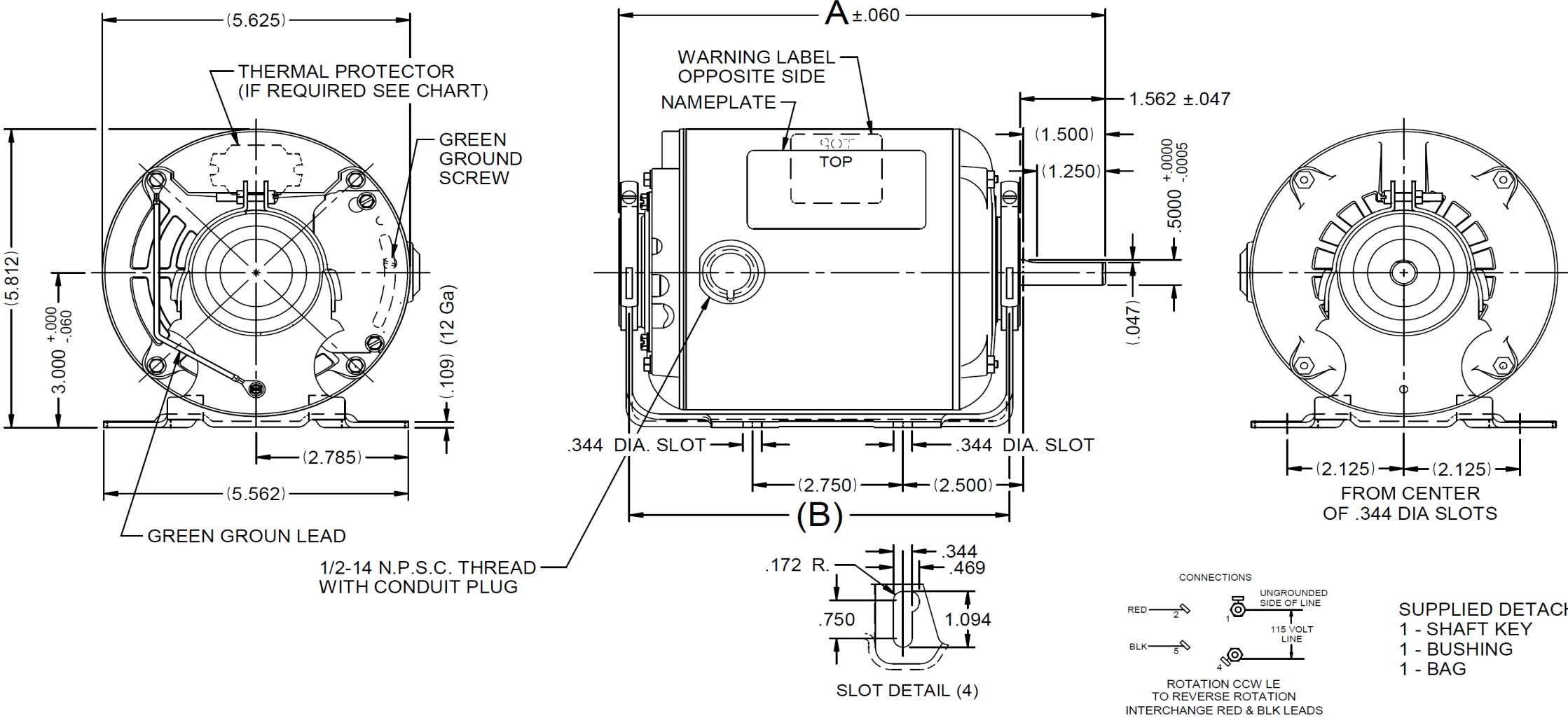


Dimensional Drawing



6K589BG REV. -

| VAR | MODEL | CUST. PT. NO. | A | B | C | D | HP | VOLTS | SF | AMPS | HZ | RPM | CONN VOLTS | PROT. | DESCRIPTION / REMARKS |
|-----|---------------|---------------|-------|-------|-------|-------|-----|-------|------|------|----|------|------------|-------|-----------------------|
| 001 | S55CXGWG-8509 | 6K589BG | 9.901 | 7.931 | ----- | ----- | 1/2 | 115 | 1.25 | 7.9 | 60 | 1725 | --- | AUTO | 48, ODP, BALL BEARING |



DRAWING NO. PAGE 1 of 1 REV. -
6K589BG

©2019 W.W. Grainger, Inc. This design may not be reproduced, modified or redistributed without written permission from W.W. Grainger, Inc.

Performance Data



6K589BG

REV.

-

MOTOR PERFORMANCE

| | | | | | | | | | |
|---------------------------|-------------------------|------------|--|--|--|--|--|--|--|
| HP: | 1/2 HP | | | | | | | | |
| Poles: | 4 | | | | | | | | |
| No. of Speeds: | 1 | | | | | | | | |
| Volts: | 115 | 115 | | | | | | | |
| HZ: | 60 | 60 | | | | | | | |
| Service Factor: | 1.25 | | | | | | | | |
| Efficiency: | @ Rated Load | 66.0 | | | | | | | |
| Power Factor: | @ Rated Load | 66.2 | | | | | | | |
| Amps: | @ No Load | | | | | | | | |
| | @ Rated Load | 7.47 | | | | | | | |
| | @ Service Factor | 8.01 | | | | | | | |
| | @ Locked Rotor | 30.7 | | | | | | | |
| RPM: | @ Rated Load | | | | | | | | |
| Ambient (°C): | | | | | | | | | |
| Altitude (FASL): | | | | | | | | | |
| Torques: | Breakdown | 56.0 | | | | | | | |
| | Locked Rotor | 31.2 | | | | | | | |
| | Pull-Up | 29.0 | | | | | | | |
| | Rated Load | 24.3 | | | | | | | |
| | Service Factor | 0.576 | | | | | | | |
| Watts: | Rated Load | 568.0 | | | | | | | |
| KVA Code: | | | | | | | | | |
| Temperature Rise: | @ Rated Load | 42.5 | | | | | | | |
| | @ Service Factor | 50.3 | | | | | | | |
| Thermal Protector: | Trip Temp (°C) | 115.2 | | | | | | | |
| Winding Material: | Start (Auxiliary) | AL | | | | | | | |
| | Run (Main) | CO | | | | | | | |
| Capacitor(s): | Start (MFD / Volts) | | | | | | | | |
| | No. of Start Capacitors | | | | | | | | |
| | Run (MFD / Volts) | | | | | | | | |
| | No. of Run Capacitors | | | | | | | | |

LOW SPEED PERFORMANCE DATA:

| | | | | | | | | | |
|--------------------------|------------------|--|--|--|--|--|--|--|--|
| HP: | | | | | | | | | |
| Poles: | | | | | | | | | |
| Volts: | | | | | | | | | |
| HZ: | | | | | | | | | |
| Efficiency: | @ Rated Load | | | | | | | | |
| Power Factor: | @ Rated Load | | | | | | | | |
| Amps: | @ No Load | | | | | | | | |
| | @ Rated Load | | | | | | | | |
| | @ Service Factor | | | | | | | | |
| | @ Locked Rotor | | | | | | | | |
| Torques: | @ Rated Load | | | | | | | | |
| | Locked Rotor | | | | | | | | |
| | Pull-Up | | | | | | | | |
| | Rated Load | | | | | | | | |
| | Service Factor | | | | | | | | |
| Watts: | @ Rated Load | | | | | | | | |
| Temperature Rise: | @ Rated Load | | | | | | | | |
| | @ Service Factor | | | | | | | | |

DRAWING NO. PAGE 1 REV.
6K589BG -

Performance Data



| | |
|----------------|-----------|
| 6K589BG | REV. - |
|----------------|-----------|

Dayton Manufacturing Company

Motor Description

Model: S0555GWG8509 6K589BG
 Motor ID: 1
 Poles: 4
 Volts: 115
 Frequency: 60
 HP: 1/2
 Speed: 1725
 Phase: 1
 Protector: CEJ38EY

Test Conditions

Test Type: Start
 Test Number: 3
 Poles: 4
 Volts: 115
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn:
 TestBoard: Aamps Performance Fixture #4
 Run Cap: 0
 Start Cap: 0µfd
 Environment: 20.6 Deg C 36 % RH 992 hPa
 Tested: 10/9/2012 4:11:11 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: 0.00 Oz-Ft
 Windage Torque: -0.78 Oz-Ft

| Special Points | Vline (V) | Iline (A) | Imain (A) | Iaux (A) | Watts | RPM | Tq (Oz-ft) | HP | Eff (%) | PF (%) |
|------------------|--------------|--------------|--------------|---------------|-------------|------------|--------------|--------------|------------|-------------|
| | 115.0 | 40.71 | 30.68 | 10.821 | 3474 | 42 | 31.20 | 0.016 | 0.3 | 74.2 |
| | 115.0 | 40.65 | 30.65 | 10.801 | 3461 | 40 | 30.70 | 0.015 | 0.3 | 74.0 |
| | 115.0 | 40.58 | 30.70 | 10.602 | 3462 | 149 | 29.42 | 0.052 | 1.1 | 74.2 |
| PUT OZ-FT | 115.0 | 40.55 | 30.74 | 10.467 | 3459 | 225 | 29.00 | 0.078 | 1.7 | 74.2 |
| | 115.0 | 40.45 | 30.70 | 10.336 | 3456 | 297 | 30.15 | 0.107 | 2.3 | 74.3 |
| | 115.0 | 40.20 | 30.59 | 10.070 | 3448 | 436 | 33.34 | 0.173 | 3.7 | 74.6 |
| | 115.0 | 39.83 | 30.39 | 9.787 | 3431 | 569 | 36.18 | 0.245 | 5.3 | 74.9 |
| | 115.0 | 39.39 | 30.10 | 9.532 | 3413 | 684 | 38.66 | 0.315 | 6.9 | 75.3 |
| | 115.0 | 38.89 | 29.75 | 9.289 | 3393 | 788 | 41.50 | 0.389 | 8.6 | 75.9 |
| | 115.0 | 38.35 | 29.35 | 9.055 | 3367 | 883 | 44.14 | 0.464 | 10.3 | 76.3 |
| | 115.0 | 37.76 | 28.93 | 8.833 | 3334 | 970 | 46.27 | 0.534 | 12.0 | 76.8 |
| | 115.0 | 37.11 | 28.44 | 8.633 | 3298 | 1048 | 48.21 | 0.601 | 13.6 | 77.3 |
| | 115.0 | 36.43 | 27.91 | 8.455 | 3258 | 1118 | 49.67 | 0.661 | 15.1 | 77.8 |
| | 115.0 | 35.71 | 27.35 | 8.309 | 3212 | 1184 | 50.77 | 0.716 | 16.6 | 78.2 |
| | 115.0 | 34.96 | 26.75 | 8.201 | 3162 | 1243 | 51.27 | 0.759 | 17.9 | 78.6 |
| | 115.0 | 34.21 | 26.14 | 8.135 | 3109 | 1297 | 51.19 | 0.790 | 19.0 | 79.0 |
| | 115.0 | 33.45 | 25.51 | 8.113 | 3054 | 1345 | 50.69 | 0.811 | 19.8 | 79.4 |
| | 115.0 | 32.69 | 24.86 | 8.132 | 2998 | 1389 | 49.70 | 0.822 | 20.4 | 79.7 |
| | 115.0 | 31.94 | 24.21 | 8.184 | 2940 | 1428 | 48.27 | 0.821 | 20.8 | 80.0 |
| | 115.0 | 31.19 | 23.51 | 8.274 | 2877 | 1465 | 46.47 | 0.811 | 21.0 | 80.2 |
| | 115.0 | 30.43 | 22.83 | 8.396 | 2810 | 1499 | 44.52 | 0.795 | 21.1 | 80.3 |
| | 115.0 | 29.71 | 22.18 | 8.541 | 2750 | 1528 | 41.51 | 0.755 | 20.5 | 80.5 |
| | 115.0 | 29.00 | 21.50 | 8.714 | 2682 | 1557 | 38.59 | 0.715 | 19.9 | 80.4 |
| | 115.0 | 28.32 | 20.85 | 8.901 | 2618 | 1583 | 35.59 | 0.671 | 19.1 | 80.4 |
| | 115.0 | 27.65 | 20.20 | 9.106 | 2555 | 1607 | 32.27 | 0.617 | 18.0 | 80.3 |
| | 115.0 | 27.03 | 19.58 | 9.319 | 2492 | 1629 | 28.66 | 0.556 | 16.6 | 80.2 |
| | 115.0 | 26.41 | 18.94 | 9.541 | 2428 | 1649 | 25.11 | 0.493 | 15.1 | 79.9 |
| | 115.0 | 25.79 | 18.29 | 9.781 | 2362 | 1669 | 20.80 | 0.413 | 13.0 | 79.6 |
| | 115.0 | 25.18 | 17.64 | 10.033 | 2297 | 1688 | 16.40 | 0.330 | 10.7 | 79.3 |
| | 115.0 | 24.58 | 16.95 | 10.292 | 2228 | 1705 | 11.80 | 0.240 | 8.0 | 78.8 |
| | 115.0 | 24.02 | 16.28 | 10.560 | 2159 | 1723 | 7.14 | 0.146 | 5.1 | 78.2 |
| | 115.0 | 23.44 | 15.67 | 10.808 | 2100 | 1738 | 2.42 | 0.050 | 1.8 | 77.9 |
| | 115.0 | 23.17 | 15.32 | 10.948 | 2065 | 1747 | 0.00 | 0.000 | 0.0 | 77.5 |

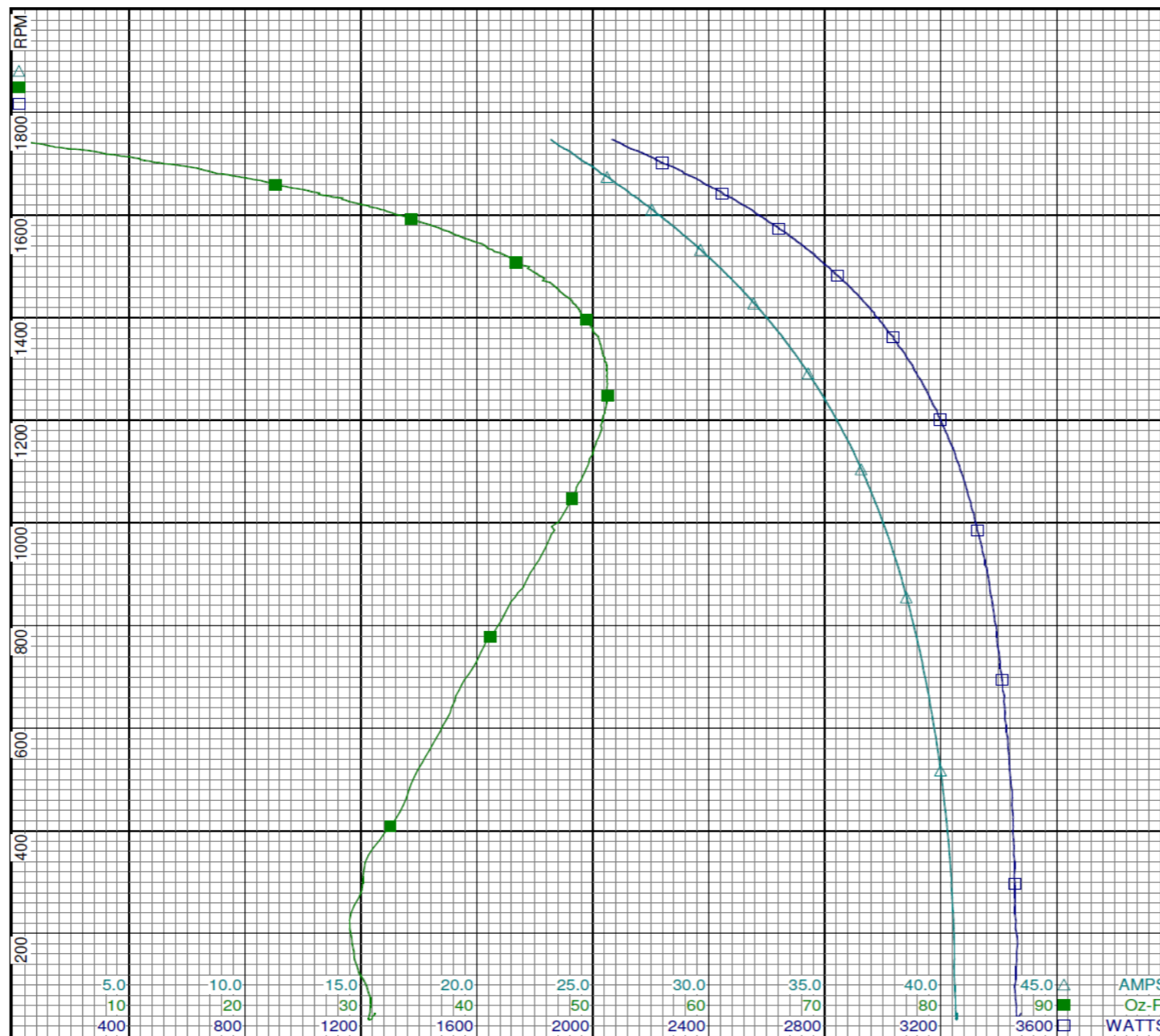
| | | |
|-------------|-------------|------|
| DRAWING NO. | PAGE 1 of 4 | REV. |
| 6K589BG | | - |

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

Performance Data



6K589BG REV. -



Dayton

Curve Descriptions:
Motor(1) Test 3 Start 115V 60 Hz 4P

- SPEED vs WATTS
- SPEED vs TORQUE
- △ SPEED vs ILine

Motor Ratings:
S0555GWG8509 6K589BG

| | | |
|-------------|----------------|------|
| DRAWING NO. | PAGE 2 of 4 | REV. |
| | 6K589BG | - |

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

Performance Data



| | |
|----------------|-----------|
| 6K589BG | REV. - |
|----------------|-----------|

Dayton Manufacturing Company

Motor Description

Model: S0555GWG8509 6K589BG
 Motor ID: 1
 Poles: 4
 Volts: 115
 Frequency: 60
 HP: 1/2
 Speed: 1725
 Phase: 1
 Protector: CEJ38EY

Test Conditions

Test Type: Run
 Test Number: 4
 Poles: 4
 Volts: 115
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn:
 TestBoard: Amtps Performance Fixture #4
 Run Cap: 0
 Start Cap: 0µfd
 Environment: 20.6 Deg C 36 % RH 992 hPa
 Tested: 10/9/2012 3:45:27 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.50 Oz-Ft
 Windage Torque: -1.70 Oz-Ft

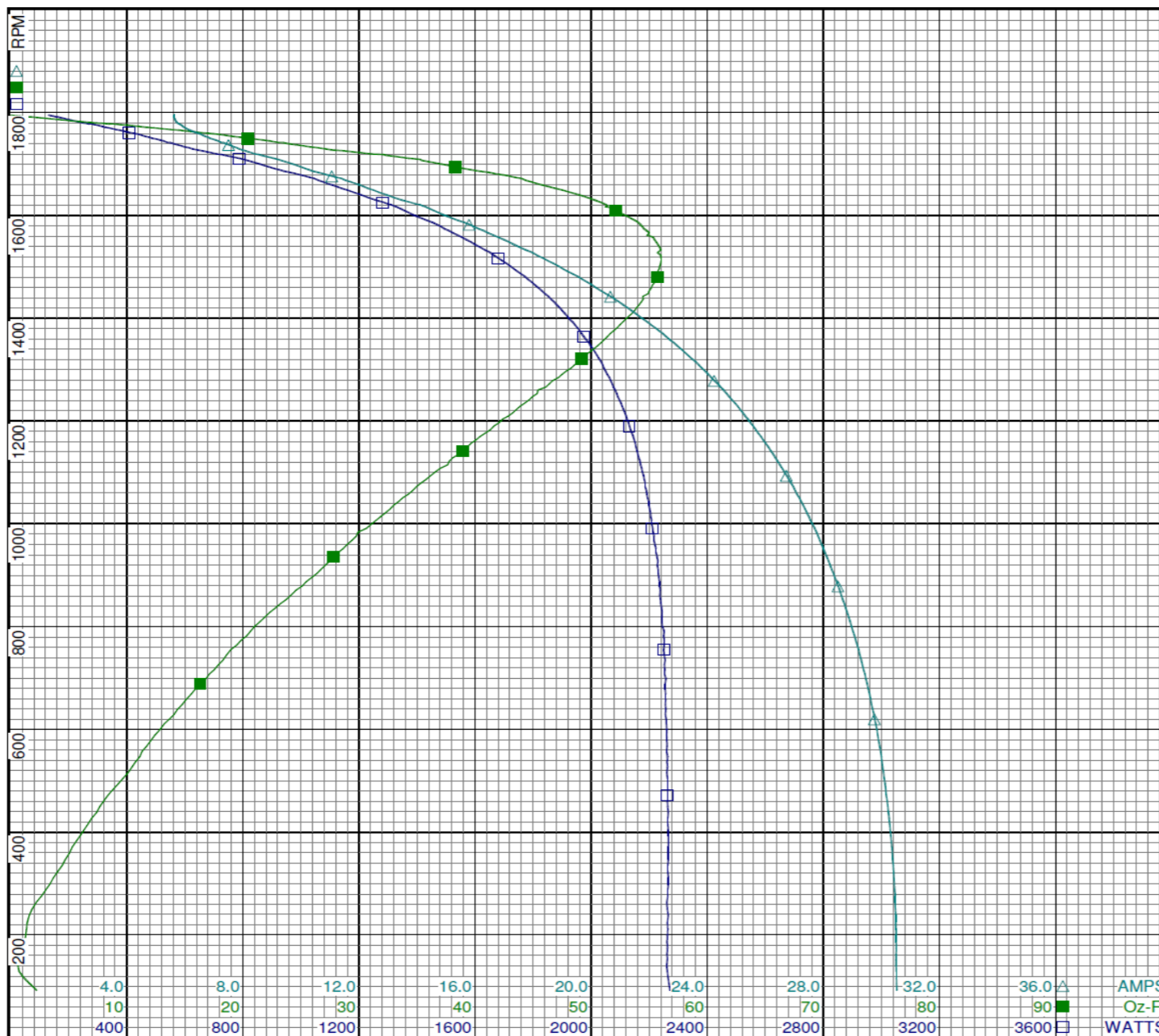
| Special Points | Vline (V) | Iline (A) | Watts | RPM | Tq (Oz-ft) | HP | Eff (%) | PF (%) |
|-------------------|--------------|--------------|-------------|-------------|--------------|--------------|-------------|-------------|
| | 115.0 | 5.61 | 130 | 1795 | 0.00 | 0.000 | 0.0 | 20.1 |
| | 115.0 | 5.66 | 207 | 1785 | 4.55 | 0.097 | 34.8 | 31.8 |
| | 115.0 | 5.87 | 297 | 1776 | 9.95 | 0.210 | 52.9 | 43.9 |
| | 115.0 | 6.30 | 399 | 1762 | 15.76 | 0.331 | 61.9 | 55.0 |
| | 115.0 | 6.96 | 501 | 1749 | 20.96 | 0.436 | 64.9 | 62.7 |
| 24.3 OZ-FT | 115.0 | 7.47 | 568 | 1738 | 24.30 | 0.503 | 66.0 | 66.2 |
| 0.5 HP | 115.0 | 7.44 | 565 | 1739 | 24.16 | 0.500 | 66.0 | 66.0 |
| | 115.0 | 7.78 | 613 | 1732 | 26.39 | 0.544 | 66.2 | 68.5 |
| 28 OZ-FT | 115.0 | 8.01 | 649 | 1727 | 28.00 | 0.576 | 66.2 | 70.4 |
| 1725 RPM | 115.0 | 8.10 | 663 | 1725 | 28.82 | 0.592 | 66.6 | 71.1 |
| | 115.0 | 8.79 | 756 | 1715 | 33.09 | 0.675 | 66.6 | 74.8 |
| | 115.0 | 10.00 | 889 | 1694 | 38.31 | 0.773 | 64.8 | 77.3 |
| | 115.0 | 11.39 | 1045 | 1672 | 43.99 | 0.875 | 62.5 | 79.8 |
| | 115.0 | 12.94 | 1206 | 1640 | 48.92 | 0.955 | 59.1 | 81.0 |
| | 115.0 | 14.45 | 1345 | 1612 | 51.86 | 0.995 | 55.2 | 80.9 |
| | 115.0 | 15.96 | 1482 | 1578 | 54.39 | 1.022 | 51.4 | 80.7 |
| | 115.0 | 17.55 | 1618 | 1538 | 55.89 | 1.023 | 47.2 | 80.2 |
| BDT OZ-FT | 115.0 | 18.50 | 1693 | 1512 | 55.99 | 1.008 | 44.4 | 79.6 |
| | 115.0 | 19.19 | 1746 | 1491 | 55.72 | 0.989 | 42.2 | 79.1 |
| | 115.0 | 20.66 | 1852 | 1442 | 54.43 | 0.935 | 37.7 | 77.9 |
| | 115.0 | 21.93 | 1935 | 1392 | 52.71 | 0.874 | 33.7 | 76.7 |
| | 115.0 | 23.08 | 2005 | 1340 | 50.22 | 0.801 | 29.8 | 75.5 |
| | 115.0 | 24.14 | 2062 | 1284 | 47.15 | 0.721 | 26.1 | 74.3 |
| | 115.0 | 25.03 | 2106 | 1229 | 43.88 | 0.642 | 22.7 | 73.1 |
| | 115.0 | 25.85 | 2144 | 1170 | 40.41 | 0.563 | 19.6 | 72.1 |
| | 115.0 | 26.58 | 2174 | 1107 | 36.97 | 0.487 | 16.7 | 71.1 |
| | 115.0 | 27.23 | 2198 | 1043 | 33.40 | 0.415 | 14.1 | 70.2 |
| | 115.0 | 27.82 | 2216 | 975 | 29.74 | 0.345 | 11.6 | 69.3 |
| | 115.0 | 28.35 | 2230 | 903 | 26.35 | 0.283 | 9.5 | 68.4 |
| | 115.0 | 28.81 | 2244 | 828 | 22.32 | 0.220 | 7.3 | 67.7 |
| | 115.0 | 29.25 | 2251 | 745 | 18.57 | 0.165 | 5.5 | 66.9 |
| | 115.0 | 29.62 | 2256 | 658 | 15.10 | 0.118 | 3.9 | 66.2 |
| | 115.0 | 29.93 | 2261 | 567 | 11.69 | 0.079 | 2.6 | 65.7 |
| | 115.0 | 30.16 | 2261 | 472 | 8.38 | 0.047 | 1.6 | 65.2 |
| | 115.0 | 30.36 | 2265 | 371 | 5.29 | 0.023 | 0.8 | 64.9 |
| | 115.0 | 30.47 | 2260 | 263 | 2.18 | 0.007 | 0.2 | 64.5 |
| | 115.0 | 30.50 | 2262 | 151 | 0.65 | 0.001 | 0.0 | 64.5 |

| | | |
|-------------|----------------|------|
| DRAWING NO. | PAGE 3 of 4 | REV. |
| | 6K589BG | - |

Performance Data



6K589BG REV. -



Dayton[®]

Curve Descriptions:
Motor(1) Test 4 Run 115V 60 Hz 4P

- SPEED vs WATTS
- SPEED vs TORQUE
- △ SPEED vs ILine

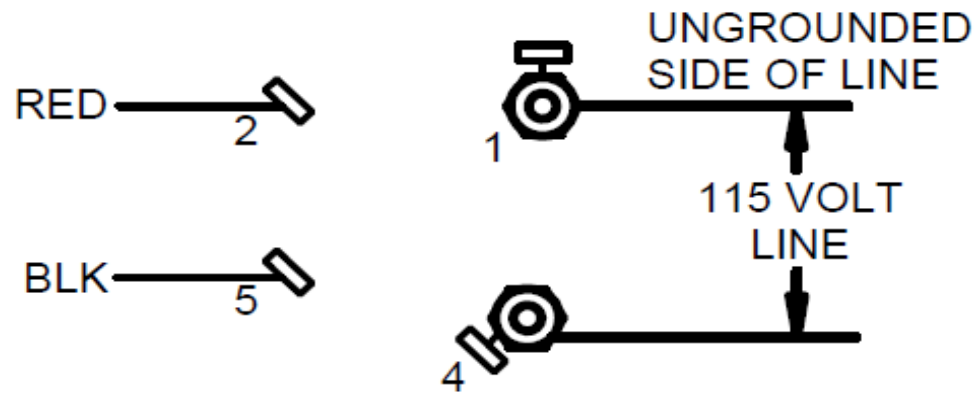
Motor Ratings:
S0555GWG8509 6K589BG

| | | |
|-------------|----------------|------|
| DRAWING NO. | PAGE 4 of 4 | REV. |
| | 6K589BG | - |

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

| | |
|---------|-----------|
| 6K589BG | REV. - |
|---------|-----------|

CONNECTIONS



ROTATION CCW LE
TO REVERSE ROTATION
INTERCHANGE RED & BLK LEADS

| | | |
|-------------|-------------|------|
| DRAWING NO. | PAGE 1 of 1 | REV. |
| 6K589BG | | - |

Dayton[®]

BELT DRIVE FAN & BLOWER MOTOR

HP: 1/2

VOLTS: 115

AMPS: 7.9

RPM: 1725

DUTY: CONT

SF: 1.25

KVA CODE: K

ENCL: ODP

THERMALLY PROTECTED: AUTO

MFG. NO. PROT. CODE: 00F50

MTR REF: S55CXGWG-8509

PH: 1

HZ: 60

FR: 48

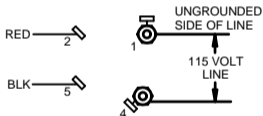
INS CL: B

AMB: 40 °C

SFA: 8.8

AVG. F.L.
EFF.Part
No 6K589BG**Disconnect Power Before Making Any
Electrical Connections or Changes**

CONNECTIONS



ROTATION CCW LE
TO REVERSE ROTATION
INTERCHANGE RED & BLK LEADS



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

Made in Mexico