

# PRODUCT INFORMATION PACKET



Model No: B199057.00

Catalog No: B199057.00

Ultimate e™ General Purpose Motor, 10 & 7.5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,  
3600 & 3000 RPM, 215TC Frame, TEFC



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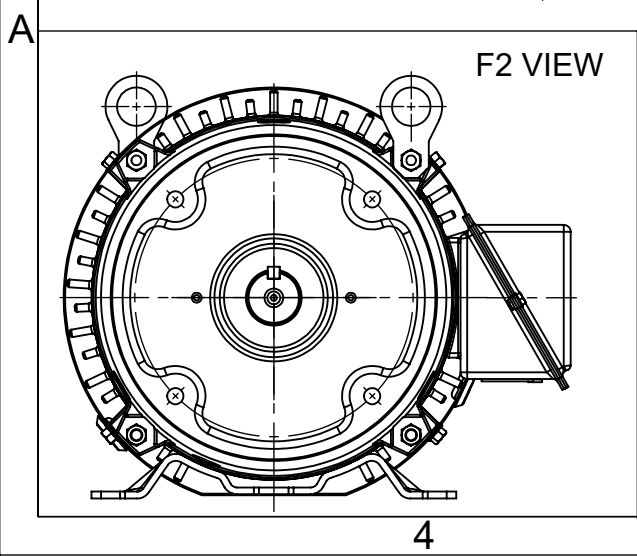
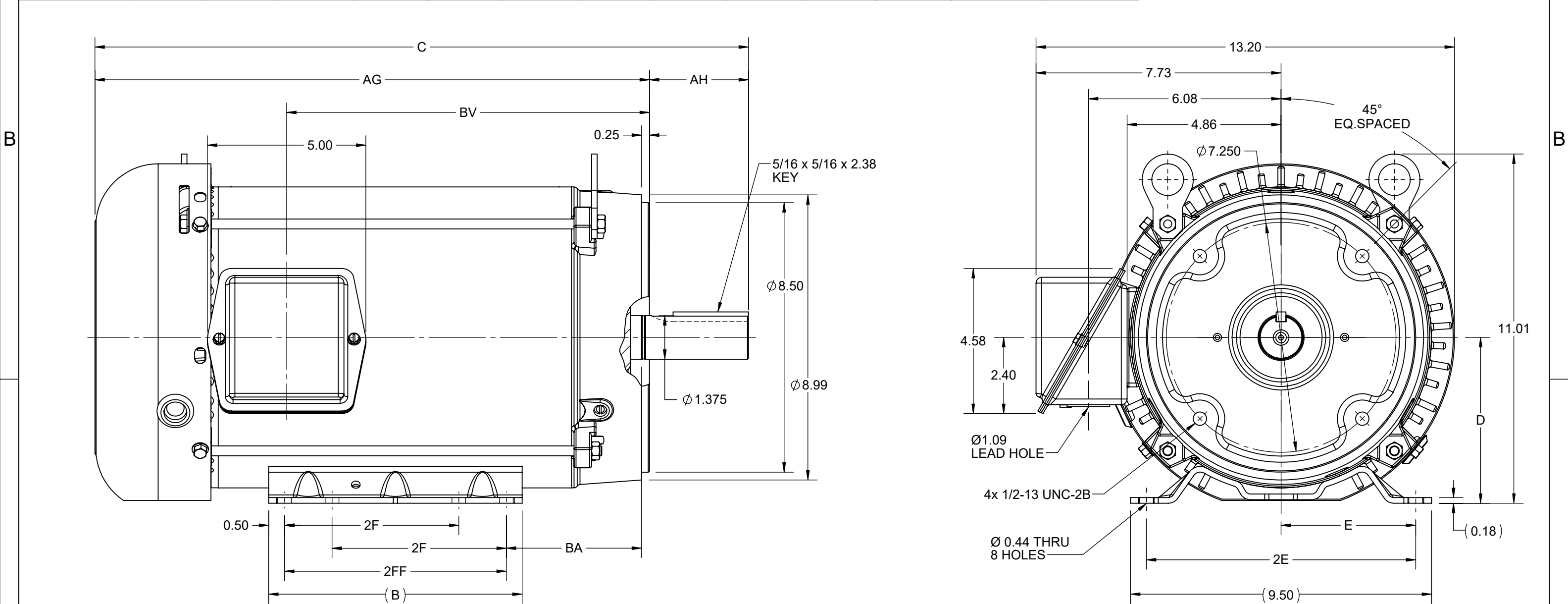
## Nameplate Specifications

|                        |                         |                            |                             |
|------------------------|-------------------------|----------------------------|-----------------------------|
| Phase                  | 3                       | Output HP                  | 10 & 7.5 Hp                 |
| Output KW              | 7.5 & 5.6 kW            | Voltage                    | 230/460 & 190/380 V         |
| Speed                  | 3518 & 2925 rpm         | Service Factor             | 1.15 & 1.15                 |
| Frame                  | 215TC                   | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection           | Efficiency                 | 90.2 & 89.5 %               |
| Ambient Temperature    | 40 °C                   | Frequency                  | 60 & 50 Hz                  |
| Current                | 23.6/11.8 & 21.6/10.8 A | Power Factor               | 88                          |
| Duty                   | Continuous              | Insulation Class           | F                           |
| Design Code            | B                       | KVA Code                   | H                           |
| Drive End Bearing Size | 6307                    | Opp Drive End Bearing Size | 6206                        |
| UL                     | Recognized              | CSA                        | Y                           |
| CE                     | Y                       | IP Code                    | 43                          |
| Number of Speeds       | 1                       |                            |                             |

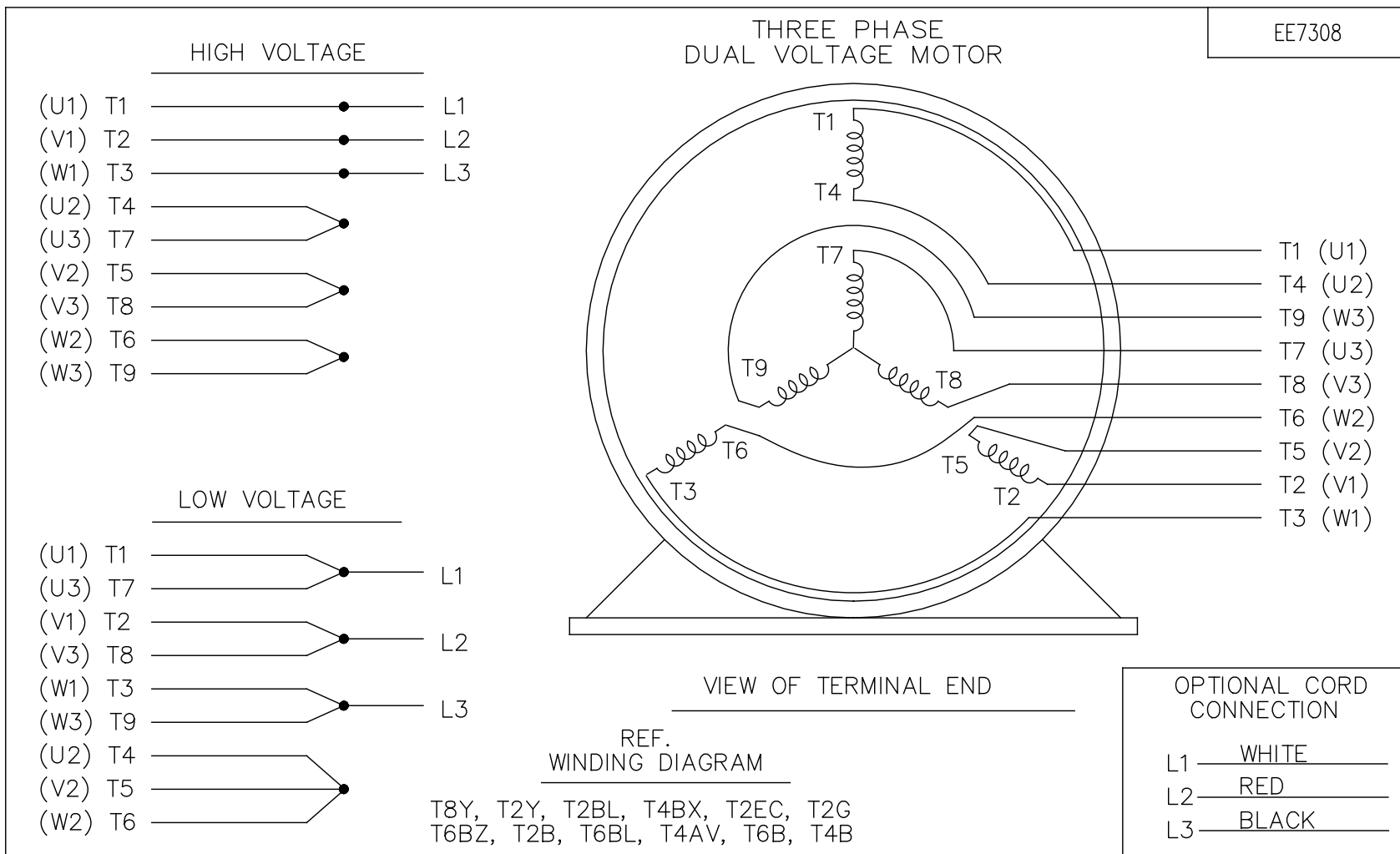
## Technical Specifications

|                       |                              |                       |                  |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type       | Squirrel Cage Inverter Rated | Starting Method       | Line Or Inverter |
| Poles                 | 2                            | Rotation              | Reversible       |
| Resistance Main       | 1.218 Ohms                   | Mounting              | Rigid Base       |
| Motor Orientation     | Horizontal                   | Drive End Bearing     | Ball             |
| Opp Drive End Bearing | Ball                         | Frame Material        | Rolled Steel     |
| Shaft Type            | T                            | Overall Length        | 20.70 in         |
| Frame Length          | 11.15 in                     | Shaft Diameter        | 1.375 in         |
| Shaft Extension       | 3.38 in                      | Assembly/Box Mounting | F1/F2 CAPABLE    |
| Outline Drawing       | SS620688-215TC               | Connection Drawing    | EE7308           |

| 4        |      |       |      | 3    |      |      |      | 2     |      |      |       | 1        |       |
|----------|------|-------|------|------|------|------|------|-------|------|------|-------|----------|-------|
| DASH NO. | B    | C     | D    | E    | 2E   | 2F   | 2FF  | AG    | AH   | BA   | BV    | MOUNTING | FRAME |
| 100      | 8.00 | 19.13 | 5.25 | 4.25 | 8.50 | 5.50 | 7.00 | 16.00 | 3.12 | 4.25 | 9.95  | F1 OR F2 | 213TC |
| 200      |      | 20.63 |      |      |      |      |      | 17.50 |      |      | 11.45 |          | 215TC |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                               |                                                                                      |                           |                                                                                                                  |                |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------|--------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|
| DRAWING REVISION<br>D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | REVISION BY<br>GOPI J | REV DATE/© DATE<br>09/05/2022 | PRIMARY DIMENSIONS ARE INCH<br>mm DIMENSIONS IN [BRACKETS]<br>ARE FOR REFERENCE ONLY | DRAWN BY<br>ZXW           |  Regal Beloit America, Inc. |                |                            |
| REQUEST NUMBER<br>CR-0008840                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | APPROVED BY<br>GNK    | DATE<br>09/05/2022            |                                                                                      | DATE<br>06/03/2015        |                                                                                                                  |                |                            |
| REQUEST NUMBER DESCRIPTION<br>FRAME AND CONDUIT BOX PART # UPDATED AS PER CR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                               |                                                                                      | APPROVED BY<br>ZYH        | DESCRIPTION                                                                                                      |                |                            |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                               |                                                                                      | REFERENCE                 | MATERIAL                                                                                                         | PROCESS/FINISH |                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                               |                                                                                      | THIRD ANGLE<br>PROJECTION |                             | SIZE<br>B      | DRAWING NUMBER<br>SS620688 |



| NO. | REVISION                                       | BY & DATE      | CHK | ANG     | TOLERANCES<br>UNLESS SPECIFIED |        | DRAWN RM                                                                                                                | 11/20/1990          |
|-----|------------------------------------------------|----------------|-----|---------|--------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------|---------------------|
|     |                                                |                |     |         | DEC.                           | INCHES |                                                                                                                         |                     |
| 5   | CHG TO REGAL LOGO                              | SL 09/10/2015  | AB  |         |                                |        |  <b>Regal Beloit America, Inc.</b> | CHK ML 11/21/1990   |
| 4   | REVISED IEC NOTATIONS                          | MSG 11/15/2011 | CMN | .X      | ±.1                            |        |                                                                                                                         | APPD SAS 04/24/2003 |
| 3   | ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194 | MSG 5/10/2010  | MJS | .XX     | ±.02                           |        |                                                                                                                         | SCALE 1=1           |
| 2   | ADDED THE OPTIONAL CORD CONNECTION MU46318     | RDH 04/24/2003 | DRS | .XXX    | ±.005                          |        |                                                                                                                         | REF                 |
| 1   | REDRAWN                                        | RM 11/20/1990  |     | .XXXX   | ±.0005                         |        |                                                                                                                         | FMF                 |
|     |                                                |                |     |         | ±7'30"                         |        | FINISH                                                                                                                  | PREV                |
|     |                                                |                |     | RFP     | CAD FILE ee7308                |        | SIZE A                                                                                                                  | DRAWING NO. EE7308  |
|     |                                                |                |     | DIST WP |                                |        |                                                                                                                         | PAGE 5              |

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DATA VOLTS: 460

### CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7308  
OUTLINE: SS620688  
WINDING: HE31322010

CAT #: B199057.00

NONE 2

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW  | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|-----|----------|--------|-------|-----------|------|----------|--------|
| 10 | 7.5 | 3600     | 3518   | 215TC | TEFC      | TFC  | H        | B      |

| PH | HZ    | VOLTS           | AMPS                | START TYPE       | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|-----------------|---------------------|------------------|------|------|------|-----|-------|
| 3  | 60/50 | 230/460#190/380 | 23.6/11.8&21.6/10.8 | LINE OR INVERTER | CONT | F    | 1.15 | 40  | 3300  |

| F.L. EFF | 90.2 | 3/4 LD EFF | 90.6 | 1/2 LD EFF | 89.9 | GTD EFF | 89.5 | ELECT. TYPE | SQ CAGE INV RATED |
|----------|------|------------|------|------------|------|---------|------|-------------|-------------------|
| F.L. PF  | 89.0 | 3/4 LD PF  | 86.0 | 1/2 LD PF  | 78.5 |         |      |             |                   |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE     | B.D. TORQUE     | F.L. RISE (°C) |
|-------------|-----------------|-----------------|-----------------|----------------|
| 14.9 LB-FT  | 79.0            | 28.0 LB-FT 188% | 41.0 LB-FT 275% | 55             |

| PRESSURE @ 3 | POWER  | ROTOR WK²   | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|--------------|--------|-------------|---------------|-----------------|-------------|-----------|
| 72 dBA       | 81 dBA | 0.60 LB-FT² | 18 LB-FT²     | 15 SEC.         | 2           | 190 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               | NO         | NONE    | BLUE (ENAMEL) |

| BEARINGS  | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL    | FRAME MATERIAL |
|-----------|------------|------------|------------|-------------|-------------------|----------------|
| DE ODE    |            |            |            |             |                   |                |
| BALL BALL | POLYREX EM | T          | NONE       | NONE        | AISI 1045 (C-240) | ROLLED STEEL   |
| 6307 6206 |            |            |            |             |                   |                |

| 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 |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.792        | 0.534        | 2.119        | 1.468        | 69.296       | 0.150              | ODE   |

|                                 |                                      |                                                                           |
|---------------------------------|--------------------------------------|---------------------------------------------------------------------------|
| *<br>N<br>O<br>T<br>E<br>S<br>* |                                      | <b>INVERTER TORQUE: VARIABLE 10:1</b><br><b>INV. HP SPEED RANGE: NONE</b> |
|                                 |                                      |                                                                           |
|                                 |                                      |                                                                           |
|                                 |                                      |                                                                           |
|                                 |                                      |                                                                           |
|                                 |                                      |                                                                           |
|                                 | <b>ENCODER: NONE</b><br>NONE<br>NONE | NONE PPR                                                                  |

DATE: 1/30/2018

**BRAKE: NONE**  
 NONE  
 NONE  
**FT-LB: NA**  
**VOLTAGE: NONE**  
**HZ:**  
**UL: Y-(LEESON UL REC)**

## Data Sheet

Date: 1/30/2018

B199057.00



Data @ 460 V

## Motor Load Data

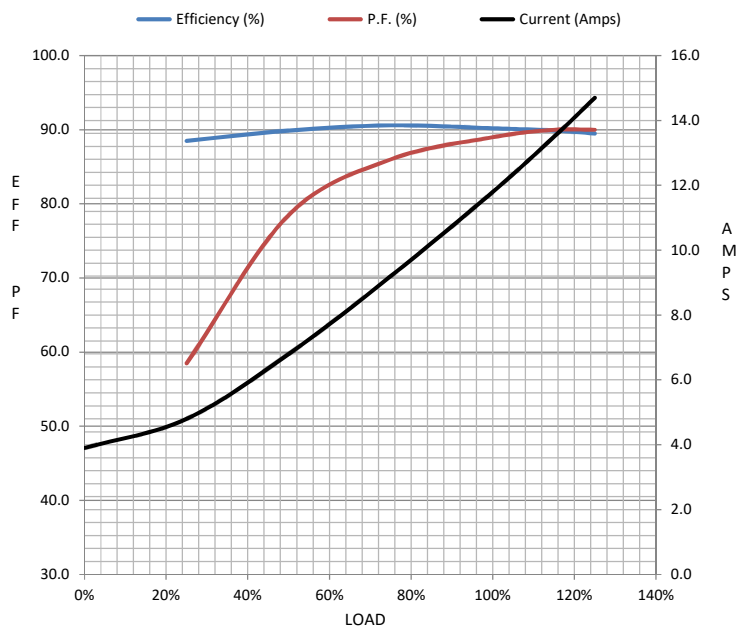
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |  |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 3.9  | 4.8  | 6.8  | 9.2  | 11.8 | 13.5  | 14.7 | 79.0 |  |
| Torque (ft-lb) | 0.00 | 3.7  | 7.4  | 11.1 | 14.9 | 17.3  | 18.9 | 28.0 |  |
| RPM            | 3600 | 3580 | 3560 | 3540 | 3518 | 3,502 | 3492 | 0    |  |
| Efficiency (%) |      | 88.5 | 89.9 | 90.6 | 90.2 | 89.9  | 89.5 |      |  |
| P.F. (%)       | 10.5 | 58.5 | 78.5 | 86.0 | 89.0 | 90.0  | 90.0 | 45.0 |  |

## Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 1800    | 3125 | 3518  | 3600 |
| Current (Amps) | 79.0 | 67.0    | 44.0 | 11.8  | 3.9  |
| Torque (ft-lb) | 28.0 | 24.0    | 41.0 | 14.9  | 0.00 |

## Information Block

|                            |                   |        |        |         |
|----------------------------|-------------------|--------|--------|---------|
| HP                         | 10.0              |        |        |         |
| Sync. RPM                  | 3600              |        |        |         |
| Frame                      | 215               |        |        |         |
| Enclosure                  | TEFC              |        |        |         |
| Construction               | TFC               |        |        |         |
| Voltage                    | 230/460#190/380 V |        |        |         |
| Frequency                  | 60 Hz             |        |        |         |
| Design                     | B                 |        |        |         |
| LR Code letter             | H                 |        |        |         |
| Service Factor             | 1.15              |        |        |         |
| Temp Rise @ FL             | 55 °C             |        |        |         |
| Duty                       | CONT              |        |        |         |
| Ambient                    | 40 °C             |        |        |         |
| Elevation                  | 1,000 feet        |        |        |         |
| Rotor/Shaft wk²            | 0.60 Lb-Ft²       |        |        |         |
| Ref Wdg                    | HE31322010 NONE   |        |        |         |
| Sound Pressure @ 1M        | 72 dBA            |        |        |         |
| VFD Rating                 | VARIABLE 10:1     |        |        |         |
| Outline Dwg                | SS620688          |        |        |         |
| Conn. Diag                 | EE7308            |        |        |         |
| Additional Specifications: |                   |        |        |         |
| 0                          |                   |        |        |         |
| 0                          |                   |        |        |         |
| EQUIV CKT (OHMS / PHASE)   |                   |        |        |         |
| R1                         | R2                | X1     | X2     | Xm      |
| 0.7920                     | 0.5340            | 2.1190 | 1.4680 | 69.2960 |



## Speed - Torque Curve

