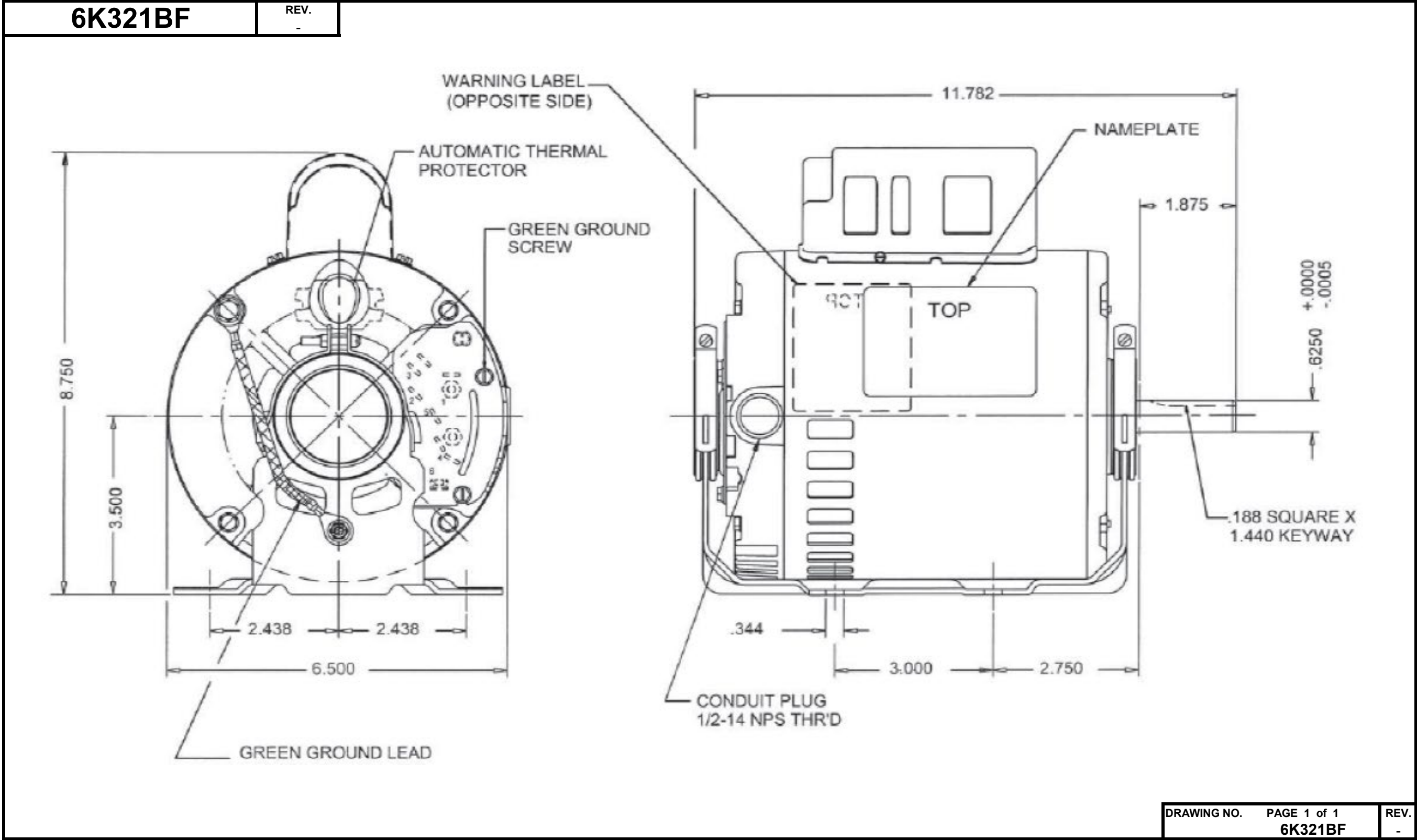


# Dimensional Drawing



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

©2020 W.W. Grainger, Inc. This design may not be reproduced, modified or redistributed without written permission from W.W. Grainger, Inc.

# Performance Data



**6K321BF**

REV.  
-

## MOTOR PERFORMANCE

<b>HP:</b>	6K321BE								
<b>Poles:</b>	4								
<b>No. of Speeds:</b>	1								
<b>Volts:</b>	115/208-230	115	208	230					
<b>HZ:</b>	60	60	60	60					
<b>Service Factor:</b>	1.15								
<b>Efficiency:</b>	@ Rated Load	66	67.7	67.4					
<b>Power Factor:</b>	@ Rated Load	72.2	77.3	70.2					
<b>Amps:</b>	@ No Load								
	@ Rated Load	13.6	6.9	6.9					
	@ Service Factor	14.9	7.7	7.4					
	@ Locked Rotor	72.33	33.29	37.32					
<b>RPM:</b>	@ Rated Load								
<b>Ambient (°C):</b>	40								
<b>Altitude (FASL):</b>									
<b>Torques:</b>	Breakdown	110.1	92.65	116.77					
	Locked Rotor	149.9	114.49	142.3					
	Pull-Up	149.9	113.17	137.1					
	Rated Load								
	Service Factor								
<b>Watts:</b>	Rated Load								
<b>KVA Code:</b>									
<b>Temperature Rise:</b>	@ Rated Load	57.6							
	@ Service Factor	72.9							
<b>Thermal Protector:</b>	Trip Temp (°C)								
<b>Winding Material:</b>	Start (Auxiliary)	Al							
	Run (Main)	Cu							
<b>Capacitor(s):</b>	Start (MFD / Volts)								
	No. of Start Capacitors								
	Run (MFD / Volts)								
	No. of Run Capacitors								

### LOW SPEED PERFORMANCE DATA:

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

DRAWING NO. PAGE 1 REV.  
6K321BF -

# Performance Data



**6K321BF**

REV.

-

## Dayton Manufacturing Company

### Motor Description

Model: C063JBT113901  
 Motor ID: 1  
 Poles: 4  
 Volts: 115/208-230  
 Frequency: 60  
 HP: 1  
 Speed: 1725  
 Phase: 1  
 Protector: CEJ51 CX

### Test Conditions

Test Type: Start  
 Test Number: 4  
 Poles: 4  
 Volts: 115  
 Hz: 60  
 Rotation:  
 Special Cond: 2 Line  
 Speed Conn:  
 TestBoard: Amtps Performance Fixture #1  
 Run Cap: 0  
 Start Cap: 0µfd  
 Tested: 3/2/2012 2:14:01 PM  
 Gear Ratio: 1:1  
 Bearing Friction: -1.12 Oz-Ft  
 Windage Torque: -3.20 Oz-Ft

Special Points	Vline	Iline	Watts	Speed	Tq (Oz-ft)	HP	Eff (%)	PF (%)
PUT OZ-FT	115.0	72.33	7601	11	149.9	0.020	0.2	91.4
	115.0	72.33	7601	11	149.9	0.020	0.2	91.4
	115.0	72.16	7582	58	154.0	0.106	1.0	91.4
	115.0	71.76	7570	214	159.6	0.407	4.0	91.7
	115.0	71.35	7544	359	167.6	0.716	7.1	91.9
	115.0	70.52	7458	491	174.8	1.021	10.2	92.0
	115.0	69.90	7378	612	177.2	1.291	13.1	91.8
	115.0	70.50	7452	725	181.8	1.569	15.7	91.9
	115.0	70.94	7562	829	192.9	1.902	18.8	92.7
	115.0	70.97	7622	925	204.1	2.249	22.0	93.4
	115.0	70.88	7665	1014	213.4	2.575	25.1	94.0
	115.0	70.64	7685	1094	219.9	2.865	27.8	94.6
	115.0	70.36	7705	1168	224.7	3.125	30.3	95.2
	115.0	70.06	7714	1236	227.2	3.344	32.3	95.7
	115.0	69.72	7708	1297	228.0	3.521	34.1	96.1
	115.0	69.45	7721	1353	227.0	3.658	35.3	96.7
	115.0	69.13	7720	1404	223.4	3.734	36.1	97.1
	115.0	68.76	7717	1450	216.9	3.744	36.2	97.6
	115.0	53.13	5544	1486	145.1	2.568	34.5	90.7
	115.0	36.44	3458	1520	113.2	2.049	44.2	82.5
	115.0	32.92	3124	1558	111.0	2.059	49.2	82.5
	115.0	29.94	2852	1592	107.2	2.033	53.2	82.8
	115.0	27.03	2571	1623	101.2	1.955	56.7	82.7
	115.0	24.21	2291	1651	94.0	1.848	60.2	82.3
	115.0	21.41	2001	1677	84.2	1.680	62.6	81.3
	115.0	18.83	1718	1699	74.3	1.503	65.3	79.3
	115.0	16.27	1413	1721	61.8	1.266	66.8	75.5
	115.0	14.08	1128	1741	48.6	1.007	66.6	69.7
	115.0	11.89	780	1763	30.6	0.642	61.4	57.1
	115.0	10.56	470	1783	13.1	0.277	43.9	38.8
	115.0	10.23	254	1798	0.0	0.000	0.0	21.6

DRAWING NO. PAGE 1 of 8 REV.  
 6K321BF -

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

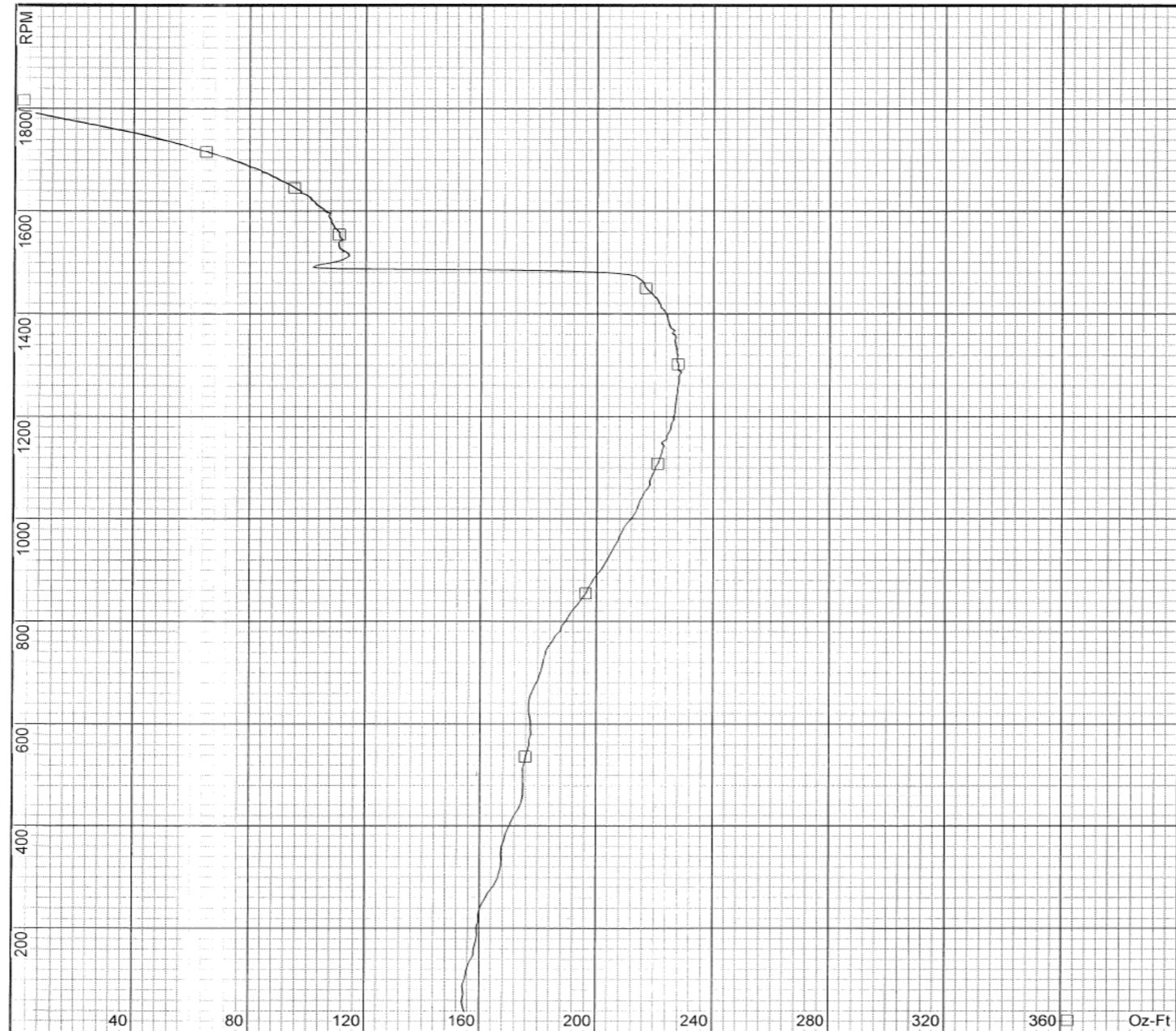
# Performance Data



6K321BF

REV.

-



**Curve Descriptions:**

Motor(1) Test 4 Start 115V 60 Hz 4P  
2 Line Attempt #1

□ SPEED vs TORQUE

**Motor Ratings:**

(1) C063JBT113901 ID: 1

DRAWING NO.	PAGE 2 of 8	REV.
6K321BF		-

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

# Performance Data



<b>6K321BF</b>	REV. -
----------------	-----------

## Dayton Manufacturing Company

### Motor Description

Model: C063JBT113901  
 Motor ID: 1  
 Poles: 4  
 Volts: 115/208-230  
 Frequency: 60  
 HP: 1  
 Speed: 1725  
 Phase: 1  
 Protector: CEJ51 CX

### Test Conditions

Test Type: Run  
 Test Number: 6  
 Poles: 4  
 Volts: 115  
 Hz: 60  
 Rotation:  
 Special Cond: 2 Line  
 Speed Conn:  
 TestBoard: Amtps Performance Fixture #1  
 Run Cap: 0  
 Start Cap: 0µfd  
 Tested: 3/2/2012 2:24:31 PM  
 Gear Ratio: 1:1  
 Bearing Friction: -0.96 Oz-Ft  
 Windage Torque: -3.20 Oz-Ft

Special Points	Vline	Iline	Watts	Speed	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	115.0	9.66	234	1791	0.0	0.000	0.0	21.1
	115.0	10.21	551	1773	18.1	0.382	51.8	46.9
	115.0	11.82	872	1755	35.5	0.742	63.5	64.1
<b>48.7 OZ-FT</b>	<b>115.0</b>	<b>13.68</b>	<b>1139</b>	<b>1738</b>	<b>48.7</b>	<b>1.008</b>	<b>66.0</b>	<b>72.4</b>
<b>1 HP</b>	<b>115.0</b>	<b>13.62</b>	<b>1131</b>	<b>1739</b>	<b>48.3</b>	<b>1.000</b>	<b>66.0</b>	<b>72.2</b>
	115.0	13.98	1180	1735	51.0	1.054	66.6	73.4
<b>1.15 HP</b>	<b>115.0</b>	<b>14.85</b>	<b>1292</b>	<b>1728</b>	<b>55.9</b>	<b>1.150</b>	<b>66.4</b>	<b>75.6</b>
<b>1725 RPM</b>	<b>115.0</b>	<b>15.24</b>	<b>1341</b>	<b>1725</b>	<b>58.1</b>	<b>1.192</b>	<b>66.3</b>	<b>76.5</b>
<b>60.87 OZ-FT</b>	<b>115.0</b>	<b>15.79</b>	<b>1407</b>	<b>1720</b>	<b>60.9</b>	<b>1.247</b>	<b>66.1</b>	<b>77.5</b>
<b>1.25 HP</b>	<b>115.0</b>	<b>15.82</b>	<b>1411</b>	<b>1720</b>	<b>61.0</b>	<b>1.250</b>	<b>66.1</b>	<b>77.5</b>
	115.0	16.46	1488	1715	64.3	1.312	65.8	78.6
	115.0	19.14	1795	1693	76.2	1.535	63.8	81.5
	115.0	21.87	2092	1671	86.5	1.720	61.3	83.2
	115.0	24.66	2373	1646	94.5	1.851	58.2	83.7
	115.0	27.43	2642	1619	101.4	1.953	55.1	83.8
	115.0	30.26	2906	1590	105.9	2.004	51.4	83.5
	115.0	32.97	3152	1558	108.5	2.012	47.6	83.1
<b>BDT OZ-FT</b>	<b>115.0</b>	<b>35.14</b>	<b>3336</b>	<b>1532</b>	<b>110.1</b>	<b>2.008</b>	<b>44.9</b>	<b>82.6</b>
	115.0	35.70	3383	1524	109.7	1.990	43.9	82.4
	115.0	38.32	3598	1487	109.3	1.935	40.1	81.6
	115.0	40.89	3793	1447	106.9	1.842	36.2	80.6
	115.0	43.36	3971	1403	103.2	1.723	32.4	79.6
	115.0	45.69	4127	1356	98.1	1.583	28.6	78.5
	115.0	47.86	4278	1305	91.3	1.418	24.7	77.7
	115.0	49.92	4399	1248	83.7	1.243	21.1	76.6
	115.0	51.89	4507	1188	74.9	1.060	17.5	75.5
	115.0	53.71	4595	1122	65.0	0.868	14.1	74.4
	115.0	55.38	4661	1052	54.2	0.678	10.9	73.2
	115.0	56.96	4719	976	41.0	0.477	7.5	72.0
	115.0	58.57	4774	894	27.3	0.290	4.5	70.9
	115.0	71.28	7690	835	201.0	1.998	19.4	93.8
	115.0	70.61	7488	735	183.6	1.606	16.0	92.2
	115.0	69.86	7363	629	175.2	1.313	13.3	91.7
	115.0	69.84	7388	520	173.1	1.071	10.8	92.0
	115.0	70.72	7500	401	169.5	0.810	8.1	92.2
	115.0	71.32	7546	278	159.3	0.528	5.2	92.0
	115.0	71.77	7568	151	158.2	0.284	2.8	91.7

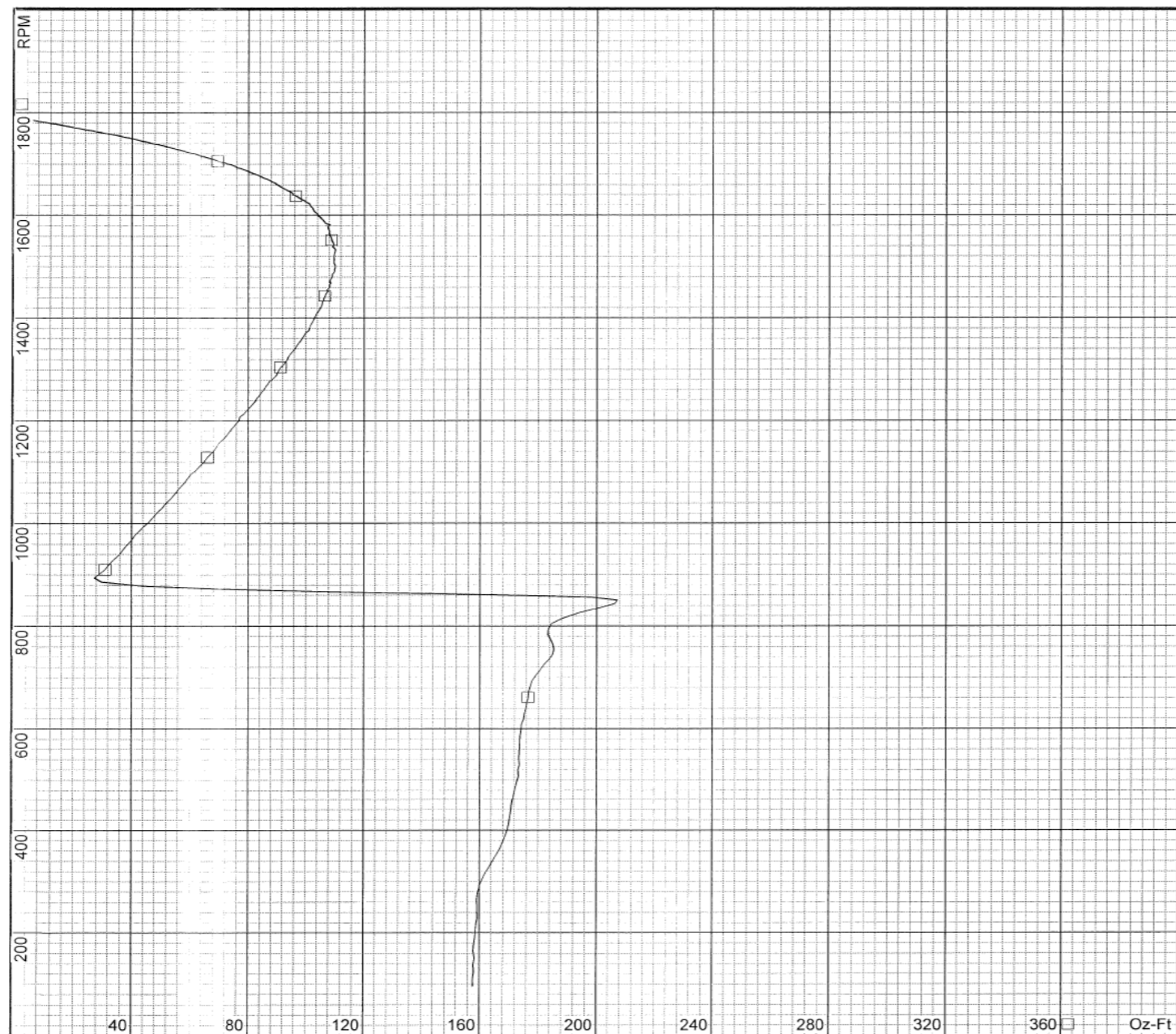
DRAWING NO.	PAGE 3 of 8	REV.
6K321BF		-

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

# Performance Data



<b>6K321BF</b>	<b>REV.</b> -
----------------	------------------



**Curve Descriptions:**  
 Motor(1) Test 6 Run 115V 60 Hz 4P  
 2 Line Attempt #2  
 □ SPEED vs TORQUE

**Motor Ratings:**  
 (1) C063JBT113901 ID: 1

<b>DRAWING NO.</b>	<b>PAGE 4 of 8</b>	<b>REV.</b>
<b>6K321BF</b>		-

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

# Performance Data



**6K321BF**

REV.

-

## Dayton Manufacturing Company

### Motor Description

Model: C063JBT113901  
 Motor ID: 1  
 Poles: 4  
 Volts: 115/208-230  
 Frequency: 60  
 HP: 1  
 Speed: 1725  
 Phase: 1  
 Protector: CEJ51 CX

### Test Conditions

Test Type: Start  
 Test Number: 12  
 Poles: 4  
 Volts: 230  
 Hz: 60  
 Rotation:  
 Special Cond: 2 Line  
 Speed Conn:  
 TestBoard: Amtps Performance Fixture #1  
 Run Cap: 0  
 Start Cap: 0μfd  
 Tested: 3/2/2012 1:44:03 PM  
 Gear Ratio: 1:1  
 Bearing Friction: -1.12 Oz-Ft  
 Windage Torque: -3.36 Oz-Ft

Special Points	Vline	Iline	Watts	Speed	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	230.0	37.32	7474	10	142.3	0.016	0.2	87.1
PUT OZ-FT	230.0	37.39	7494	14	137.1	0.024	0.2	87.1
	230.0	37.28	7481	56	141.1	0.095	0.9	87.2
	230.0	37.11	7457	214	146.4	0.372	3.7	87.4
	230.0	36.86	7433	359	156.1	0.667	6.7	87.7
	230.0	36.38	7341	491	162.5	0.949	9.6	87.7
	230.0	36.08	7258	612	162.4	1.183	12.2	87.5
	230.0	36.33	7311	725	164.5	1.418	14.5	87.5
	230.0	36.48	7405	828	174.8	1.723	17.4	88.3
	230.0	36.38	7473	925	185.9	2.046	20.4	89.3
	230.0	36.19	7503	1013	194.5	2.345	23.3	90.2
	230.0	35.93	7515	1094	201.6	2.625	26.1	90.9
	230.0	35.64	7510	1168	206.8	2.876	28.6	91.6
	230.0	35.33	7510	1236	209.3	3.080	30.6	92.4
	230.0	35.02	7499	1298	210.4	3.250	32.3	93.1
	230.0	34.66	7474	1354	207.8	3.349	33.4	93.8
	230.0	34.29	7443	1404	205.8	3.440	34.5	94.4
	230.0	33.94	7411	1451	201.0	3.470	34.9	94.9
	230.0	25.07	5053	1486	127.2	2.249	33.2	87.6
	230.0	18.07	3411	1522	113.0	2.047	44.8	82.0
	230.0	16.36	3096	1559	110.9	2.059	49.6	82.3
	230.0	14.87	2825	1593	107.2	2.034	53.7	82.6
	230.0	13.41	2548	1624	101.7	1.966	57.6	82.6
	230.0	12.01	2273	1651	94.1	1.850	60.7	82.3
	230.0	10.61	1977	1677	85.0	1.696	64.0	81.0
	230.0	9.30	1690	1700	73.8	1.493	65.9	79.0
	230.0	8.05	1394	1721	61.6	1.262	67.5	75.3
	230.0	6.92	1106	1743	47.8	0.993	66.9	69.5
	230.0	5.81	768	1763	30.9	0.649	63.1	57.5
	230.0	5.10	449	1784	12.4	0.264	43.8	38.3
	230.0	4.89	216	1798	0.0	0.000	0.0	19.2

DRAWING NO. PAGE 5 of 8 REV.  
 6K321BF -

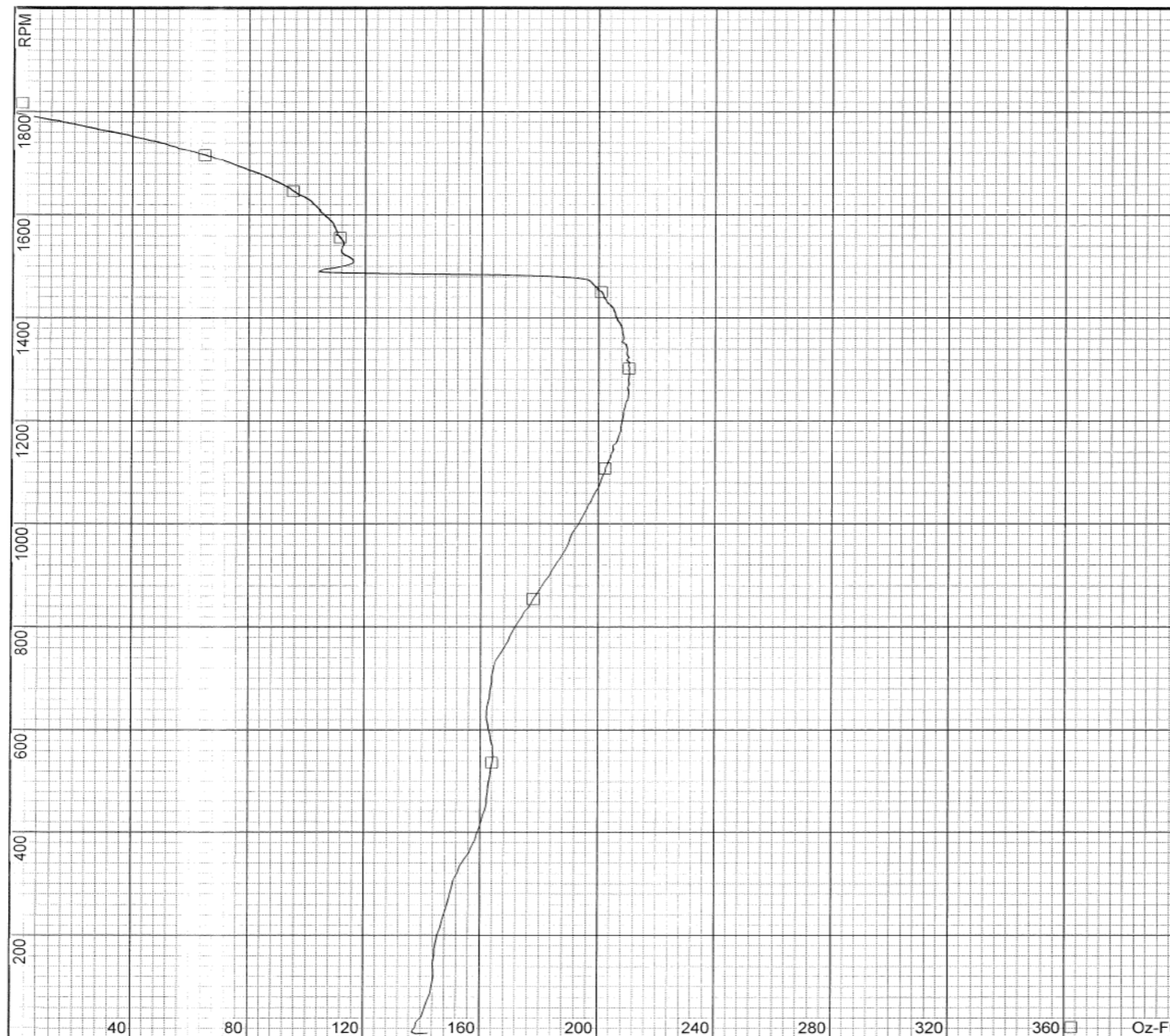
# Performance Data



6K321BF

REV.

-



### Curve Descriptions:

Motor(1) Test 12 Start 230V 60 Hz 4P  
2 Line Attempt #1

□ SPEED vs TORQUE

### Motor Ratings:

(1) C063JBT113901 ID: 1

DRAWING NO.	PAGE 6 of 8	REV.
6K321BF		-

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



# Performance Data



<b>6K321BF</b>	REV. -
----------------	-----------

## Dayton Manufacturing Company

### Motor Description

Model: C063JBT113901  
 Motor ID: 1  
 Poles: 4  
 Volts: 115/208-230  
 Frequency: 60  
 HP: 1  
 Speed: 1725  
 Phase: 1  
 Protector: CEJ51 CX

### Test Conditions

Test Type: Run  
 Test Number: 14  
 Poles: 4  
 Volts: 230  
 Hz: 60  
 Rotation:  
 Special Cond: 2 Line  
 Speed Conn:  
 TestBoard: Amtps Performance Fixture #1  
 Run Cap: 0  
 Start Cap: 0μfd  
 Tested: 3/2/2012 1:10:56 PM  
 Gear Ratio: 1:1  
 Bearing Friction: -1.12 Oz-Ft  
 Windage Torque: -3.20 Oz-Ft

Special Points	Vline	Iline	Watts	Speed	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	230.0	4.83	222	1791	0.00	0.000	0.0	20.0
	230.0	5.16	542	1773	18.50	0.391	53.8	45.6
	230.0	6.02	869	1755	37.57	0.785	67.4	62.7
<b>1 HP</b>	<b>230.0</b>	<b>6.86</b>	<b>1108</b>	<b>1740</b>	<b>48.26</b>	<b>1.000</b>	<b>67.4</b>	<b>70.2</b>
<b>48.7 OZ-FT</b>	<b>230.0</b>	<b>6.91</b>	<b>1123</b>	<b>1740</b>	<b>48.70</b>	<b>1.009</b>	<b>67.0</b>	<b>70.6</b>
	230.0	7.16	1188	1735	52.70	1.089	68.4	72.1
<b>1.15 HP</b>	<b>230.0</b>	<b>7.40</b>	<b>1250</b>	<b>1732</b>	<b>55.78</b>	<b>1.150</b>	<b>68.7</b>	<b>73.5</b>
<b>60.87 OZ-FT</b>	<b>230.0</b>	<b>7.86</b>	<b>1367</b>	<b>1724</b>	<b>60.87</b>	<b>1.249</b>	<b>68.2</b>	<b>75.6</b>
<b>1.25 HP</b>	<b>230.0</b>	<b>7.86</b>	<b>1367</b>	<b>1724</b>	<b>60.90</b>	<b>1.250</b>	<b>68.2</b>	<b>75.6</b>
<b>1725 RPM</b>	<b>230.0</b>	<b>7.81</b>	<b>1354</b>	<b>1725</b>	<b>60.30</b>	<b>1.238</b>	<b>68.2</b>	<b>75.4</b>
	230.0	8.41	1503	1715	65.91	1.346	66.8	77.7
	230.0	9.75	1801	1694	78.74	1.588	65.8	80.3
	230.0	11.14	2101	1671	89.83	1.787	63.5	82.0
	230.0	12.56	2394	1646	99.09	1.941	60.5	82.9
	230.0	14.00	2672	1619	106.04	2.044	57.1	83.0
	230.0	15.42	2937	1591	111.07	2.103	53.4	82.8
	230.0	16.84	3187	1559	114.89	2.133	49.9	82.3
	230.0	18.23	3424	1525	116.36	2.113	46.0	81.6
<b>BDT OZ-FT</b>	<b>230.0</b>	<b>18.51</b>	<b>3466</b>	<b>1518</b>	<b>116.77</b>	<b>2.110</b>	<b>45.4</b>	<b>81.4</b>
	230.0	19.59	3641	1488	116.09	2.057	42.1	80.8
	230.0	20.91	3838	1448	113.93	1.963	38.2	79.8
	230.0	22.17	4016	1404	110.04	1.839	34.2	78.8
	230.0	23.38	4175	1356	104.37	1.685	30.1	77.7
	230.0	24.51	4294	1305	97.77	1.519	26.4	76.2
	230.0	25.57	4418	1249	89.62	1.332	22.5	75.1
	230.0	26.58	4519	1187	80.54	1.138	18.8	73.9
	230.0	27.50	4591	1123	69.44	0.928	15.1	72.6
	230.0	28.36	4661	1052	58.17	0.729	11.7	71.5
	230.0	29.15	4711	975	44.76	0.520	8.2	70.3
	230.0	29.87	4745	894	30.90	0.329	5.2	69.1
	230.0	37.17	7659	832	190.34	1.884	18.4	89.6
	230.0	36.65	7401	733	168.96	1.474	14.9	87.8
	230.0	36.32	7300	628	162.29	1.213	12.4	87.4
	230.0	36.31	7319	519	162.93	1.007	10.3	87.6
	230.0	36.74	7419	402	159.99	0.765	7.7	87.8
	230.0	37.08	7470	278	150.29	0.497	5.0	87.6
	230.0	37.15	7460	147	141.32	0.247	2.5	87.3

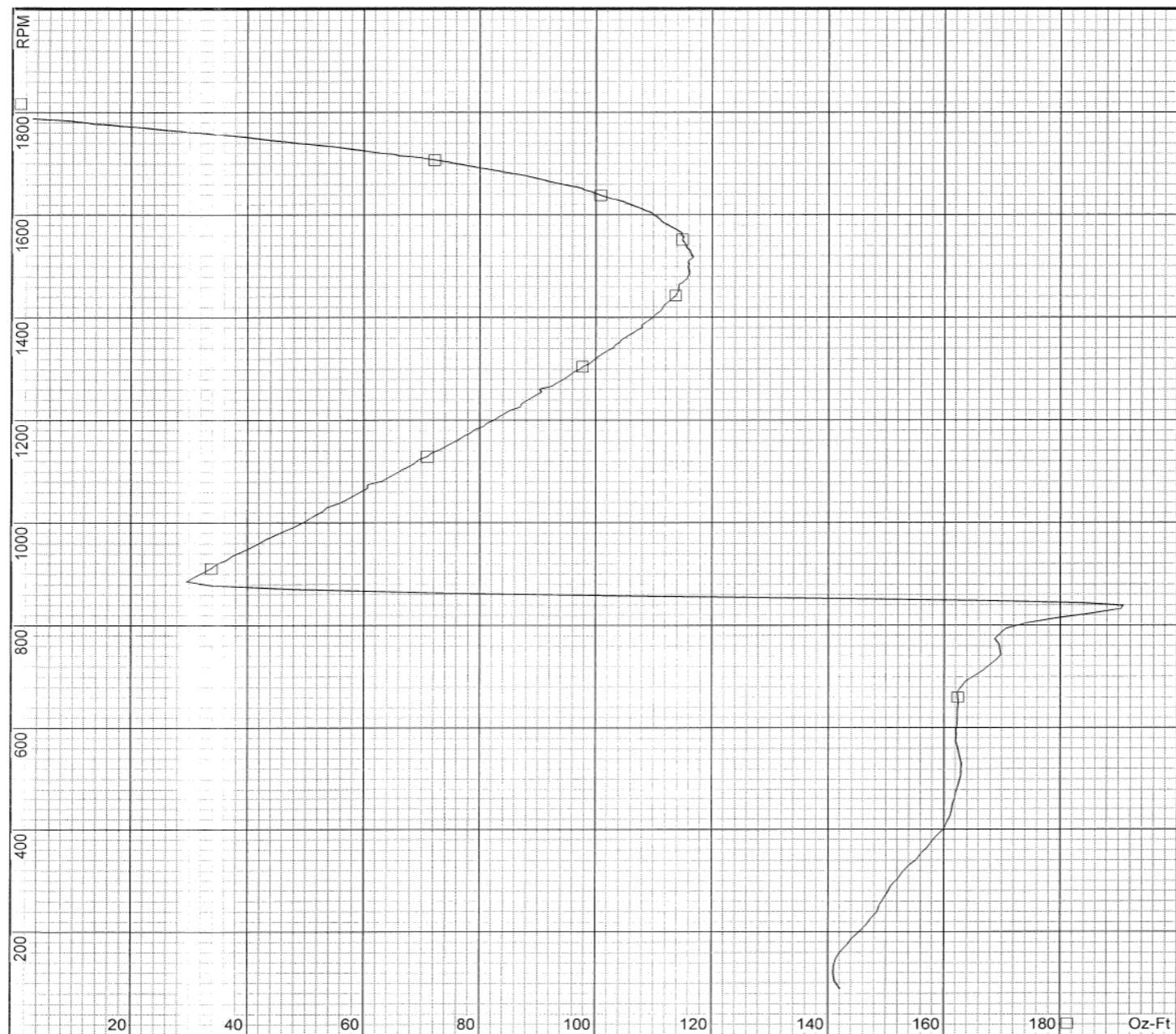
DRAWING NO.	PAGE 7 of 8	REV.
6K321BF		-

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

# Performance Data



**6K321BF**      REV.  
-



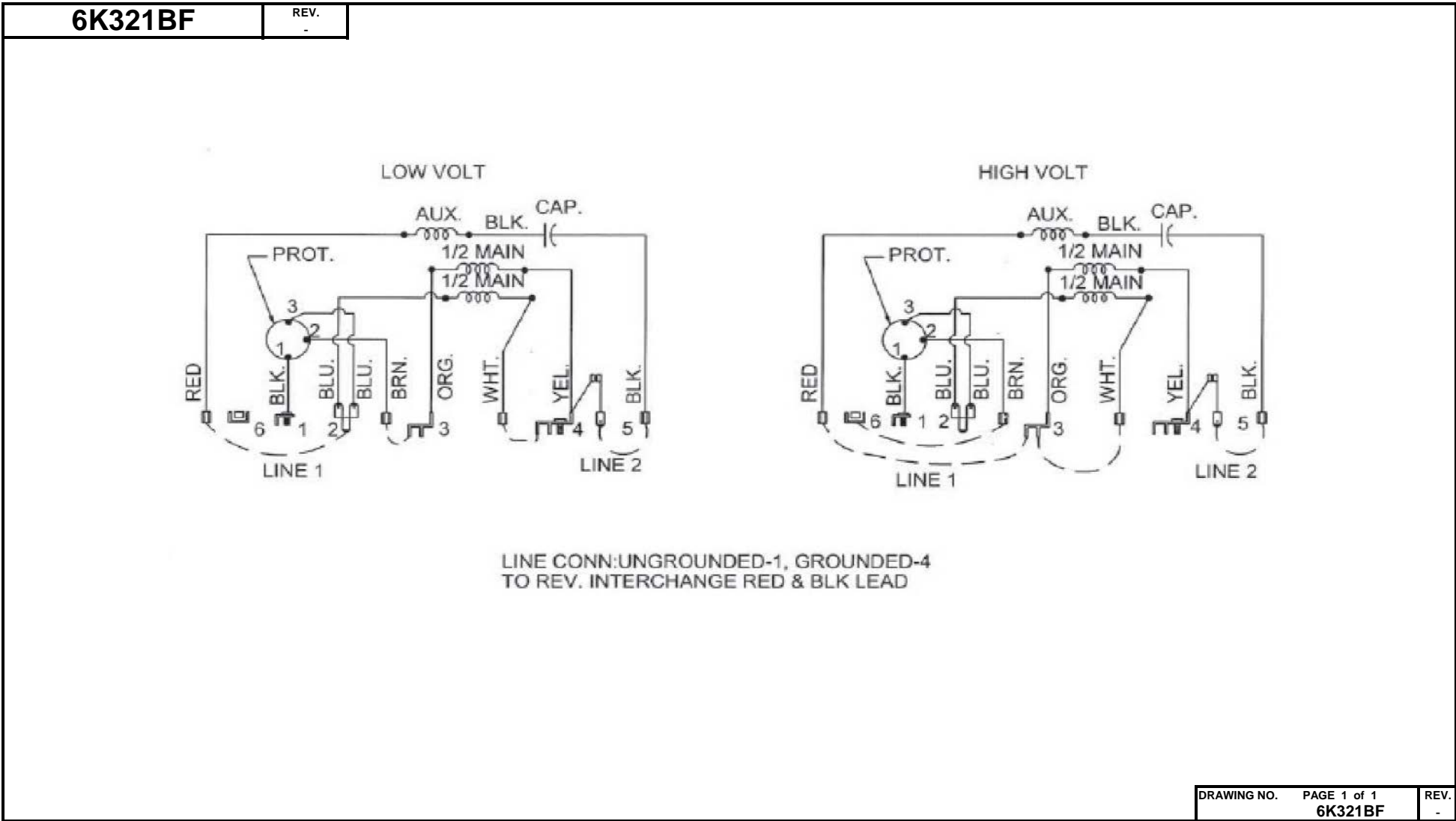
**Curve Descriptions:**  
 Motor(1) Test 14 Run 230V 60 Hz 4P  
 2 Line Attempt #1  
 □ SPEED vs TORQUE

**Motor Ratings:**  
 (1) C063JBT113901 ID: 1

DRAWING NO.	PAGE 8 of 8	REV.
6K321BF		-

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

# Wiring Diagram



**Dayton**<sup>®</sup>**BELT DRIVE FAN &  
BLOWER MOTOR**HP: 1  
VOLTS: 115/208-230

Part No 6K321BF

[ BAR CODE ]

AMPS: 13.6/6.9-6.9

RPM: 1725

DUTY: CONT

SF: 1.15

KVA CODE: K

ENCL: ODP

THERMALLY PROTECTED: AUTO

MFG. NO. [ ] [ ]

PROT. CODE: [ 00500 ]

AVG. F.L.  
EFF.

MTR REF: C63CXJBT-1139

PH: 1

HZ: 60

FR: 56

INS CL: B

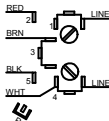
AMB: 40 °C

SFA: 14.9/7.7-7.4

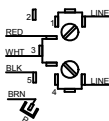
Disconnect Power Before Making Any  
Electrical Connections or Changes

## CONNECTIONS

115 VOLTS



208 - 230 VOLTS

MOTOR IS CCW ROTATION LEAD END  
TO REVERSE ROTATION INTERCHANGE  
RED AND BLACK LEADS

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

[ Made in Mexico ]