

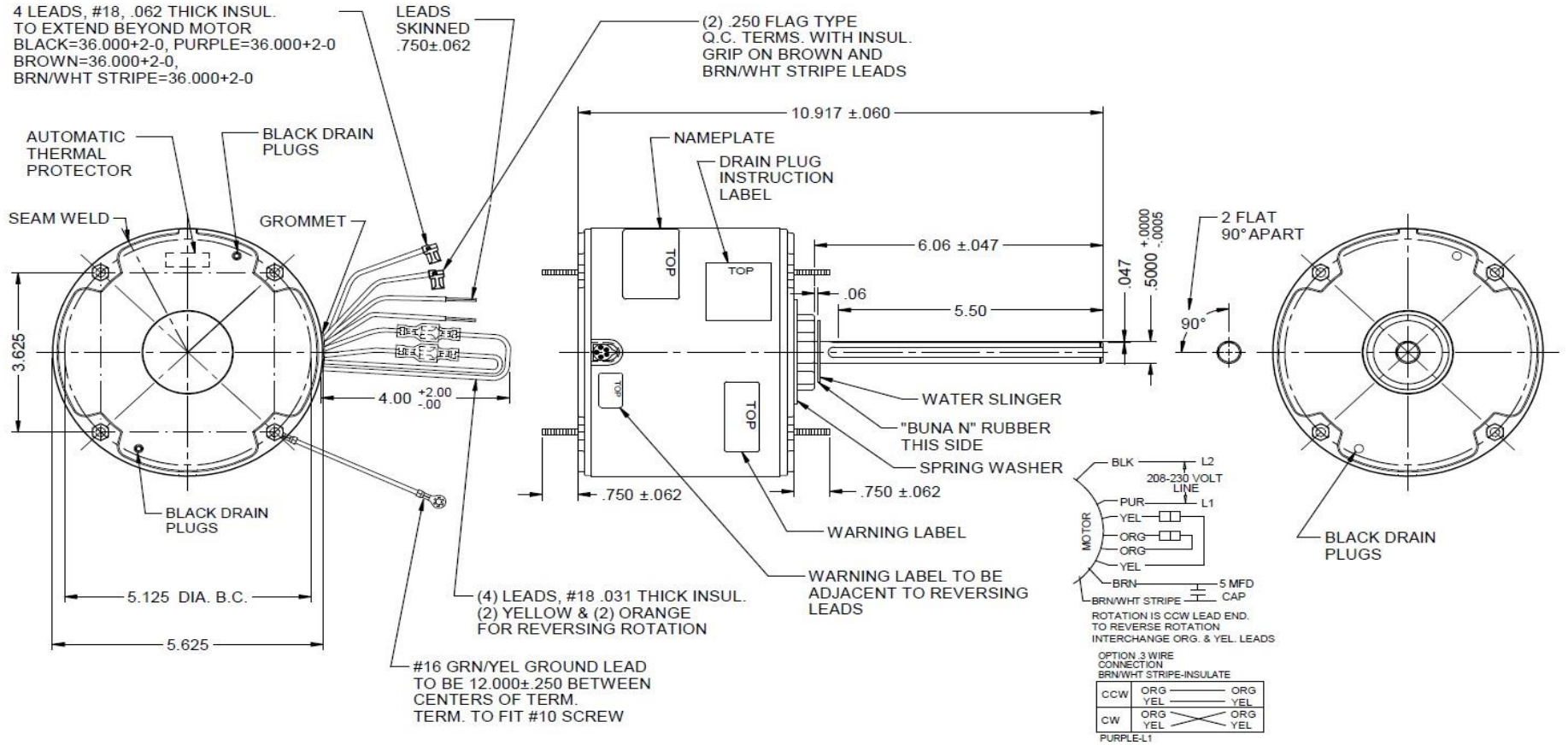
Dimensional Drawing

4M224BG

REV.

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MODEL	REF	CUSTOMER	HP	VOLTS	AMPS	HZ	RPM	ROTATION	CUSTOMER PN	DESCRIPTION / REMARKS
K55HXKLW-2372		GRAINGER	1/8	208-230	.95-8	60	825	C.C.W. LEAD END REV	4M224BG	CONDENSER FAN, STUD MTG., 48YZ



DRAWING NO. PAGE 1 of 1 REV.
4M224BG -

4M224BG

REV.

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SHADED-POLE & PSC MOTOR PERFORMANCE

HP:	1/8				
Poles:	8				
Ambient (°C):	60				
Altitude (FASL):					
No. of Speeds:	1				
HIGH SPEED					
Volts:	208-230	208	230		
HZ:	60	60	60		
Service Factor:	1				
Efficiency:	@ Rated Load	59.6	5.6		
Power Factor:	@ Rated Load	99.5	99.5		
Amps:	@ No Load				
	@ Rated Load	0.77	0.76		
	@ Locked Rotor	1.5	1.6		
RPM:	@ Rated Load	844	858		
Torques:	Breakdown	16.4	19.9		
	Locked Rotor	2.8	3.9		
	Pull-Up	2.6	3.9		
	Rated Load	12.7	12.7		
	Service Factor	12.7	12.7		
Watts:	Rated Load	160	173		
Temperature Rise:	@ Rated Load	88.1	88.7		
Thermal Protector:	Trip Temp (°C)	-	-		
Winding Material:	Start (Auxiliary)	Cu	Cu		
	Run (Main)	Cu	Cu		
Capacitor(s):	Run (MFD / Volts)	5mFd, 440v			
	No. of Run Capacitors				

MEDIUM-HIGH SPEED

HP:					
Volts:					
HZ:					
Efficiency:	@ Rated Load				
Power Factor:	@ Rated Load				
Amps:	@ No Load				
	@ Rated Load				
	@ Locked Rotor				
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown				
	Locked Rotor				
	Pull-Up				
	Rated Load				
Watts:	@ Rated Load				
Temperature Rise:	@ Rated Load				

DRAWING NO.	PAGE 1 of 1	REV.
4M224BG		-

Performance Data



4M224BG

REV.

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Dayton Manufacturing Company

Motor Description

Model: K055KLW2372 4M224BG
 Motor ID: 1
 Poles: 8
 Volts: 208-230
 Frequency: 60
 HP: 1/8
 Speed: 825
 Phase: 1
 Protector: 7AM036-A5

Test Conditions

Test Type: Start Run Cap: 5
 Test Number: 11 Start Cap: 0µfd
 Poles: 8 Environment: 24.6 Deg C 29 % RH 970 hPa
 Volts: 208 Tested: 1/28/2016 3:14:35 PM
 Hz: 60 Tested By: Navarro, Susana
 Rotation: CCW Gear Ratio: 1:1
 Special Cond: Bearing Friction: -0.25 Oz-Ft
 Speed Conn: Windage Torque: -0.64 Oz-Ft
 TestBoard: CMD InLine Three Phase #1 Fixture #1

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	208.0	63.6	251.6	1.453	267.3	19	2.769	0.001	0.2	88.4
PUT OZ-FT	208.0	63.6	250.8	1.452	266.9	43	2.569	0.001	0.4	88.4
	208.0	64.2	249.7	1.449	266.7	99	3.467	0.004	1.1	88.5
	208.0	65.3	247.8	1.442	266.0	174	3.721	0.008	2.2	88.7
	208.0	66.6	245.9	1.432	264.8	245	4.404	0.013	3.6	88.9
	208.0	68.4	243.8	1.423	263.6	309	5.155	0.019	5.4	89.1
	208.0	71.5	242.0	1.416	263.5	371	5.548	0.025	6.9	89.5
	208.0	75.4	240.8	1.404	263.0	429	6.508	0.033	9.4	90.1
	208.0	80.0	239.9	1.387	262.0	480	7.861	0.045	12.8	90.8
	208.0	85.2	239.3	1.366	260.2	528	8.700	0.055	15.7	91.5
	208.0	91.2	239.1	1.343	257.9	571	9.959	0.068	19.6	92.3
	208.0	98.5	239.6	1.314	254.6	613	11.004	0.080	23.5	93.1
	208.0	107.2	241.2	1.280	250.3	651	12.154	0.094	28.1	94.0
	208.0	117.1	243.9	1.239	244.8	685	13.099	0.107	32.6	95.0
	208.0	128.1	248.0	1.194	238.1	716	14.161	0.121	37.8	95.9
	208.0	139.5	253.4	1.146	230.5	743	14.662	0.130	42.0	96.7
	208.0	153.0	261.7	1.085	220.0	768	15.136	0.138	46.9	97.5
	208.0	166.9	271.4	1.020	208.3	791	15.344	0.144	51.7	98.2
	208.0	181.3	283.2	0.948	194.7	811	14.844	0.143	54.9	98.7
	208.0	195.2	295.8	0.874	180.2	827	13.961	0.138	56.9	99.2
	208.0	208.6	308.9	0.798	165.1	841	12.858	0.129	58.2	99.5
	208.0	221.1	322.2	0.724	150.1	854	10.976	0.112	55.5	99.6
	208.0	232.5	335.7	0.648	134.3	865	9.013	0.093	51.5	99.7
	208.0	241.9	347.4	0.582	120.6	874	7.202	0.075	46.4	99.6
	208.0	249.2	356.7	0.530	109.6	880	5.127	0.054	36.6	99.4
	208.0	255.5	365.6	0.479	98.6	887	3.302	0.035	26.4	98.9
	208.0	259.8	371.9	0.446	91.2	891	1.802	0.019	15.6	98.4
	208.0	262.3	375.6	0.423	85.9	894	0.697	0.007	6.4	97.5
	208.0	263.6	377.8	0.415	83.9	895	0.335	0.004	3.2	97.3

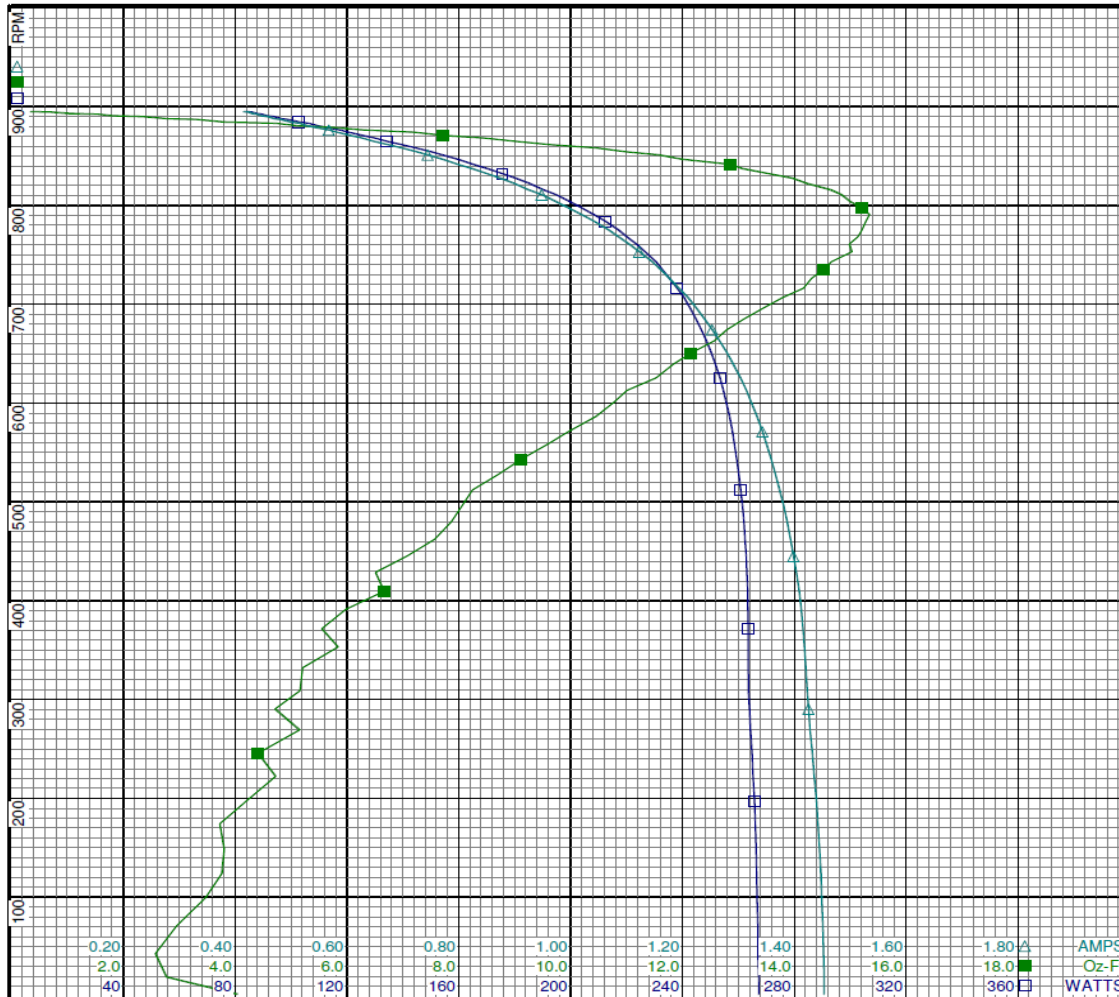
DRAWING NO. PAGE 1 of 8 REV.
4M224BG -

Performance Data



4M224BG

REV.
-



Curve Descriptions:
 Motor(1) Test 11 Start 208V 60 Hz 8P
 CCW 5ufd Run
 □ SPEED vs WATTS
 ■ SPEED vs TORQUE
 △ SPEED vs ILine

Motor Ratings:
 (1) K055KLW2372 4M224BG

DRAWING NO. PAGE 2 of 8 REV.
 4M224BG -

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

Performance Data



4M224BG

REV.

-

Dayton Manufacturing Company

Motor Description

Model: K055KLW2372 4M224BG
 Motor ID: 1
 Poles: 8
 Volts: 208-230
 Frequency: 60
 HP: 1/8
 Speed: 825
 Phase: 1
 Protector: 7AM036-A5

Test Conditions

Test Type: Run
 Test Number: 3
 Poles: 8
 Volts: 208
 Hz: 60
 Rotation: CCW
 Special Cond:
 Speed Conn:
 TestBoard: CMD InLine Three Phase #1 Fixture #1
 Run Cap: 5
 Start Cap: 0µfd
 Environment: 24.6 Deg C 29 % RH 970 hPa
 Tested: 1/28/2016 3:12:52 PM
 Tested By: Navarro, Susana
 Gear Ratio: 1:1
 Bearing Friction: -0.28 Oz-Ft
 Windage Torque: -0.71 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	208.0	264.4	378.7	0.403	81.2	896	0.000	0.000	0.0	96.9
	208.0	262.8	376.4	0.416	84.4	893	0.714	0.008	6.7	97.5
	208.0	259.3	371.4	0.444	90.7	890	1.739	0.018	15.1	98.3
	208.0	254.7	364.7	0.481	99.1	886	3.713	0.039	29.5	99.0
	208.0	248.0	355.6	0.532	110.0	878	5.462	0.057	38.7	99.4
	208.0	240.2	345.5	0.590	122.1	871	7.554	0.078	47.9	99.5
	208.0	230.7	333.5	0.656	136.1	862	9.846	0.101	55.4	99.7
	208.0	218.8	320.0	0.733	151.8	850	11.734	0.119	58.4	99.6
12.71 OZ-FT	208.0	212.6	313.1	0.772	159.8	844	12.710	0.128	59.6	99.5
	208.0	206.6	306.6	0.808	167.2	838	13.448	0.134	59.8	99.4
	208.0	192.8	293.0	0.886	182.8	822	14.807	0.145	59.2	99.1
	208.0	178.2	279.8	0.965	198.1	804	15.715	0.150	56.7	98.7
	208.0	164.2	268.8	1.034	211.0	785	16.022	0.150	52.9	98.1
BDT OZ-FT	208.0	160.1	265.7	1.054	214.6	778	16.371	0.152	52.7	97.9
	208.0	150.8	259.6	1.097	222.2	762	16.097	0.146	49.0	97.4
	208.0	137.3	251.7	1.158	232.5	736	15.674	0.137	44.1	96.5
	208.0	125.2	246.0	1.210	240.7	708	15.093	0.127	39.4	95.7
	208.0	114.4	242.3	1.254	247.0	676	14.290	0.115	34.7	94.7
	208.0	104.6	239.9	1.293	252.3	641	13.227	0.101	29.8	93.8
	208.0	96.5	238.9	1.325	256.0	603	12.009	0.086	25.1	92.9
	208.0	89.3	238.7	1.352	259.0	560	10.994	0.073	21.1	92.1
	208.0	83.4	239.1	1.375	261.2	515	10.353	0.063	18.1	91.3
	208.0	78.5	239.9	1.394	262.7	466	8.906	0.049	14.0	90.6
	208.0	74.3	241.0	1.408	263.5	411	8.225	0.040	11.4	90.0
	208.0	70.7	242.3	1.417	263.7	354	7.263	0.031	8.7	89.5
	208.0	67.8	244.2	1.423	263.9	291	7.147	0.025	7.0	89.1
	208.0	66.2	246.3	1.431	265.1	224	6.447	0.017	4.8	89.0
	208.0	65.0	248.3	1.440	266.1	152	5.946	0.011	3.0	88.9
	208.0	64.0	250.2	1.445	266.8	76	6.017	0.005	1.5	88.8

DRAWING NO. PAGE 3 of 8 REV.
 4M224BG -

Performance Data



4M224BG

REV.
-



Curve Descriptions:

Motor(1) Test 3 Run 208V 60 Hz 8P
CCW 5ufd Run

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

Motor Ratings:

(1) K055KLW2372 4M224BG

0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	AMPS
40	80	120	160	200	240	280	320	360	WATTS
2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	Oz-Ft

DRAWING NO.	PAGE 4 of 8	REV.
	4M224BG	-

Performance Data



4M224BG

REV.

-

Dayton Manufacturing Company

Motor Description

Model: K055KLW2372 4M224BG
 Motor ID: 1
 Poles: 8
 Volts: 208-230
 Frequency: 60
 HP: 1/8
 Speed: 825
 Phase: 1
 Protector: 7AM036-A5

Test Conditions

Test Type: Start
 Test Number: 12
 Poles: 8
 Volts: 230
 Hz: 60
 Rotation: CCW
 Special Cond:
 Speed Conn:
 TestBoard: CMD InLine Three Phase #1 Fixture #1
 Run Cap: 5
 Start Cap: 0µfd
 Environment: 24.6 Deg C 29 % RH 970 hPa
 Tested: 1/28/2016 3:19:20 PM
 Tested By: Navarro, Susana
 Gear Ratio: 1:1
 Bearing Friction: -0.29 Oz-Ft
 Windage Torque: -0.81 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
PUT OZ-FT	230.0	70.5	278.1	1.610	329.1	16	3.888	0.001	0.2	88.9
	230.0	70.5	278.1	1.610	329.1	16	3.888	0.001	0.2	88.9
	230.0	71.4	276.1	1.604	328.2	95	4.792	0.005	1.2	89.0
	230.0	72.7	274.0	1.595	327.3	174	5.050	0.010	2.4	89.2
	230.0	74.2	272.0	1.585	325.8	242	5.882	0.017	3.9	89.4
	230.0	76.3	269.6	1.573	324.2	309	6.993	0.026	5.9	89.6
	230.0	79.8	267.8	1.565	323.8	370	7.359	0.032	7.5	90.0
	230.0	84.0	266.5	1.552	323.2	427	8.604	0.044	10.1	90.6
	230.0	89.1	265.6	1.532	321.6	481	10.055	0.058	13.4	91.3
	230.0	95.0	265.0	1.509	319.2	529	10.909	0.069	16.1	92.0
	230.0	101.8	264.9	1.482	316.1	573	12.315	0.084	19.8	92.7
	230.0	110.0	265.6	1.450	311.9	615	13.659	0.100	23.9	93.5
	230.0	119.6	267.4	1.412	306.4	652	14.967	0.116	28.3	94.4
	230.0	130.8	270.7	1.365	299.1	687	16.469	0.135	33.6	95.3
	230.0	142.1	274.9	1.319	291.5	717	17.762	0.152	38.8	96.1
	230.0	155.5	281.3	1.262	281.4	744	18.210	0.161	42.8	97.0
	230.0	169.9	290.1	1.197	268.9	769	18.613	0.170	47.3	97.7
	230.0	185.6	301.3	1.123	253.9	790	18.810	0.177	52.0	98.3
	230.0	201.5	314.4	1.042	236.9	811	18.116	0.175	55.1	98.9
	230.0	216.2	327.6	0.964	220.0	827	17.070	0.168	57.0	99.2
	230.0	230.6	341.9	0.882	201.7	841	15.591	0.156	57.7	99.5
	230.0	244.5	357.2	0.797	182.5	855	13.170	0.134	54.8	99.6
	230.0	256.3	371.1	0.717	164.2	865	11.069	0.114	51.8	99.5
	230.0	265.7	383.1	0.647	148.0	873	8.738	0.091	45.8	99.4
	230.0	272.7	392.3	0.595	135.4	881	6.290	0.066	36.3	99.0
	230.0	278.7	401.6	0.544	122.5	887	4.064	0.043	26.1	98.0
	230.0	282.7	407.5	0.511	114.3	891	2.300	0.024	15.9	97.1
	230.0	285.4	412.2	0.487	107.2	894	1.015	0.011	7.5	95.7
	230.0	287.6	415.5	0.470	102.7	897	0.000	0.000	0.0	94.9

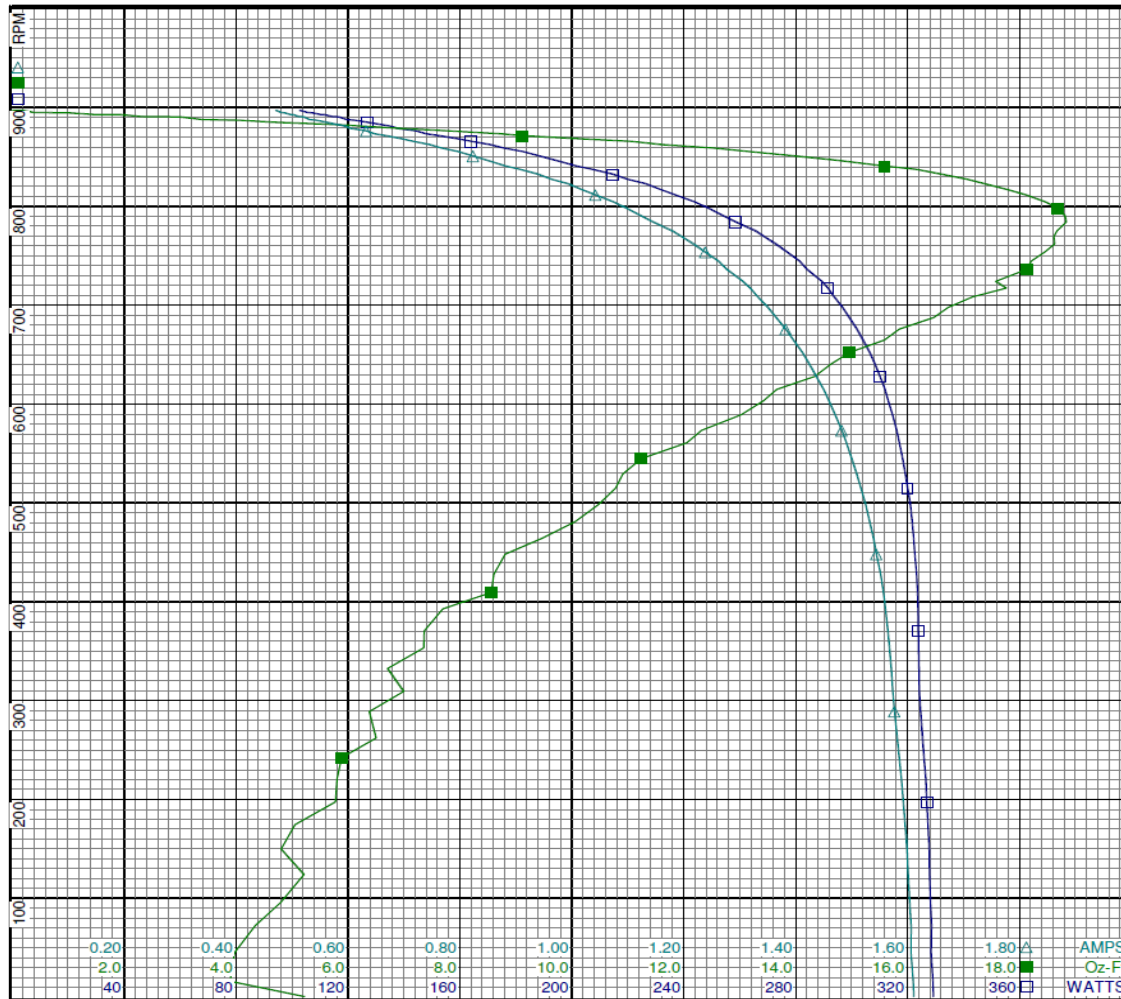
DRAWING NO. PAGE 5 of 8 REV.
 4M224BG -

Performance Data



4M224BG

REV.
-



Curve Descriptions:
 Motor(1) Test 12 Start 230V 60 Hz 8P
 CCW 5ufd Run
 □ SPEED vs WATTS
 ■ SPEED vs TORQUE
 △ SPEED vs ILine

Motor Ratings:
 (1) K055KLW2372 4M224BG

0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 A AMPS
 2.0 4.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 Oz-Ft
 40 80 120 160 200 240 280 320 360 WATTS

DRAWING NO. PAGE 6 of 8 REV.
 4M224BG -

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

Performance Data



4M224BG

REV.

-

Dayton Manufacturing Company

Motor Description

Test Conditions

Model:	K055KLW2372	4M224BG	Test Type:	Run	Run Cap:	5
Motor ID:	1		Test Number:	4	Start Cap:	0µfd
Poles:	8		Poles:	8	Environment:	24.6 Deg C 29 % RH 970 hPa
Volts:	208-230		Volts:	230	Tested:	1/28/2016 3:18:00 PM
Frequency:	60		HZ:	60	Tested By:	Navarro, Susana
HP:	1/8		Rotation:	CCW	Gear Ratio:	1:1
Speed:	825		Special Cond:		Bearing Friction:	-0.20 Oz-Ft
Phase:	1		Speed Conn:		Windage Torque:	-0.45 Oz-Ft
Protector:	7AM036-A5		TestBoard:	CMD InLine Three Phase #1 Fixture #1		

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	230.0	287.5	415.7	0.465	100.9	896	0.000	0.000	0.0	94.4
	230.0	286.1	413.3	0.477	104.7	893	0.795	0.008	6.0	95.3
	230.0	282.8	407.8	0.504	112.3	890	2.292	0.024	16.1	96.8
	230.0	277.6	400.0	0.548	123.6	886	4.655	0.049	29.6	98.1
	230.0	271.4	390.9	0.599	136.2	878	6.936	0.073	39.7	98.9
	230.0	263.9	380.8	0.657	150.2	871	9.452	0.098	48.7	99.3
	230.0	254.1	368.7	0.726	166.2	862	11.937	0.122	55.0	99.5
12.71 OZ-FT	230.0	250.0	363.8	0.755	172.8	858	12.710	0.130	56.0	99.5
	230.0	242.8	355.3	0.804	183.9	852	14.014	0.142	57.6	99.5
	230.0	229.0	340.1	0.890	203.5	838	16.380	0.163	59.9	99.4
	230.0	214.0	325.2	0.976	222.6	823	18.234	0.179	59.8	99.2
	230.0	198.6	311.2	1.058	240.5	805	19.297	0.185	57.4	98.8
BDT OZ-FT	230.0	183.4	299.2	1.134	256.3	786	19.835	0.186	54.0	98.3
	230.0	177.6	294.8	1.163	262.2	778	19.907	0.184	52.4	98.0
	230.0	168.6	288.8	1.205	270.4	764	19.687	0.179	49.4	97.6
	230.0	153.8	279.9	1.272	283.2	738	19.297	0.169	44.7	96.8
	230.0	139.9	273.1	1.333	294.0	708	18.544	0.156	39.7	95.9
	230.0	128.0	268.8	1.381	302.0	677	17.543	0.141	34.9	95.1
	230.0	117.3	266.0	1.425	308.6	642	16.297	0.125	30.1	94.2
	230.0	108.3	264.7	1.460	313.4	605	15.033	0.108	25.8	93.3
	230.0	100.3	264.4	1.491	317.3	563	13.671	0.092	21.5	92.5
	230.0	93.4	264.7	1.518	320.4	516	12.581	0.077	18.0	91.8
	230.0	87.9	265.5	1.539	322.5	467	11.145	0.062	14.3	91.1
	230.0	83.2	266.6	1.555	323.7	415	10.426	0.051	11.9	90.5
	230.0	79.1	267.9	1.566	324.2	357	9.127	0.039	8.9	90.0
	230.0	75.9	269.9	1.573	324.5	295	8.538	0.030	6.9	89.7
	230.0	73.9	272.3	1.583	326.0	226	7.919	0.021	4.9	89.6
	230.0	72.4	274.5	1.592	327.4	154	7.197	0.013	3.0	89.4
	230.0	71.2	276.4	1.598	328.1	79	7.273	0.007	1.6	89.3

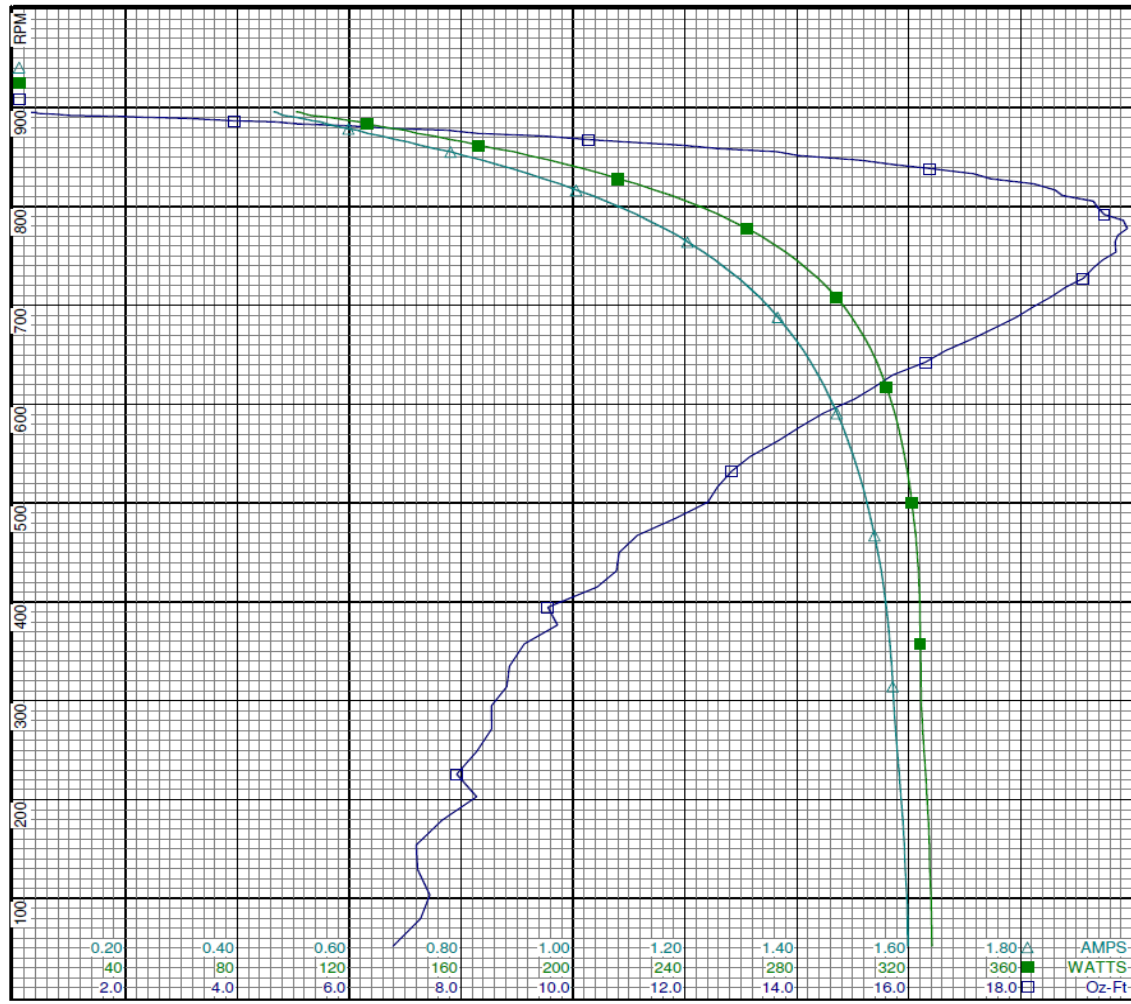
DRAWING NO.	PAGE 7 of 8	REV.
	4M224BG	-

Performance Data



4M224BG

REV.
-



Curve Descriptions:
 Motor(1) Test 4 Run 230V 60 Hz 8P
 CCW 5ufd Run
 □ SPEED vs TORQUE
 ■ SPEED vs WATTS
 △ SPEED vs ILine

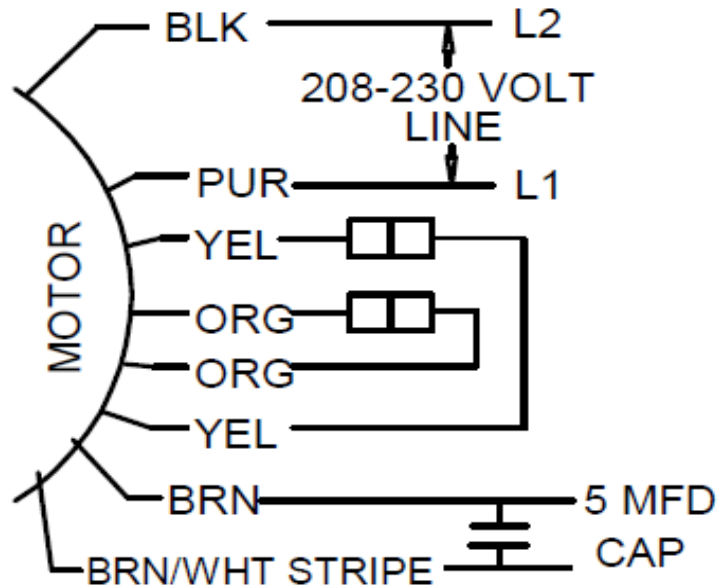
Motor Ratings:
 (1) K055KLW2372 4M224BG

0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 AMPS
 40 80 120 160 200 240 280 320 360 WATTS
 2.0 4.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 Oz-Ft

DRAWING NO. PAGE 8 of 8 REV.
 4M224BG -

4M224BG

REV.
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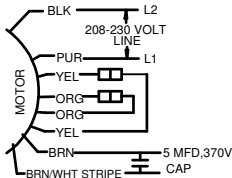
ROTATION IS CCW LEAD END.
TO REVERSE ROTATION
INTERCHANGE ORG. & YEL. LEADS

OPTION .3 WIRE
CONNECTION
BRN/WHT STRIPE-INSULATE

CCW	ORG ——— ORG
	YEL ——— YEL
CW	ORG ——— YEL
	YEL ——— ORG

PURPLE-L1

DRAWING NO.	PAGE 1 of 1	REV.
	4M224BG	0

Dayton[®]**CONDENSER FAN MOTOR****HP:** 1/8**VOLTS:** 208-230**AMPS:** .95-.8**RPM:** 825**DUTY:** CONT**SF:** 1.0**KVA CODE:****ENCL:** TEAO**THERMALLY PROTECTED:** AUTOMFG. NO. PROT. CODE: 7A010 **MTR REF:** K55HXKLW-2372**PH:** 1**HZ:** 60**FR:** 48YZ**INS CL:** B**AMB:** 60 °C**SFA:** .95-.8AVG. F.L.
EFF.**BAR CODE**Part
No 4M224BG**Disconnect Power Before Making Any
Electrical Connections or Changes**

ROTATION IS CCW LEAD END.
TO REVERSE ROTATION
INTERCHANGE ORG. & YEL. LEADS

OPTION .3 WIRE
CONNECTION
BRN/WHT STRIPE-INSULATE



E37403



258501

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

Made in Mexico