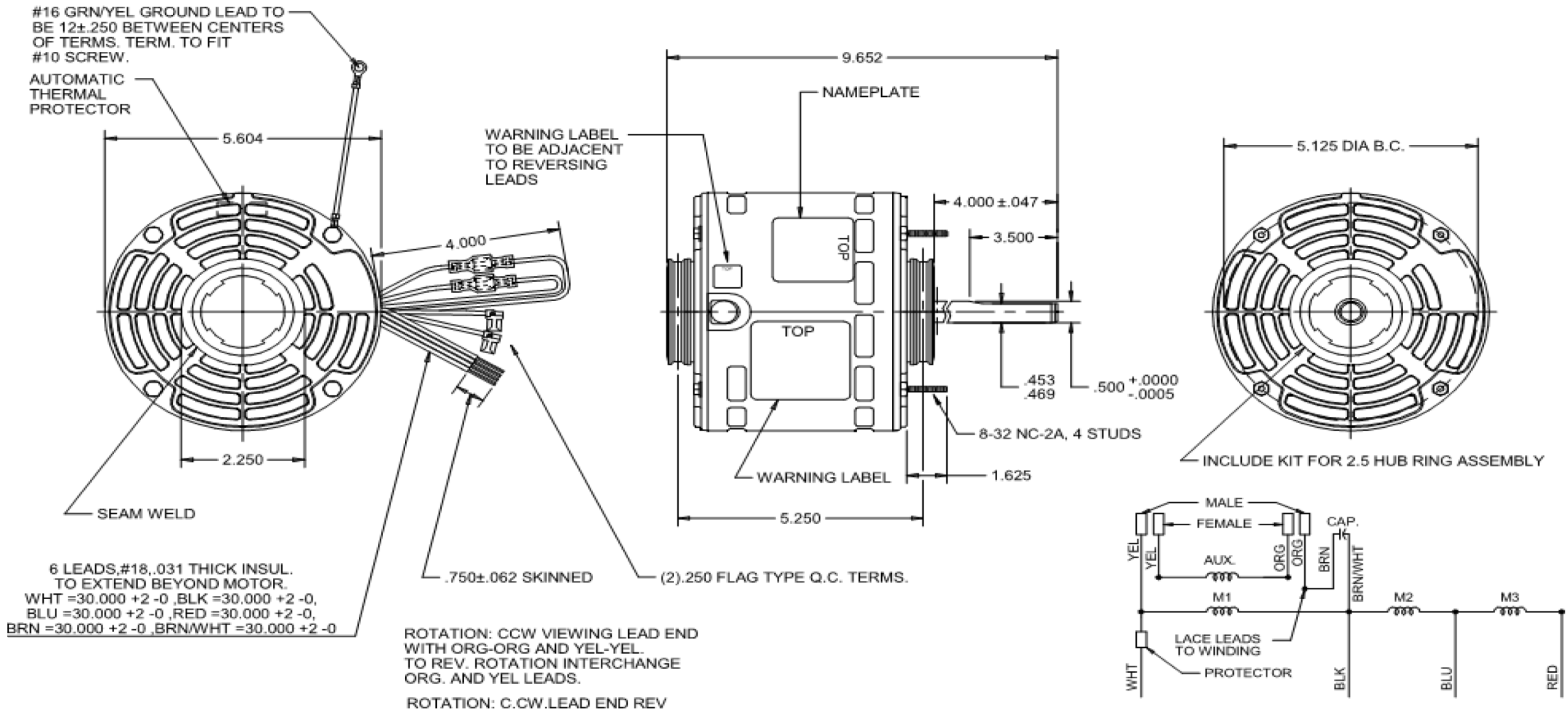


Dimensional Drawing

4M099BH

REV.
-

MODEL	REF	CUSTOMER	HP	VOLTS	AMPS	HZ	RPM	ROTATION	CUSTOMER PN	DESCRIPTION / REMARKS
K55HXNFM-2305		DAYTON	1/3	208-230	2.4	60	1075	C.CW. LEAD END REV	4M099BH	SAB



DRAWING NO.	PAGE 1 of 1	REV.
4M099BH		-

4M099BH

REV.

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SHADED-POLE & PSC MOTOR PERFORMANCE

HP:	1/3							
Poles:	6							
Ambient (°C):	40							
Altitude (FASL):	1000							
No. of Speeds:	3							
HIGH SPEED								
Volts:	208~230	120	208	230	277	460	100	200
HZ:	60	60	60	60	60	60	50	50
Service Factor:	1							
Efficiency:	@ Rated Load		58.8	59.5				
Power Factor:	@ Rated Load		81.5	81.2				
Amps:	@ No Load							
	@ Rated Load		2.6	2.8				
	@ Locked Rotor			5.6				
RPM:	@ Rated Load		1075	1075				
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown		31	38.9				
	Locked Rotor			8.1				
	Pull-Up							
	Rated Load		27.1	32.6				
	Service Factor		1	1				
Watts:	Rated Load		441	523				
Temperature Rise:	@ Rated Load							
Thermal Protector:	Trip Temp (°C)		140~150	140~150				
Winding Material:	Start (Auxiliary)		Al	Al				
	Run (Main)		Cu	Cu				
Capacitor:	Run (MFD / Volts)	5.0 MFD 370V						
	No. of Run Capacitors	1						
MEDIUM-HIGH SPEED								
HP:	1/3							
Volts:	208~230	120	208	230	277	460	100	200
HZ:	60	60	60	60	60	60	50	50
Efficiency:	@ Rated Load							
Power Factor:	@ Rated Load							
Amps:	@ No Load							
	@ Rated Load							
	@ Locked Rotor							
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown		18.5	23.1				
	Locked Rotor							
	Pull-Up							
	Rated Load							
Watts:	Rated Load							
Temperature Rise:	@ Rated Load							

DRAWING NO. PAGE 1 REV.
4M099BH -

Performance Data



4M099BH

REV.

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SHADED-POLE & PSC MOTOR PERFORMANCE

MEDIUM-LOW SPEED

HP:	1/3							
Volts:	208~230	120	208	230	277	460	100	200
HZ:	60	60	60	60	60	60	50	50
Efficiency:	@ Rated Load							
Power Factor:	@ Rated Load							
Amps:	@ No Load							
	@ Rated Load							
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown							
	Locked Rotor							
	Pull-Up							
	Rated Load							
Watts:	Rated Load							
Temperature Rise:	@ Rated Load							
Watts:	Rated Load							
Temperature Rise:	@ Rated Load							
Thermal Protector:	Trip Temp (°C)							
Winding Material:	Start (Auxiliary)							
	Run (Main)							

LOW SPEED

HP:	1/3							
Volts:	208~230	120	208	230	277	460	100	200
HZ:	60	60	60	60	60	60	50	50
Efficiency:	@ Rated Load							
Power Factor:	@ Rated Load							
Amps:	@ No Load							
	@ Rated Load							
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown		14.5	18.3				
	Locked Rotor							
	Pull-Up							
	Rated Load							
Watts:	Rated Load							
Temperature Rise:	@ Rated Load							

Notes:

DRAWING NO. PAGE 1 REV.
4M099BH -

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

Performance Data



4M099BH

REV.
-

Dayton Manufacturing Company

Motor Description

Model: 4M099BH
 Motor ID: 1 OF 1
 Poles: 6
 Volts: 208/230
 Frequency: 60
 HP: 1/3
 Speed: 1075/3SPD
 Phase: 1
 Protector:

Test Conditions

Test Type: Run
 Test Number: 4
 Poles: 6
 Volts: 230
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn: M1
 TestBoard: Amtps Performance Fixture #4
 Run Cap: 5
 Start Cap: 0µfd
 Environment:
 Tested: 3/28/2008 10:13:16 PM
 Tested By: TestBoard, MTC
 Gear Ratio: 1:1
 Bearing Friction: -0.48 Oz-Ft
 Windage Torque: -0.73 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Imain (A)	Iaux (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)	Cap
	230.0	256.2	375.2	1.725	2.158	0.734	136.2	1194	0.00	0.000	0.0	34.3	5.2
	230.0	253.9	370.6	1.711	2.099	0.725	161.1	1187	2.87	0.041	18.8	40.9	5.2
	230.0	250.7	364.7	1.722	2.052	0.713	192.9	1179	6.42	0.090	34.8	48.7	5.2
	230.0	247.5	359.2	1.765	2.042	0.703	223.1	1171	9.51	0.133	44.3	54.9	5.2
	230.0	243.9	352.5	1.847	2.058	0.691	262.6	1161	13.37	0.185	52.5	61.8	5.2
	230.0	240.2	345.9	1.952	2.104	0.678	302.9	1150	16.94	0.232	57.1	67.5	5.2
	230.0	235.7	338.6	2.089	2.190	0.664	346.4	1135	20.51	0.277	59.7	72.1	5.2
	230.0	230.0	331.2	2.245	2.300	0.648	390.5	1122	23.99	0.320	61.2	75.6	5.2
0.333 HP	230.0	227.9	328.6	2.298	2.342	0.643	404.4	1118	25.03	0.333	61.4	76.5	5.2
	230.0	222.8	322.2	2.434	2.455	0.632	438.4	1105	27.46	0.361	61.5	78.3	5.2
	230.0	214.3	312.7	2.651	2.648	0.615	489.1	1088	30.62	0.396	60.5	80.2	5.2
1075 RPM	230.0	208.3	305.9	2.802	2.789	0.602	523.4	1075	32.60	0.417	59.5	81.2	5.2
	230.0	205.1	302.7	2.881	2.865	0.597	540.3	1068	33.43	0.425	58.7	81.5	5.2
	230.0	194.8	292.6	3.133	3.112	0.578	592.2	1047	35.69	0.445	56.0	82.2	5.2
	230.0	182.8	281.6	3.422	3.408	0.560	649.0	1020	37.58	0.456	52.4	82.5	5.3
	230.0	170.5	271.7	3.712	3.712	0.543	702.4	992	38.50	0.455	48.3	82.3	5.3
BDT OZ-FT	230.0	160.8	264.9	3.937	3.953	0.531	741.0	967	38.87	0.448	45.1	81.8	5.3
	230.0	158.0	263.0	3.999	4.019	0.528	751.2	960	38.79	0.443	44.0	81.7	5.3
	230.0	145.8	255.6	4.269	4.312	0.515	794.2	925	38.18	0.421	39.5	80.9	5.3
	230.0	134.5	249.7	4.513	4.580	0.505	830.5	889	36.88	0.390	35.0	80.0	5.4
	230.0	123.6	245.4	4.739	4.829	0.498	861.5	848	35.36	0.357	30.9	79.0	5.4
	230.0	113.9	242.5	4.934	5.046	0.492	885.6	808	33.40	0.321	27.1	78.0	5.4
	230.0	105.4	240.6	5.104	5.235	0.488	905.8	768	31.42	0.287	23.6	77.2	5.4
	230.0	97.5	239.6	5.257	5.408	0.486	921.6	725	29.23	0.252	20.4	76.2	5.4
	230.0	90.2	239.0	5.392	5.562	0.484	935.8	679	26.88	0.217	17.3	75.5	5.4
	230.0	83.3	238.8	5.510	5.696	0.483	945.1	631	24.51	0.184	14.5	74.6	5.4
	230.0	76.9	239.2	5.613	5.816	0.482	955.4	581	22.11	0.153	11.9	74.0	5.3
	230.0	70.4	239.6	5.709	5.927	0.482	961.1	527	19.46	0.122	9.5	73.2	5.3
	230.0	64.6	240.5	5.786	6.019	0.481	966.1	470	17.07	0.096	7.4	72.6	5.3
	230.0	59.1	241.9	5.849	6.094	0.481	968.1	413	15.57	0.077	5.9	72.0	5.3
	230.0	55.1	244.1	5.894	6.152	0.484	972.5	354	14.20	0.060	4.6	71.7	5.3
	230.0	52.0	247.4	5.941	6.210	0.489	976.6	291	13.21	0.046	3.5	71.5	5.2
	230.0	50.2	249.2	5.974	6.253	0.496	981.0	218	10.95	0.028	2.2	71.4	5.3
	230.0	48.3	251.9	6.006	6.295	0.502	982.6	143	8.74	0.015	1.1	71.1	5.3

DRAWING NO. PAGE 1 of 6 REV.
4M099BH -

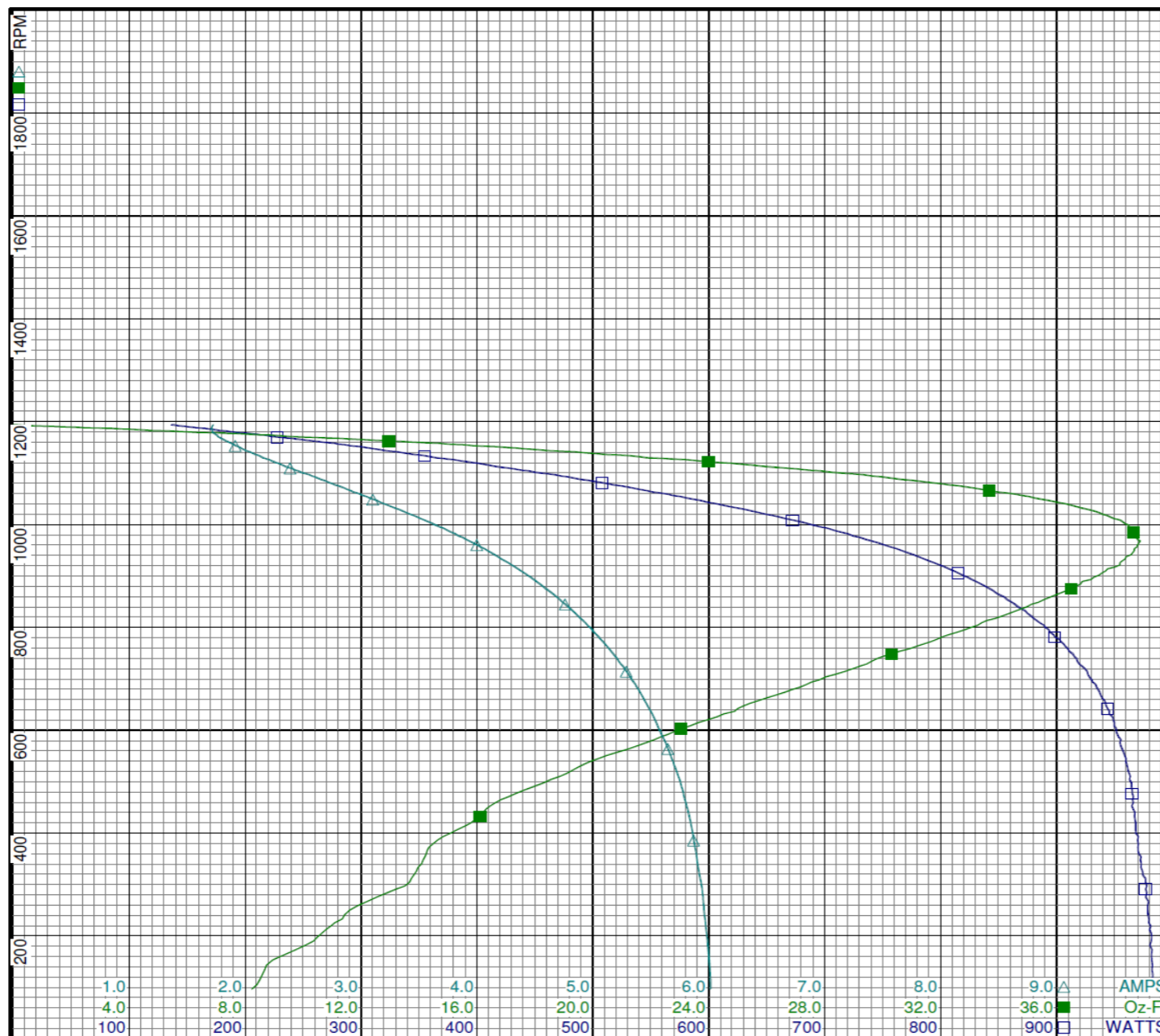
Performance Data



4M099BH

REV.

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Curve Descriptions:

Motor(1) Test 4 Run 230V 60 Hz 6P
M1 5ufd Run

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

Motor Ratings:
4M099BH

(1) K055NFM0910 ID: 1 OF 1

DRAWING NO.	PAGE 2 of 6	REV.
4M099BH		-

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

Performance Data



4M099BH	REV. -
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Dayton Manufacturing Company

Motor Description

Model: 4M099BH
 Motor ID: 1 OF 1
 Poles: 6
 Volts: 208/230
 Frequency: 60
 HP: 1/3
 Speed: 1075/3SPD
 Phase: 1
 Protector:

Test Conditions

Test Type: Run
 Test Number: 8
 Poles: 6
 Volts: 230
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn: M2
 TestBoard: Amtps Performance Fixture #4
 Run Cap: 5
 Start Cap: 0µfd
 Environment:
 Tested: 3/28/2008 10:23:46 PM
 Tested By: TestBoard, MTC
 Gear Ratio: 1:1
 Bearing Friction: -0.45 Oz-Ft
 Windage Torque: -0.65 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Imain (A)	Iaux (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)	Cap
	230.0	206.3	306.2	0.838	1.215	0.602	74.5	1192	0.00	0.000	0.0	38.6	5.2
	230.0	203.9	299.5	0.857	1.173	0.591	96.9	1185	2.43	0.034	26.4	49.1	5.2
	230.0	200.9	290.9	0.912	1.154	0.576	124.6	1174	5.29	0.074	44.3	59.4	5.2
	230.0	198.5	283.5	0.988	1.176	0.561	149.3	1164	7.54	0.105	52.3	65.7	5.3
	230.0	195.9	275.2	1.093	1.219	0.544	179.8	1153	10.14	0.139	57.8	71.6	5.2
	230.0	191.8	266.6	1.219	1.296	0.528	212.1	1140	12.70	0.172	60.6	75.7	5.2
	230.0	187.0	257.8	1.350	1.388	0.511	244.5	1126	15.09	0.202	61.7	78.7	5.3
	230.0	181.1	248.8	1.495	1.509	0.495	277.8	1110	17.21	0.228	61.1	80.8	5.3
	230.0	174.6	239.8	1.646	1.646	0.479	310.0	1093	19.05	0.248	59.7	81.9	5.3
1075 RPM	230.0	168.1	231.1	1.796	1.790	0.464	341.6	1075	20.54	0.263	57.4	82.7	5.3
	230.0	167.9	230.8	1.802	1.796	0.464	342.9	1074	20.60	0.263	57.3	82.7	5.3
	230.0	160.3	221.7	1.966	1.961	0.449	374.9	1052	21.81	0.273	54.4	82.9	5.4
	230.0	152.8	213.5	2.129	2.130	0.435	405.6	1030	22.66	0.278	51.1	82.8	5.4
	230.0	145.1	206.1	2.285	2.297	0.421	433.3	1004	23.04	0.275	47.4	82.5	5.4
BDT OZ-FT	230.0	139.8	201.6	2.386	2.407	0.413	449.7	985	23.10	0.271	45.0	81.9	5.4
	230.0	137.5	199.5	2.435	2.461	0.409	458.4	976	23.08	0.268	43.7	81.9	5.4
	230.0	130.0	194.0	2.576	2.617	0.399	480.8	947	22.74	0.256	39.8	81.2	5.5
	230.0	122.5	189.3	2.711	2.768	0.391	501.0	916	22.22	0.242	36.1	80.3	5.5
	230.0	115.4	185.6	2.834	2.907	0.384	518.5	883	21.38	0.225	32.3	79.5	5.5
	230.0	108.8	183.0	2.947	3.036	0.378	533.6	848	20.37	0.206	28.7	78.7	5.5
	230.0	102.4	181.1	3.052	3.157	0.375	546.6	811	19.31	0.186	25.4	77.9	5.5
	230.0	96.5	179.9	3.146	3.266	0.372	557.7	772	18.13	0.167	22.3	77.1	5.5
	230.0	90.7	179.2	3.233	3.368	0.370	567.3	731	16.81	0.146	19.2	76.3	5.5
	230.0	85.1	179.1	3.312	3.460	0.369	574.6	687	15.40	0.126	16.3	75.4	5.5
	230.0	80.0	179.4	3.383	3.545	0.369	581.8	639	13.93	0.106	13.6	74.8	5.5
	230.0	74.8	179.6	3.448	3.622	0.367	586.4	590	12.49	0.088	11.2	74.0	5.4
	230.0	70.2	180.7	3.505	3.692	0.369	590.6	537	10.89	0.070	8.8	73.3	5.4
	230.0	65.5	181.5	3.551	3.750	0.368	592.4	480	9.28	0.053	6.7	72.5	5.4
	230.0	60.8	182.7	3.586	3.795	0.367	593.4	423	8.37	0.042	5.3	72.0	5.3
	230.0	56.6	184.6	3.609	3.827	0.369	595.2	363	8.18	0.035	4.4	71.7	5.3
	230.0	51.8	187.8	3.634	3.860	0.374	598.6	298	7.59	0.027	3.4	71.6	5.3
	230.0	49.5	189.4	3.658	3.891	0.379	601.5	231	6.62	0.018	2.3	71.5	5.3
	230.0	45.4	192.1	3.681	3.923	0.384	604.1	152	5.55	0.010	1.2	71.4	5.3

DRAWING NO.	PAGE 3 of 6	REV.
4M099BH		-

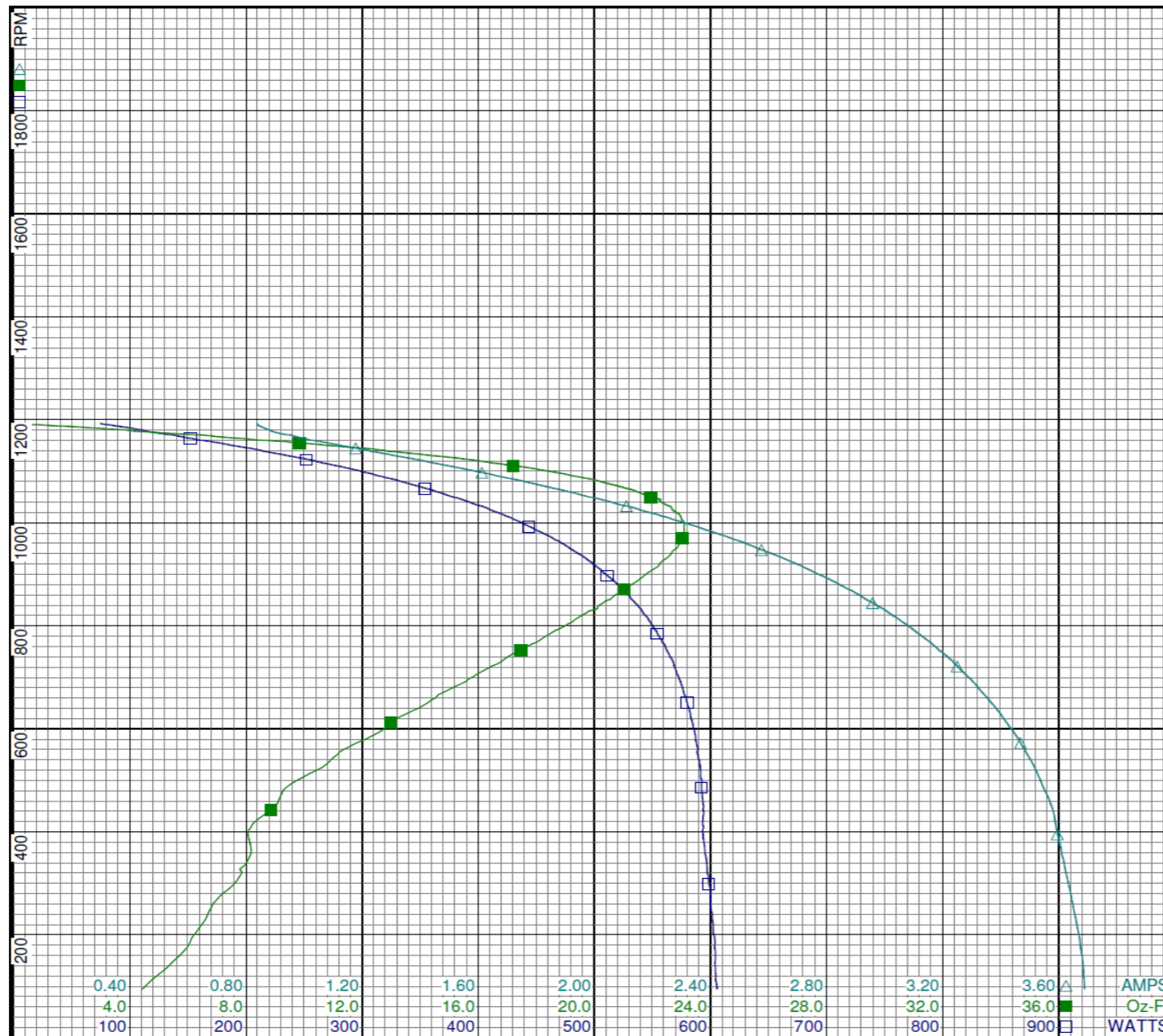
Performance Data



4M099BH

REV.

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Curve Descriptions:

Motor(1) Test 8 Run 230V 60 Hz 6P
M2 5ufd Run

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

Motor Ratings:

4M099BH

(1) K055NFM0910 ID: 1 OF 1

DRAWING NO.	PAGE 4 of 6	REV.
4M099BH		-

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

Performance Data



4M099BH	REV. -
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Dayton Manufacturing Company

Motor Description

Model: 4M099BH
 Motor ID: 1 OF 1
 Poles: 6
 Volts: 208/230
 Frequency: 60
 HP: 1/3
 Speed: 1075/3SPD
 Phase: 1
 Protector:

Test Conditions

Test Type: Run
 Test Number: 12
 Poles: 6
 Volts: 230
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn: M3
 TestBoard: Amtps Performance Fixture #4
 Run Cap: 5
 Start Cap: 0µfd
 Environment:
 Tested: 3/28/2008 10:29:02 PM
 Tested By: TestBoard, MTC
 Gear Ratio: 1:1
 Bearing Friction: -0.37 Oz-Ft
 Windage Torque: -0.65 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Imain (A)	Iaux (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)	Cap
	230.0	187.4	276.2	0.633	0.981	0.547	57.7	1192	0.000	0.000	0.0	39.6	5.2
	230.0	185.2	268.5	0.657	0.944	0.533	77.4	1184	2.130	0.030	28.9	51.3	5.3
	230.0	183.5	260.8	0.706	0.935	0.519	97.7	1174	4.143	0.058	44.2	60.2	5.3
	230.0	182.1	251.2	0.793	0.956	0.499	123.7	1163	6.494	0.090	54.2	67.8	5.3
	230.0	180.5	243.3	0.883	0.994	0.482	148.3	1151	8.522	0.117	58.7	73.0	5.3
	230.0	177.5	235.4	0.988	1.058	0.467	173.8	1137	10.463	0.142	60.8	76.5	5.3
	230.0	173.6	226.6	1.104	1.139	0.452	201.7	1124	12.451	0.167	61.6	79.4	5.3
	230.0	169.2	218.2	1.221	1.237	0.437	228.1	1108	14.100	0.186	60.8	81.2	5.3
	230.0	164.2	210.0	1.342	1.348	0.423	253.3	1089	15.454	0.200	59.0	82.1	5.3
1075 RPM	230.0	160.1	203.8	1.439	1.442	0.412	272.9	1075	16.334	0.209	57.1	82.5	5.4
	230.0	159.0	202.0	1.466	1.467	0.409	278.6	1071	16.579	0.211	56.6	82.6	5.4
	230.0	153.4	194.5	1.589	1.592	0.395	302.2	1050	17.412	0.218	53.7	82.7	5.4
	230.0	147.7	187.1	1.716	1.726	0.382	325.6	1028	17.949	0.220	50.3	82.5	5.4
	230.0	141.8	180.8	1.835	1.854	0.371	346.4	1004	18.205	0.217	46.8	82.1	5.4
BDT OZ-FT	230.0	138.5	177.6	1.901	1.926	0.365	357.6	988	18.273	0.215	44.8	81.8	5.5
	230.0	136.1	175.2	1.951	1.981	0.361	365.5	977	18.207	0.212	43.2	81.5	5.5
	230.0	130.3	170.3	2.062	2.105	0.353	383.4	949	17.958	0.203	39.5	80.9	5.5
	230.0	124.7	166.5	2.165	2.222	0.346	398.8	919	17.543	0.192	35.9	80.1	5.5
	230.0	119.1	163.3	2.264	2.334	0.339	412.7	886	16.847	0.178	32.1	79.3	5.5
	230.0	114.0	161.0	2.351	2.435	0.335	423.6	853	16.065	0.163	28.7	78.3	5.5
	230.0	109.0	159.3	2.432	2.531	0.332	434.1	817	15.266	0.148	25.5	77.6	5.5
	230.0	104.2	158.4	2.507	2.619	0.329	442.5	779	14.306	0.133	22.4	76.7	5.5
	230.0	99.5	157.9	2.578	2.703	0.328	449.8	737	13.230	0.116	19.3	75.8	5.5
	230.0	95.0	157.9	2.642	2.780	0.327	456.0	694	12.056	0.100	16.3	75.0	5.5
	230.0	91.0	158.2	2.699	2.849	0.328	461.1	646	10.873	0.084	13.5	74.3	5.5
	230.0	87.1	158.8	2.752	2.913	0.327	465.6	598	9.633	0.069	11.0	73.6	5.5
	230.0	83.3	159.6	2.797	2.969	0.328	468.4	546	8.537	0.056	8.8	72.8	5.4
	230.0	79.7	160.4	2.835	3.018	0.327	470.3	491	7.409	0.043	6.9	72.1	5.4
	230.0	75.8	161.7	2.862	3.055	0.325	469.8	432	6.330	0.033	5.2	71.4	5.3
	230.0	72.8	163.0	2.879	3.079	0.327	471.5	372	6.264	0.028	4.4	71.2	5.3
	230.0	69.0	166.1	2.899	3.106	0.331	474.5	309	6.135	0.023	3.5	71.2	5.3
	230.0	66.9	167.6	2.921	3.134	0.336	476.9	239	5.293	0.015	2.4	71.0	5.3
	230.0	63.4	170.1	2.938	3.160	0.341	477.8	160	3.768	0.007	1.1	70.7	5.3

DRAWING NO.	PAGE 5 of 6	REV.
4M099BH		-

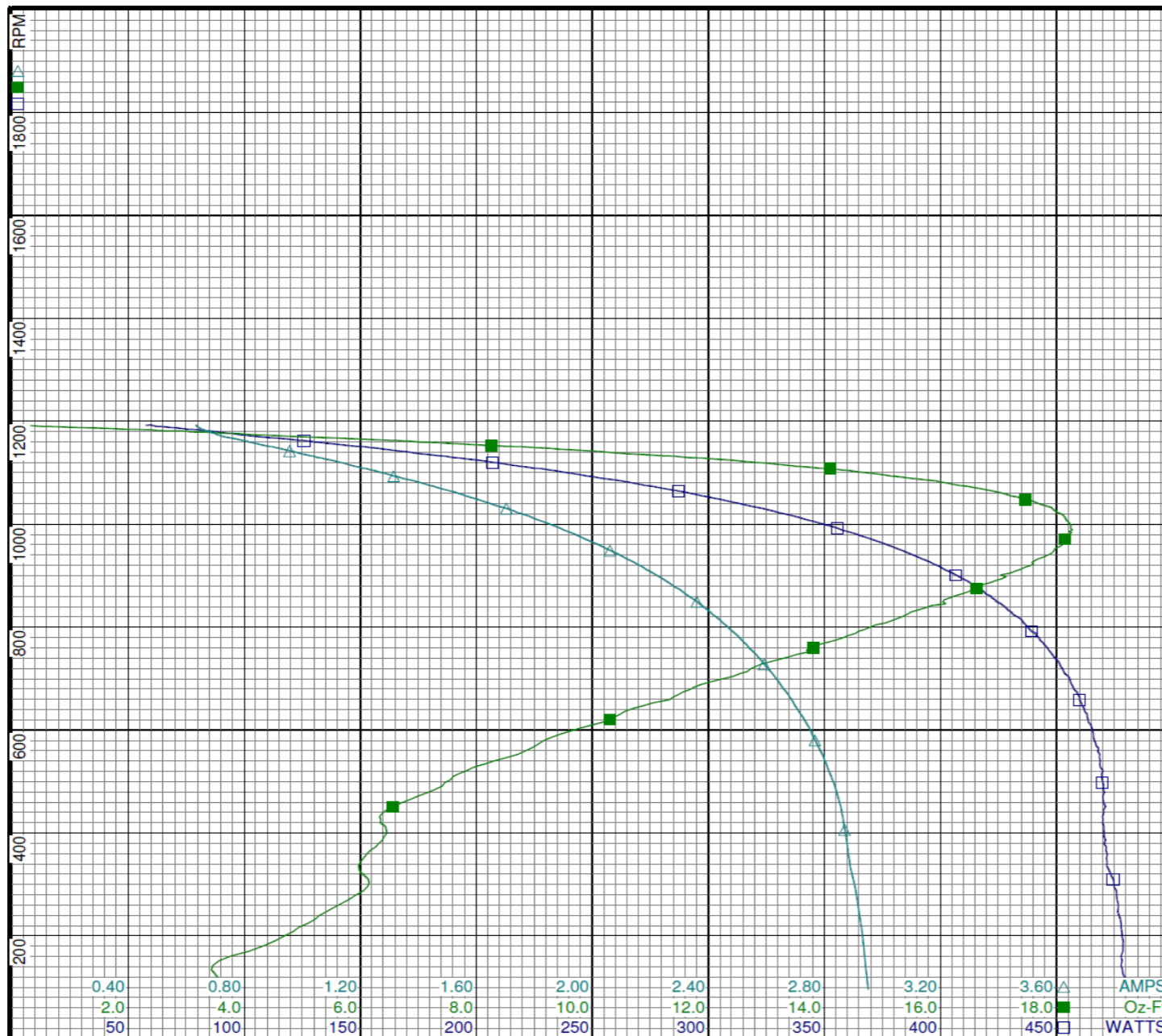
Performance Data



4M099BH

REV.

-



Curve Descriptions:

Motor(1) Test 12 Run 230V 60 Hz 6P
M3 5ufd Run

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

Motor Ratings:

4M099BH

(1) K055NFM0910 ID: 1 OF 1

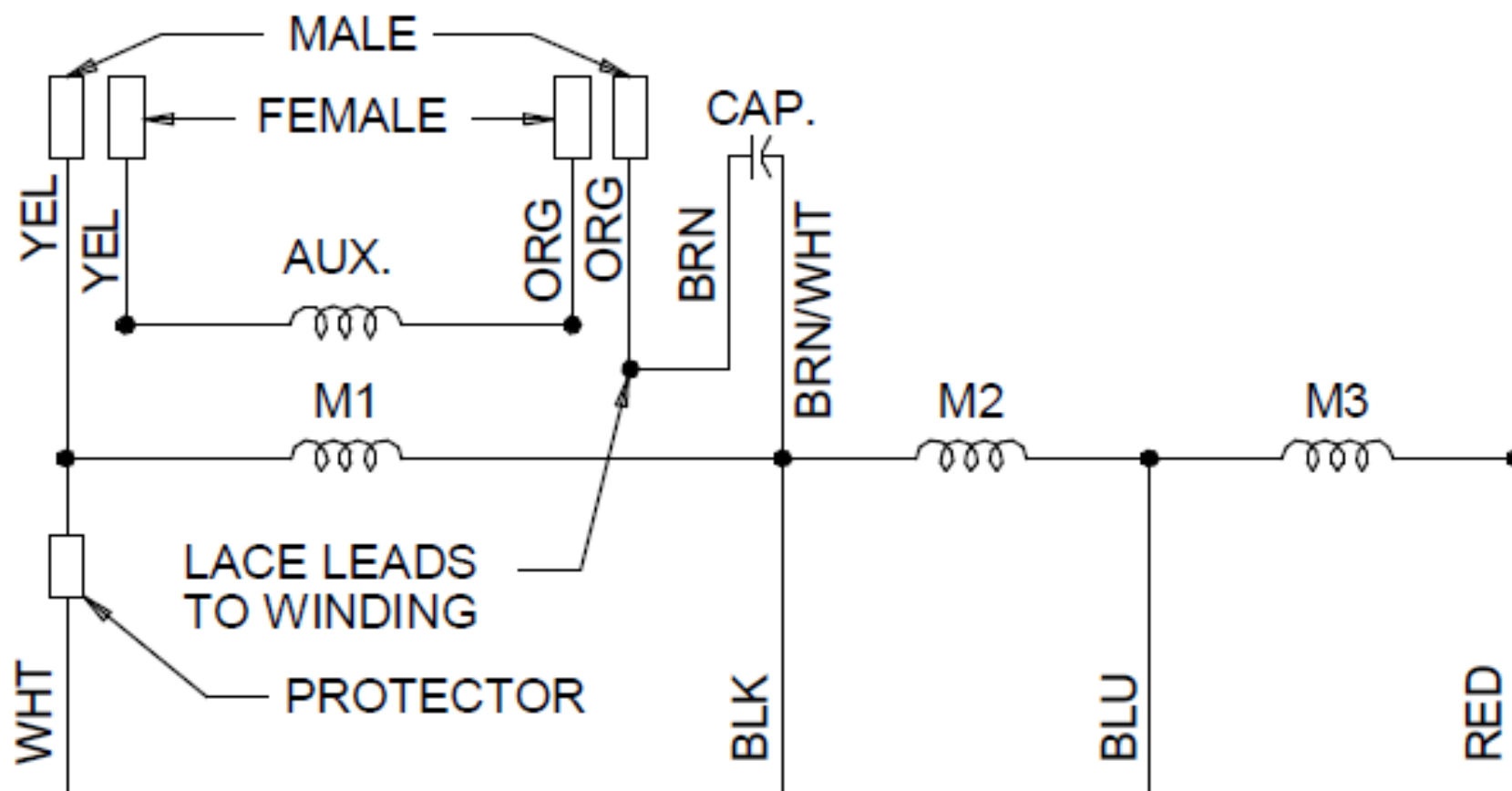
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4M099BH		-

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Wiring Diagram



4M099BH	REV. -
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ROTATION: CCW VIEWING LEAD END
WITH ORG-ORG AND YEL-YEL.
TO REV. ROTATION INTERCHANGE
ORG. AND YEL LEADS.

DRAWING NO.	PAGE 1 of 1	REV.
4M099BH		-

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Dayton[®]

DIRECT DRIVE BLOWER MOTOR

Part No
4M099BH

BAR CODE

Disconnect Power Before Making Any
Electrical Connections or Changes



HP: 1/3

VOLTS: 208-230

AMPS: 2.4

RPM: 1075 / 3SPD

DUTY: CONT

ENCL: OAO

THERMALLY PROTECTED: AUTO

MFG. NO. PROT. CODE : 7A010 AVG.F.L

MTR REF: K55HXNFM-2305

PH: 1

HZ: 60

FR: 48YZ

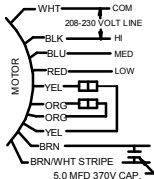
INS CL: B

AMB: 40 °C

SF: 1.0

EFF.

TO REVERSE ROTATION
INTERCHANGE ORG AND YEL LEADS



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

Made in China