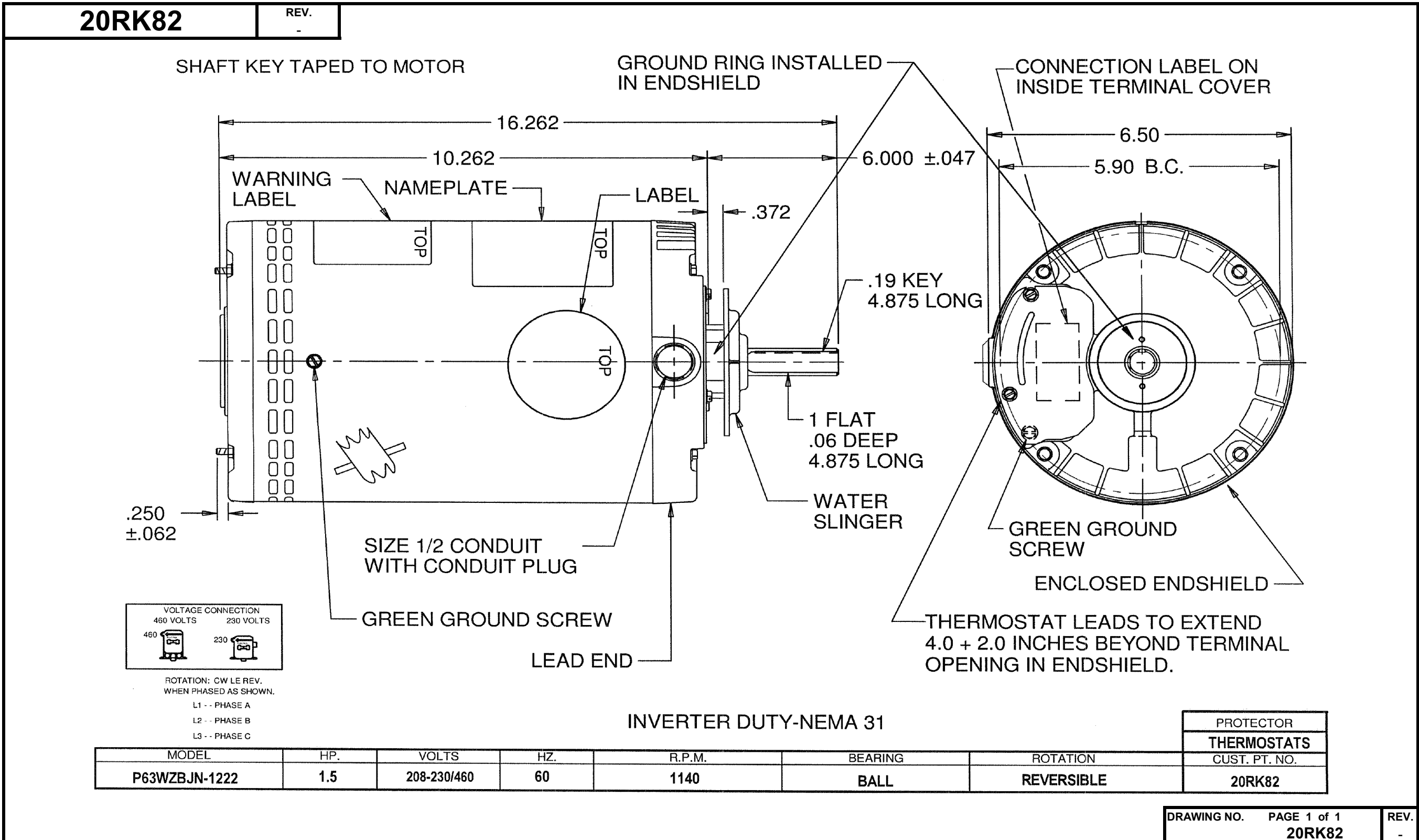


# Dimensional Drawing



**Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA**

# Performance Data



**20RK82**

REV.

-

## THREE PHASE MOTOR PERFORMANCE

|                                     |                                 |            |            |            |            |            |
|-------------------------------------|---------------------------------|------------|------------|------------|------------|------------|
| <b>HP:</b>                          | 1 1/2                           |            |            |            |            |            |
| <b>Poles:</b>                       | 6                               |            |            |            |            |            |
| <b>Volts:</b>                       | 208-230/460                     | <b>460</b> | <b>230</b> | <b>208</b> | <b>380</b> | <b>190</b> |
| <b>HZ:</b>                          | 60                              | <b>60</b>  | <b>60</b>  | <b>60</b>  | <b>50</b>  | <b>50</b>  |
| <b>Service Factor:</b>              | 1.00                            |            |            |            |            |            |
| <b>Efficiency (%):</b>              | Full Load                       | 78.0       | 78.0       | 77.0       |            |            |
|                                     | Service Factor                  | 78.0       | 78.0       | 77.0       |            |            |
|                                     | 3/4                             | 76.4       | 76.3       | 77.0       |            |            |
|                                     | 1/2                             | 71.9       | 71.7       | 73.6       |            |            |
|                                     | 1/4                             | 57.2       | 57.0       | 59.7       |            |            |
| <b>Power Factor (%):</b>            | Full Load                       | 67.4       | 67.6       | 73.2       |            |            |
|                                     | Service Factor                  | 67.4       | 67.6       | 73.2       |            |            |
|                                     | 3/4                             | 59.5       | 59.8       | 66.0       |            |            |
|                                     | 1/2                             | 48.0       | 48.2       | 54.9       |            |            |
|                                     | 1/4                             | 33.3       | 33.5       | 38.8       |            |            |
| <b>Amps:</b>                        | Full Load                       | 2.7        | 5.3        | 5.5        |            |            |
|                                     | Service Factor                  | 2.7        | 5.3        | 5.5        |            |            |
|                                     | 3/4                             | 2.3        | 4.6        | 4.6        |            |            |
|                                     | 1/2                             | 2.0        | 4.1        | 3.8        |            |            |
|                                     | 1/4                             | 1.8        | 3.7        | 3.3        |            |            |
|                                     | No Load                         | 1.7        |            | 3.1        |            |            |
|                                     | Locked Rotor                    | 14.0       | 27.8       |            |            |            |
| <b>NEMA Code Letter:</b>            |                                 | H          |            |            |            |            |
| <b>NEMA Design Letter:</b>          |                                 |            |            |            |            |            |
| <b>Full Load RPM:</b>               |                                 | 1149       | 1148       | 1134       |            |            |
| <b>NEMA Nominal Efficiency (%):</b> |                                 |            |            |            |            |            |
| <b>Guaranteed Efficiency (%):</b>   |                                 |            |            |            |            |            |
| <b>Max KVAR:</b>                    |                                 |            |            |            |            |            |
| <b>Ambient (°C):</b>                |                                 |            |            |            |            |            |
| <b>Altitude (FASL):</b>             |                                 |            |            |            |            |            |
| <b>Full Load Torque</b>             | Lb.Ft. / Oz.Ft.<br>(Circle One) | 109.60     | 109.70     | 111.10     |            |            |
| <b>Torques:</b><br>% Full-Load      | Breakdown                       | 357.50     | 354.40     | 280.60     |            |            |
|                                     | Locked Rotor                    | 270.20     | 278.70     |            |            |            |
|                                     | Pull-Up                         | 270.20     | 278.70     |            |            |            |
|                                     | Service Factor                  | 109.60     | 109.70     | 111.10     |            |            |
| <b>Temperature Rise:</b>            | Full Load                       | 91.40      | 89.30      | 96.70      |            |            |
|                                     | Service Factor                  | 91.40      | 89.30      | 96.70      |            |            |
| <b>Winding Material:</b>            |                                 | Cu         |            |            |            |            |
| <b>Notes:</b>                       |                                 |            |            |            |            |            |

DRAWING NO. PAGE 1 of 1  
20RK82

REV.  
-

Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA

# Performance Data



**20RK82**      REV.  
-

## Dayton Manufacturing Company

### Motor Description

Model: P063BJN1222  
 Motor ID: 1  
 Poles: 6  
 Volts: 208-230/460  
 Frequency: 60  
 HP: 1.5  
 Speed: 1140  
 Phase: 3  
 Protector:

### Test Conditions

Test Type: Run  
 Test Number: 4  
 Poles: 6  
 Volts: 230  
 Hz: 60  
 Rotation:  
 Special Cond:  
 Speed Conn:  
 TestBoard: Amtps Performance Fixture #1  
 Run Cap: 0  
 Start Cap: 0µfd  
 Environment:  
 Tested: 1/29/2008 1:20:37 PM  
 Tested By: TestBoard, MTC  
 Gear Ratio: 1:1  
 Bearing Friction: 0.00 Oz-Ft  
 Windage Torque: -1.28 Oz-Ft

| Special Points | Vab (V) | Vbc (V) | Vca (V) | Ia (A) | Ib (A) | Ic (A) | Watts | RPM  | Tq (Oz-ft) | HP    | Eff (%) | PF (%) |
|----------------|---------|---------|---------|--------|--------|--------|-------|------|------------|-------|---------|--------|
|                | 229.9   | 230.4   | 229.7   | 3.53   | 3.49   | 3.49   | 171   | 1196 | 0.0        | 0.000 | 0.0     | 12.3   |
|                | 229.8   | 230.4   | 229.8   | 3.72   | 3.70   | 3.67   | 481   | 1185 | 25.3       | 0.357 | 55.4    | 32.7   |
|                | 229.9   | 230.3   | 229.8   | 4.15   | 4.13   | 4.08   | 799   | 1174 | 55.5       | 0.776 | 72.5    | 48.7   |
|                | 229.7   | 230.5   | 229.8   | 4.68   | 4.67   | 4.60   | 1103  | 1162 | 82.1       | 1.136 | 76.8    | 59.6   |
|                | 229.8   | 230.4   | 229.8   | 5.31   | 5.32   | 5.21   | 1410  | 1149 | 108.8      | 1.488 | 78.8    | 67.0   |
| 1.5 HP         | 229.8   | 230.5   | 229.8   | 5.34   | 5.35   | 5.25   | 1423  | 1149 | 109.7      | 1.500 | 78.6    | 67.2   |
| 110.5 OZ-FT    | 229.8   | 230.5   | 229.8   | 5.37   | 5.38   | 5.27   | 1436  | 1148 | 110.5      | 1.511 | 78.5    | 67.5   |
|                | 229.8   | 230.4   | 229.8   | 6.04   | 6.06   | 5.92   | 1722  | 1136 | 134.0      | 1.812 | 78.5    | 72.0   |
|                | 229.8   | 230.5   | 229.8   | 6.86   | 6.88   | 6.73   | 2052  | 1121 | 160.3      | 2.139 | 77.8    | 75.5   |
|                | 229.7   | 230.6   | 229.7   | 7.74   | 7.75   | 7.58   | 2383  | 1105 | 186.3      | 2.452 | 76.7    | 77.8   |
|                | 229.8   | 230.6   | 229.6   | 8.67   | 8.69   | 8.46   | 2715  | 1088 | 210.6      | 2.729 | 75.0    | 79.2   |
|                | 229.9   | 230.6   | 229.5   | 9.67   | 9.71   | 9.44   | 3059  | 1069 | 236.1      | 3.006 | 73.3    | 80.0   |
|                | 230.1   | 230.1   | 229.8   | 10.66  | 10.78  | 10.44  | 3396  | 1048 | 257.6      | 3.213 | 70.6    | 80.2   |
|                | 230.0   | 230.2   | 229.8   | 11.72  | 11.88  | 11.50  | 3748  | 1026 | 281.2      | 3.436 | 68.4    | 80.4   |
|                | 230.1   | 230.1   | 229.8   | 12.92  | 13.09  | 12.73  | 4119  | 998  | 301.7      | 3.585 | 64.9    | 80.1   |
|                | 230.1   | 230.1   | 229.8   | 14.12  | 14.29  | 13.90  | 4446  | 972  | 321.8      | 3.725 | 62.5    | 79.1   |
|                | 230.0   | 230.1   | 229.9   | 15.09  | 15.28  | 14.87  | 4722  | 945  | 332.8      | 3.746 | 59.2    | 78.6   |
|                | 230.1   | 230.1   | 229.9   | 16.21  | 16.43  | 15.96  | 5006  | 914  | 342.6      | 3.726 | 55.5    | 77.6   |
|                | 230.2   | 230.1   | 229.7   | 17.39  | 17.59  | 17.07  | 5277  | 878  | 354.9      | 3.711 | 52.5    | 76.4   |
|                | 230.2   | 230.1   | 229.7   | 18.56  | 18.78  | 18.23  | 5538  | 838  | 362.8      | 3.621 | 48.8    | 75.0   |
|                | 230.2   | 230.2   | 229.7   | 19.61  | 19.84  | 19.25  | 5743  | 798  | 362.9      | 3.446 | 44.8    | 73.7   |
| BDT OZ-FT      | 230.2   | 230.1   | 229.7   | 20.45  | 20.68  | 20.08  | 5894  | 762  | 369.9      | 3.357 | 42.5    | 72.5   |
|                | 230.2   | 230.2   | 229.7   | 20.64  | 20.88  | 20.27  | 5931  | 753  | 365.7      | 3.280 | 41.3    | 72.3   |
|                | 230.2   | 230.1   | 229.7   | 21.64  | 21.89  | 21.26  | 6089  | 705  | 358.8      | 3.010 | 36.9    | 70.8   |
|                | 230.1   | 230.1   | 229.7   | 22.60  | 22.87  | 22.20  | 6225  | 652  | 358.3      | 2.781 | 33.3    | 69.3   |
|                | 230.2   | 230.1   | 229.7   | 23.42  | 23.74  | 23.05  | 6317  | 597  | 348.7      | 2.478 | 29.3    | 67.8   |
|                | 230.2   | 230.1   | 229.8   | 24.25  | 24.58  | 23.83  | 6387  | 537  | 341.0      | 2.180 | 25.5    | 66.2   |
|                | 230.1   | 230.1   | 229.8   | 24.99  | 25.29  | 24.55  | 6455  | 474  | 330.6      | 1.865 | 21.6    | 65.0   |
|                | 230.2   | 230.1   | 229.8   | 25.68  | 25.98  | 25.22  | 6489  | 406  | 319.6      | 1.545 | 17.8    | 63.6   |
|                | 230.1   | 230.1   | 229.8   | 26.32  | 26.63  | 25.84  | 6525  | 335  | 307.5      | 1.225 | 14.0    | 62.4   |
|                | 230.1   | 230.1   | 229.8   | 26.90  | 27.21  | 26.41  | 6531  | 257  | 293.7      | 0.899 | 10.3    | 61.1   |
|                | 230.0   | 230.1   | 229.9   | 27.42  | 27.71  | 26.94  | 6545  | 176  | 282.7      | 0.591 | 6.7     | 60.0   |
|                | 230.1   | 230.1   | 229.8   | 27.84  | 28.16  | 27.36  | 6518  | 91   | 275.9      | 0.298 | 3.4     | 58.9   |
|                | 230.1   | 230.1   | 229.7   | 28.34  | 28.54  | 27.74  | 6532  | 13   | 282.9      | 0.045 | 0.5     | 58.1   |

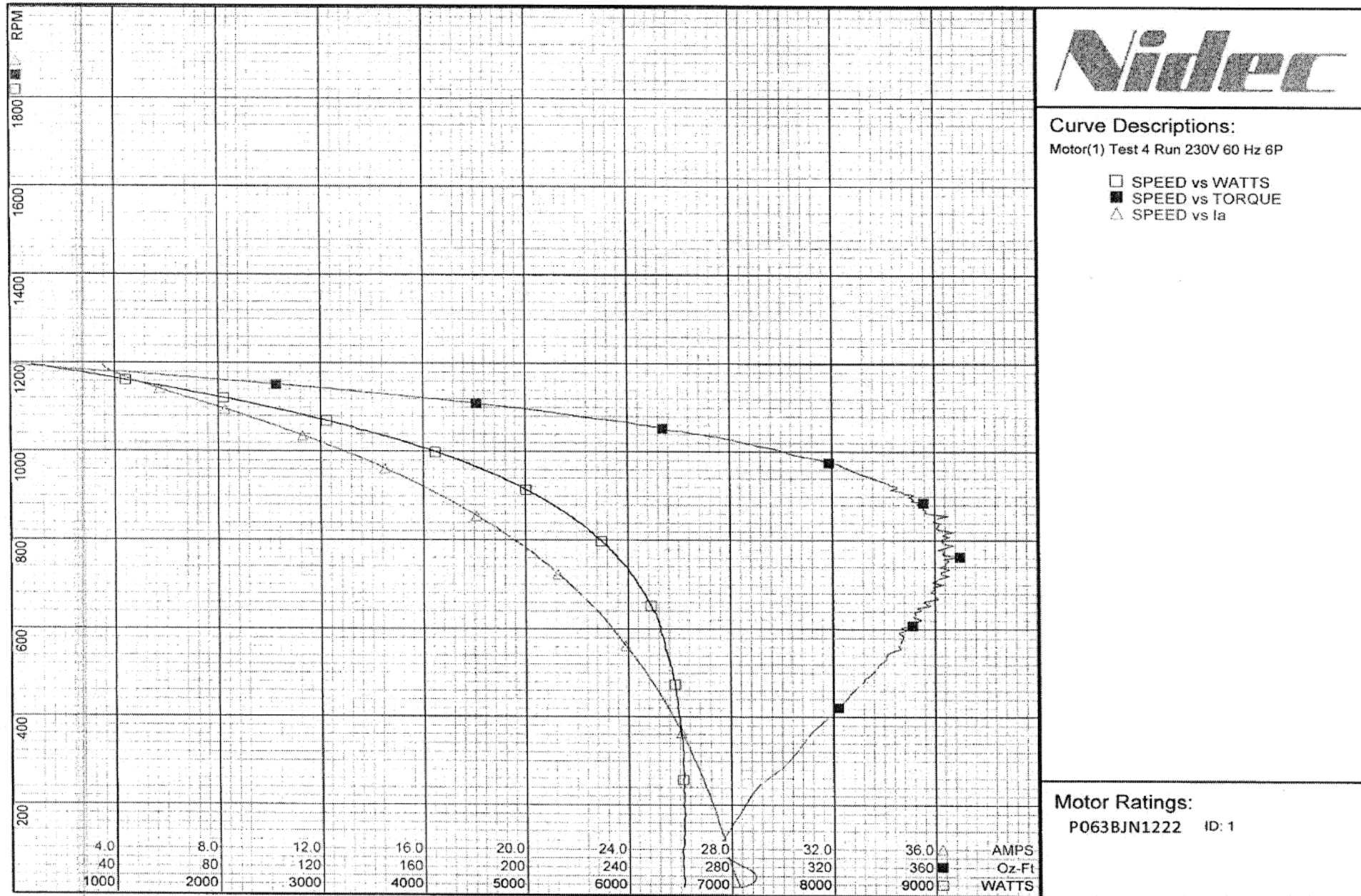
DRAWING NO.      PAGE 1 of 4      REV.  
 20RK82      -



# Performance Data



**20RK82**      REV. -



|             |               |      |
|-------------|---------------|------|
| DRAWING NO. | PAGE 2 of 4   | REV. |
|             | <b>20RK82</b> | -    |

**Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA**

# Performance Data



**20RK82**      REV.  
-

## Dayton Manufacturing Company

### Motor Description

Model: P063BJN1222  
 Motor ID: 1  
 Poles: 6  
 Volts: 208-230/460  
 Frequency: 60  
 HP: 1.5  
 Speed: 1140  
 Phase: 3  
 Protector:

### Test Conditions

Test Type: Run      Run Cap: 0  
 Test Number: 27      Start Cap: 0µfd  
 Poles: 6      Environment:  
 Volts: 460      Tested: 1/29/2008 2:12:25 PM  
 Hz: 60      Tested By: TestBoard, MTC  
 Rotation:  
 Special Cond:      Gear Ratio: 1:1  
 Speed Conn:      Bearing Friction: 0.00 Oz-Ft  
 TestBoard:      Windage Torque: -1.60 Oz-Ft  
 Amps Performance Fixture #1

| Special Points | Vab (V) | Vbc (V) | Vca (V) | Ia (A) | Ib (A) | Ic (A) | Watts | RPM  | Tq (Oz-ft) | HP    | Eff (%) | PF (%) |
|----------------|---------|---------|---------|--------|--------|--------|-------|------|------------|-------|---------|--------|
|                | 459.9   | 460.5   | 459.6   | 1.764  | 1.762  | 1.735  | 181   | 1196 | 0.0        | 0.000 | 0.0     | 13.0   |
|                | 459.8   | 460.5   | 459.7   | 1.862  | 1.870  | 1.832  | 488   | 1185 | 25.9       | 0.365 | 55.8    | 33.0   |
|                | 459.8   | 460.5   | 459.7   | 2.081  | 2.093  | 2.042  | 806   | 1174 | 56.9       | 0.795 | 73.6    | 48.8   |
|                | 459.8   | 460.5   | 459.7   | 2.352  | 2.371  | 2.307  | 1110  | 1162 | 83.2       | 1.151 | 77.3    | 59.5   |
| 1.5 HP         | 459.7   | 460.6   | 459.7   | 2.659  | 2.683  | 2.609  | 1409  | 1150 | 109.6      | 1.500 | 79.4    | 66.7   |
|                | 459.7   | 460.6   | 459.7   | 2.660  | 2.684  | 2.610  | 1410  | 1150 | 109.7      | 1.501 | 79.4    | 66.7   |
| 110.5 OZ-FT    | 459.8   | 460.5   | 459.7   | 2.681  | 2.705  | 2.631  | 1429  | 1149 | 110.5      | 1.511 | 78.9    | 67.1   |
|                | 459.8   | 460.5   | 459.7   | 3.030  | 3.062  | 2.971  | 1727  | 1135 | 134.3      | 1.816 | 78.5    | 71.7   |
|                | 459.8   | 460.7   | 459.6   | 3.443  | 3.478  | 3.375  | 2063  | 1121 | 161.7      | 2.158 | 78.1    | 75.4   |
|                | 459.8   | 460.5   | 459.7   | 3.865  | 3.912  | 3.795  | 2386  | 1105 | 186.8      | 2.458 | 76.8    | 77.6   |
|                | 459.7   | 460.5   | 459.8   | 4.331  | 4.387  | 4.259  | 2724  | 1088 | 212.1      | 2.747 | 75.2    | 79.0   |
|                | 459.7   | 460.5   | 459.8   | 4.840  | 4.898  | 4.768  | 3072  | 1070 | 237.3      | 3.023 | 73.4    | 79.7   |
|                | 459.9   | 460.5   | 459.6   | 5.360  | 5.424  | 5.271  | 3411  | 1048 | 261.0      | 3.256 | 71.2    | 80.0   |
|                | 459.9   | 460.5   | 459.6   | 5.889  | 5.963  | 5.792  | 3751  | 1026 | 281.8      | 3.442 | 68.5    | 80.0   |
|                | 459.9   | 460.5   | 459.6   | 6.498  | 6.580  | 6.395  | 4113  | 1000 | 303.6      | 3.614 | 65.6    | 79.5   |
|                | 459.8   | 460.6   | 459.5   | 7.013  | 7.104  | 6.906  | 4415  | 975  | 319.7      | 3.710 | 62.7    | 79.1   |
|                | 459.9   | 460.6   | 459.6   | 7.577  | 7.675  | 7.465  | 4719  | 944  | 333.0      | 3.744 | 59.2    | 78.2   |
|                | 459.9   | 460.6   | 459.5   | 8.140  | 8.238  | 8.008  | 5004  | 914  | 350.2      | 3.809 | 56.8    | 77.3   |
|                | 460.1   | 460.4   | 459.6   | 8.734  | 8.849  | 8.591  | 5283  | 878  | 356.8      | 3.728 | 52.6    | 76.0   |
|                | 460.1   | 460.1   | 459.8   | 9.273  | 9.422  | 9.133  | 5520  | 840  | 364.1      | 3.640 | 49.2    | 74.7   |
|                | 460.3   | 460.0   | 459.7   | 9.833  | 9.992  | 9.659  | 5742  | 798  | 368.1      | 3.496 | 45.4    | 73.3   |
| BDT OZ FT      | 460.3   | 459.9   | 459.8   | 9.938  | 10.101 | 9.756  | 5777  | 789  | 369.1      | 3.468 | 44.8    | 73.0   |
|                | 460.2   | 459.9   | 459.8   | 10.371 | 10.538 | 10.185 | 5931  | 752  | 367.4      | 3.288 | 41.4    | 71.8   |
|                | 460.2   | 460.0   | 459.8   | 10.866 | 11.041 | 10.678 | 6090  | 704  | 364.4      | 3.054 | 37.4    | 70.4   |
|                | 460.2   | 460.0   | 459.7   | 11.325 | 11.503 | 11.127 | 6215  | 653  | 358.9      | 2.790 | 33.5    | 68.9   |
|                | 460.3   | 460.0   | 459.8   | 11.769 | 11.952 | 11.558 | 6321  | 597  | 349.8      | 2.488 | 29.4    | 67.5   |
|                | 460.2   | 460.0   | 459.8   | 12.181 | 12.370 | 11.968 | 6404  | 538  | 343.3      | 2.199 | 25.6    | 66.0   |
|                | 460.2   | 460.1   | 459.7   | 12.567 | 12.759 | 12.353 | 6464  | 473  | 331.5      | 1.865 | 21.5    | 64.6   |
|                | 460.2   | 460.0   | 459.8   | 12.909 | 13.100 | 12.690 | 6504  | 405  | 321.2      | 1.549 | 17.8    | 63.3   |
|                | 460.2   | 460.0   | 459.8   | 13.224 | 13.422 | 12.996 | 6531  | 336  | 310.4      | 1.240 | 14.2    | 62.0   |
|                | 460.2   | 460.0   | 459.8   | 13.529 | 13.726 | 13.295 | 6541  | 256  | 296.0      | 0.903 | 10.3    | 60.7   |
|                | 460.1   | 460.1   | 459.8   | 13.792 | 13.981 | 13.546 | 6546  | 176  | 284.8      | 0.596 | 6.8     | 59.7   |
|                | 460.2   | 460.0   | 459.8   | 14.011 | 14.210 | 13.762 | 6523  | 90   | 277.5      | 0.297 | 3.4     | 58.5   |
|                | 460.2   | 460.0   | 459.8   | 14.233 | 14.384 | 13.987 | 6532  | 12   | 281.0      | 0.039 | 0.5     | 57.7   |

DRAWING NO.      PAGE 3 of 4      REV.  
**20RK82**      -

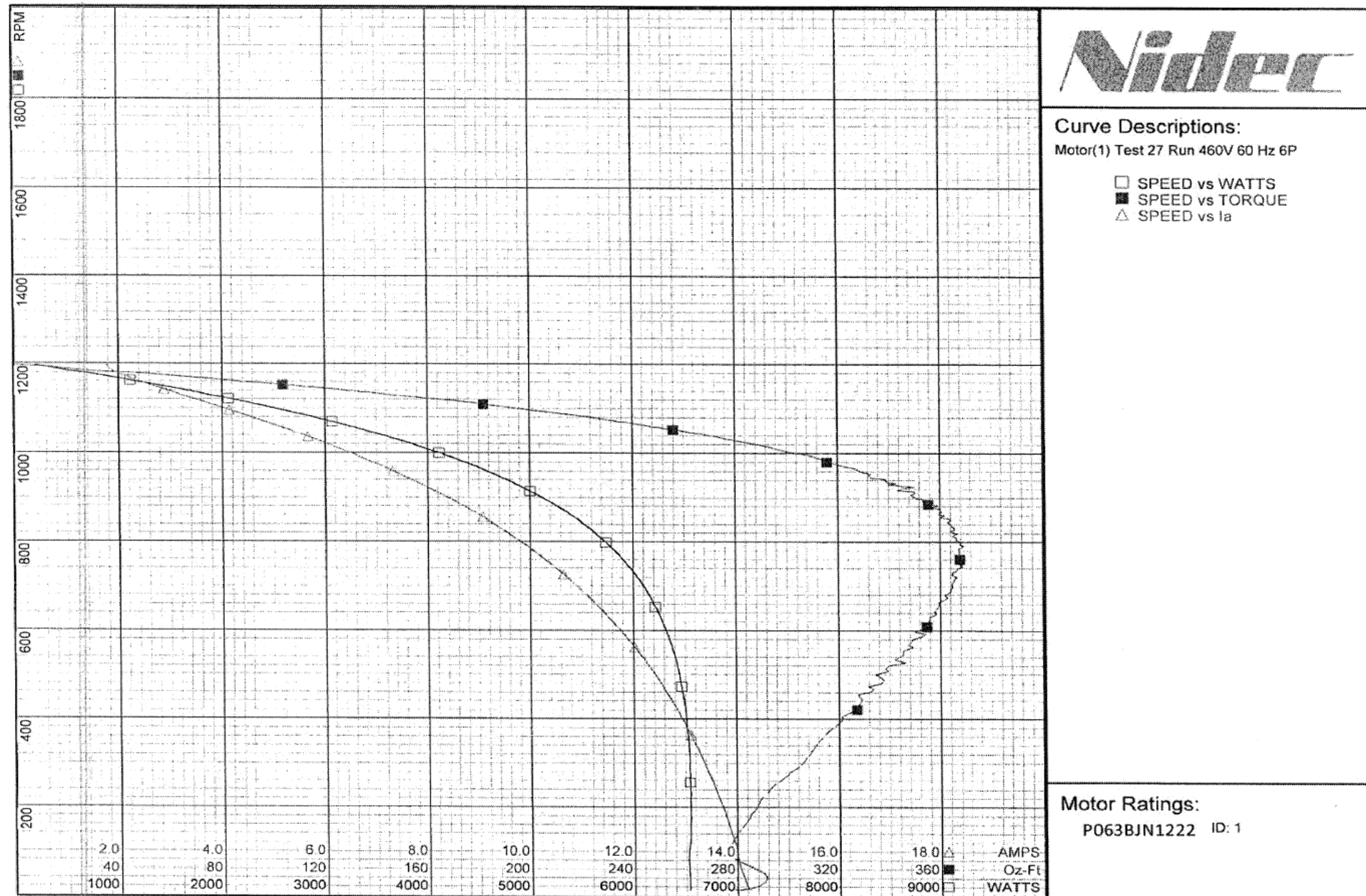
**Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA**



# Performance Data



**20RK82**      REV.  
-



|             |             |      |
|-------------|-------------|------|
| DRAWING NO. | PAGE 4 of 4 | REV. |
| 20RK82      |             | -    |

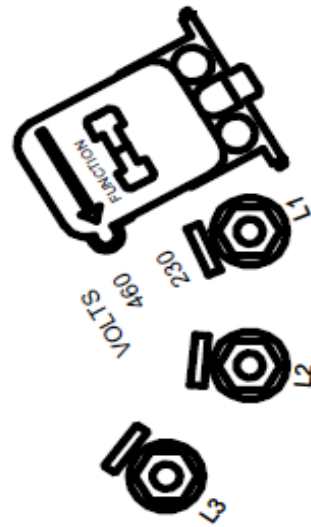
**Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA**

20RK82

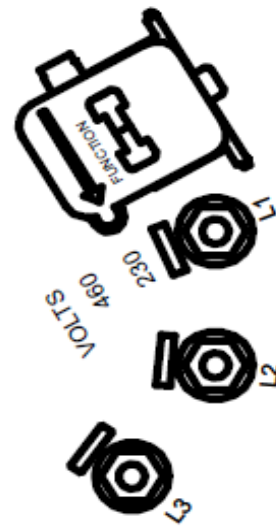
REV.  
-

## CONNECTIONS

460 VOLTS



230 VOLTS



(2) BLACK LEADS - THERMOSTAT  
TO REVERSE ROTATION INTERCHANGE  
ANY TWO LINE LEADS

|             |             |      |
|-------------|-------------|------|
| DRAWING NO. | PAGE 1 of 1 | REV. |
| 20RK82      |             | -    |

**Dayton**®Part No **20RK82****CONDENSER  
FAN MOTOR****HP:** 1.5**VOLTS:** 208-230/460**AMPS:** 5.3-5.3/2.6**RPM:** 1140**DUTY:** CONT**SF:** 1.0**KVA CODE:** H**MTR REF:** P63WZBJN-1222**THERMOSTATS**PROT. CODE:  MFG. NO.  **S.F. AT 208 VOLTS IS 1.0****PH:** 3**HZ:** 60**FR:** 56YZ**INS CL:** F**AMB:** 70 °C**SFA:****ENCL:** OPAO**Disconnect Power Before Making Any Electrical  
Connections or Changes****CONNECTIONS****460 VOLTS****230 VOLTS**

(2) BLACK LEADS - THERMOSTAT  
TO REVERSE ROTATION INTERCHANGE  
ANY TWO LINE LEADS



258501



E47479

Mfd for Dayton Electric Mfg. Co., Lake Forest, IL 60045 USA

Made in Mexico