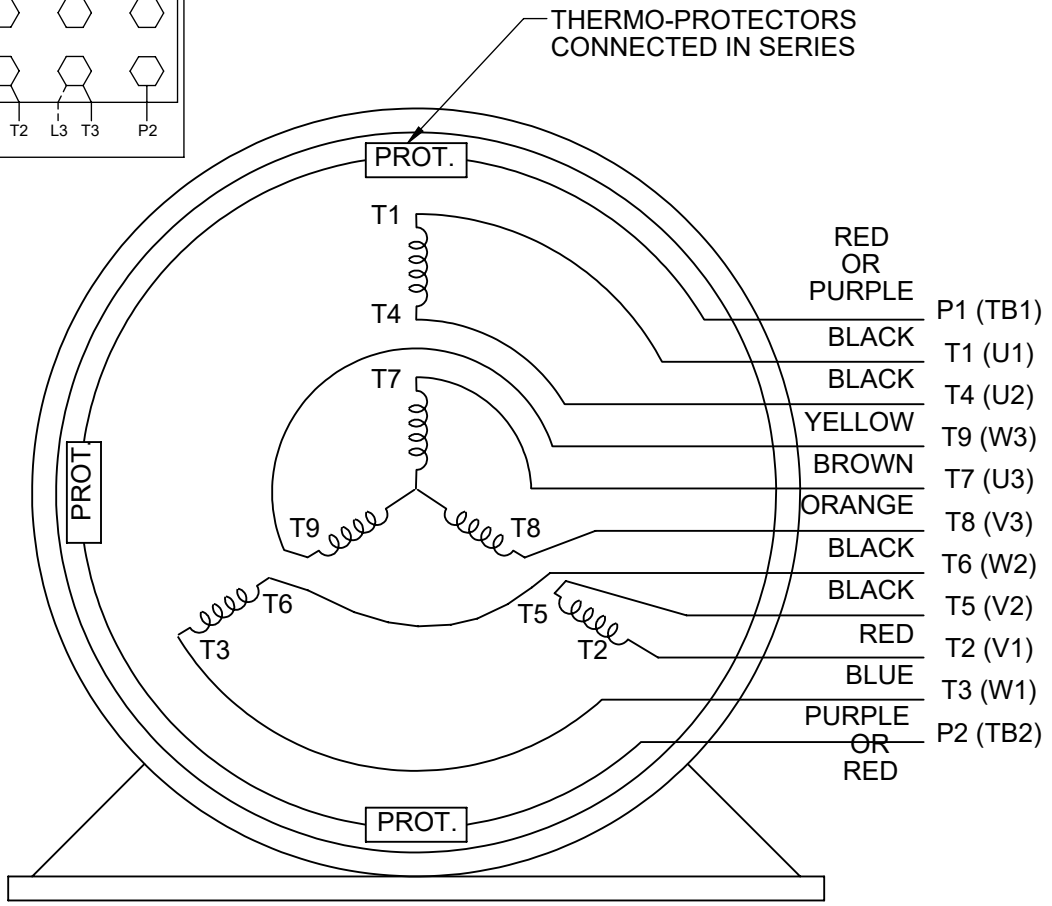
| SIZE | DRAWING NUMBER | SHEET |
|---|---|---|
| B | 037703 | 1 OF 1 |

## HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9




# THREE PHASE DUAL VOLTAGE MOTOR




VIEW OF TERMINAL END

NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

## LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR IMG PLANT

| | | | | | |
|---|---|---|---|---|---|
| DRAWING REVISION: U | REVISION BY: SB | REV DATE/© DATE: 08/01/2025 | PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY | DRAWN BY: SMC | marathon™ |
| REQUEST NUMBER: CR-0023654 | APPROVED BY: SBD | DATE: 08/01/2025 | | DATE: 05-13-1992 | |
| REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED | | | | APPROVED BY: TB | DESCRIPTION: CONN DIAGRAM-EXTERNAL |
| | | | | DATE: 05-13-1992 | 3 PHASE - DUAL VOLTAGE MOTOR |
| | | | | REFERENCE: EE7308/EE7300 | MATERIAL / PROCESS/FINISH |
| | | | | THIRD ANGLE PROJECTION | SIZE: A — DRAWING NUMBER: EE7308T — SHEET: 1 OF 1 |

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# Data Sheet

Date: 6/20/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

213TTGND16001

**Submittal**

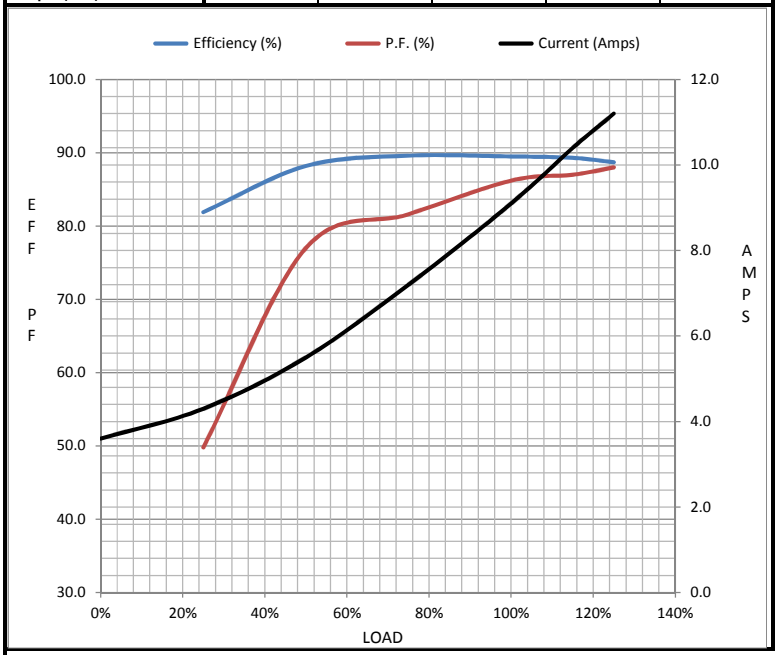
Data @ 460 V

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 3.6 | 4.3 | 5.5 | 7.2 | 9.1 | 10.4 | 11.2 | 55.0 | |
| Torque (ft-lb) | 0.00 | 2.70 | 5.5 | 8.3 | 11.2 | 12.9 | 14.1 | 20.6 | |
| RPM | 3600 | 3580 | 3563 | 3544 | 3525 | 3,515 | 3500 | 0 | |
| Efficiency (%) | | 81.9 | 88.2 | 89.6 | 89.5 | 89.3 | 88.7 | | |
| P.F. (%) | 9.5 | 49.8 | 77.0 | 81.6 | 86.2 | 87.0 | 88.0 | 48.0 | |

## Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|---|---|---|---|---|---|
| Speed (RPM) | 0 | 630 | 3043 | 3525 | 3600 |
| Current (Amps) | 55.0 | 54.9 | 35.6 | 9.1 | 3.6 |
| Torque (ft-lb) | 20.6 | 19.4 | 30.8 | 11.2 | 0.00 |



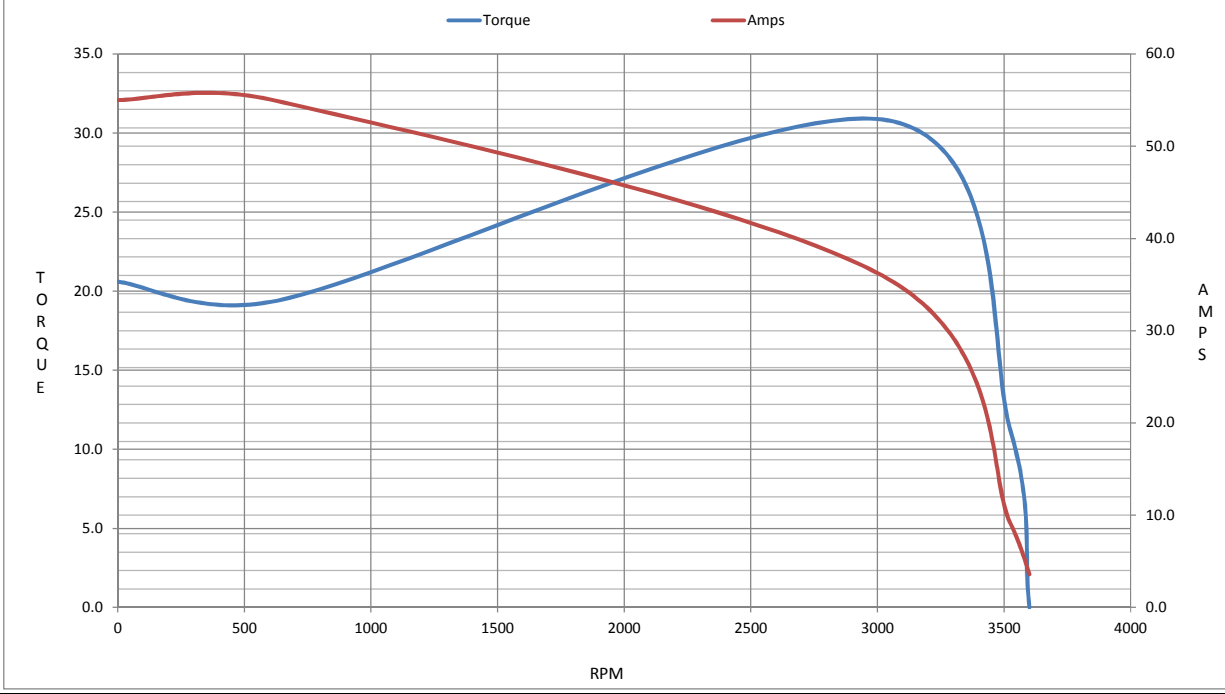

## Information Block

| | |
|---|---|
| HP | 7.5 |
| Sync. RPM | 3600 |
| Frame | 213 |
| Enclosure | TEFC |
| Construction | TFN |
| Voltage | 230/460#190/380 V |
| Frequency | 60 Hz |
| Design | B |
| LR Code letter | H |
| Service Factor | 1.15 |
| Temp Rise @ FL | 50 ° C |
| Duty | CONT |
| Ambient | 40 ° C |
| Elevation | 1,000 feet |
| Rotor/Shaft wk² | 0.45 Lb-Ft² |
| Ref Wdg | K2132125 NONE |
| Sound Pressure @ 1M | 72 dBA |
| VFD Rating | CONSTANT 10:1 |
| Outline Dwg | 037703-1212 |
| Conn. Diag | EE7308T |
| Additional Specifications: | |
| 0 | |
| 0 | |

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 1.0850 | 0.9530 | 2.7870 | 1.5810 | 67.0510 |

## Speed -Torque Curve



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## CERTIFICATION DATA SHEET

| | | | |
|---|---|---|---|
| **Model#:** | 213TTGND16001 AA | **WINDING#:** | K2132125 NONE 2 |
| **CONN. DIAGRAM:** | EE7308T | **ASSEMBLY:** | F1 ONLY |
| **OUTLINE:** | 037703-1212 | | |

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|---|---|---|---|---|---|---|---|
| 7 1/2&5 | 5.60&3.70 | 3600 | 3525&2935 | 213TC | EPFC | H | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 60/50 | 230/460#190/380 | 18.2/9.1&15.4/7.7 | LINE OR INVERTER | CONTINUOUS | B3 | 1.0/1.0 | 40 | 3300 |

| FULL LOAD EFF: 89.5&88 | 3/4 LOAD EFF: 89.6 | 1/2 LOAD EFF: 88.2 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
|---|---|---|---|---|---|
| **FULL LOAD PF: 86.2&78** | **3/4 LOAD PF: 81.6** | **1/2 LOAD PF: 77** | 87.5 | SQ CAGE INV RATED | 7.2 / 3.6 |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|---|---|---|---|---|
| 11.2 LB-FT | 110 / 55 | 20.6 LB-FT 184 | 30.8 LB-FT 275 | 50 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|---|---|---|---|---|---|---|
| 72 dBA | 82 dBA | 0.45 LB-FT^2 | 12 LB-FT^2 | 15 SEC. | 2 | 150 LBS. |

### *** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|---|---|---|---|---|---|---|---|---|
| C-FACE | STANDARD | ROUND | HORIZONTAL | TRUE | EXP PROOF CL I GR D CL II GR F&G T3B | FALSE | NONE | BLUE (EPOXY) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|---|---|---|---|---|---|---|---|
| DE | OPE | | | | | | |
| BALL 6309 | BALL 6208 | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |

| THERMO-PROTECTORS | | | | THERMISTORS | CONTROL | SPACE /n HEATERS |
|---|---|---|---|---|---|---|
| THERMOSTATS | PROTECTORS | WDG RTDs | BRG RTDs | | | |
| TSTATS (N/C) | NOT | NONE | NONE | NONE | FALSE | NONE VOLTS |

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE NONE
NONE NONE PPR

BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

* NOTES *

DATE: 06/22/2017 06:45:56 AM
FORM 3531 REV.3 02/07/99

** Subject to change without notice.