

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 284TTDP7202

Catalog No: Y493

Other Purpose Motor, 20 & 5 HP, 3 Ph, 60 & 60 Hz, 460 & 460 V, 1800 & 1800 RPM, 284T Frame, DP



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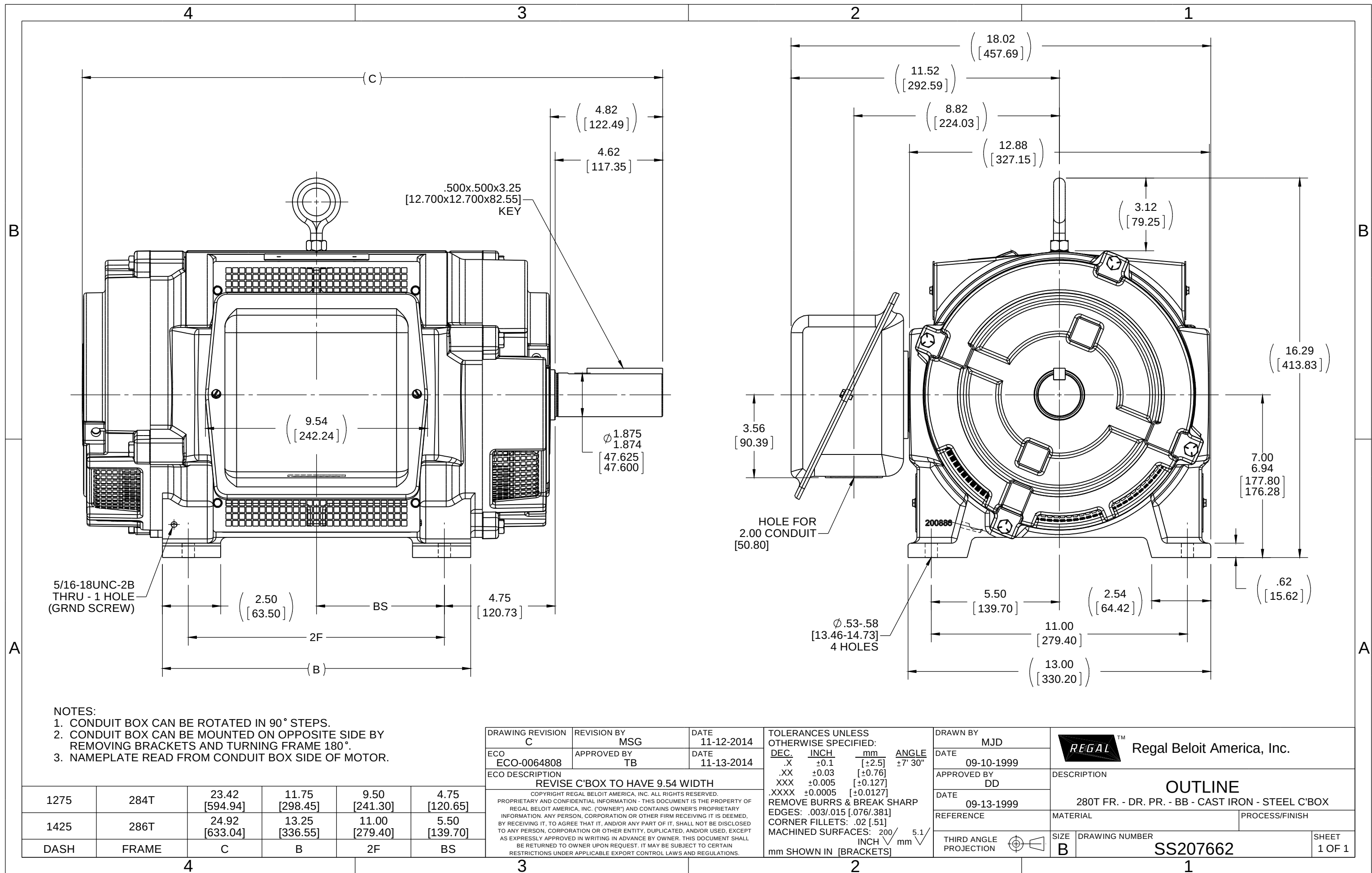
**RegalRexnord**

### Nameplate Specifications

|                        |                |                            |               |
|------------------------|----------------|----------------------------|---------------|
| Phase                  | 3              | Output HP                  | 20 & 5 Hp     |
| Output KW              | 14.9 & 3.7 kW  | Voltage                    | 460 & 460 V   |
| Speed                  | 1765 & 876 rpm | Service Factor             | 1.15 & 1.15   |
| Frame                  | 284T           | Enclosure                  | Drip Proof    |
| Thermal Protection     | No Protection  | Efficiency                 | 87.5 & 82.5 % |
| Ambient Temperature    | 40 °C          | Frequency                  | 60 & 60 Hz    |
| Current                | 25 & 8 A       | Power Factor               | 85.5          |
| Duty                   | Continuous     | Insulation Class           | F             |
| Design Code            | 1VT            | KVA Code                   | H             |
| Drive End Bearing Size | 6311           | Opp Drive End Bearing Size | 6210          |
| UL                     | Recognized     | CSA                        | Y             |
| CE                     | Y              | IP Code                    | 12            |
| Number of Speeds       | 2              |                            |               |

### Technical Specifications

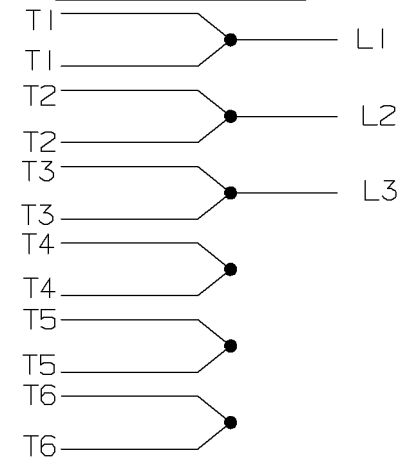
|                       |                             |                       |                 |
|-----------------------|-----------------------------|-----------------------|-----------------|
| Electrical Type       | Squirrel Cage Induction Run | Starting Method       | Across The Line |
| Poles                 | 4/8                         | Rotation              | Reversible      |
| Resistance Main       | .725 Ohms                   | Mounting              | Rigid Base      |
| Motor Orientation     | Horizontal                  | Drive End Bearing     | Ball            |
| Opp Drive End Bearing | Ball                        | Frame Material        | Cast Iron       |
| Shaft Type            | T                           | Overall Length        | 23.49 in        |
| Frame Length          | 12.75 in                    | Shaft Diameter        | 1.875 in        |
| Shaft Extension       | 4.82 in                     | Assembly/Box Mounting | F1/F2 Capable   |
| Connection Drawing    | A-EE7322                    | Outline Drawing       | B-SS207662-1275 |



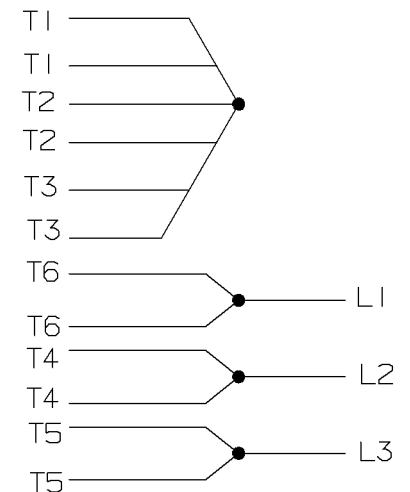
A- EE7322

FOR DUAL LEADS

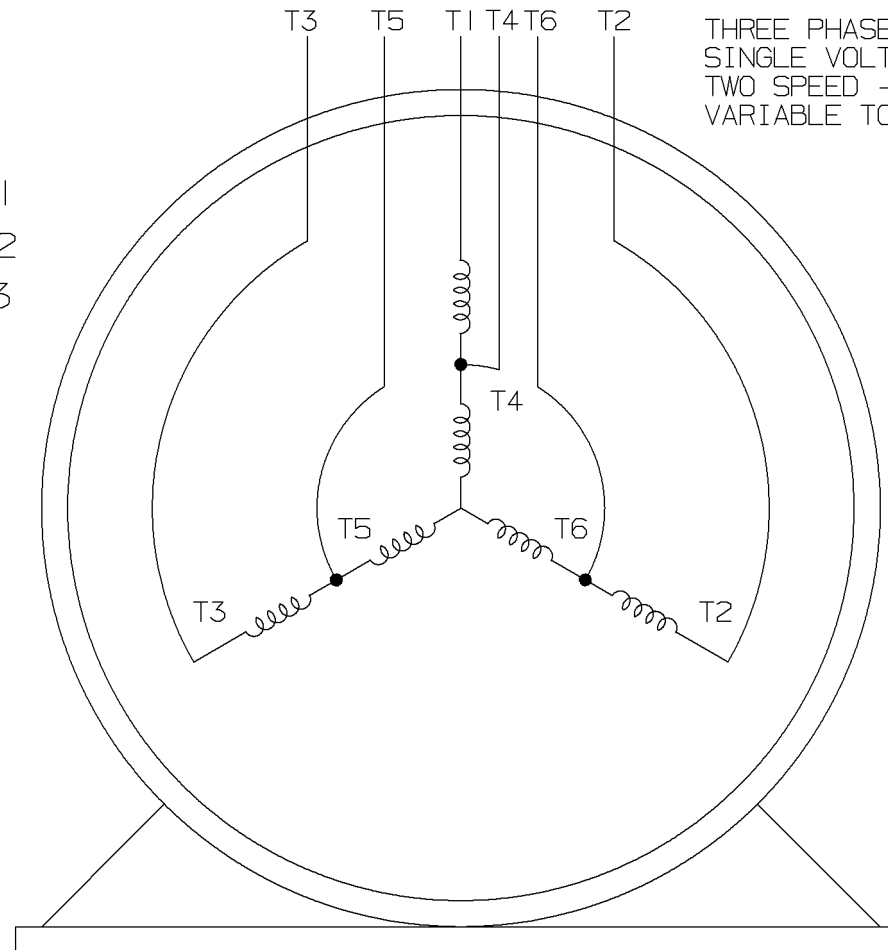
LOW SPEED



HIGH SPEED

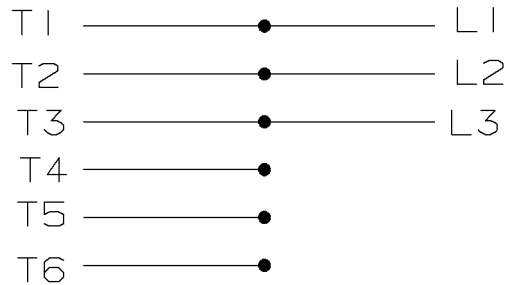


THREE PHASE MOTOR  
SINGLE VOLTAGE  
TWO SPEED - SGL. WDG.  
VARIABLE TORQUE

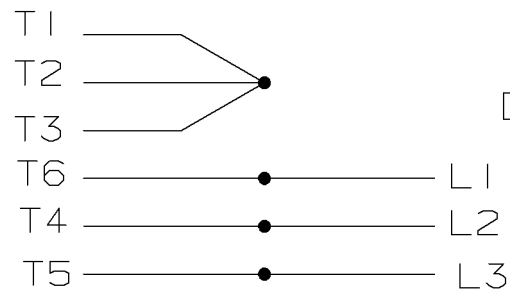


VIEW OF TERMINAL END

LOW SPEED



HIGH SPEED



T612C

T48B

|     |            |                                    |      |                                                               |                                                                                                                 |  |                         |
|-----|------------|------------------------------------|------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--|-------------------------|
|     |            |                                    |      | ✓<br>MAX. SURFACE ROUGHNESS<br>UNLESS NOTED OTHERWISE         | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOL. ON XX±      XXX± .005      XXXX± .0005      ANGLES± |  |                         |
|     |            |                                    |      | MATL SPEC                                                     |                                                                                                                 |  | DRAWN BY PGK 12-26-1996 |
|     |            |                                    |      | FINISH                                                        |                            |  | CHKD BY ML 01-07-1997   |
| 7   | 01-08-1997 | REDRAWN ON CADD<br><br>CN 24000-27 | PGK  | REFERENCE DRW.                                                | WAUSAU, WISCONSIN 54401                                                                                         |  | APPD BY TB 01-07-1997   |
| REV | DATE       | CHANGE                             | NAME | PART NAME CONNECTION DIAGRAM<br>3Ø - SINGLE VOLTAGE - 2 SPEED |                                                                                                                 |  | DRWG NO<br>A - EE7322   |

SHOP BOOK

PURCHASED

DISTRIBUTION - WA - LB - WP - LM - BR

CADD FILE NO.

EE7322



**P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311**

**CERTIFICATION DATA SHEET****CUSTOMER:****ORDER #:****CONN. DIAGRAM:** A-EE7322**OUTLINE:** B-SS207662-1275**WINDING #:** 256(4-8)67 4**CUSTOMER PO#:****MODEL #:** 284TTDP7202 CF**CUSTOMER PART #:****MOUNTING:** F1/F2 CAPABLE**TYPICAL MOTOR PERFORMANCE DATA**

| HP   | kW        | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|------|-----------|-----------|----------|-------|-----------|----------|--------|
| 20&5 | 14.9&3.70 | 900       | 1765&876 | 284T  | DP        | H        | 1VT    |

| PH | Hz    | VOLTS   | AMPS | START TYPE      | DUTY       | INSL | S.F.      | AMB°C |
|----|-------|---------|------|-----------------|------------|------|-----------|-------|
| 3  | 60/60 | 460&460 | 25&8 | ACROSS THE LINE | CONTINUOUS | F3   | 1.15/1.15 | 40    |

|                       |           |                      |      |                      |    |                 |  |                   |
|-----------------------|-----------|----------------------|------|----------------------|----|-----------------|--|-------------------|
| <b>FULL LOAD EFF:</b> | 87.5&82.5 | <b>3/4 LOAD EFF:</b> | 82.5 | <b>1/2 LOAD EFF:</b> | 80 | <b>GTD. EFF</b> |  | <b>ELEC. TYPE</b> |
| <b>FULL LOAD PF:</b>  | 85.5&70   | <b>3/4 LOAD PF:</b>  | 62   | <b>1/2 LOAD PF:</b>  | 50 | 79              |  | SQ CAGE IND RUN   |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE°C |
|-------------|-------------------|----------------|----------------|-------------|
| 30 LB-FT    | 34                | 45 LB-FT 150 % | 70 LB-FT 233 % | 40          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2  | MAX. WK^2 | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|-------------|-----------|-----------------|---------------|-------------------|
| 63 dBA                 | 73 dBA      | 2.2 LB-FT^2 | - LB-FT^2 | - SEC.          | -             | 310 LBS.          |

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT         |
|-----------------|------------------|------------|-------------|-------------|--------------------|------------|---------|---------------|
| STANDARD        | STANDARD         | RIGID      | HORIZONTAL  | FALSE       | NONE               | FALSE      | NONE    | BLUE (ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE       | ODE  |            |            |            |             |                         |                |
| BALL     | BALL |            |            |            |             |                         |                |
| 6311     | 6210 | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | CAST IRON      |

| THERMO-PROTECTORS |            |          |          | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------------|------------|----------|----------|-------------|---------|---------------|
| THERMOSTATS       | PROTECTORS | WDG RTDs | BRG RTDs |             |         |               |
| NONE              | NOT        | NONE     | NONE     | NONE        | FALSE   | NONE VOLTS    |

\* 1-WINDING, VARIABLE TORQUE

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**INVERTER TORQUE:** NONE  
**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

**PREPARED BY:** DineshSuddula **DATE:**

02/18/2019 12:19:12 AM

FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.



**P.O. BOX 8003  
WAUSAU, WI 54401-8003**

**CERTIFICATION DATA SHEET**

**CUSTOMER:**  
**ORDER #:**  
**CONN. DIAGRAM:** A-EE7322  
**OUTLINE:** B-SS207662-1275  
**WINDING #:** 256(4-8)67 4

**CUSTOMER PO#:**  
**MODEL #:** 284TTDP7202 CF  
**CUSTOMER PART #:**  
**MOUNTING:** F1/F2 CAPABLE

| TYPICAL MOTOR PERFORMANCE DATA |  |           |  |                   |  |               |  |                 |  |           |            |               |  |         |  |                 |  |          |  |                 |  |                   |  |      |  |
|--------------------------------|--|-----------|--|-------------------|--|---------------|--|-----------------|--|-----------|------------|---------------|--|---------|--|-----------------|--|----------|--|-----------------|--|-------------------|--|------|--|
| HP                             |  | kW        |  | SYNC. RPM         |  | F.L. RPM      |  | FRAME           |  | ENCLOSURE |            | KVA CODE      |  | DESIGN  |  |                 |  |          |  |                 |  |                   |  |      |  |
| 20&5                           |  | 14.9&3.70 |  | 1800              |  | 1765&876      |  | 284T            |  | DP        |            | H             |  | 1VT     |  |                 |  |          |  |                 |  |                   |  |      |  |
|                                |  |           |  |                   |  |               |  |                 |  |           |            |               |  |         |  |                 |  |          |  |                 |  |                   |  |      |  |
| PH                             |  | Hz        |  | VOLTS             |  | AMPS          |  | START TYPE      |  |           | DUTY       |               |  | INSL    |  | S.F.            |  | AMB°C    |  |                 |  |                   |  |      |  |
| 3                              |  | 60/60     |  | 460&460           |  | 25&8          |  | ACROSS THE LINE |  |           | CONTINUOUS |               |  | F3      |  | 1.15/1.15       |  | 40       |  |                 |  |                   |  |      |  |
|                                |  |           |  |                   |  |               |  |                 |  |           |            |               |  |         |  |                 |  |          |  |                 |  |                   |  |      |  |
| FULL LOAD EFF:                 |  |           |  | 87.5&82.5         |  | 3/4 LOAD EFF: |  |                 |  | 88        |            | 1/2 LOAD EFF: |  |         |  | 86.5            |  | GTD. EFF |  | ELEC. TYPE      |  |                   |  |      |  |
| FULL LOAD PF:                  |  |           |  | 85.5&70           |  | 3/4 LOAD PF:  |  |                 |  | 81        |            | 1/2 LOAD PF:  |  |         |  | 71              |  | 85.5     |  | SQ CAGE IND RUN |  |                   |  |      |  |
|                                |  |           |  |                   |  |               |  |                 |  |           |            |               |  |         |  |                 |  |          |  |                 |  |                   |  |      |  |
| F.L. TORQUE                    |  |           |  | LOCKED ROTOR AMPS |  |               |  | L.R. TORQUE     |  |           |            | B.D. TORQUE   |  |         |  | F.L. RISE°C     |  |          |  |                 |  |                   |  |      |  |
| 59.5                           |  | LB-FT     |  | 170               |  |               |  | 116             |  | LB-FT     |            | 195 %         |  | 178     |  | LB-FT           |  | 299 %    |  | 40              |  |                   |  |      |  |
|                                |  |           |  |                   |  |               |  |                 |  |           |            |               |  |         |  |                 |  |          |  |                 |  |                   |  |      |  |
| SOUND PRESSURE @ 3 FT.         |  |           |  | SOUND POWER       |  |               |  | ROTOR WK^2      |  |           |            | MAX. WK^2     |  |         |  | SAFE STALL TIME |  |          |  | STARTS / HOUR   |  | APPROX. MOTOR WGT |  |      |  |
| 72                             |  | dBA       |  | 82                |  | dBA           |  | 2.2             |  | LB-FT^2   |            | -             |  | LB-FT^2 |  | 15              |  | SEC.     |  | -               |  | 310               |  | LBS. |  |

\*\*\* SUPPLEMENTAL INFORMATION \*\*\*

| DE BRACKET TYPE |  | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT         |  |
|-----------------|--|------------------|------------|-------------|-------------|--------------------|------------|---------|---------------|--|
| STANDARD        |  | STANDARD         | RIGID      | HORIZONTAL  | FALSE       | NONE               | FALSE      | NONE    | BLUE (ENAMEL) |  |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE       | ODE  |            |            |            |             |                         |                |
| BALL     | BALL |            |            |            |             |                         |                |
| 6311     | 6210 |            |            |            |             |                         |                |
|          |      | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | CAST IRON      |

| THERMO-PROTECTORS |            |          |          | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------------|------------|----------|----------|-------------|---------|---------------|
| THERMOSTATS       | PROTECTORS | WDG RTDs | BRG RTDs |             |         |               |
| NONE              | NOT        | NONE     | NONE     | NONE        | FALSE   | NONE VOLTS    |

1-WINDING, VARIABLE TORQUE

INVERTER TORQUE: NONE

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

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PREPARED BY: Dinesh

Suddula

DATE: 02/18/2019 12:19:12 AM

FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.

http://rbweb.corp.regalbeloit.com/msa/customerSubmittalReport.do?invoke=viewCustomerSubmittalReport&item=284TTDP7202&amp;type=submittal... 2/2

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## MARATHON ELECTRIC CORPORATION

TYPICAL PERFORMANCE CURVE for AC MOTOR

Customer

Curve at

460

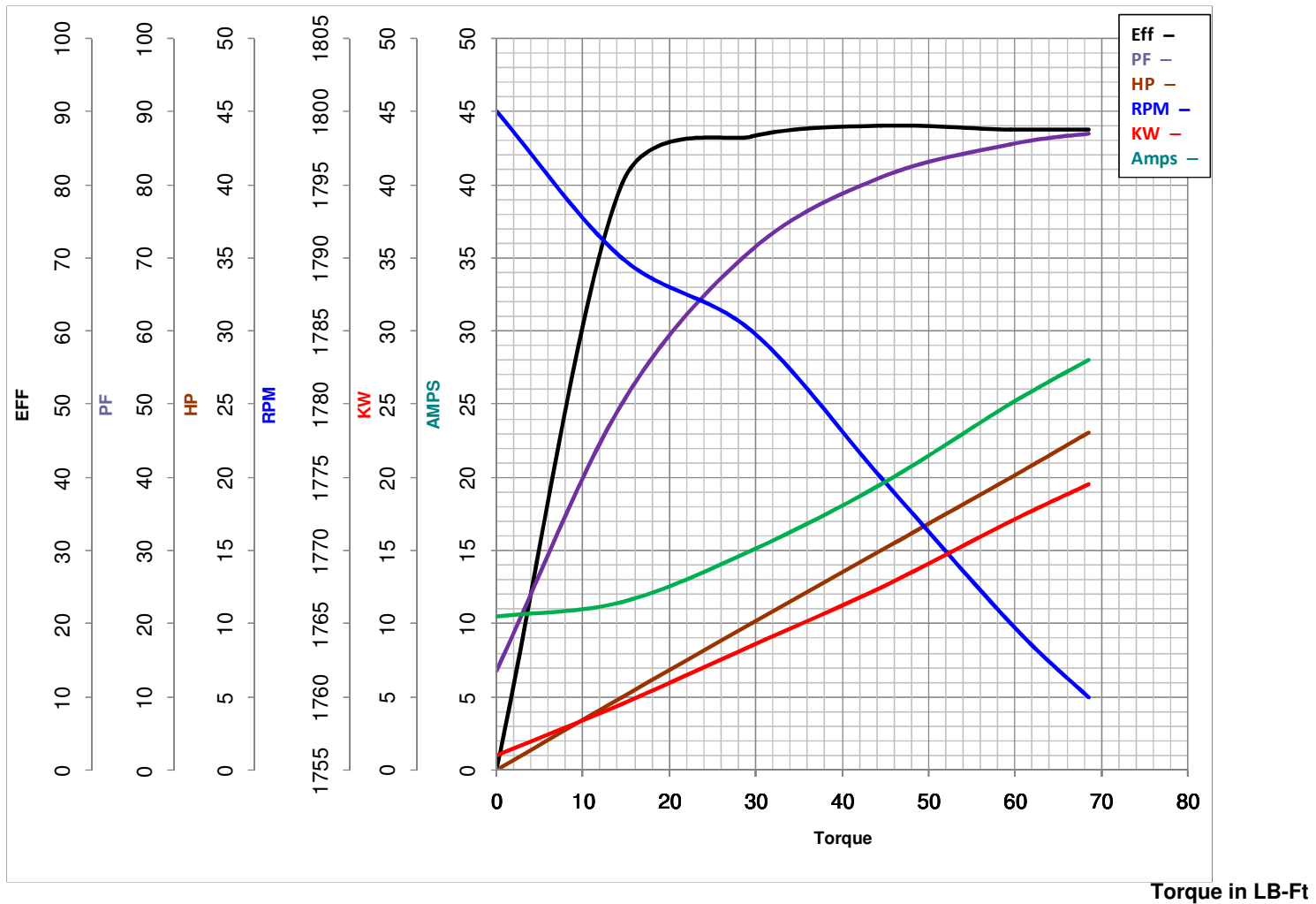
Volts

HP 20&5PHASE 3Model No 284TTDP720260

HZ

VOLTS 460&46020

HP

Catalog No Y493HZ 60&60RPM 1765&876

FL TORQUE 59.5 LB-Ft  
 BD TORQUE 178.0 LB-Ft  
 LR TORQUE 116 LB-Ft

FL AMPS 25  
 PU TORQUE 105.0 LB-Ft  
 LR AMPS 170

WINDING 256(4-8)67-

Date 3/7/2019