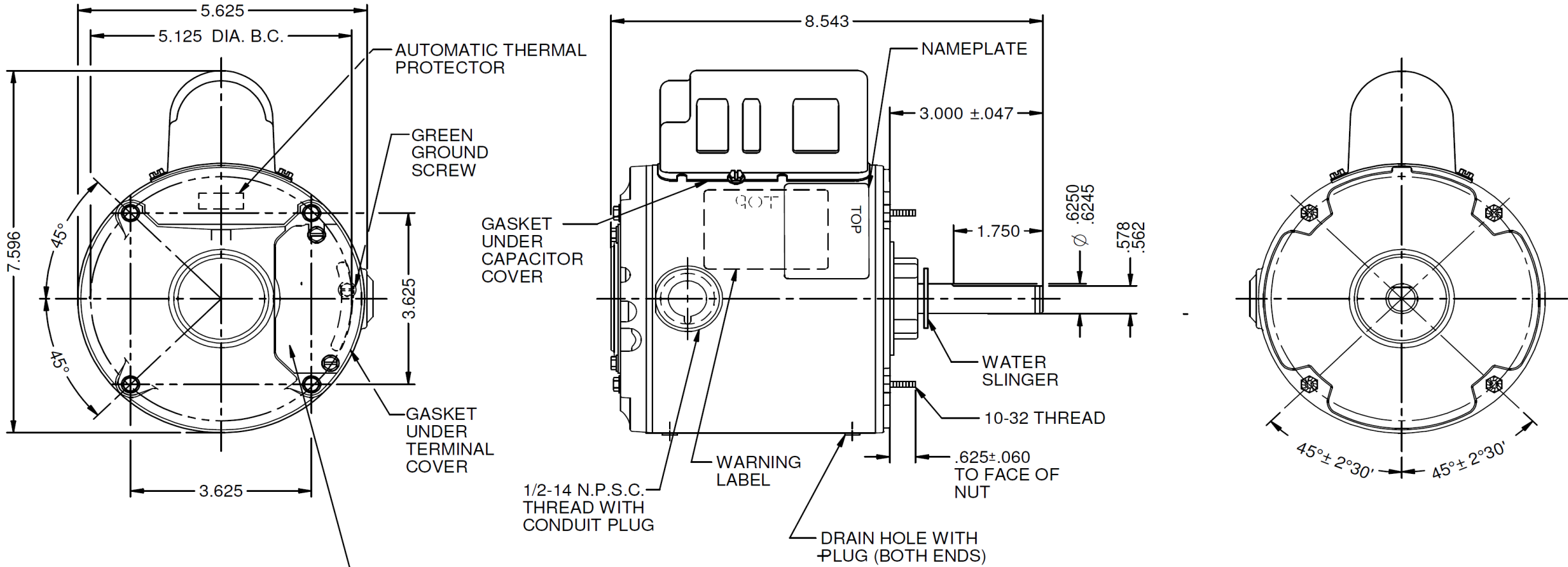


# Dimensional Drawing



**22YH31A**      REV. -

MODEL	REF	CUSTOMER	HP	VOLTS	AMPS	HZ	RPM	ROTATION	CUSTOMER PN	DESCRIPTION / REMARKS
K55HXMDB-2823		GRAINGER	1/8	115	1.9	60	1625	C.C.W. LEAD END	22YH31A	48Y, TEAO, BALL BEARING.



**NOTES:**

1.) SHAFT, STATOR BOLTS, NUTS AND ATTACHING SCREWS TO BE STAINLESS STEEL.

2.) ELECTROLESS NICKEL PLATE BRG, CAPS.

2 LEADS, #18, .031 THICK INSUL. TO EXTEND BEYOND MOTOR: BLK=6.000 +2 -0, WHT=6.000 +2 -0, LEADS TO BE SKINNED .500±.062 AND COILED INTO INTERNAL CONN.BOX.

**CONNECTIONS**

WHITE - COMMON  
BLACK - HIGH

ROTATION IS CCW LEAD END  
NON - REVERSIBLE

CAPACITOR 5.0 MFD 440 VAC

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**22YH31A**

REV.

-

**SHADED-POLE & PSC MOTOR PERFORMANCE**

<b>HP:</b>	1/8								
<b>Poles:</b>	4								
<b>Ambient (°C):</b>	40								
<b>Altitude (FASL):</b>									
<b>No. of Speeds:</b>	1								
<b>HIGH SPEED</b>									
<b>Volts:</b>	115	<b>115</b>							
<b>HZ:</b>	60	<b>60</b>							
<b>Service Factor:</b>	1								
<b>Efficiency:</b>	@ Rated Load	47.8							
<b>Power Factor:</b>	@ Rated Load	86.2							
<b>Amps:</b>	@ No Load	0.972							
	@ Rated Load	1.971							
	@ Locked Rotor	4.179							
<b>RPM:</b>	@ Rated Load	1591							
<b>Torques:</b> Oz.Ft. / Lb.In. (Circle One)	Breakdown	8.89							
	Locked Rotor	1.603							
	Pull-Up								
	Rated Load	6.6							
	Service Factor	6.6							
<b>Watts:</b>	Rated Load	195.3							
<b>Temperature Rise:</b>	@ Rated Load	65.4							
<b>Thermal Protector:</b>	Trip Temp (°C)	177.1							
<b>Winding Material:</b>	Start (Auxiliary)							Cu	
	Run (Main)							Cu	
<b>Capacitor:</b>	Run (MFD / Volts)							5 uf / 440 V	
	No. of Run Capacitors							1	
<b>MEDIUM-HIGH SPEED</b>									
<b>HP:</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								
	@ Locked Rotor								
<b>Torques:</b> Oz.Ft. / Lb.In. (Circle One)	Breakdown								
	Locked Rotor								
	Pull-Up								
	Rated Load								
<b>Watts:</b>	Rated Load								
<b>Temperature Rise:</b>	@ Rated Load								

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**22YH31A**

REV.

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## SHADED-POLE & PSC MOTOR PERFORMANCE

### MEDIUM-LOW SPEED

<b>HP:</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							
<b>Torques:</b> Oz.Ft. / Lb.In. (Circle One)	Breakdown							
	Locked Rotor							
	Pull-Up							
	Rated Load							
<b>Watts:</b>	Rated Load							
<b>Temperature Rise:</b>	@ Rated Load							
<b>Watts:</b>	Rated Load							
<b>Temperature Rise:</b>	@ Rated Load							
<b>Thermal Protector:</b>	Trip Temp (°C)							
<b>Winding Material:</b>	Start (Auxiliary)							
	Run (Main)							

### LOW SPEED

<b>HP:</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							
<b>Torques:</b> Oz.Ft. / Lb.In. (Circle One)	Breakdown							
	Locked Rotor							
	Pull-Up							
	Rated Load							
<b>Watts:</b>	Rated Load							
<b>Temperature Rise:</b>	@ Rated Load							

Notes:

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# Performance Data



22YH31A

REV.  
-

## Dayton Manufacturing Company

### Motor Description

Model: K055HXMDB282302  
 Motor ID: #1  
 Poles: 4  
 Volts: 115  
 Frequency: 60  
 HP: 1/8  
 Speed: 1625  
 Phase: 1  
 Protector: 7AM036-A5

### Test Conditions

Test Type: Run  
 Test Number: 2  
 Poles: 4  
 Volts: 115  
 Hz: 60  
 Rotation:  
 Special Cond:  
 Speed Conn:  
 TestBoard: CMD InLine Three Phase #2 Fixture #1  
 Environment: 22.4 Deg C 39 % RH 962 hPa  
 Tested: 2/8/2017 12:02:34 PM  
 Tested By: Navarro, Susana  
 Bearing Friction: -0.43 Oz-Ft  
 Windage Torque: -1.88 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	115.0	222.2	251.6	1.007	71.5	1766	0.000	0.000	0.0	61.8
	115.0	220.9	249.1	1.035	76.4	1759	0.412	0.009	8.4	64.2
	115.0	217.0	243.4	1.104	87.5	1748	0.973	0.020	17.3	69.0
	115.0	214.2	239.6	1.161	96.8	1737	1.542	0.032	24.6	72.5
	115.0	210.8	235.1	1.227	106.2	1724	2.153	0.044	31.0	75.3
	115.0	206.5	229.2	1.316	118.1	1709	2.812	0.057	36.1	78.0
	115.0	201.6	222.9	1.418	131.3	1692	3.512	0.071	40.2	80.5
	115.0	197.0	217.5	1.505	142.5	1675	4.188	0.084	43.7	82.3
	115.0	191.6	210.7	1.628	156.8	1654	4.885	0.096	45.8	83.8
	115.0	185.7	203.9	1.746	170.5	1633	5.534	0.108	47.1	84.9
<b>1625 RPM</b>	<b>115.0</b>	<b>183.6</b>	<b>201.6</b>	<b>1.790</b>	<b>175.5</b>	<b>1625</b>	<b>5.754</b>	<b>0.111</b>	<b>47.3</b>	<b>85.2</b>
	115.0	179.5	196.7	1.883	185.8	1608	6.188	0.118	47.6	85.8
<b>6.46 OZ-FT</b>	<b>115.0</b>	<b>176.7</b>	<b>193.8</b>	<b>1.939</b>	<b>191.9</b>	<b>1597</b>	<b>6.460</b>	<b>0.123</b>	<b>47.8</b>	<b>86.1</b>
<b>0.125 HP</b>	<b>115.0</b>	<b>175.2</b>	<b>192.1</b>	<b>1.971</b>	<b>195.3</b>	<b>1591</b>	<b>6.600</b>	<b>0.125</b>	<b>47.8</b>	<b>86.2</b>
	115.0	173.0	189.8	2.016	200.0	1582	6.793	0.128	47.7	86.3
	115.0	166.4	182.7	2.153	214.5	1554	7.315	0.135	47.1	86.7
	115.0	159.5	175.5	2.294	229.1	1523	7.781	0.141	45.9	86.9
	115.0	152.3	168.3	2.440	243.6	1489	8.193	0.145	44.5	86.8
	115.0	145.0	161.5	2.585	257.5	1452	8.495	0.147	42.5	86.6
	115.0	138.1	155.3	2.716	269.9	1415	8.705	0.147	40.5	86.4
	115.0	130.7	149.0	2.861	283.1	1372	8.847	0.145	38.1	86.1
<b>BDT OZ-FT</b>	<b>115.0</b>	<b>123.6</b>	<b>143.6</b>	<b>2.990</b>	<b>294.5</b>	<b>1328</b>	<b>8.890</b>	<b>0.141</b>	<b>35.6</b>	<b>85.6</b>
	115.0	123.6	143.6	2.990	294.5	1328	8.890	0.141	35.6	85.6
	115.0	116.5	138.5	3.114	305.2	1282	8.844	0.135	33.0	85.2
	115.0	109.5	134.0	3.238	315.2	1230	8.718	0.128	30.2	84.7
	115.0	102.9	130.0	3.350	324.3	1175	8.536	0.119	27.5	84.2
	115.0	96.2	126.7	3.459	332.6	1119	8.267	0.110	24.7	83.6
	115.0	90.2	124.3	3.549	339.4	1059	7.952	0.100	22.0	83.1
	115.0	84.0	122.1	3.643	346.1	995	7.591	0.090	19.4	82.6
	115.0	78.2	120.6	3.729	352.0	929	7.185	0.080	16.8	82.1
	115.0	72.3	119.6	3.810	357.5	856	6.772	0.069	14.4	81.6
	115.0	67.0	119.0	3.877	361.6	783	6.300	0.059	12.1	81.1
	115.0	61.7	118.8	3.941	365.5	705	5.837	0.049	10.0	80.6
	115.0	56.5	119.0	3.998	368.7	617	5.368	0.039	8.0	80.2
	115.0	51.9	119.7	4.045	371.5	530	4.950	0.031	6.3	79.9
	115.0	48.0	120.8	4.081	373.7	442	4.505	0.024	4.7	79.6
	115.0	43.8	122.0	4.116	375.7	344	4.126	0.017	3.4	79.4
	115.0	40.3	123.6	4.141	377.3	246	3.716	0.011	2.1	79.2
	115.0	37.2	125.3	4.156	378.2	147	3.348	0.006	1.2	79.1

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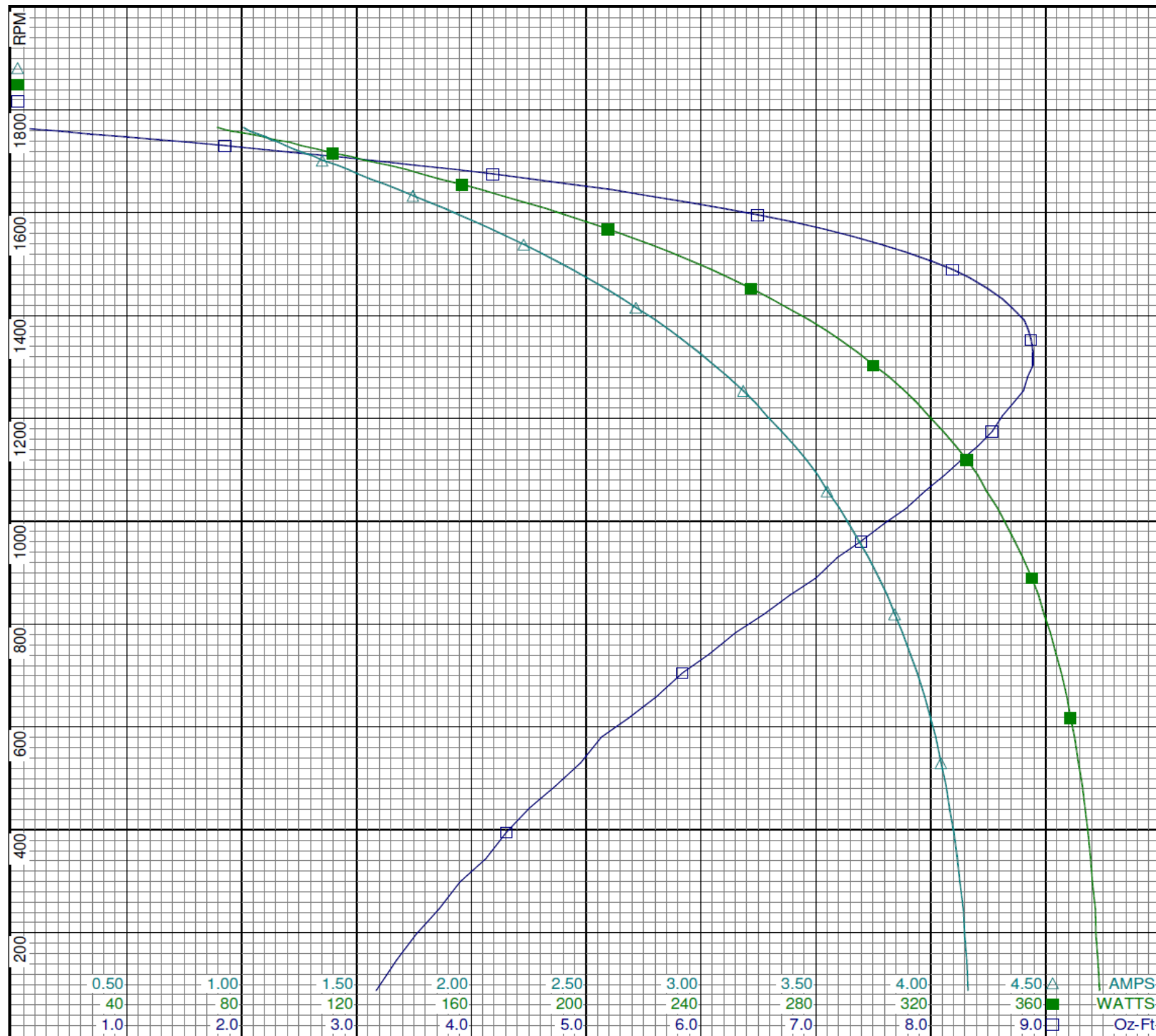
Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA

# Performance Data



22YH31A

REV.  
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Curve Descriptions:  
Motor(1) Test 2 Run 115V 60 Hz 4P

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

Motor Ratings:  
(1) K055HXMDB282302 ID: #1

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

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22YH31A	REV.
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22YH31A	REV.
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## CONNECTIONS

WHITE - COMMON  
BLACK - HIGH

ROTATION IS CCW LEAD END  
NON - REVERSIBLE

CAPACITOR 5.0 MFD 440 VAC

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**Dayton**<sup>®</sup>**DIRECT DRIVE FAN  
MOTOR****HP:** 1/8**VOLTS:** 115**AMPS:** 1.9**RPM:** 1625**DUTY:** CONT**SF:** 1.00**KVA CODE:****ENCL:** TEAO**THERMALLY PROTECTED:** AUTOMFG. NO.   PROT. CODE  7A010 **AVG. F.L.****MTR REF:** K55HXMDB-2823Part  
No **22YH31A****PH:** 1**HZ:** 60**FR:** 48Y**INS CL:** B**AMB:** 40°C**SFA:****Disconnect Power Before Making Any Electrical  
Connections or Changes****CONNECTIONS**

WHITE - COMMON

BLACK - HIGH

ROTATION IS CCW LEAD END  
NON - REVERSIBLE

CAPACITOR 5.0 MFD 440 VAC

  
E37403  
258501

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

MADE IN MEXICO