

# PRODUCT INFORMATION PACKET

Model No: 182TTDW16018

Catalog No: M315C

Close-Coupled Pump Motor, 5 & 3 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM,  
182JM Frame, DP



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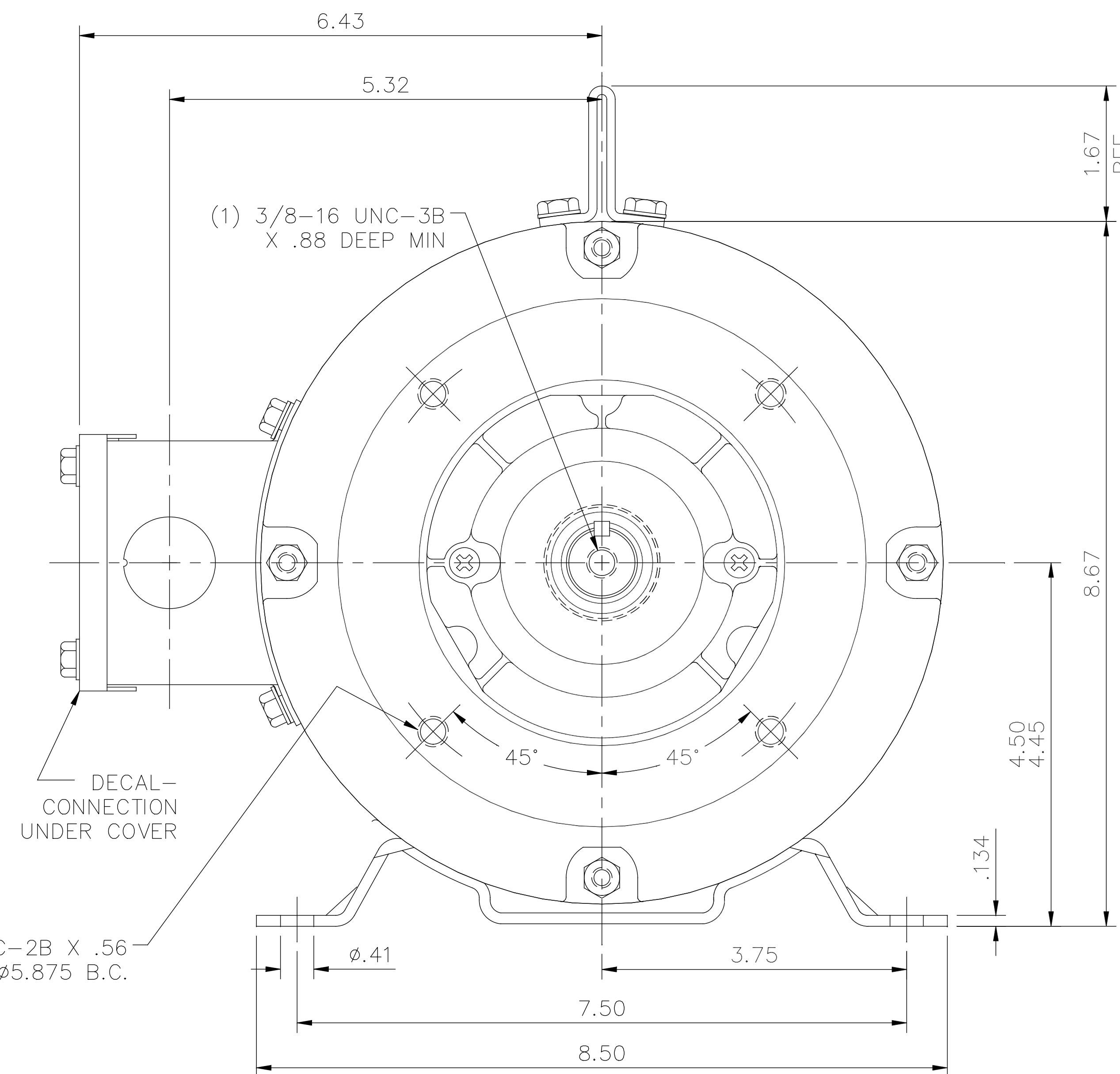
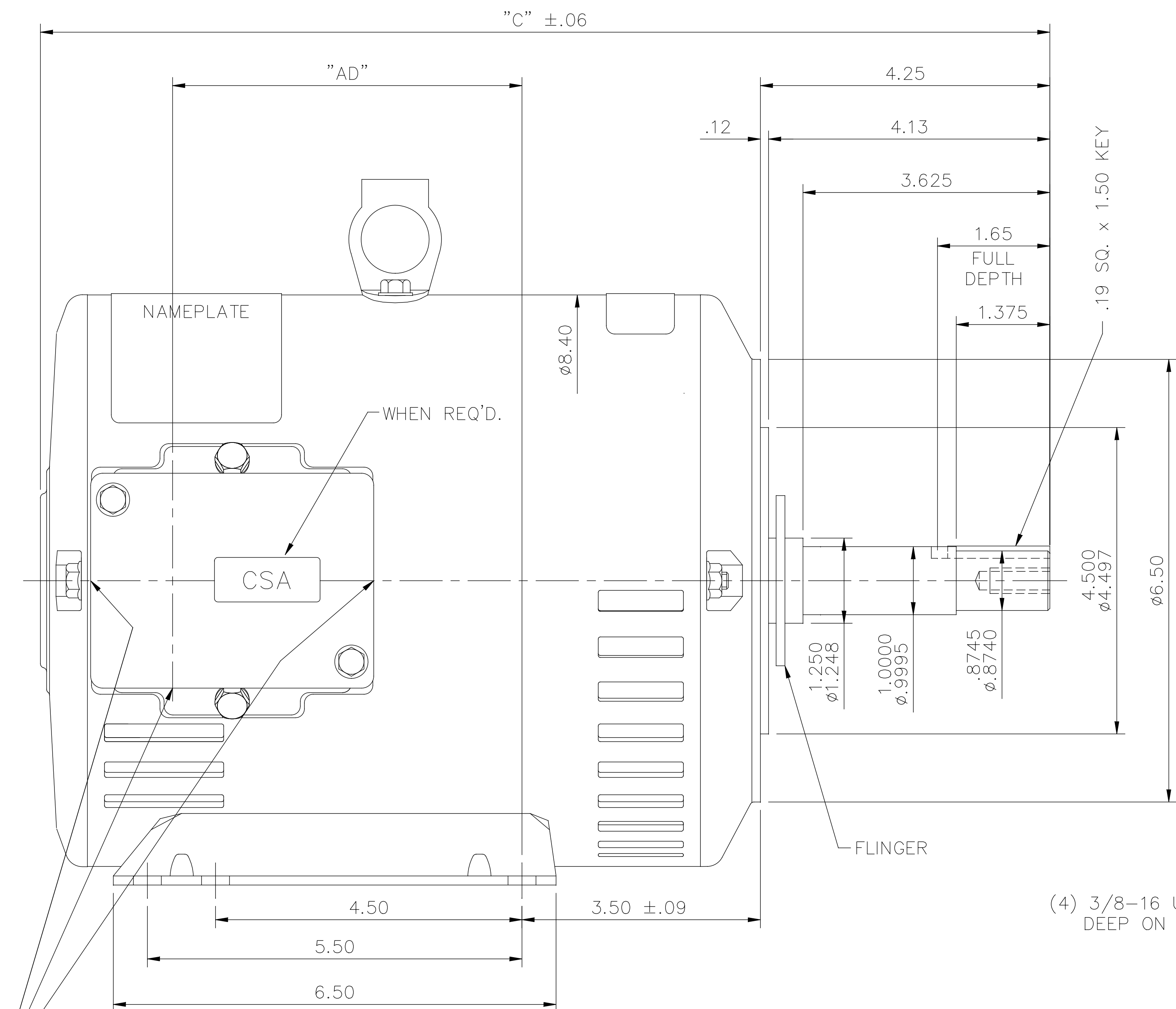
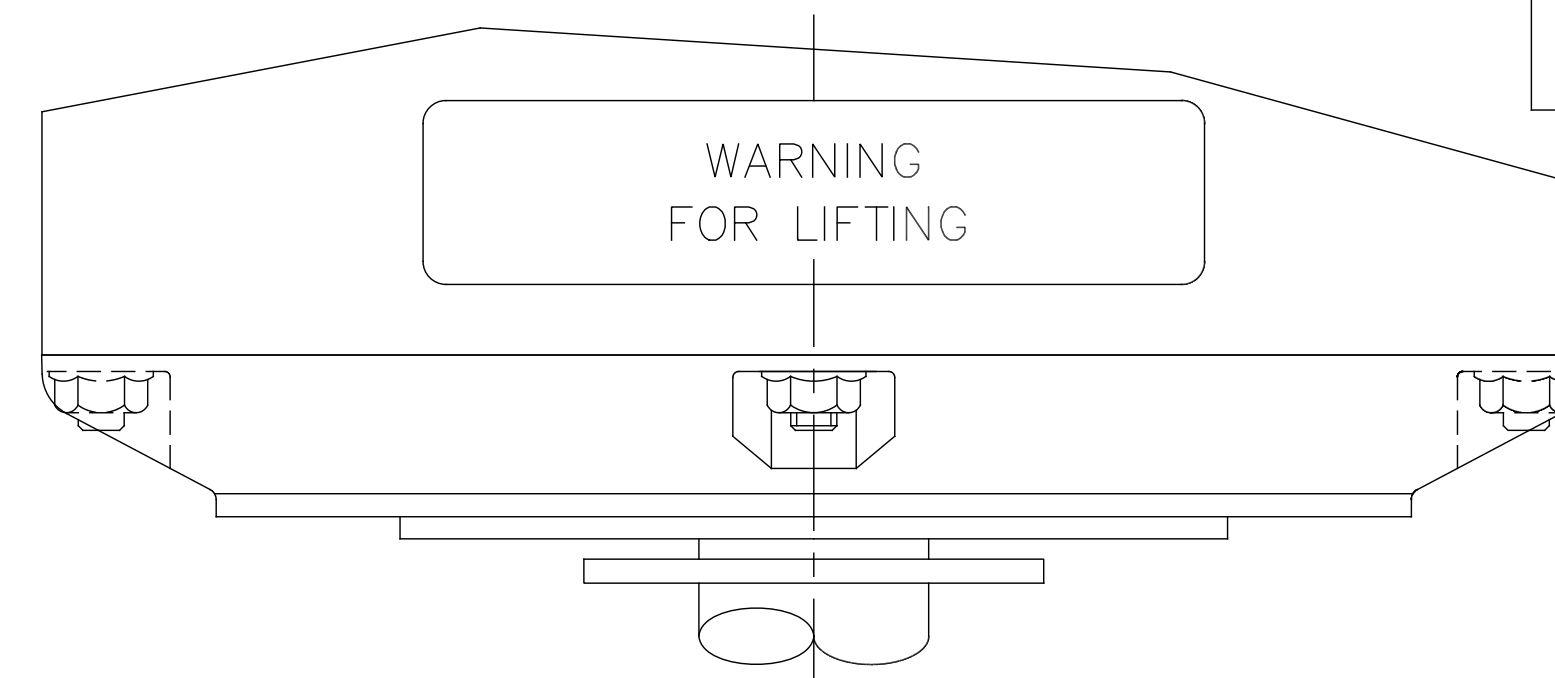
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### Nameplate Specifications

|                        |                                 |                            |                                |
|------------------------|---------------------------------|----------------------------|--------------------------------|
| Phase                  | <b>3</b>                        | Output HP                  | <b>5 &amp; 3 Hp</b>            |
| Output KW              | <b>3.7 &amp; 2.2 kW</b>         | Voltage                    | <b>230/460 &amp; 190/380 V</b> |
| Speed                  | <b>3500 &amp; 2925 rpm</b>      | Service Factor             | <b>1.15 &amp; 1.15</b>         |
| Frame                  | <b>182JM</b>                    | Enclosure                  | <b>Drip Proof</b>              |
| Thermal Protection     | <b>No Protection</b>            | Efficiency                 | <b>86.5 &amp; 85.5 %</b>       |
| Ambient Temperature    | <b>40 °C</b>                    | Frequency                  | <b>60 &amp; 50 Hz</b>          |
| Current                | <b>12.4/6.2 &amp; 9.8/4.9 A</b> | Power Factor               | <b>86</b>                      |
| Duty                   | <b>Continuous</b>               | Insulation Class           | <b>F</b>                       |
| Design Code            | <b>B</b>                        | KVA Code                   | <b>J</b>                       |
| Drive End Bearing Size | <b>6207</b>                     | Opp Drive End Bearing Size | <b>6205</b>                    |
| UL                     | <b>Recognized</b>               | CSA                        | <b>Y</b>                       |
| CE                     | <b>Y</b>                        | IP Code                    | <b>12</b>                      |
| Number of Speeds       | <b>1</b>                        |                            |                                |

### Technical Specifications

|                       |                                    |                       |                        |
|-----------------------|------------------------------------|-----------------------|------------------------|
| Electrical Type       | <b>Squirrel Cage Induction Run</b> | Starting Method       | <b>Across The Line</b> |
| Poles                 | <b>2</b>                           | Rotation              | <b>Reversible</b>      |
| Resistance Main       | <b>0 Ohms</b>                      | Mounting              | <b>Rigid Base</b>      |
| Motor Orientation     | <b>Horizontal</b>                  | Drive End Bearing     | <b>Ball</b>            |
| Opp Drive End Bearing | <b>Ball</b>                        | Frame Material        | <b>Rolled Steel</b>    |
| Shaft Type            | <b>JM</b>                          | Overall Length        | <b>14.82 in</b>        |
| Frame Length          | <b>9.00 in</b>                     | Shaft Diameter        | <b>0.875 in</b>        |
| Shaft Extension       | <b>4.25 in</b>                     | Assembly/Box Mounting | <b>F1 ONLY</b>         |
| Outline Drawing       | <b>035565-900</b>                  | Connection Drawing    | <b>005010.01ME</b>     |



Ø1.13 KNOCKOUTS  
(3) REQUIRED

GASKETS THROUGHOUT  
MAXIMUM FACE RUNOUT TO BE .004 T.I.R.  
MAXIMUM PILOT ECCENTRICITY TO BE .004 T.I.R.  
PERMISSIBLE SHAFT RUNOUT TO BE .004 T.I.R.

| DASH NO. | "C"   | "AD" |
|----------|-------|------|
| 800      | 13.82 | 4.13 |
| 850      | 14.32 | 4.63 |
| 900      | 14.82 | 5.13 |
| 950      | 15.32 | 5.63 |
| 1000     | 15.82 | 6.13 |
| 1050     | 16.32 | 6.63 |
| 1100     | 16.82 | 7.13 |
| 1150     | 17.32 | 7.63 |

| NO.  | REVISION                             | BY & DATE     | CHK | ANG   | TOLERANCES UNLESS SPECIFIED |        | MARATHON ELECTRIC                | DRAWN KVN 09/11/2007 |        |                    |         |
|--|--------------------------------------|---------------|-----|-------|-----------------------------|--------|----------------------------------|----------------------|--------|--------------------|---------|
|  |                                      |               |     |       | DEC.                        | INCHES |                                  |                      |        |                    |         |
| 04   | DRAWING UPDATED                      | SL 05/16/16   | GR  | .X    | ±.1                         |        |                                  | CHK                  |        |                    |         |
| 03   | CSA WHEN REQ'D ADDED PER ECO-0045263 | UD 02/11/14   | GR  | .XX   | ±.03                        |        | TITLE OUTLINE - 180JM FRAME      | APPD                 |        |                    |         |
| 02   | REMOVED THE CE DECAL                 | SVL 6/11/2009 | SVL | .XXX  | ±.005                       |        | DRIP PROOF - RIGID "C" - JM PUMP | SCALE 1=2            |        |                    |         |
| 01   | REVISED C/B MOUNTING BOLT POSITION.  | ST 3/24/2009  | VV  | .XXXX | ±.0005                      |        | MAT'L.                           | REF 035485           |        |                    |         |
|  |                                      |               |     |       | ±1/2'                       |        | FINISH                           | FMF 182TTDW7325      |        |                    |         |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT |                                      |               |     |       |                             |        | RFP                              | CAD FILE 035565      | SIZE B | DRAWING NO. 035565 | REV. 04 |
|  |                                      |               |     |       |                             |        | DIST                             |                      |        |                    |         |

VIEW FROM OUTSIDE OF MOTOR AT SWITCH END.



| VOLTAGE | L1    | L2    | L3    | JOIN & INSULATE               |
|---------|-------|-------|-------|-------------------------------|
| HIGH    | T1    | T2    | T3    | (T4,T7)<br>(T5,T8)<br>(T6,T9) |
| LOW     | T1,T7 | T2,T8 | T3,T9 | T4,T5,T6                      |

|     |          | TOLERANCES UNLESS SPECIFIED |        | MARATHON ELECTRIC                                |       | DRAWN RDW 04/12/02 |             |
|-----|----------|-----------------------------|--------|--|-------|--------------------|-------------|
|     |          | DEC.                        | INCHES |  |       | CHK                |             |
|     |          | .X                          | ±.1    |  |       | APPD               |             |
|     |          | .XX                         | ±.01   | TITLE  |       | SCALE 1=1          |             |
|     |          | .XXX                        | ±.005  | EXTERNAL WIRING DIAGRAM<br>3 PHASE W/O PROTECTOR |       | REF FIG.2-51       |             |
|     |          | .XXXX                       | ±.0005 | MAT'L.   |       | FMF                |             |
|     |          |                             |        | DECAL - 004014                                   |       | PREV               |             |
| NO. | REVISION | BY & DATE                   | CHK    | ANG  | ±1/2' | FINISH             |             |
|     |          |                             | RFP    | 04/12/02   |       | CAD FILE           | 00501001ME  |
|     |          |                             | DIST   |  |       | SIZE               | A           |
|     |          |                             |        |  |       | DRAWING NO.        | 005010-01ME |
|     |          |                             |        |  |       | REV.               |             |

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WAUSAU, WI 54401-8003  
PH. 715-675-3311

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_ CUSTOMER P.O. #: \_\_\_\_\_  
 ORDER #: \_\_\_\_\_ REFERENCE MODEL #: 182TTDW16018  
 CONN. DIAGRAM: 005010.01ME CAT #: M315C  
 OUTLINE: 035565-900 CUSTOMER PART #: \_\_\_\_\_  
 WINDING: T82117 R1 3 MOUNTING: F1 ONLY  
 SPEED: \_\_\_\_\_

**TYPICAL MOTOR PERFORMANCE DATA**

| HP | KW  | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|-----|----------|--------|-------|-----------|------|----------|--------|
| 5  | 3.7 | 3600     | 3500   | 182JM | DP        | TDW  | J        | B      |

| PH | HZ    | VOLTS           | AMPS             | START TYPE      | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|-----------------|------------------|-----------------|------|------|------|-----|-------|
| 3  | 60/50 | 230/460#190/380 | 12.4/6.2&9.8/4.9 | ACROSS THE LINE | CONT | F    | 1.15 | 40  | 3300  |

| F.L. EFF | 86.5 | 3/4 LD EFF | 86.5 | 1/2 LD EFF | 84.6 | GTD EFF | ELECT. TYPE     |
|----------|------|------------|------|------------|------|---------|-----------------|
| F.L. PF  | 86.0 | 3/4 LD PF  | 82.0 | 1/2 LD PF  | 73.0 | 83.8    | SQ CAGE IND RUN |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE     | B.D. TORQUE     | F.L. RISE (°C) |
|-------------|-----------------|-----------------|-----------------|----------------|
| 7.5 LB-FT   | 45.5            | 16.1 LB-FT 215% | 25.0 LB-FT 333% | 30             |

| @ 3 FT. | POWER  | ROTOR WK <sup>2</sup>   | MAX. LOAD WK <sup>2</sup> | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|---------|--------|-------------------------|---------------------------|-----------------|-------------|-----------|
| 71 dBA  | 80 dBA | 0.18 LB-FT <sup>2</sup> | 7 LB-FT <sup>2</sup>      | 15 SEC.         | 2           | 64 LB.    |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT         |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|---------------|
| C-FACE          | STANDARD         | RIGID      | HORIZONTAL        | NO          | NONE               | YES        | NONE    | BLUE (ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL         | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|------------------------|----------------|
| DE       | ODE  | POLYREX EM | JM         | NONE       | NONE        | EN8D STEEL BAR (C-242) | ROLLED STEEL   |
| BALL     | BALL |            |            |            |             |                        |                |
| 6207     | 6205 |            |            |            |             |                        |                |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------|------------|-----------|-----------|-------------|---------|---------------|
| NONE        | NOT        | NONE      | NONE      | NONE        | FALSE   | NA            |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 1.327        | 1.219        | 3.056        | 1.667        | 97.864       | 0.150              | ODE   |

|                                 |  |  |  |  |  |  |
|---------------------------------|--|--|--|--|--|--|
| *<br>N<br>O<br>T<br>E<br>S<br>* | INVERTER TORQUE: NONE<br>INV. HP SPEED RANGE: NONE |  |  |  |  |  |
|                                 | ENCODER: NONE<br>NONE<br>NONE                      |  |  |  |  |  |
|                                 | BRAKE: NONE<br>NONE                                |  |  |  |  |  |
|                                 | FT-LB: NA<br>VOLTAGE: NONE                         |  |  |  |  |  |
|                                 | UL: V-INS, CONST UL REC                            |  |  |  |  |  |

PREPARED BY: FAREEDA DUDEKULA  
 DATE: 9/17/2018

Data Sheet

182TTDW16018

Date: 12/10/2018  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

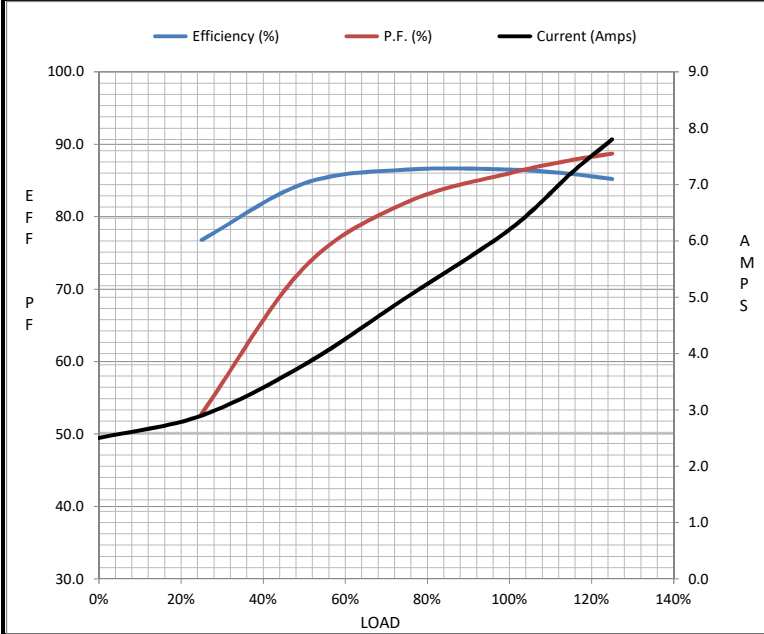
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 2.50 | 2.90 | 3.8  | 5.0  | 6.2  | 7.2   | 7.8  | 45.5 |
| Torque (ft-lb) | 0.00 | 1.80 | 3.7  | 5.6  | 7.5  | 8.7   | 9.5  | 16.1 |
| RPM            | 3600 | 3576 | 3552 | 3526 | 3500 | 3,478 | 3465 | 0    |
| Efficiency (%) |      | 76.8 | 84.6 | 86.5 | 86.5 | 85.9  | 85.2 |      |
| P.F. (%)       | 13.0 | 52.8 | 73.0 | 82.0 | 86.0 | 87.8  | 88.7 | 55.5 |

Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 1800    | 2900 | 3500  | 3600 |
| Current (Amps) | 45.5 | 41.0    | 28.9 | 6.2   | 2.50 |
| Torque (ft-lb) | 16.1 | 14.5    | 25.0 | 7.5   | 0.00 |

Information Block

|                             |                         |        |        |         |
|-----------------------------|-------------------------|--------|--------|---------|
| HP                          | 5.0                     |        |        |         |
| Sync. RPM                   | 3600                    |        |        |         |
| Frame                       | 182                     |        |        |         |
| Enclosure                   | DP                      |        |        |         |
| Construction                | TDR                     |        |        |         |
| Voltage                     | 230/460#190/380 V       |        |        |         |
| Frequency                   | 60 Hz                   |        |        |         |
| Design                      | B                       |        |        |         |
| LR Code letter              | J                       |        |        |         |
| Service Factor              | 1.15                    |        |        |         |
| Temp Rise @ FL              | 30 °C                   |        |        |         |
| Duty                        | CONT                    |        |        |         |
| Ambient                     | 40 °C                   |        |        |         |
| Elevation                   | 1,000 feet              |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 0.18 Lb-Ft <sup>2</sup> |        |        |         |
| Ref Wdg                     | T82117 R1               |        |        |         |
| Sound Pressure @ 1M         | 71 dBA                  |        |        |         |
| VFD Rating                  | NONE                    |        |        |         |
| Outline Dwg                 | 035565-900              |        |        |         |
| Conn. Diag                  | 005010.01ME             |        |        |         |
| Additional Specifications:  |                         |        |        |         |
| 0                           |                         |        |        |         |
| 0                           |                         |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |         |
| R1                          | R2                      | X1     | X2     | Xm      |
| 1.3270                      | 1.2190                  | 3.0560 | 1.6670 | 97.8640 |



Speed - Torque Curve

