

Performance Data



6K181BG

REV.
-

MOTOR PERFORMANCE

HP:	1/3							
Poles:	2							
No. of Speeds:	1							
Volts:	115/208-230	115	208	230				
HZ:	60	60	60	60				
Service Factor:	1							
Efficiency:	@ Rated Load	60.2	62.9	64.1				
Power Factor:	@ Rated Load	80.5	83.0	79.0				
Amps:	@ No Load							
	@ Rated Load	4.5	2.3	2.2				
	@ Service Factor	4.5	2.3	2.2				
	@ Locked Rotor	26.6	11.8	13.3				
RPM:	@ Rated Load	3479	3450	3483				
Ambient (°C):	40							
Altitude (FASL):								
Torques:	Breakdown	20.8	16.6	21.2				
	Locked Rotor	33	22.8	27.3				
	Pull-Up	31.5	22	27.2				
	Rated Load	8.1	8.1	8.1				
	Service Factor	8.1	8.1	8.1				
Watts:	Rated Load	415	394	391				
KVA Code:	L	L	J	L				
Temperature Rise:	@ Rated Load	80.4	88.7	81.7				
	@ Service Factor	80.4	88.7	81.7				
Thermal Protector:	Trip Temp (°C)	158.3	158.2	156.5				
Winding Material:	Start (Auxiliary)	Al	Al	Al				
	Run (Main)	Cu	Cu	Cu				
Capacitor(s):	Start (MFD / Volts)	297 mFd, 110v						
	No. of Start Capacitors							
	Run (MFD / Volts)	NA						
	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:	Bead Down							
	Locked Rotor							
	Pull-Up							
	Rated Load							
	Service Factor							
Watts:	@ Rated Load							
Temperature Rise:	@ Rated Load							
	@ Service Factor							

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

Performance Data



6K181BG	REV. -
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Dayton Manufacturing Company

Motor Description

Model: C055KNT2161 6K181BG
 Motor ID:
 Poles: 2
 Volts: 115/208-230
 Frequency: 60
 HP: 1/3
 Speed: 3450
 Phase: 1
 Protector: MEJ56AL

Test Conditions

Test Type: Start
 Test Number: 10
 Poles: 2
 Volts: 115
 Hz: 60
 Rotation: CW
 Special Cond:
 Speed Conn:
 TestBoard: Amtps Performance Fixture #3
 Run Cap: 0
 Start Cap: 297µfd
 Environment: 20.5 Deg C 36 % RH 985 hPa
 Tested: 12/16/2015 2:03:48 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.43 Oz-Ft
 Windage Torque: -1.82 Oz-Ft

Special Points	Vline (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	115.0	26.61	2828	2	33.04	0.001	0.0	92.4
	115.0	26.60	2831	49	32.02	0.019	0.5	92.5
	115.0	26.71	2837	306	32.09	0.117	3.1	92.4
PUT OZ-FT	115.0	26.59	2828	422	31.53	0.158	4.2	92.5
	115.0	26.59	2834	596	32.37	0.230	6.0	92.7
	115.0	26.52	2834	862	33.79	0.347	9.1	92.9
	115.0	26.43	2835	1103	34.65	0.455	12.0	93.3
	115.0	26.41	2842	1322	35.83	0.564	14.8	93.6
	115.0	26.26	2836	1522	36.97	0.670	17.6	93.9
	115.0	26.15	2838	1707	38.34	0.779	20.5	94.4
	115.0	26.02	2837	1884	39.94	0.896	23.6	94.8
	115.0	25.91	2836	2043	40.73	0.991	26.1	95.2
	115.0	25.79	2835	2184	41.32	1.074	28.3	95.6
	115.0	25.65	2833	2321	42.00	1.161	30.6	96.0
	115.0	25.53	2832	2435	42.25	1.225	32.3	96.5
	115.0	25.40	2826	2550	42.48	1.290	34.0	96.7
	115.0	25.28	2821	2657	42.40	1.341	35.5	97.0
	115.0	25.13	2816	2755	41.68	1.367	36.2	97.5
	115.0	24.99	2807	2845	40.78	1.381	36.7	97.7
	115.0	13.21	1237	2921	19.13	0.665	40.1	81.4
	115.0	13.17	1259	2997	20.19	0.721	42.7	83.2
	115.0	12.33	1194	3068	20.49	0.748	46.8	84.2
	115.0	11.40	1115	3132	19.90	0.742	49.7	85.0
	115.0	10.48	1032	3191	19.17	0.728	52.6	85.7
	115.0	9.56	947	3245	18.25	0.705	55.5	86.2
	115.0	8.65	859	3295	17.25	0.677	58.8	86.4
	115.0	7.74	767	3342	15.61	0.621	60.4	86.2
	115.0	6.80	670	3385	14.43	0.582	64.7	85.6
	115.0	5.89	570	3426	12.14	0.495	64.8	84.1
	115.0	5.01	470	3464	9.94	0.410	65.1	81.5
	115.0	4.12	359	3503	7.22	0.301	62.5	75.8
	115.0	3.32	248	3540	4.12	0.174	52.3	65.0
	115.0	2.74	135	3577	1.02	0.044	24.1	42.8
	115.0	2.63	99	3588	0.00	0.000	0.0	32.7

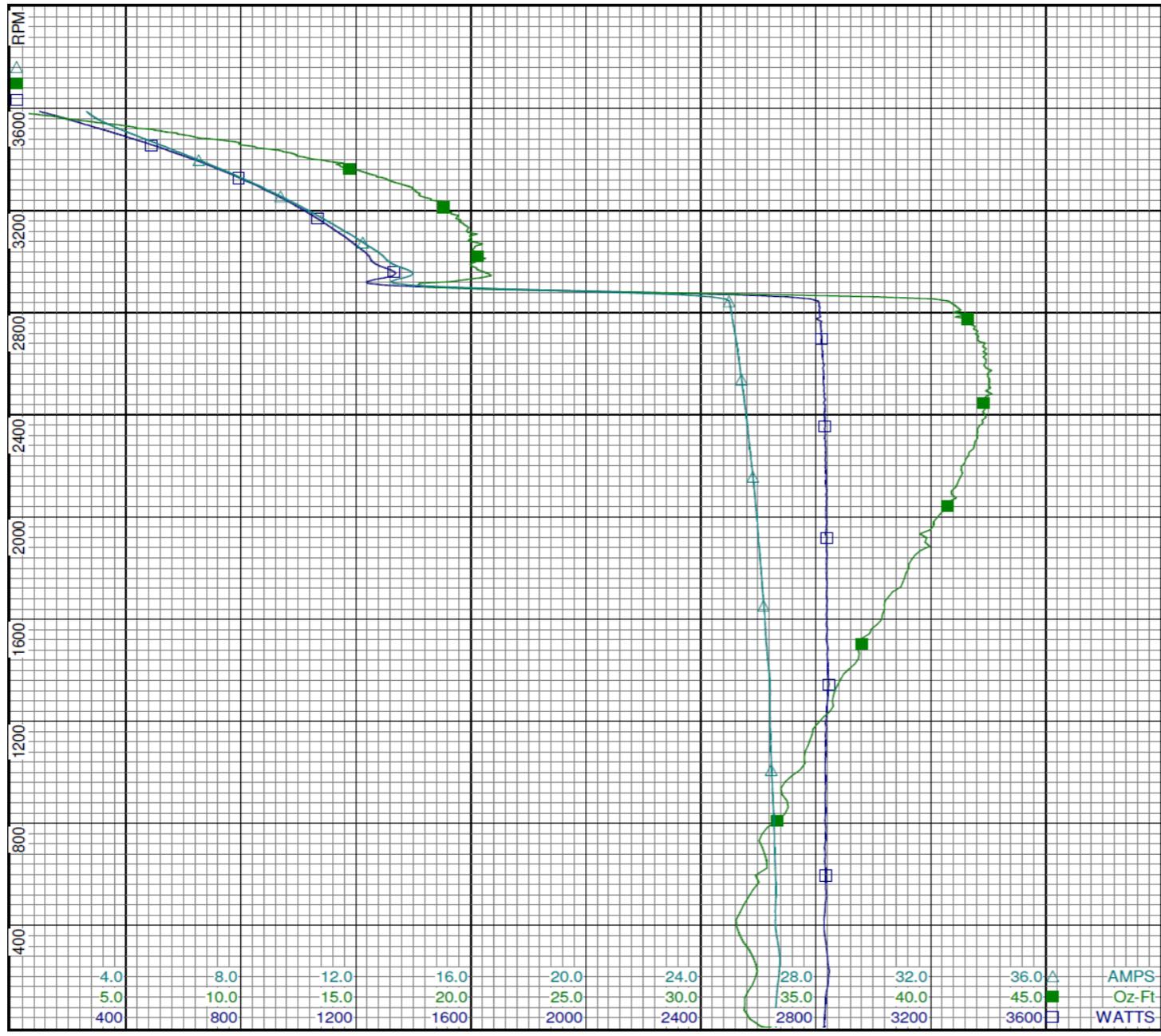
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Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA

Performance Data



6K181BG REV. -



Dayton

Curve Descriptions:
 Motor(1) Test 10 Start 115V 60 Hz 2P
 CW 297ufd Run

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

Motor Ratings:
 (1) C055KNT2161 6K181BG

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6K181BG		-

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

Performance Data



6K181BG	REV. -
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Dayton Manufacturing Company

Motor Description

Model: C055KNT2161 6K181BG
 Motor ID:
 Poles: 2
 Volts: 115/208-230
 Frequency: 60
 HP: 1/3
 Speed: 3450
 Phase: 1
 Protector: MEJ56AL

Test Conditions

Test Type: Run
 Test Number: 4
 Poles: 2
 Volts: 115
 Hz: 60
 Rotation: CW
 Special Cond:
 Speed Conn:
 TestBoard: Aamps Performance Fixture #3
 Run Cap: 0
 Start Cap: 297µfd
 Environment: 20.5 Deg C 36 % RH 985 hPa
 Tested: 12/16/2015 2:02:46 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.36 Oz-Ft
 Windage Torque: -2.17 Oz-Ft

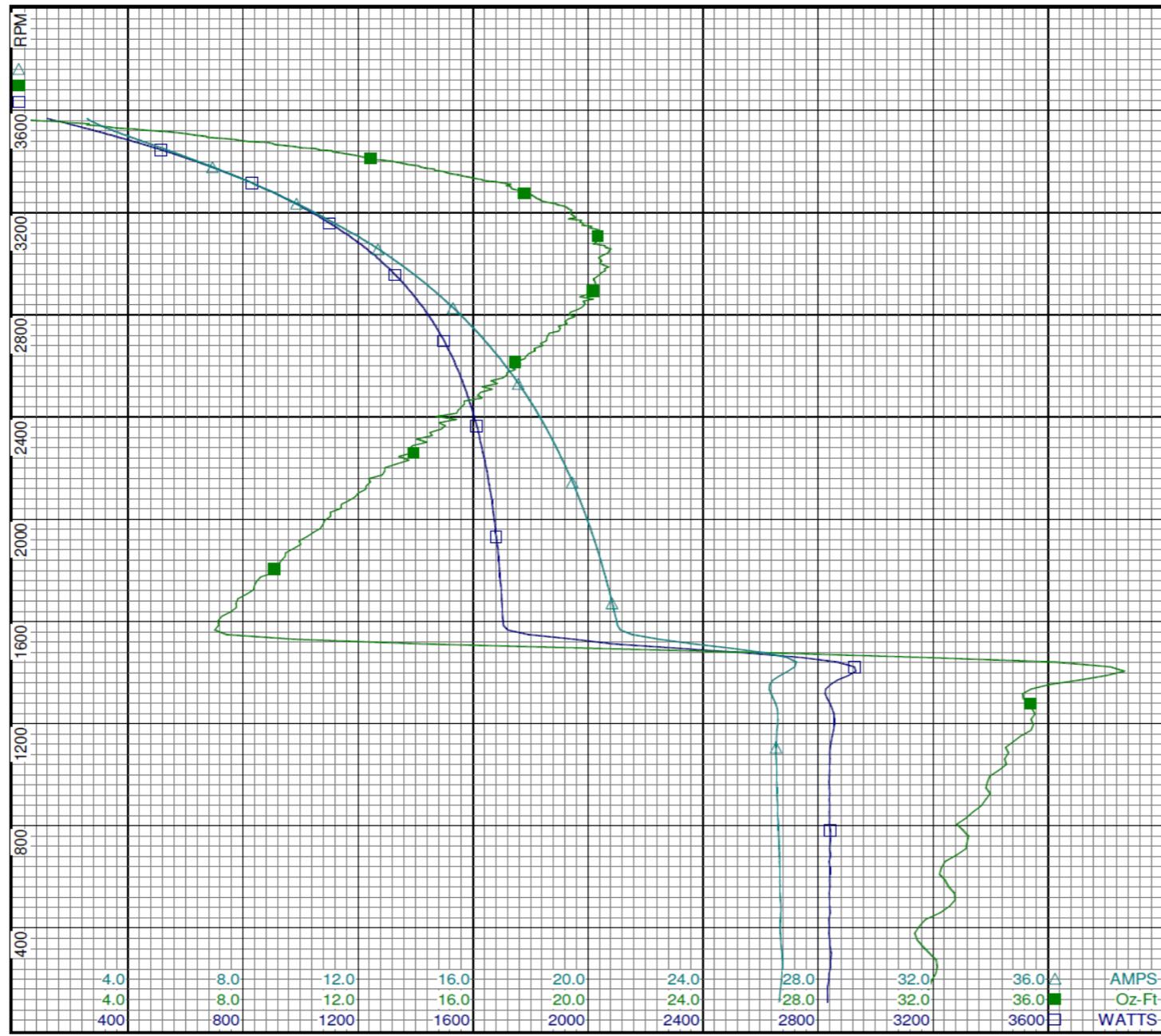
Special Points	Vline (V)	Iline (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	115.0	2.57	118	3568	0.00	0.000	0.0	39.9
	115.0	3.34	262	3527	4.19	0.176	50.1	68.3
	115.0	4.31	394	3485	7.73	0.321	60.7	79.4
0.33 HP	115.0	4.45	410	3481	7.96	0.330	60.0	80.2
8.1 OZ-FT	115.0	4.49	415	3479	8.10	0.335	60.2	80.5
9.3 OZ-FT	115.0	4.88	462	3464	9.30	0.383	61.9	82.3
3450 RPM	115.0	5.22	500	3450	10.45	0.429	64.0	83.4
	115.0	5.33	514	3445	10.64	0.436	63.4	83.9
	115.0	6.32	624	3405	12.88	0.522	62.4	85.9
	115.0	7.33	730	3361	14.96	0.599	61.2	86.6
	115.0	8.31	830	3316	16.99	0.671	60.3	86.9
	115.0	9.29	926	3266	18.06	0.702	56.5	86.7
	115.0	10.24	1016	3214	19.32	0.739	54.3	86.2
	115.0	11.19	1101	3158	19.83	0.745	50.5	85.6
	115.0	12.14	1183	3097	20.40	0.752	47.4	84.8
BDT OZ-FT	115.0	12.70	1231	3057	20.79	0.757	45.9	84.3
	115.0	13.06	1261	3030	20.47	0.738	43.7	83.9
	115.0	13.95	1328	2957	20.40	0.718	40.3	82.8
	115.0	14.80	1391	2878	19.92	0.682	36.6	81.7
	115.0	15.63	1448	2791	19.53	0.649	33.4	80.6
	115.0	16.41	1499	2698	18.54	0.595	29.6	79.4
	115.0	17.15	1542	2596	17.28	0.534	25.8	78.1
	115.0	17.85	1579	2485	16.16	0.478	22.6	76.9
	115.0	18.49	1613	2365	15.03	0.423	19.6	75.8
	115.0	19.11	1640	2230	13.76	0.365	16.6	74.6
	115.0	19.67	1662	2087	11.90	0.296	13.3	73.5
	115.0	20.17	1680	1931	10.22	0.235	10.4	72.4
	115.0	20.60	1693	1773	8.61	0.182	8.0	71.4
	115.0	20.99	1704	1602	7.12	0.136	5.9	70.6
24 OZ-FT	115.0	25.70	2458	1483	24.00	0.423	12.8	83.1
	115.0	27.18	2926	1421	38.17	0.646	16.5	93.6
	115.0	26.60	2855	1237	35.55	0.523	13.7	93.3
	115.0	26.55	2840	1016	34.27	0.415	10.9	93.0
	115.0	26.62	2843	782	33.04	0.308	8.1	92.9
	115.0	26.68	2838	536	32.74	0.209	5.5	92.5
	115.0	26.76	2844	274	32.11	0.105	2.7	92.4

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Performance Data



6K181BG REV. -



Dayton

Curve Descriptions:
 Motor(1) Test 4 Run 115V 60 Hz 2P
 CW 297ufd Run

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

Motor Ratings:
 (1) C055KNT2161 6K181BG

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

Performance Data



6K181BG

REV.

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Dayton Manufacturing Company

Motor Description

Model: C055KNT2161 6K181BG
 Motor ID:
 Poles: 2
 Volts: 115/208-230
 Frequency: 60
 HP: 1/3
 Speed: 3450
 Phase: 1
 Protector: MEJ56AL

Test Conditions

Test Type: Start
 Test Number: 15
 Poles: 2
 Volts: 230
 Hz: 60
 Rotation: CW
 Special Cond:
 Speed Conn:
 TestBoard: Aamps Performance Fixture #3
 Run Cap: 0
 Start Cap: 297µfd
 Environment: 20.5 Deg C 19 % RH 995 hPa
 Tested: 12/17/2015 9:02:44 AM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.20 Oz-Ft
 Windage Torque: -1.56 Oz-Ft

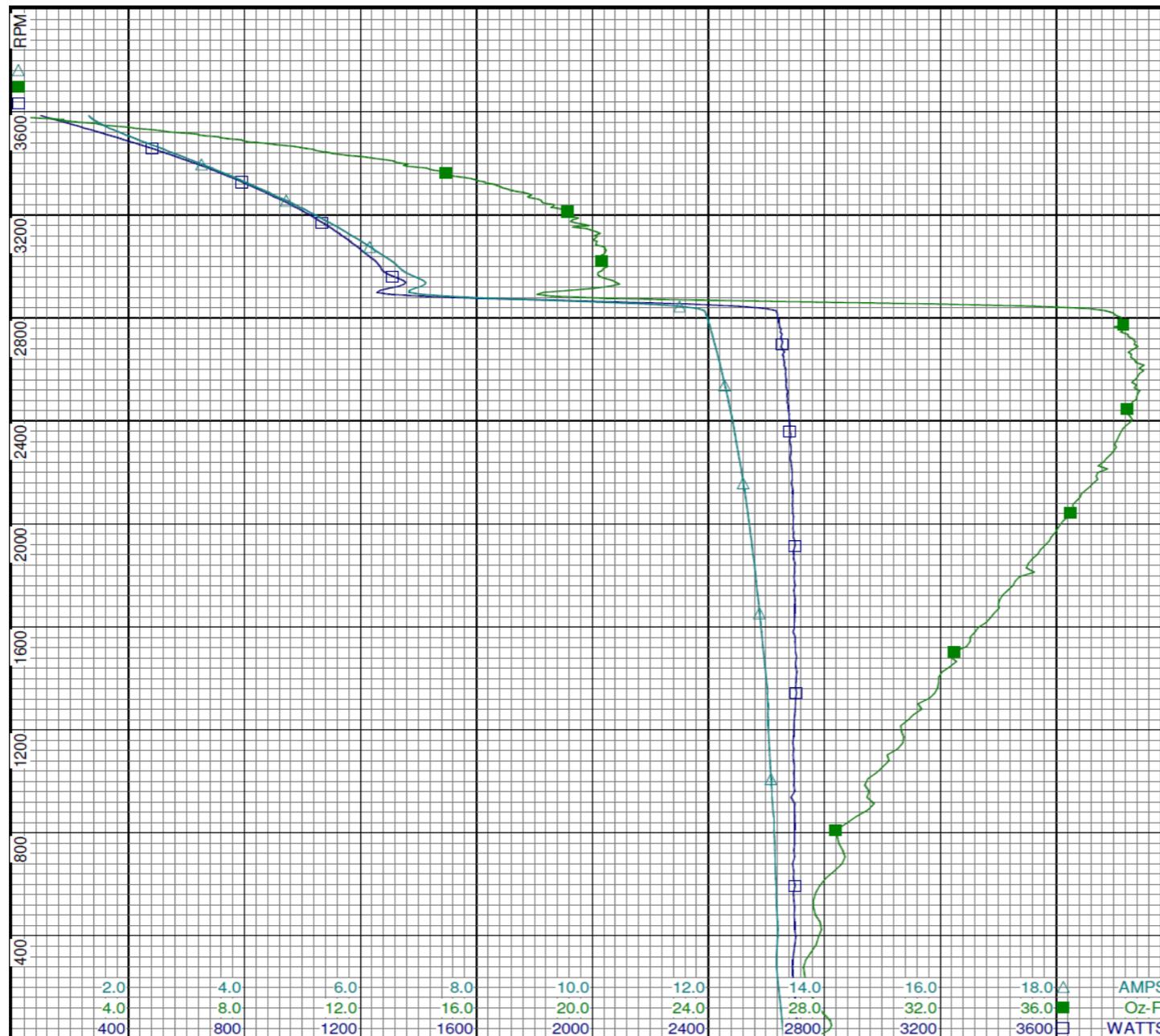
Special Points	Vline(V)	Iline(A)	Watts	RPM	Tq(Oz-ft)	HP	Eff(%)	PF(%)
	230.0	13.294	2713	1	27.30	0.000	0.0	88.7
PUT OZ-FT	230.0	13.294	2714	2	27.22	0.001	0.0	88.8
	230.0	13.279	2709	51	28.25	0.017	0.5	88.7
	230.0	13.172	2692	306	27.36	0.100	2.8	88.8
	230.0	13.167	2698	594	27.84	0.197	5.4	89.1
	230.0	13.125	2698	862	29.08	0.298	8.3	89.4
	230.0	13.055	2692	1102	30.16	0.396	11.0	89.7
	230.0	13.020	2700	1322	31.61	0.497	13.7	90.2
	230.0	12.935	2700	1523	32.90	0.596	16.5	90.7
	230.0	12.858	2699	1707	34.06	0.692	19.1	91.3
	230.0	12.768	2695	1881	35.35	0.792	21.9	91.8
	230.0	12.678	2690	2043	36.50	0.888	24.6	92.3
	230.0	12.583	2689	2185	37.38	0.972	27.0	92.9
	230.0	12.476	2680	2322	38.08	1.053	29.3	93.4
	230.0	12.380	2677	2437	38.47	1.116	31.1	94.0
	230.0	12.272	2668	2550	38.60	1.172	32.8	94.5
	230.0	12.156	2656	2657	38.59	1.221	34.3	95.0
	230.0	12.041	2651	2755	38.35	1.258	35.4	95.7
	230.0	11.506	2505	2845	35.26	1.194	35.6	94.7
	230.0	7.043	1331	2922	20.57	0.715	40.1	82.1
	230.0	6.651	1268	2998	20.52	0.732	43.1	82.9
	230.0	6.203	1196	3070	20.42	0.746	46.5	83.9
	230.0	5.742	1117	3134	20.15	0.752	50.2	84.5
	230.0	5.278	1036	3191	19.35	0.735	52.9	85.3
	230.0	4.816	949	3245	18.30	0.707	55.6	85.7
	230.0	4.329	856	3295	17.18	0.674	58.8	85.9
	230.0	3.863	762	3341	15.78	0.628	61.5	85.7
	230.0	3.396	666	3385	13.92	0.561	62.9	85.2
	230.0	2.932	564	3426	12.07	0.492	65.2	83.6
	230.0	2.476	459	3465	9.72	0.401	65.1	80.6
	230.0	2.036	351	3502	7.09	0.296	62.8	75.0
	230.0	1.632	238	3540	3.99	0.168	52.7	63.4
	230.0	1.343	121	3577	0.63	0.027	16.7	39.1
	230.0	1.308	96	3585	0.00	0.000	0.0	32.0

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Performance Data



6K181BG REV. -



Dayton

Curve Descriptions:
 Motor(1) Test 15 Start 230V 60 Hz 2P
 CW 297ufd Run

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

Motor Ratings:
 (1) C055KNT2161 6K181BG

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

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Performance Data



6K181BG	REV. -
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Dayton Manufacturing Company

Motor Description

Model: C055KNT2161 6K181BG
 Motor ID:
 Poles: 2
 Volts: 115/208-230
 Frequency: 60
 HP: 1/3
 Speed: 3450
 Phase: 1
 Protector: MEJ56AL

Test Conditions

Test Type: Run
 Test Number: 12
 Poles: 2
 Volts: 230
 Hz: 60
 Rotation: CW
 Special Cond:
 Speed Conn:
 TestBoard: Amtps Performance Fixture #3
 Run Cap: 0
 Start Cap: 297µfd
 Environment: 20.1 Deg C 35 % RH 986 hPa
 Tested: 12/16/2015 3:19:36 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.30 Oz-Ft
 Windage Torque: -1.72 Oz-Ft

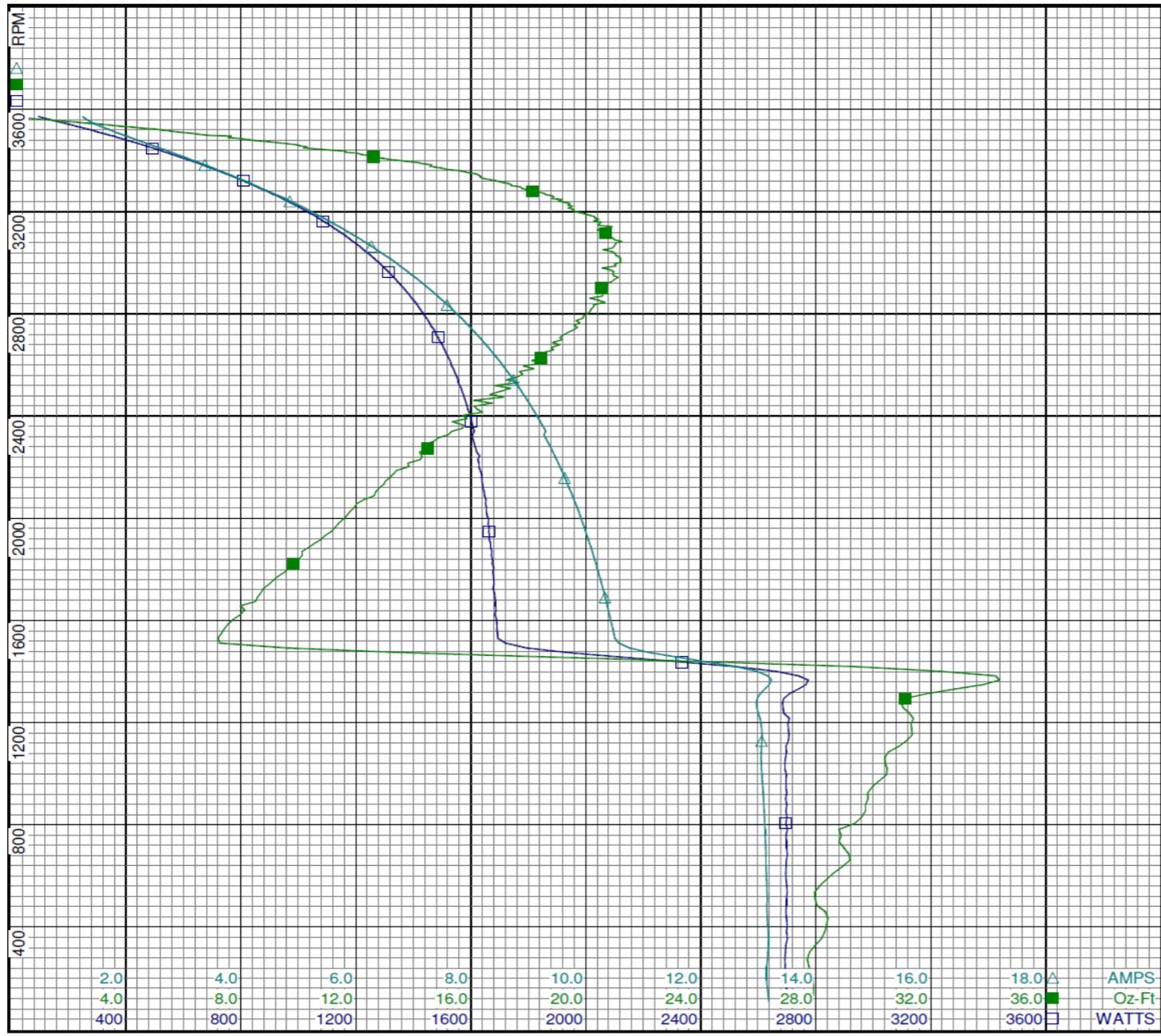
Special Points	Vline (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	230.0	1.246	95	3572	0.00	0.000	0.0	33.1
	230.0	1.594	239	3530	4.21	0.177	55.1	65.3
	230.0	2.071	371	3490	7.56	0.314	63.2	77.9
0.33 HP	230.0	2.126	384	3485	7.95	0.330	64.1	78.6
8.1 OZ-FT	230.0	2.152	391	3483	8.10	0.336	64.1	79.0
9.3 OZ-FT	230.0	2.330	434	3469	9.30	0.384	66.0	81.1
3450 RPM	230.0	2.564	488	3450	10.22	0.420	64.1	82.8
	230.0	2.582	492	3448	10.17	0.418	63.3	82.9
	230.0	3.075	602	3408	12.94	0.525	65.0	85.1
	230.0	3.572	708	3365	15.16	0.607	64.0	86.2
	230.0	4.062	807	3321	16.85	0.666	61.5	86.4
	230.0	4.551	903	3272	18.53	0.722	59.6	86.3
	230.0	5.049	999	3220	19.52	0.748	55.9	86.0
	230.0	5.524	1085	3163	20.27	0.763	52.5	85.4
	230.0	5.999	1166	3102	20.82	0.769	49.2	84.5
BDT OZ-FT	230.0	6.134	1189	3083	21.24	0.780	48.9	84.3
	230.0	6.453	1242	3037	21.00	0.759	45.6	83.7
	230.0	6.902	1313	2964	20.97	0.740	42.0	82.7
	230.0	7.335	1376	2886	20.59	0.707	38.3	81.6
	230.0	7.751	1436	2800	20.05	0.668	34.7	80.5
	230.0	8.150	1485	2708	19.10	0.616	30.9	79.2
	230.0	8.526	1531	2606	18.40	0.571	27.8	78.0
	230.0	8.879	1569	2497	17.03	0.506	24.1	76.8
	230.0	9.209	1603	2377	15.35	0.434	20.2	75.7
	230.0	9.460	1630	2243	14.29	0.382	17.5	74.9
	230.0	9.740	1646	2103	12.68	0.317	14.4	73.5
	230.0	9.997	1662	1947	11.13	0.258	11.6	72.3
	230.0	10.215	1676	1790	9.53	0.203	9.0	71.3
24 OZ-FT	230.0	10.408	1683	1623	7.98	0.154	6.8	70.3
	230.0	12.132	2335	1437	24.55	0.420	13.4	83.7
	230.0	12.975	2685	1257	31.05	0.465	12.9	90.0
	230.0	13.052	2692	1040	30.42	0.377	10.4	89.7
	230.0	13.110	2696	806	29.36	0.282	7.8	89.4
	230.0	13.149	2699	560	28.13	0.188	5.2	89.2
	230.0	13.165	2694	301	27.78	0.099	2.8	89.0

DRAWING NO.	PAGE 7 of 8	REV.
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Performance Data



6K181BG REV. -



Dayton

Curve Descriptions:
 Motor(1) Test 12 Run 230V 60 Hz 2P
 CW 297ufd Run

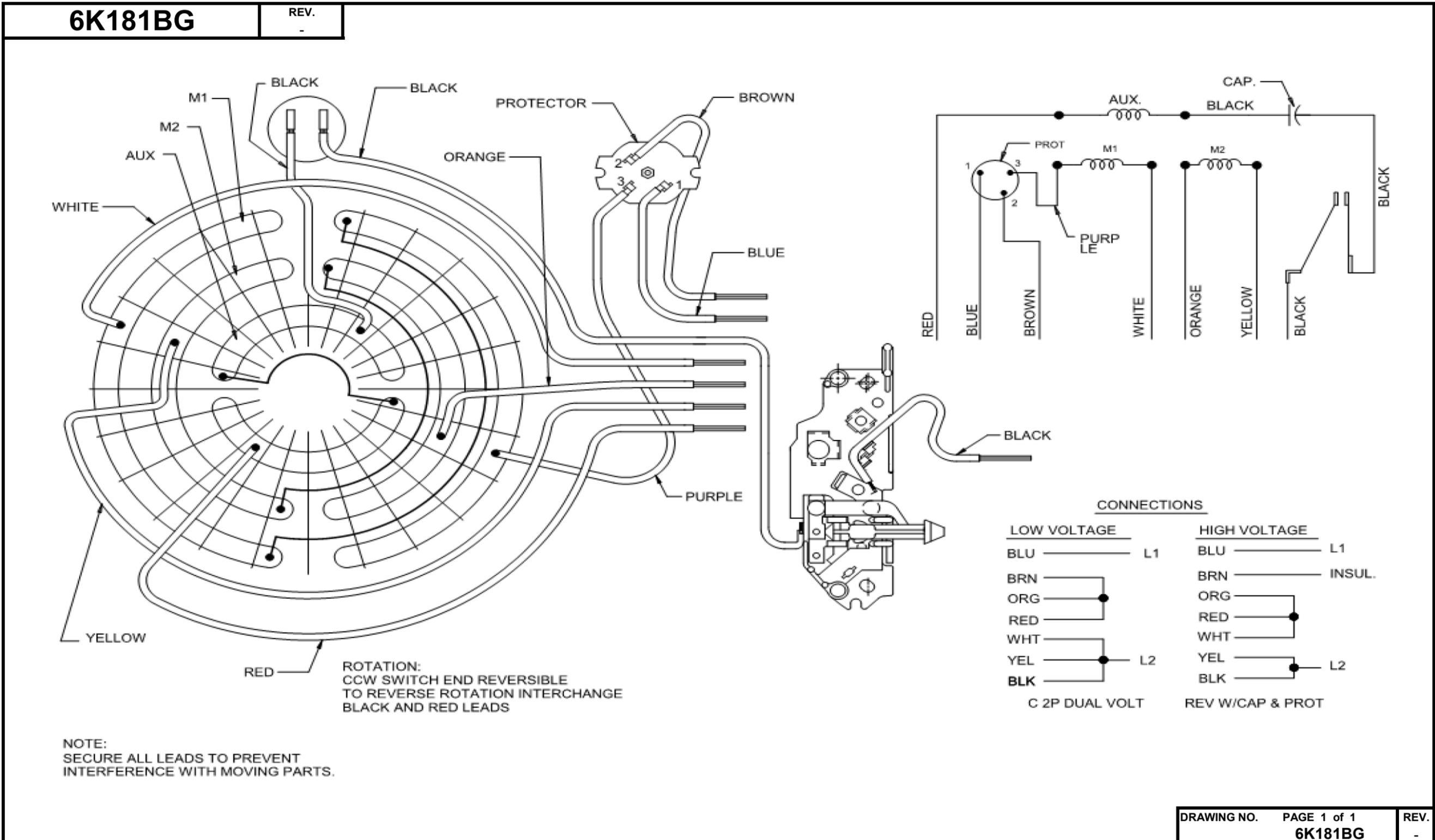
- SPEED vs WATTS
- SPEED vs TORQUE
- △ SPEED vs ILine

Motor Ratings:
 (1) C055KNT2161 6K181BG

DRAWING NO.	PAGE 8 of 8	REV.
	6K181BG	-

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

Wiring Diagram



Dayton[®]**INDUSTRIAL MOTOR****HP: 1/3****VOLTS: 115/208-230****AMPS: 4.7/2.4-2.3****RPM: 3450****DUTY: CONT****SF: 1.0****KVA CODE: L****ENCL: TENV****THERMALLY PROTECTED: AUTO**MFG. NO. PROT. CODE: 04591 **MTR REF: C55JXKNT-2161****SF AT 208V IS 1.0**Part No **6K181BG****PH: 1****HZ: 60****FR: 56C****INS CL: B****AMB: 40 °C****SFA:**AVG. F.L.
EFF.**Disconnect Power Before Making Any
Electrical Connections or Changes**CONNECTIONSLOW VOLTAGEHIGH VOLTAGE

BLU ——— L1

BRN ———

ORG ——— ●

RED ———

WHT ———

YEL ——— ● L2

BLK ———

BLU ——— L1

BRN ——— INSUL.

ORG ———

RED ——— ●

WHT ———

YEL ——— ● L2

BLK ———

ROTATION: CCW SWITCH END REVERSIBLE
TO REVERSE ROTATION INTERCHANGE
BLACK AND RED LEADS

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

Made in Mexico