

Performance Data



3K091BG

REV.
-

SPLIT-PHASE & CAPACITOR START MOTOR PERFORMANCE

HP:	1/4						
Poles:	4						
Ambient (°C):	40						
Altitude (FASL):							
No. of Speeds:	1						
Volts:	115/208-230	115	208	230			
HZ:	60	60	60	60			
Service Factor:	1.35						
Efficiency:	@ Rated Load	57.2	59.5	56.8			
Power Factor:	@ Rated Load	60.9	67.8	60.9			
Amps:	@ No Load						
	@ Rated Load	4.71	2.24	2.37			
	@ Service Factor	5.27	2.67	2.62			
	@ Locked Rotor				27.82		
RPM:	@ Rated Load				1745		
Torques:	Breakdown	33.5	27	33.5			
	Locked Rotor	17.92	f3.64	17.53			
	Pull-Up	17.78	f2.9f	15.55			
	Rated Load	12.17	12.17	12.17			
	Service Factor	16.41	16.64	16.4			
Watts:	Rated Load	330	315.1	332			
KVA Code:	P	P	L	N			
Temperature Rise:	@ Rated Load	32.2	-	26.5			
	@ Service Factor	38.8	NA	26.5			
Thermal Protector:	Trip Temp (°C)	123.1	-	129.7			
Winding Material:	Start (Auxiliary)	Cu	Cu	Cu			
	Run (Main)	Al	Al	Al			
Capacitor(s):	Start (MFD / Volts)				NA		
	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:	BreakDown						
	Locked Rotor						
	Pull-Up						
	Rated Load						
	Service Factor						
Watts:	@ Rated Load						
Temperature Rise:	@ Rated Load						
	@ Service Factor						

DRAWING NO. PAGE 1 of 1 REV.
3K091BG -

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

Performance Data



3K091BG REV.
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Dayton Manufacturing Company

Motor Description

Model: S055PAZ8475
 Motor ID: 1
 Poles: 4
 Volts: 115/208-230
 Frequency: 60
 HP: 1/4
 Speed: 1725
 Phase: 1
 Protector: CEJ69GY

3K091BG

Test Type: Start
 Test Number: 6
 Poles: 4
 Volts: 115
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn:
 TestBoard: Aamps Performance Fixture #4

Test Conditions

Run Cap: 0
 Start Cap: 0µfd
 Environment: 20.6 Deg C 53 % RH 992 hPa
 Tested: 6/22/2015 2:20:57 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.30 Oz-Ft
 Windage Torque: -1.59 Oz-Ft

Special Points	Vline (V)	Iline (A)	Imain (A)	Iaux (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
PUT OZ-FT	115.0	27.82	18.967	9.351	2610	2	17.92	0.000	0.0	81.6
	115.0	27.78	18.952	9.315	2604	10	17.78	0.002	0.1	81.5
	115.0	27.78	18.952	9.315	2604	10	17.78	0.002	0.1	81.5
	115.0	27.70	18.972	9.175	2596	110	19.72	0.026	0.7	81.5
	115.0	27.62	18.985	8.996	2592	251	19.01	0.057	1.6	81.6
	115.0	27.43	18.908	8.804	2579	393	20.14	0.094	2.7	81.8
	115.0	27.20	18.795	8.617	2566	523	22.13	0.138	4.0	82.0
	115.0	26.92	18.621	8.427	2542	640	24.26	0.185	5.4	82.1
	115.0	26.60	18.409	8.274	2527	741	25.70	0.227	6.7	82.6
	115.0	26.26	18.179	8.114	2504	835	27.04	0.269	8.0	82.9
	115.0	25.88	17.909	7.964	2478	921	28.49	0.312	9.4	83.3
	115.0	25.52	17.660	7.828	2452	995	29.69	0.352	10.7	83.5
	115.0	25.13	17.381	7.705	2421	1061	30.53	0.386	11.9	83.7
	115.0	24.69	17.060	7.581	2388	1129	31.33	0.421	13.2	84.1
	115.0	24.22	16.716	7.475	2347	1191	31.84	0.451	14.3	84.3
	115.0	23.67	16.306	7.391	2308	1255	32.06	0.479	15.5	84.8
	115.0	23.16	15.915	7.334	2263	1307	31.97	0.498	16.4	85.0
	115.0	22.67	15.517	7.309	2219	1355	31.57	0.509	17.1	85.1
	115.0	22.19	15.127	7.307	2176	1397	30.87	0.513	17.6	85.3
	115.0	21.59	14.630	7.336	2120	1444	29.63	0.510	17.9	85.4
	115.0	21.05	14.170	7.389	2068	1483	28.15	0.497	17.9	85.4
	115.0	20.57	13.755	7.458	2020	1516	26.51	0.478	17.7	85.4
	115.0	20.06	13.288	7.561	1969	1549	24.38	0.450	17.0	85.4
	115.0	19.57	12.871	7.652	1918	1577	22.49	0.422	16.4	85.2
	115.0	19.03	12.361	7.804	1861	1608	19.64	0.376	15.1	85.0
	115.0	18.59	11.926	7.950	1812	1632	17.03	0.331	13.6	84.7
	115.0	18.20	11.538	8.085	1769	1652	14.73	0.290	12.2	84.5
	115.0	17.72	11.069	8.257	1716	1674	11.49	0.229	10.0	84.2
	115.0	17.33	10.654	8.418	1670	1693	8.69	0.175	7.8	83.8
	115.0	17.01	10.278	8.572	1629	1708	6.02	0.122	5.6	83.3
	115.0	16.59	9.836	8.745	1579	1729	2.32	0.048	2.3	82.7
	115.0	16.32	9.498	8.902	1542	1741	0.00	0.000	0.0	82.2

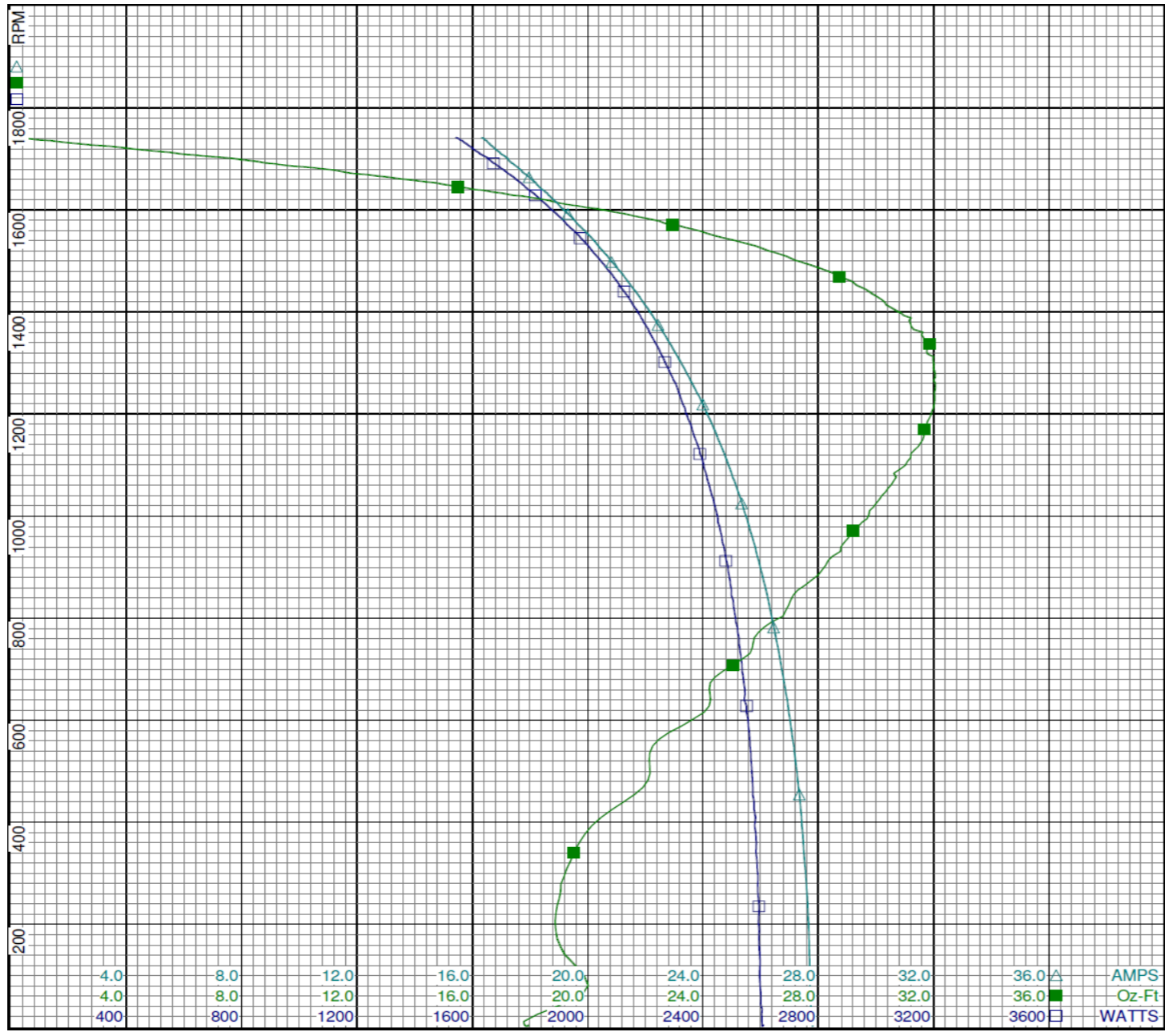
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3K091BG -

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

Performance Data



3K091BG REV. -



Dayton

Curve Descriptions:
Motor(1) Test 6 Start 115V 60 Hz 4P

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

Motor Ratings:
(1) S055PAZ8475 3K091BG

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3K091BG		-

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

Performance Data



3K091BG	REV. -
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Dayton Manufacturing Company

Motor Description

Model: S055PAZ8475 3K091BG
 Motor ID: 1
 Poles: 4
 Volts: 115/208-230
 Frequency: 60
 HP: 1/4
 Speed: 1725
 Phase: 1
 Protector: CEJ69GY

Test Conditions

Test Type: Run Run Cap: 0
 Test Number: 9 Start Cap: 0µfd
 Poles: 4 Environment: 20.6 Deg C 53 % RH 992 hPa
 Volts: 115 Tested: 6/22/2015 2:13:01 PM
 Hz: 60 Tested By: Sharp, Gerald
 Rotation: Gear Ratio: 1:1
 Special Cond: Bearing Friction: -0.17 Oz-Ft
 Speed Conn: Windage Torque: -1.51 Oz-Ft
 TestBoard: Amtps Performance Fixture #4

Special Points	Vline (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	115.0	3.962	98.4	1791	0.00	0.000	0.0	21.6
	115.0	4.017	154.2	1783	2.48	0.053	25.5	33.4
	115.0	4.173	221.5	1769	6.45	0.136	45.7	46.2
	115.0	4.520	295.2	1756	10.36	0.216	54.7	56.8
12.17 OZ-FT	115.0	4.713	330.0	1745	12.17	0.253	57.2	60.9
	115.0	5.189	407.8	1730	15.92	0.328	60.0	68.3
0.338 HP	115.0	5.274	419.9	1728	16.41	0.338	60.0	69.2
	115.0	6.006	522.4	1705	20.87	0.424	60.5	75.6
	115.0	6.654	596.7	1688	23.46	0.471	58.9	78.0
	115.0	7.537	702.0	1657	27.14	0.535	56.9	81.0
	115.0	8.782	834.8	1618	30.49	0.587	52.5	82.7
	115.0	9.634	918.5	1584	32.09	0.605	49.1	82.9
	115.0	10.681	1017.1	1543	33.12	0.608	44.6	82.8
BDT OZ-FT	115.0	11.614	1101.9	1498	33.50	0.597	40.4	82.5
	115.0	11.614	1101.9	1498	33.50	0.597	40.4	82.5
	115.0	12.591	1185.1	1445	32.95	0.567	35.7	81.8
	115.0	13.430	1250.4	1393	31.77	0.527	31.4	81.0
	115.0	14.192	1307.1	1338	30.31	0.483	27.6	80.1
	115.0	14.786	1349.3	1287	28.81	0.442	24.4	79.4
	115.0	15.444	1394.9	1223	26.67	0.388	20.8	78.5
	115.0	16.054	1434.5	1151	24.41	0.335	17.4	77.7
	115.0	16.565	1463.7	1080	22.06	0.284	14.5	76.8
	115.0	16.975	1486.7	1012	19.93	0.240	12.1	76.2
	115.0	17.377	1506.4	933	17.53	0.195	9.6	75.4
	115.0	17.740	1524.3	849	15.07	0.152	7.5	74.7
	115.0	18.028	1537.4	770	12.83	0.118	5.7	74.2
	115.0	18.297	1548.4	680	10.25	0.083	4.0	73.6
	115.0	18.530	1556.8	584	8.02	0.056	2.7	73.1
	115.0	18.716	1563.9	480	6.16	0.035	1.7	72.7
	115.0	18.839	1566.2	379	3.65	0.016	0.8	72.3
	115.0	18.930	1569.6	263	2.35	0.007	0.3	72.1
	115.0	18.966	1570.5	153	0.03	0.000	0.0	72.0

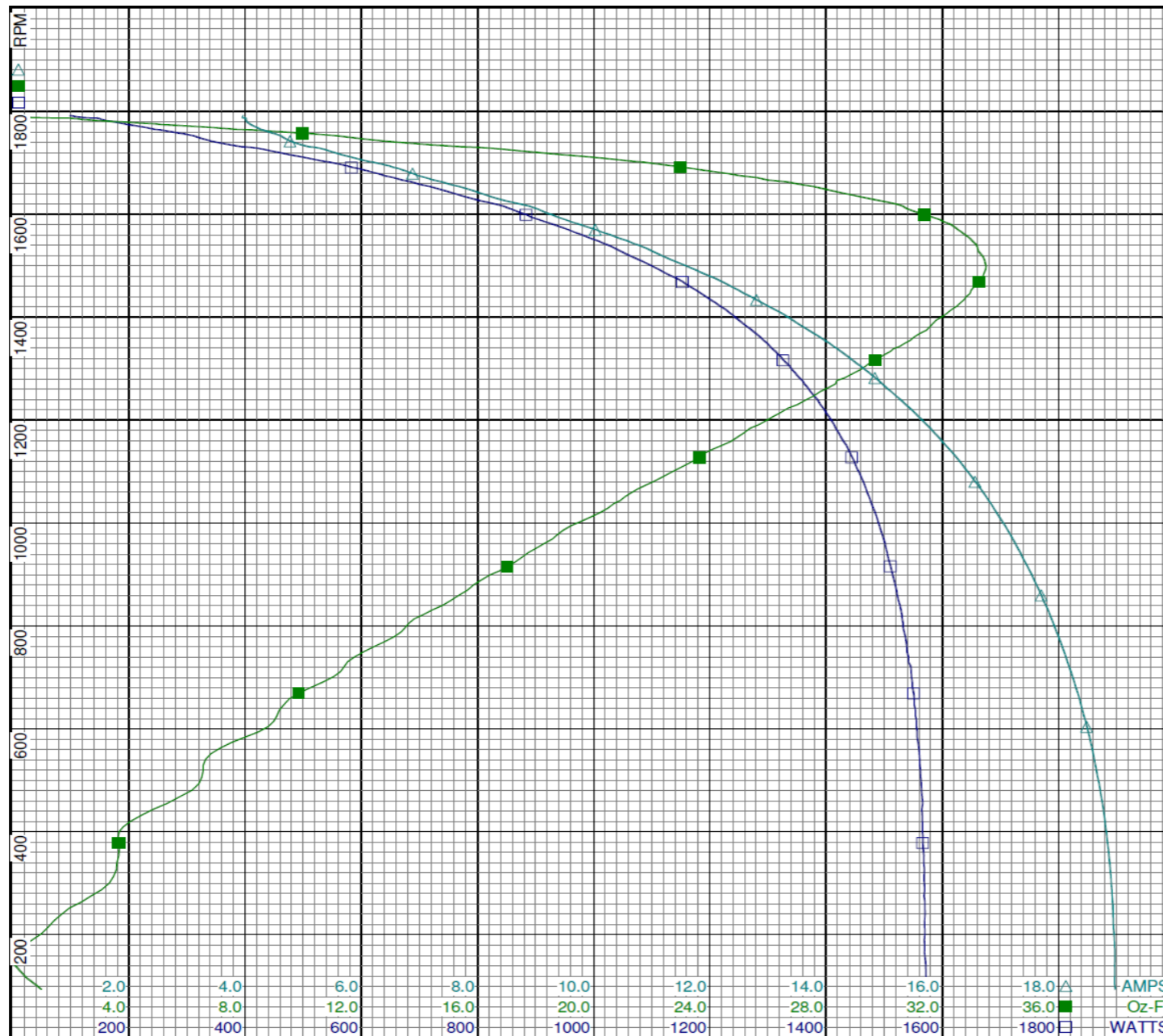
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Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA

Performance Data



3K091BG REV. -



Dayton

Curve Descriptions:
Motor(1) Test 9 Run 115V 60 Hz 4P

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

Motor Ratings:
(1) S055PAZ8475 3K091BG

DRAWING NO.	PAGE 4 of 8	REV.
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Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA

Performance Data



3K091BG REV.
-

Dayton Manufacturing Company

Motor Description

Model: S055PAZ8475
 Motor ID: 1
 Poles: 4
 Volts: 115/208-230
 Frequency: 60
 HP: 1/4
 Speed: 1725
 Phase: 1
 Protector: CEJ69GY

3K091BG

Test Type: Start
 Test Number: 8
 Poles: 4
 Volts: 230
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn:
 TestBoard: Amtps Performance Fixture #4

Test Conditions

Run Cap: 0
 Start Cap: 0µfd
 Environment: 20.7 Deg C 58 % RH 993 hPa
 Tested: 6/22/2015 10:34:56 AM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.18 Oz-Ft
 Windage Torque: -1.54 Oz-Ft

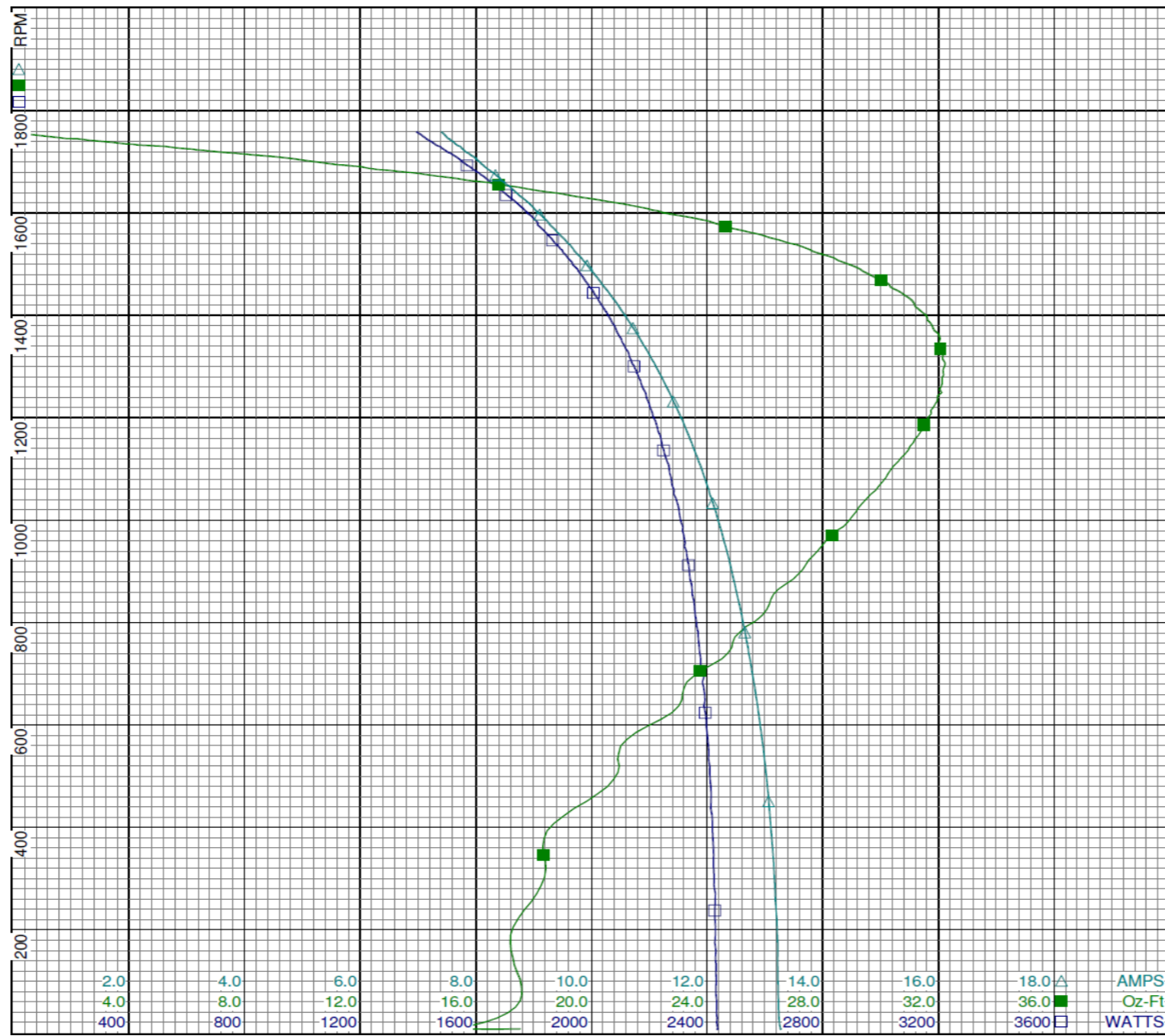
Special Points	Vline (V)	Iline (A)	Imain (A)	Iaux (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	230.0	13.278	6.257	7.960	2436	6	17.53	0.001	0.0	79.8
PUT OZ-FT	230.0	13.264	6.254	7.954	2435	7	15.55	0.001	0.0	79.8
	230.0	13.249	6.250	7.947	2434	14	15.93	0.003	0.1	79.9
	230.0	13.218	6.230	7.822	2430	116	17.44	0.024	0.7	79.9
	230.0	13.181	6.210	7.682	2427	254	17.90	0.054	1.7	80.1
	230.0	13.106	6.141	7.547	2418	393	18.46	0.086	2.7	80.2
	230.0	13.006	6.060	7.407	2408	520	20.95	0.130	4.0	80.5
	230.0	12.871	5.965	7.251	2388	637	23.02	0.175	5.5	80.7
	230.0	12.717	5.852	7.120	2374	740	24.71	0.218	6.8	81.2
	230.0	12.555	5.727	6.997	2355	835	26.14	0.260	8.2	81.6
	230.0	12.378	5.595	6.880	2332	922	27.51	0.302	9.7	81.9
	230.0	12.194	5.454	6.787	2309	997	28.88	0.343	11.1	82.3
	230.0	11.975	5.306	6.680	2276	1075	30.06	0.385	12.6	82.6
	230.0	11.751	5.155	6.594	2244	1144	31.01	0.422	14.0	83.0
	230.0	11.518	5.004	6.525	2210	1207	31.74	0.456	15.4	83.4
	230.0	11.291	4.863	6.481	2175	1261	32.09	0.482	16.5	83.7
	230.0	11.087	4.742	6.450	2139	1306	32.22	0.501	17.5	83.9
	230.0	10.837	4.598	6.448	2102	1354	32.05	0.516	18.3	84.3
	230.0	10.577	4.457	6.460	2057	1400	31.57	0.526	19.1	84.5
	230.0	10.270	4.302	6.503	2004	1448	30.58	0.527	19.6	84.9
	230.0	10.033	4.190	6.557	1959	1482	29.51	0.521	19.8	84.9
	230.0	9.748	4.068	6.647	1906	1520	27.91	0.505	19.8	85.0
	230.0	9.505	3.972	6.744	1859	1551	26.17	0.483	19.4	85.0
	230.0	9.231	3.888	6.871	1809	1584	24.04	0.453	18.7	85.2
	230.0	9.029	3.847	6.967	1769	1605	22.11	0.422	17.8	85.2
	230.0	8.706	3.775	7.147	1699	1639	18.80	0.367	16.1	84.9
	230.0	8.440	3.743	7.328	1644	1663	15.73	0.311	14.1	84.7
	230.0	8.215	3.721	7.491	1592	1684	12.62	0.253	11.9	84.2
	230.0	8.119	3.713	7.559	1568	1693	11.27	0.227	10.8	84.0
	230.0	7.813	3.733	7.788	1499	1720	6.96	0.142	7.1	83.4
	230.0	7.668	3.725	7.931	1461	1732	4.33	0.089	4.6	82.8
	230.0	7.488	3.779	8.067	1419	1749	1.26	0.026	1.4	82.4
	230.0	7.406	3.778	8.154	1395	1758	0.00	0.000	0.0	81.9

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Performance Data



3K091BG REV. -



Dayton

Curve Descriptions:
Motor(1) Test 8 Start 230V 60 Hz 4P

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

Motor Ratings:
(1) S055PAZ8475 3K091BG

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

Performance Data



3K091BG REV.
-

Dayton Manufacturing Company

Motor Description

Model: S055PAZ8475 3K091BG
 Motor ID: 1
 Poles: 4
 Volts: 115/208-230
 Frequency: 60
 HP: 1/4
 Speed: 1725
 Phase: 1
 Protector: CEJ69GY

Test Conditions

Test Type: Run Run Cap: 0
 Test Number: 11 Start Cap: 0µfd
 Poles: 4 Environment: 20.8 Deg C 53 % RH 993 hPa
 Volts: 230 Tested: 6/22/2015 12:29:14 PM
 Hz: 60 Tested By: Sharp, Gerald
 Rotation: Gear Ratio: 1:1
 Special Cond: Bearing Friction: -0.29 Oz-Ft
 Speed Conn: Windage Torque: -1.53 Oz-Ft
 TestBoard: Aamps Performance Fixture #4

Special Points	Vline (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	230.0	1.965	102.4	1793	0.00	0.000	0.0	22.7
	230.0	2.004	131.9	1791	1.06	0.023	12.7	28.6
	230.0	2.049	186.2	1777	4.38	0.093	37.1	39.5
	230.0	2.262	290.8	1756	10.05	0.210	53.9	55.9
12.17 OZ-FT	230.0	2.370	332.0	1747	12.17	0.253	56.8	60.9
	230.0	2.458	365.6	1741	13.89	0.288	58.7	64.7
0.338 HP	230.0	2.624	419.5	1729	16.40	0.338	60.0	69.5
	230.0	2.797	465.7	1719	18.46	0.378	60.5	72.4
	230.0	3.117	546.6	1698	21.68	0.438	59.8	76.2
	230.0	3.492	634.5	1675	24.84	0.495	58.2	79.0
	230.0	4.054	757.4	1642	28.50	0.557	54.9	81.2
	230.0	4.516	857.0	1606	31.03	0.593	51.7	82.5
	230.0	5.104	972.9	1561	32.77	0.609	46.7	82.9
	230.0	5.599	1064.5	1518	33.36	0.603	42.2	82.7
BDT OZ-FT	230.0	5.726	1087.5	1505	33.46	0.600	41.1	82.6
	230.0	6.130	1155.0	1465	33.15	0.578	37.3	81.9
	230.0	6.566	1226.3	1413	32.34	0.544	33.1	81.2
	230.0	6.907	1278.8	1366	31.21	0.508	29.6	80.5
	230.0	7.330	1340.4	1299	29.33	0.454	25.2	79.5
	230.0	7.661	1385.3	1236	27.26	0.401	21.6	78.6
	230.0	7.951	1421.9	1171	25.09	0.350	18.4	77.8
	230.0	8.190	1450.0	1107	22.99	0.303	15.6	77.0
	230.0	8.428	1477.8	1034	20.63	0.254	12.8	76.2
	230.0	8.627	1498.1	961	18.32	0.210	10.4	75.5
	230.0	8.802	1514.6	884	16.04	0.169	8.3	74.8
	230.0	8.969	1529.8	799	13.57	0.129	6.3	74.2
	230.0	9.109	1542.8	711	11.28	0.096	4.6	73.6
	230.0	9.240	1553.3	612	8.87	0.065	3.1	73.1
	230.0	9.315	1550.9	524	6.64	0.041	2.0	72.4
	230.0	9.399	1556.9	411	3.76	0.018	0.9	72.0
	230.0	9.448	1558.8	303	3.00	0.011	0.5	71.7
	230.0	9.476	1559.0	190	0.50	0.001	0.1	71.5

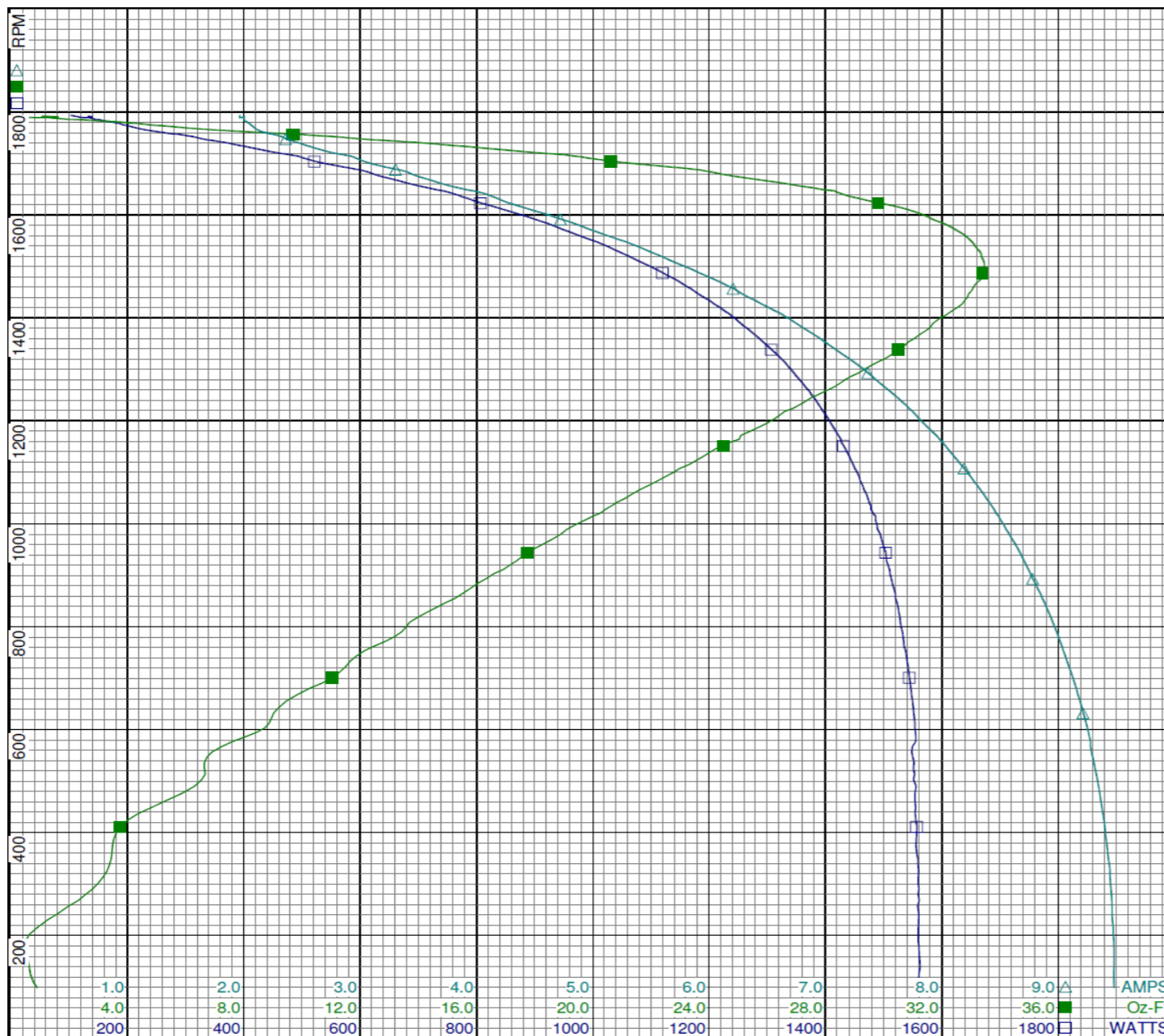
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3K091BG -

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

Performance Data



3K091BG REV. -



Dayton

Curve Descriptions:
Motor(1) Test 11 Run 230V 60 Hz 4P

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

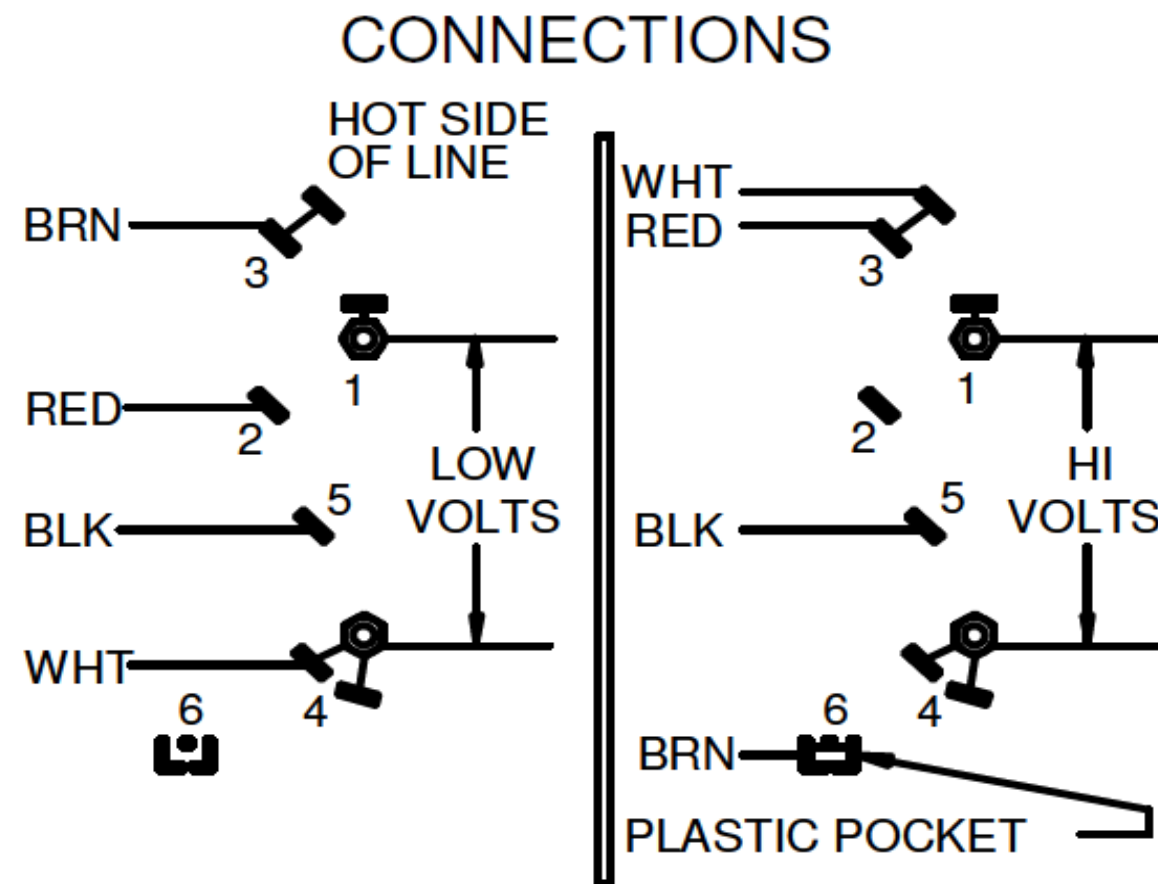
Motor Ratings:
(1) S055PAZ8475 3K091BG

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

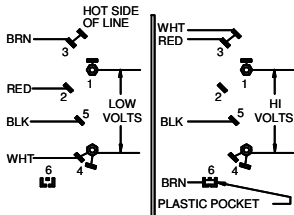
3K091BG

REV.
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ROTATION IS CCW LEAD END
TO REVERSE ROTATION
INTERCHANGE RED & BLK LEADS

DRAWING NO. PAGE 1 of 1 REV.
3K091BG -

Dayton®**BELT DRIVE FAN &
BLOWER MOTOR****HP:** 1/4**VOLTS:** 115/208-230**AMPS:** 4.7/2.3-2.2**RPM:** 1725**DUTY:** CONT**SF:** 1.35**KVA CODE:** P**ENCL:** ODP**THERMALLY PROTECTED:** AUTOMFG. NO. PROT. CODE: 00170**MTR REF:** S55CXP AZ-8475**PH:** 1**HZ:** 60**FR:** 48**INS CL:** B**AMB:** 40 °C**SFA:** 5.2/2.6-2.6AVG. F.L.
EFF.Part
No **3K091BG****Disconnect Power Before Making Any
Electrical Connections or Changes****CONNECTIONS**

ROTATION IS CCW LEAD END
TO REVERSE ROTATION
INTERCHANGE RED & BLK LEADS



E37403



258501

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

Made in Mexico