

# PRODUCT INFORMATION PACKET



Model No: 109103.00  
Catalog No: 109103.00  
Low Voltage Motor, 1.50 HP, 24 V, 1800 RPM, S56CZ Frame, TEFC



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**Nameplate Specifications**

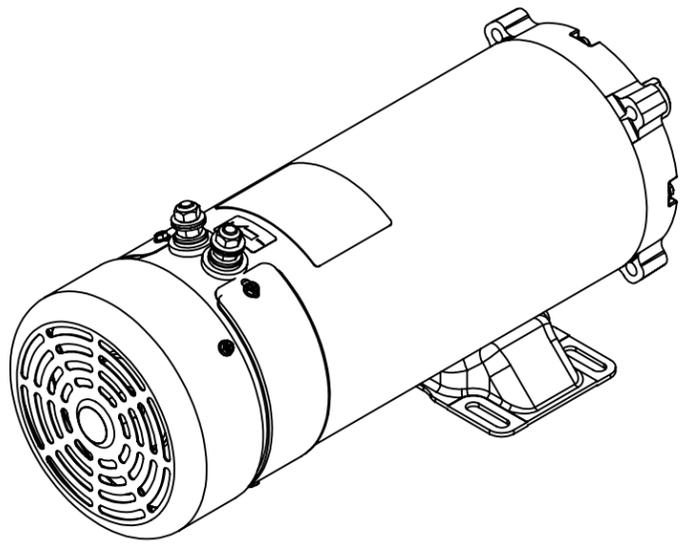
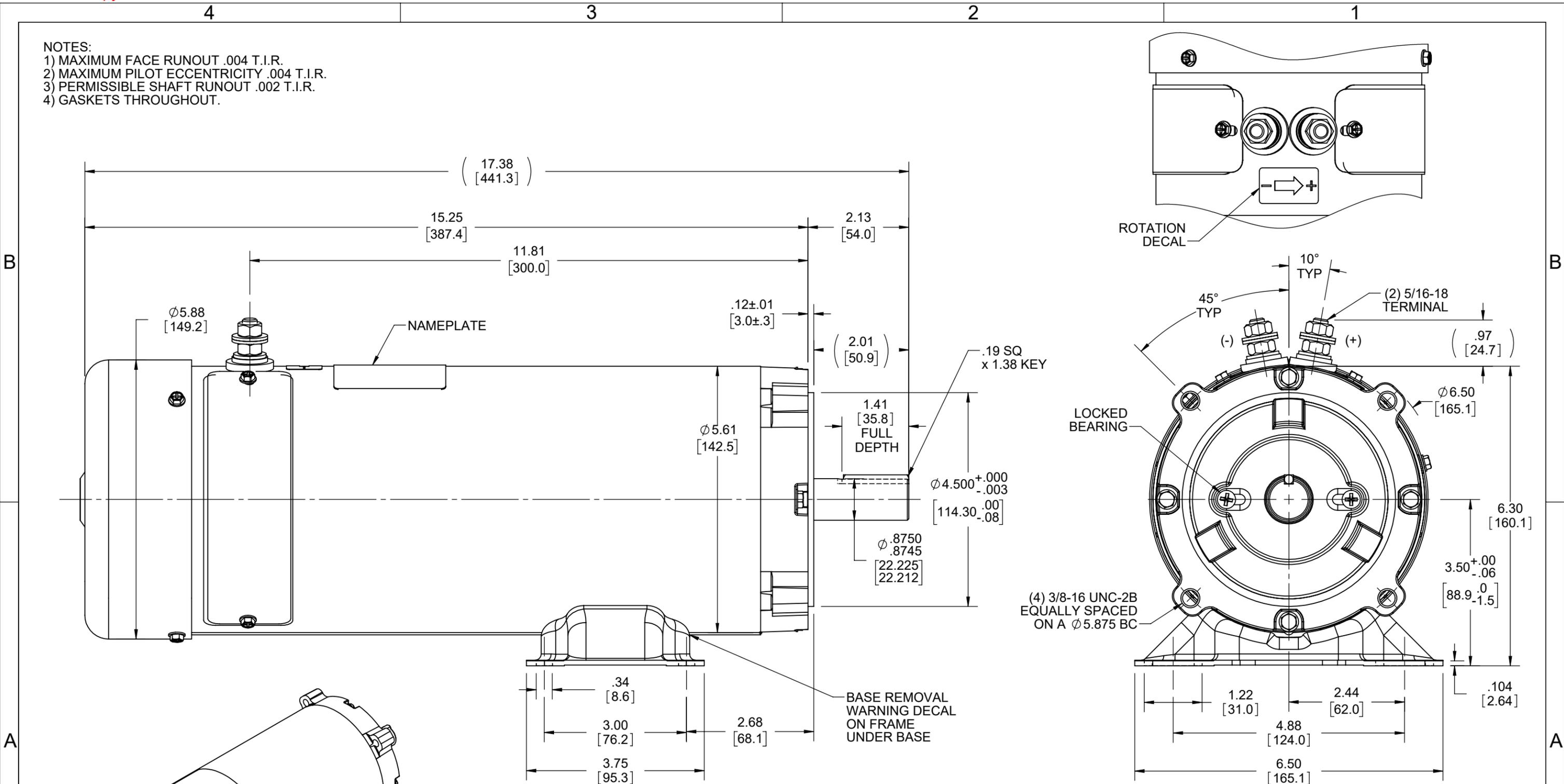
|                            |                                    |                        |                      |
|----------------------------|------------------------------------|------------------------|----------------------|
| Output HP                  | <b>1.50 Hp</b>                     | Output KW              | <b>1.1 kW</b>        |
| Voltage                    | <b>24 V</b>                        | Speed                  | <b>1800 rpm</b>      |
| Service Factor             | <b>1.0</b>                         | Frame                  | <b>S56CZ</b>         |
| Enclosure                  | <b>Totally Enclosed Fan Cooled</b> | Thermal Protection     | <b>No Protection</b> |
| Efficiency                 | <b>77.5 %</b>                      | Ambient Temperature    | <b>40 °C</b>         |
| Current                    | <b>60.0 A</b>                      | Duty                   | <b>Continuous</b>    |
| Insulation Class           | <b>H</b>                           | Drive End Bearing Size | <b>6205</b>          |
| Opp Drive End Bearing Size | <b>6203</b>                        | UL                     | <b>Recognized</b>    |
| CSA                        | <b>Y</b>                           | CE                     | <b>N</b>             |

**Technical Specifications**

|                    |                   |                 |                     |
|--------------------|-------------------|-----------------|---------------------|
| Rotation           | <b>Reversible</b> | Mounting        | <b>Rigid C base</b> |
| Overall Length     | <b>17.38 in</b>   | Frame Length    | <b>12.00 in</b>     |
| Shaft Diameter     | <b>0.875 in</b>   | Shaft Extension | <b>2.13 in</b>      |
| Torque             | <b>52.5 LB-IN</b> |                 |                     |
| Connection Drawing | <b>00531901</b>   | Outline Drawing | <b>031817</b>       |

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- NOTES:  
 1) MAXIMUM FACE RUNOUT .004 T.I.R.  
 2) MAXIMUM PILOT ECCENTRICITY .004 T.I.R.  
 3) PERMISSIBLE SHAFT RUNOUT .002 T.I.R.  
 4) GASKETS THROUGHOUT.



|      |     |
|------|-----|
| ITEM | REV |
|      | 002 |

|  |                            |                           |  |                        |  |
|--|----------------------------|---------------------------|--|------------------------|--|
| DRAWING REVISION<br>C  | REVISION BY<br>IVAN GUERRA | REV DATE/© DATE<br>5/2/22 | TOLERANCES (EXCEPT AS NOTED):<br>DEC. INCH mm ANGLE<br>.X ±0.1 [±3] ±0.5°<br>.XX ±0.03 [±0.8]<br>.XXX ±0.005 [±0.13]<br>.XXXX ±0.0005 [±0.013]   | DRAWN BY<br>I. GUERRA  | <br>Regal Beloit America, Inc.                   |
| REQUEST NUMBER<br>ECR-0217041  | APPROVED BY                | DATE                      | REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [Ø.08/.38] X 45°<br>CORNER FILLETS: R.02 [Ø.5]<br>MACHINED SURFACES: 125/3.2 INCH/mm<br>mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY | DATE<br>5/5/05         |  |
| REQUEST NUMBER DESCRIPTION<br>CHANGED TO MYLAR NAMEPLATE   |                            |                           |  | APPROVED BY            | DESCRIPTION<br>OUTLINE<br>48 FRAME - S56CZ MOUNT |
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|  |                            |                           |  | REFERENCE              | MATERIAL PROCESS/FINISH                          |
|  |                            |                           |  | THIRD ANGLE PROJECTION | SIZE B DRAWING NUMBER 031817 SHEET 1 OF 1        |



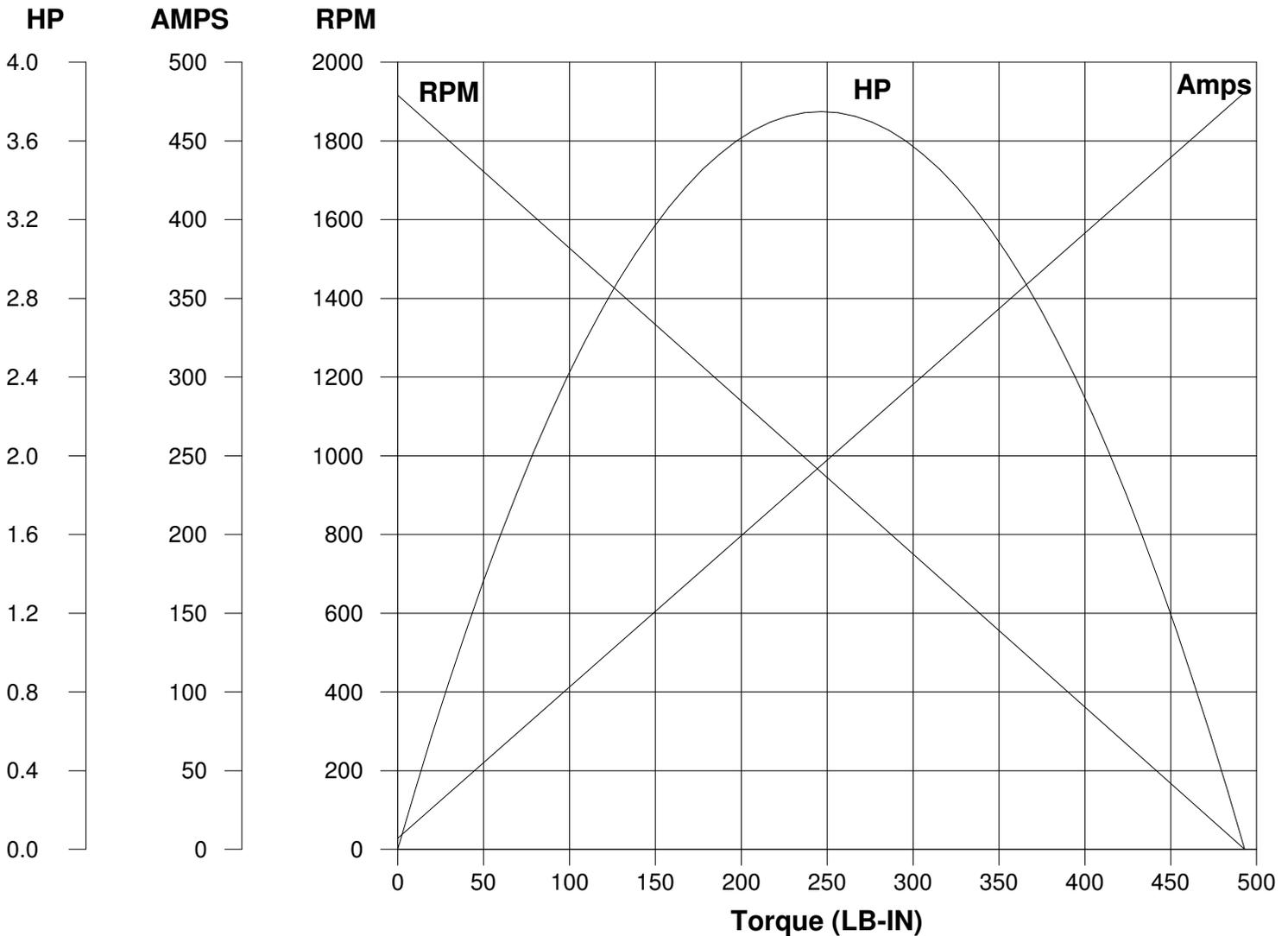
CONNECTIONS SHOWN FOR CCW ROTATION FACING LEAD END OF THE MOTOR  
 TO REVERSE ROTATION INTERCHANGE LINE LEADS

|  |  |               |      | TOLERANCES UNLESS SPECIFIED |        |  Regal Beloit America, Inc. | DRAWN TJF 11/15/97 |             |      |
|--|--|---------------|------|-----------------------------|--------|--|--------------------|-------------|------|
|  |  |               |      | DEC.                        | INCHES |  | CHK                |             |      |
| F  | CHG FROM LEESON TO RRX TEMPLATE AS PER ECR-0237142 | KVDG 09/19/24 | DS   | .X                          | ±.1    | TITLE EXTERNAL WIRING DIAGRAM<br>PMDC MOTOR  | APPD POW 11/15/97  |             |      |
| E  | "MOTOR" WAS "ARMATURE", ECO-0163602                | IPG 3/14/19   |      | .XX                         | ±.01   |  | SCALE 1=2          |             |      |
| D  | UPDATED TO MAKE IT GENERIC, ECO-0163547            | IPG 3/13/19   |      | .XXX                        | ±.005  |  | REF                |             |      |
| 01   | REDRAWN ON CAD. REVISED NOTES.                     | SJB 9/20/2005 |      | .XXXX                       | ±.0005 | MAT'L.   | FMF                |             |      |
| NO.  | REVISION   | BY & DATE     | CHK  | ANG                         | ±1/2"  | FINISH   | PREV               |             |      |
| 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                    |        | 00531901   | SIZE               | DRAWING NO. | REV. |
|  |  |               | DIST |                             |        |  | A                  | 005319.01   | F    |

# LEESON ELECTRIC CORPORATION

## TYPICAL PERFORMANCE CURVE FOR DIRECT CURRENT PERMANENT MAGNET MOTOR

**Model No.** C4D18FK3                      **Catalog No.** 109103.00  
**HP** 1.500                      **RPM** 1800                      **DC Volts** 24.0                      **N.P. FLA** 60.00  
**F.F.** 1.00                      **Encl** TEFC                      **Type** DF                      **S.F.** 1.00  
**Max. Amb.** 40.0 Deg C                      **Insul.** H                      **Frame** WMS56CZ                      **Duty** Cont



**Ra** 0.1130 Ohms  
**La** 0.1700 mHenrys  
**Ja** 17.50 LB-IN<sup>2</sup>  
**Ke** 12.33 V/KRPM

**Kt** 1.042 LB-IN/AMP  
**Imax** 625.0 AMPS Allowed  
**FL Torque** 52.50 LB-IN  
**FL EFF** 77.20 %

**Winding W-** D554181-1                      **Prepared by** V. Boehlen                      **Date** 09-30-2005