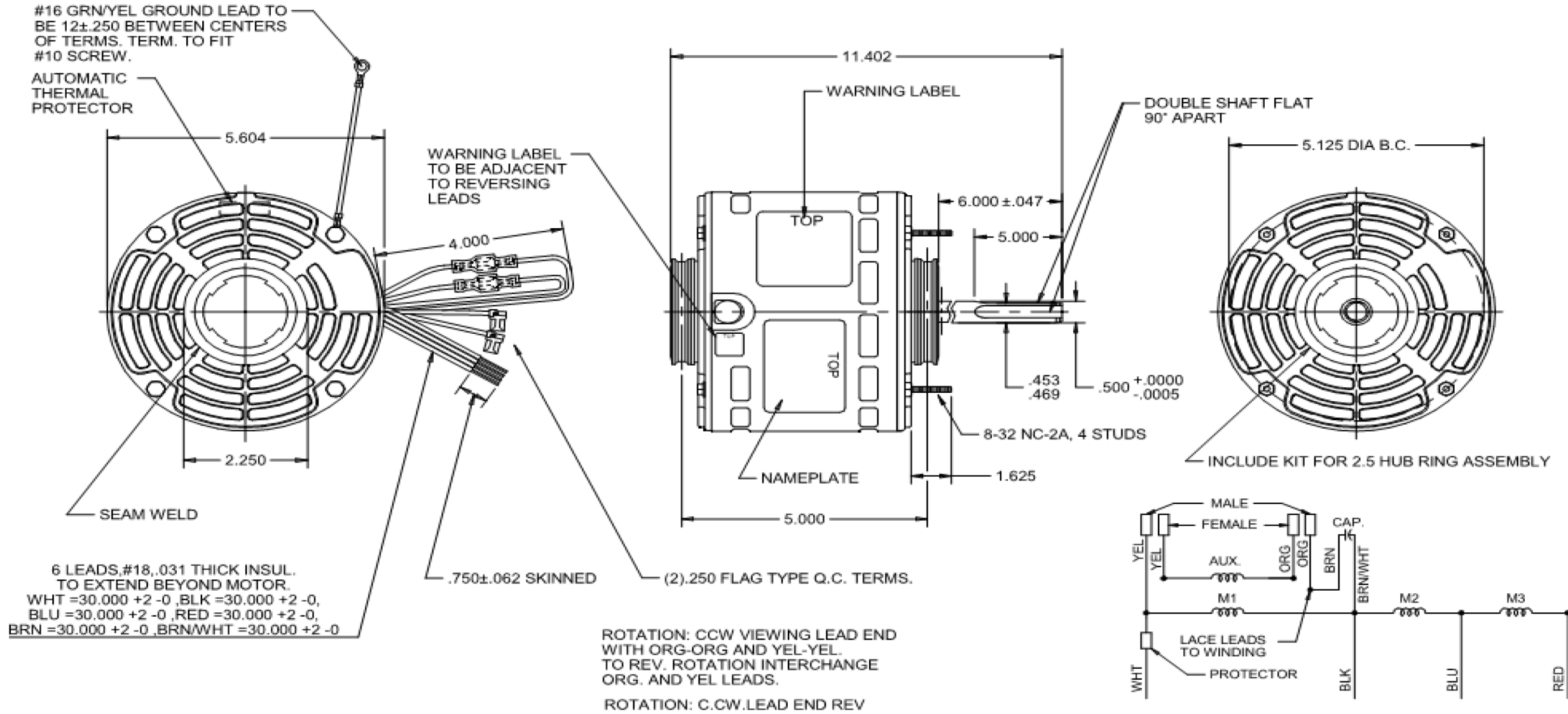


Dimensional Drawing

3M712BH

REV.
-

MODEL	REF	CUSTOMER	HP	VOLTS	AMPS	HZ	RPM	ROTATION	CUSTOMER PN	DESCRIPTION / REMARKS
K55HXRTZ-2356		DAYTON	1/4	277	2.0	60	1075	C.C.W. LEAD END REV	3M712BH	SAB



DIMENSIONS UNITS, INCHES

DRAWING NO.	PAGE 1 of 1	REV.
3M712BH		-

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3M712BH

REV.

-

SHADED-POLE & PSC MOTOR PERFORMANCE

HP:	1/4							
Poles:	6							
Ambient (°C):	40							
Altitude (FASL):	1000							
No. of Speeds:	3							
HIGH SPEED								
Volts:	277	277						
HZ:	60	60						
Service Factor:	1	1						
Efficiency:	@ Rated Load	51.7						
Power Factor:	@ Rated Load	76.5						
Amps:	@ No Load							
	@ Rated Load	2.2						
	@ Locked Rotor	4.7						
RPM:	@ Rated Load	1075						
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown	32.7						
	Locked Rotor	5.4						
	Pull-Up							
	Rated Load	25.3						
	Service Factor	1						
Watts:	Rated Load	466						
Temperature Rise:	@ Rated Load							
Thermal Protector:	Trip Temp (°C)	122~138						
Winding Material:	Start (Auxiliary)	Copper						
	Run (Main)	Copper						
Capacitor:	Run (MFD / Volts)	4.0 MFD 370V						
	No. of Run Capacitors	1						
MEDIUM-HIGH SPEED								
HP:	1/4							
Volts:	277	277						
HZ:	60	60						
Efficiency:	@ Rated Load							
Power Factor:	@ Rated Load							
Amps:	@ No Load							
	@ Rated Load							
	@ Locked Rotor							
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown	23.1						
	Locked Rotor							
	Pull-Up							
	Rated Load							
Watts:	Rated Load							
Temperature Rise:	@ Rated Load							

DRAWING NO. PAGE 1 REV.
3M712BH -

Performance Data



3M712BH

REV.

-

SHADED-POLE & PSC MOTOR PERFORMANCE

MEDIUM-LOW SPEED

HP:								
Volts:		120	208	230	277	460	100	200
HZ:		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:	1/4							
Volts:	277	277						
HZ:	60	60						
Efficiency:	@ Rated Load							
Power Factor:	@ Rated Load							
Amps:	@ No Load							
	@ Rated Load							
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown	17.1						
	Locked Rotor							
	Pull-Up							
	Rated Load							
Watts:	Rated Load							
Temperature Rise:	@ Rated Load							

Notes:

DRAWING NO. PAGE 1 REV.
3M712BH -

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

Performance Data



3M712BH

REV.

-

Dayton Manufacturing Company

Motor Description

Model: 3M712BH
 Motor ID: 1/1
 Poles: 6
 Volts: 277
 Frequency: 60
 HP: 1/4
 Speed: 1075/3SPD
 Phase: 1
 Protector: 9700K-926-156

Test Conditions

Test Type: Run
 Test Number: 1
 Poles: 6
 Volts: 277
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn: M1
 TestBoard: Amtps Performance Fixture #4
 Run Cap: 0
 Start Cap: 0µfd
 Environment: 20.1 Deg C 38 % RH 992 hPa
 Tested: 11/30/2015 2:28:34 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.37 Oz-Ft
 Windage Torque: -1.25 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	277.0	190.7	365.8	1.462	145.2	1183	0.00	0.000	0.0	35.9
	277.0	188.1	359.8	1.467	181.3	1175	3.93	0.055	22.6	44.6
	277.0	186.2	355.3	1.499	211.3	1166	6.70	0.093	32.8	50.9
	277.0	184.1	351.1	1.541	239.4	1155	9.28	0.128	39.8	56.1
	277.0	181.4	346.2	1.606	273.6	1140	12.25	0.166	45.4	61.5
	277.0	178.1	340.4	1.727	322.6	1129	16.06	0.216	49.9	67.4
0.25 HP	277.0	175.0	335.4	1.836	361.7	1115	18.84	0.250	51.6	71.1
	277.0	174.5	334.6	1.854	368.2	1113	19.28	0.255	51.7	71.7
	277.0	169.7	328.6	2.005	416.3	1095	22.43	0.292	52.4	74.9
1075 RPM	277.0	164.1	322.5	2.173	466.0	1075	25.26	0.323	51.7	77.4
	277.0	164.0	322.4	2.178	467.3	1074	25.33	0.324	51.7	77.5
	277.0	157.4	316.1	2.355	516.3	1052	27.84	0.349	50.4	79.1
	277.0	150.3	309.8	2.551	567.4	1027	29.89	0.365	48.0	80.3
	277.0	142.3	303.6	2.763	618.4	998	31.43	0.373	45.0	80.8
	277.0	134.1	297.9	2.973	666.6	967	32.38	0.373	41.7	80.9
BDT OZ-FT	277.0	125.7	292.9	3.178	711.6	932	32.69	0.363	38.0	80.8
	277.0	125.7	292.9	3.178	711.6	932	32.69	0.363	38.0	80.8
	277.0	117.7	289.0	3.373	752.0	896	32.41	0.346	34.3	80.5
	277.0	109.6	285.7	3.553	786.8	856	31.74	0.324	30.7	79.9
	277.0	102.1	283.4	3.718	817.6	816	30.63	0.297	27.1	79.4
	277.0	94.6	281.7	3.873	844.0	773	29.22	0.269	23.8	78.7
	277.0	88.0	280.8	4.006	865.4	729	27.61	0.240	20.7	78.0
	277.0	81.8	280.5	4.130	885.4	682	25.71	0.209	17.6	77.4
	277.0	75.9	280.5	4.241	900.8	635	23.61	0.178	14.8	76.7
	277.0	70.6	281.1	4.337	914.7	586	21.67	0.151	12.3	76.1
	277.0	65.2	281.4	4.427	926.6	534	19.44	0.124	10.0	75.6
	277.0	59.8	282.2	4.506	935.0	479	17.34	0.099	7.9	74.9
	277.0	54.5	283.3	4.572	941.7	422	15.16	0.076	6.0	74.4
	277.0	50.3	284.6	4.621	947.1	365	13.66	0.059	4.7	74.0
	277.0	46.6	286.9	4.664	953.4	303	11.90	0.043	3.4	73.8
	277.0	43.4	287.6	4.692	956.5	242	10.53	0.030	2.4	73.6
	277.0	40.6	289.1	4.716	958.5	175	8.85	0.018	1.4	73.4
	277.0	38.3	291.3	4.735	961.9	103	7.06	0.009	0.7	73.3

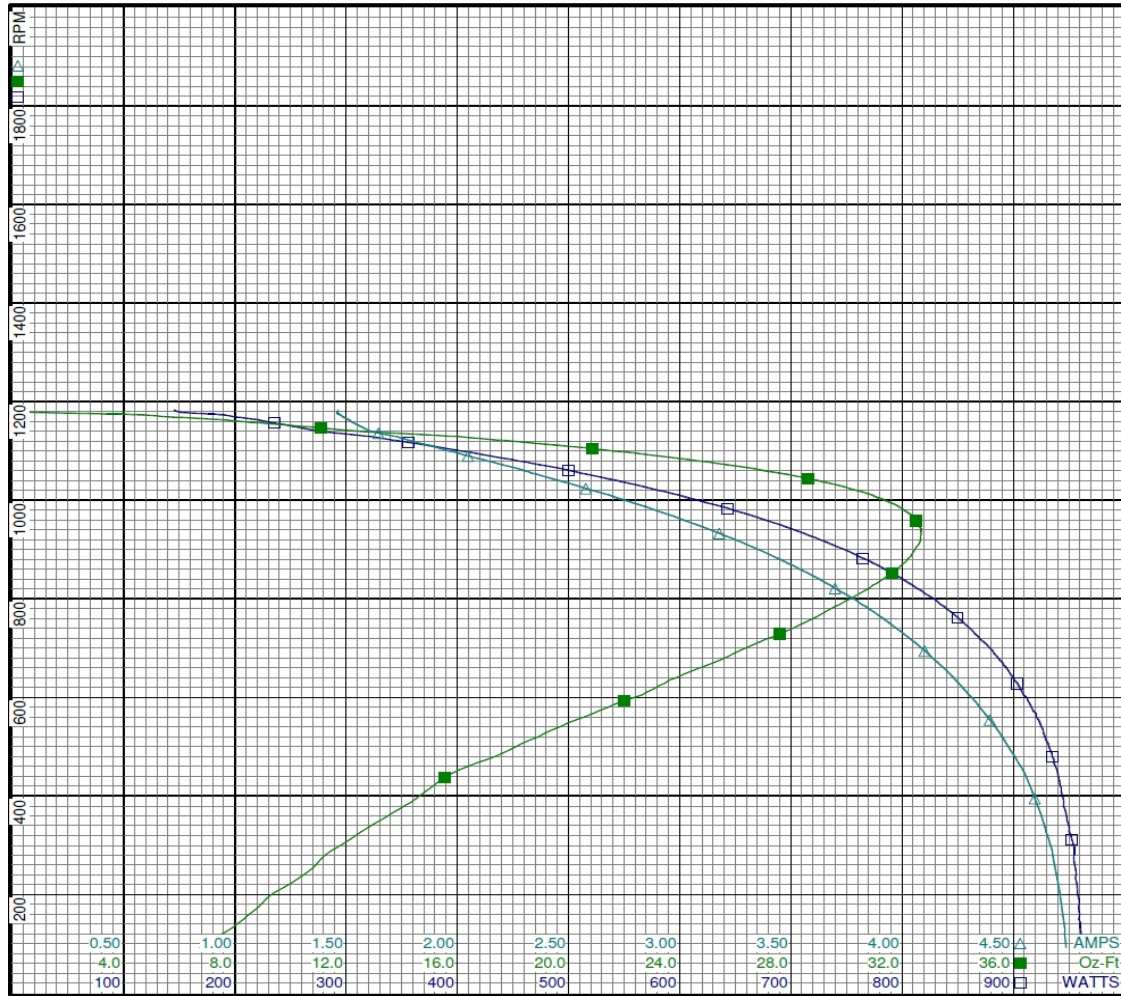
DRAWING NO. PAGE 1 of 6 REV.
 3M712BH -

Performance Data



3M712BH

REV.
-



Curve Descriptions:
 Motor(1) Test 1 Run 277V 60 Hz 6P
 M1
 □ SPEED vs WATTS
 ■ SPEED vs TORQUE
 △ SPEED vs ILine

Motor Ratings:
 (1) 3M712BH

DRAWING NO.	PAGE 2 of 6	REV.
3M712BH		-

Performance Data



3M712BH

REV.

-

Dayton Manufacturing Company

Motor Description

Model: 3M712BH
 Motor ID: 1/1
 Poles: 6
 Volts: 277
 Frequency: 60
 HP: 1/4
 Speed: 1075/3SPD
 Phase: 1
 Protector: 9700K-926-156

Test Conditions

Test Type: Run
 Test Number: 2
 Poles: 6
 Volts: 277
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn: M2
 TestBoard: Amtps Performance Fixture #4
 Run Cap: 0
 Start Cap: 0µfd
 Environment: 19.9 Deg C 40 % RH 991 hPa
 Tested: 11/30/2015 3:20:38 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.21 Oz-Ft
 Windage Torque: -0.92 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	277.0	162.7	309.5	0.865	86.0	1186	0.00	0.000	0.0	35.9
	277.0	161.2	306.5	0.873	99.8	1175	1.35	0.019	14.1	41.2
	277.0	157.9	299.2	0.921	133.3	1166	4.54	0.063	35.3	52.3
	277.0	155.9	294.2	0.976	159.5	1155	6.81	0.094	43.8	59.0
	277.0	153.5	289.4	1.038	183.7	1142	8.80	0.120	48.6	63.9
	277.0	150.8	283.6	1.137	218.3	1127	11.46	0.154	52.6	69.3
	277.0	147.4	278.2	1.256	255.2	1111	13.85	0.183	53.6	73.4
	277.0	143.4	272.7	1.376	290.3	1094	16.04	0.209	53.7	76.1
1075 RPM	277.0	138.6	267.1	1.504	325.4	1075	17.96	0.230	52.7	78.1
	277.0	138.3	266.8	1.511	327.2	1074	18.04	0.231	52.6	78.1
	277.0	132.8	261.1	1.648	362.8	1052	19.79	0.248	51.0	79.5
0.25 HP	277.0	131.7	260.0	1.675	369.4	1048	20.04	0.250	50.5	79.6
	277.0	126.8	255.5	1.792	398.2	1028	21.16	0.259	48.5	80.2
	277.0	120.2	250.2	1.940	432.9	1001	22.21	0.265	45.6	80.6
	277.0	113.5	245.6	2.083	464.7	972	22.85	0.264	42.4	80.5
	277.0	107.0	241.4	2.224	495.0	940	23.11	0.259	39.0	80.4
BDT OZ-FT	277.0	103.7	239.7	2.292	509.0	924	23.12	0.254	37.3	80.2
	277.0	100.4	238.0	2.345	519.5	907	22.99	0.248	35.6	80.0
	277.0	94.0	235.4	2.470	543.8	871	22.63	0.235	32.2	79.5
	277.0	87.8	233.4	2.586	564.6	834	21.99	0.218	28.8	78.8
	277.0	82.0	232.0	2.694	584.0	793	21.11	0.199	25.5	78.3
	277.0	76.4	231.1	2.791	599.5	752	20.14	0.180	22.4	77.5
	277.0	71.2	230.7	2.882	614.0	709	18.85	0.159	19.3	76.9
	277.0	65.9	230.9	2.965	625.8	663	17.51	0.138	16.5	76.2
	277.0	61.1	231.2	3.040	636.6	616	16.02	0.117	13.8	75.6
	277.0	56.5	231.9	3.107	644.4	565	14.46	0.097	11.3	74.9
	277.0	52.2	232.7	3.167	651.5	514	12.88	0.079	9.0	74.3
	277.0	47.6	233.8	3.221	656.4	459	11.33	0.062	7.0	73.6
	277.0	43.6	234.7	3.261	660.8	401	10.10	0.048	5.4	73.2
	277.0	40.4	236.3	3.292	664.2	343	9.26	0.038	4.2	72.8
	277.0	37.7	238.4	3.318	668.1	281	8.01	0.027	3.0	72.7
	277.0	35.3	239.2	3.339	670.9	217	7.01	0.018	2.0	72.5
	277.0	32.9	241.2	3.354	672.9	142	5.76	0.010	1.1	72.4

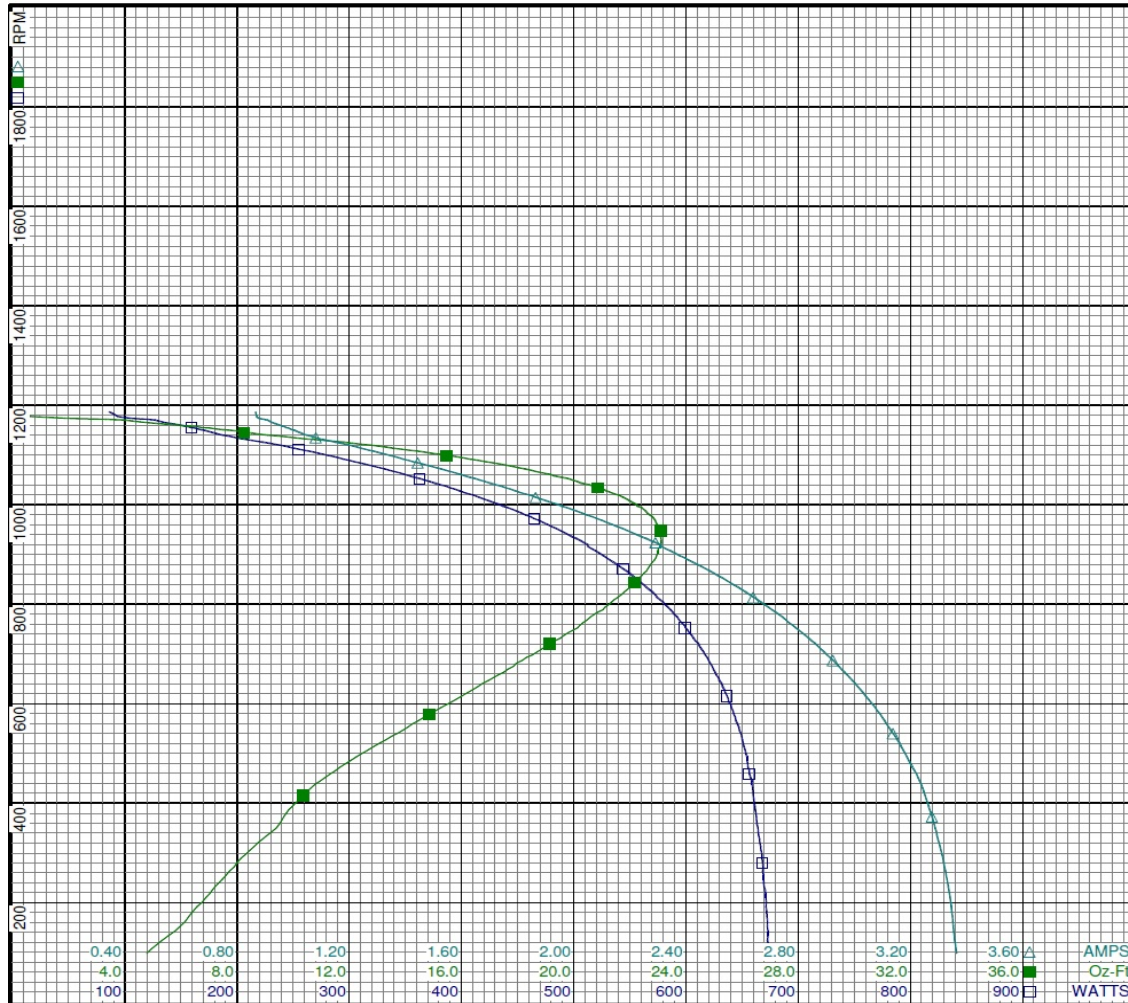
DRAWING NO. PAGE 3 of 6 REV.
 3M712BH -

Performance Data



3M712BH

REV.
-



Curve Descriptions:
 Motor(1) Test 2 Run 277V 60 Hz 6P
 M2
 □ SPEED vs WATTS
 ■ SPEED vs TORQUE
 △ SPEED vs ILine

Motor Ratings:
 (1) 3M712BH

DRAWING NO. PAGE 4 of 6 REV.
 3M712BH -

Performance Data



3M712BH

REV.

-

Dayton Manufacturing Company

Motor Description

Model: 3M712BH
 Motor ID: 1/1
 Poles: 6
 Volts: 277
 Frequency: 60
 HP: 1/4
 Speed: 1075/3SPD
 Phase: 1
 Protector: 9700K-926-156

Test Conditions

Test Type: Run
 Test Number: 3
 Poles: 6
 Volts: 277
 Hz: 60
 Rotation:
 Special Cond:
 Speed Conn: M3
 TestBoard: Amps Performance Fixture #4
 Run Cap: 0
 Start Cap: 0µfd
 Environment: 19.9 Deg C 40 % RH 991 hPa
 Tested: 11/30/2015 3:23:58 PM
 Tested By: Sharp, Gerald
 Gear Ratio: 1:1
 Bearing Friction: -0.29 Oz-Ft
 Windage Torque: -0.96 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq(Oz-ft)	HP	Eff (%)	PF (%)
	277.0	140.2	267.9	0.606	63.5	1186	0.000	0.000	0.0	37.8
	277.0	138.0	263.1	0.627	80.4	1176	1.634	0.023	21.2	46.2
	277.0	135.5	257.4	0.667	101.0	1164	3.548	0.049	36.3	54.7
	277.0	133.4	252.4	0.713	119.8	1151	5.171	0.071	44.1	60.6
	277.0	131.5	247.7	0.772	140.1	1139	6.815	0.092	49.2	65.5
	277.0	129.2	242.5	0.849	164.8	1123	8.669	0.116	52.5	70.1
	277.0	126.2	237.3	0.940	191.9	1108	10.491	0.138	53.8	73.7
	277.0	122.2	232.0	1.040	219.3	1088	12.179	0.158	53.7	76.2
1075 RPM	277.0	119.2	228.4	1.111	238.3	1075	13.211	0.169	52.9	77.4
	277.0	118.0	227.0	1.138	245.3	1069	13.609	0.173	52.7	77.8
	277.0	113.3	221.8	1.247	273.2	1048	14.794	0.185	50.4	79.1
	277.0	108.2	217.0	1.352	298.0	1024	15.795	0.193	48.2	79.6
	277.0	102.7	212.6	1.459	322.7	998	16.489	0.196	45.3	79.8
	277.0	97.1	208.6	1.564	345.3	969	16.889	0.195	42.1	79.7
BDT OZ-FT	277.0	91.8	205.3	1.664	366.1	939	17.102	0.191	39.0	79.5
	277.0	91.8	205.3	1.664	366.1	939	17.102	0.191	39.0	79.5
	277.0	86.3	202.6	1.760	385.0	907	17.010	0.184	35.6	79.0
	277.0	80.9	200.6	1.852	401.9	873	16.687	0.174	32.2	78.4
	277.0	75.8	198.8	1.937	417.0	837	16.252	0.162	29.0	77.7
	277.0	70.9	197.9	2.016	430.1	799	15.605	0.148	25.7	77.0
	277.0	66.2	197.2	2.088	441.6	759	14.837	0.134	22.6	76.3
	277.0	61.6	196.9	2.156	451.9	716	13.960	0.119	19.7	75.6
	277.0	57.2	197.2	2.218	460.0	671	12.958	0.104	16.8	74.9
	277.0	53.1	197.5	2.275	467.7	625	11.845	0.088	14.1	74.2
	277.0	49.1	198.2	2.314	471.9	576	10.699	0.073	11.6	73.6
	277.0	45.3	199.2	2.360	476.1	524	9.470	0.059	9.3	72.8
	277.0	41.4	200.1	2.400	479.7	469	8.276	0.046	7.2	72.2
	277.0	38.0	201.2	2.429	481.8	414	7.363	0.036	5.6	71.6
	277.0	35.1	202.4	2.451	483.6	355	6.775	0.029	4.4	71.2
	277.0	32.8	203.5	2.471	486.3	294	6.070	0.021	3.3	71.1
	277.0	30.8	205.5	2.491	489.6	225	5.182	0.014	2.1	71.0
	277.0	29.3	206.3	2.505	491.3	161	4.359	0.008	1.3	70.8

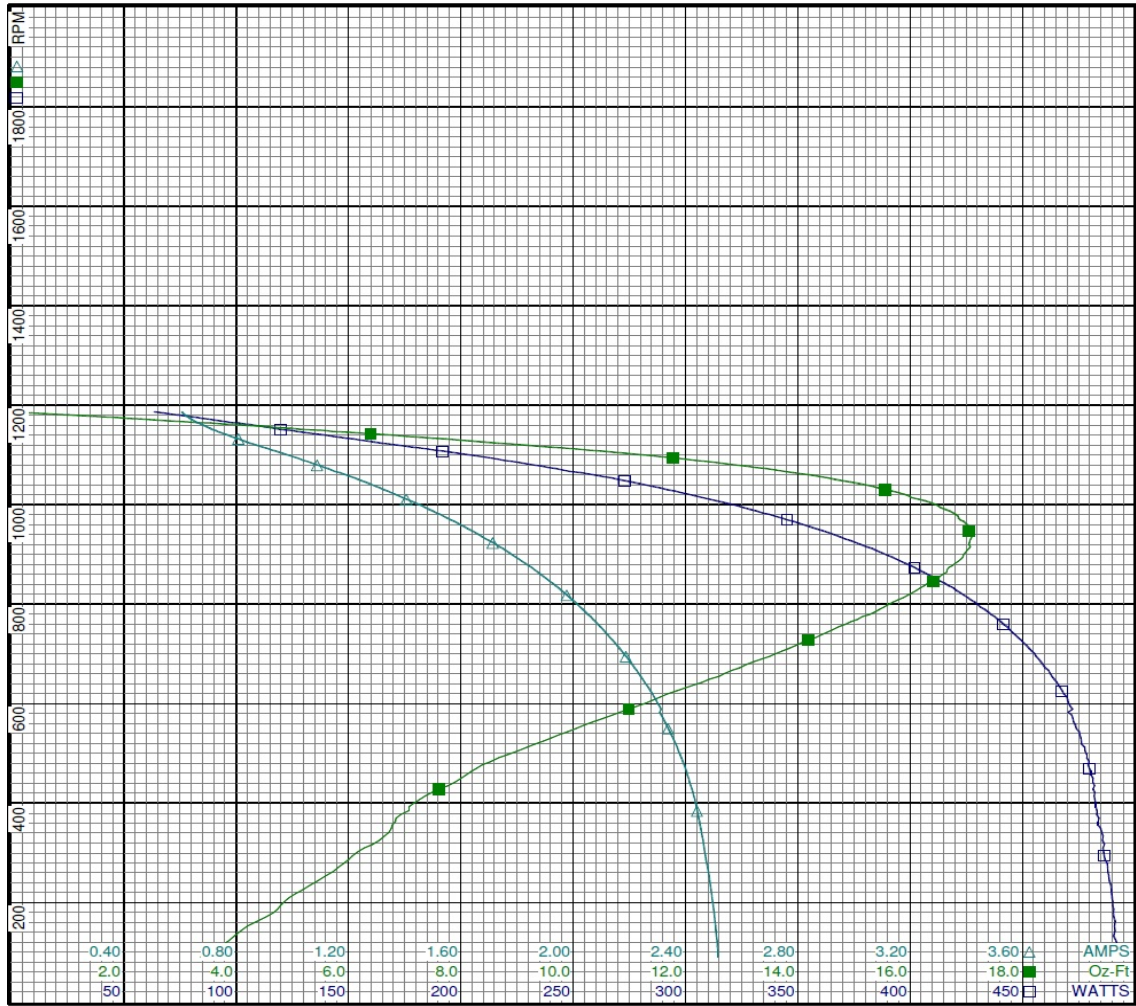
DRAWING NO. PAGE 5 of 6 REV.
 3M712BH -

Performance Data



3M712BH

REV.
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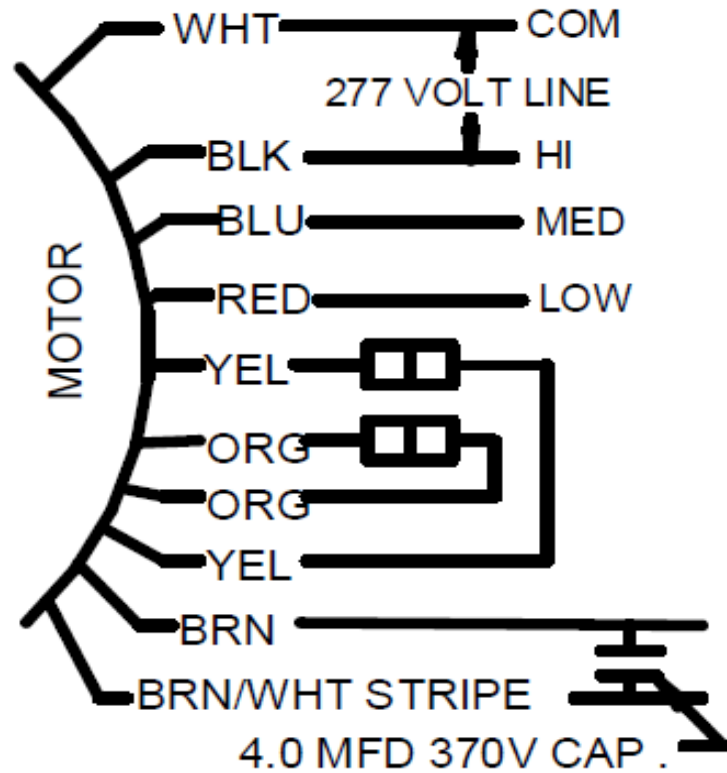
Curve Descriptions:
 Motor(1) Test 3 Run 277V 60 Hz 6P M3
 □ SPEED vs WATTS
 ■ SPEED vs TORQUE
 △ SPEED vs ILine

Motor Ratings:
 (1) 3M712BH

DRAWING NO. PAGE 6 of 6 REV.
 3M712BH -

3M712BH	REV. -
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TO REVERSE ROTATION
INTERCHANGE ORG AND YEL LEADS



DRAWING NO.	PAGE 1 of 1	REV.
3M712BH		-

Dayton®

DIRECT DRIVE BLOWER MOTOR

Part No
3M712BH



HP: 1/4

VOLTS: 277

AMPS: 2.0

RPM: 1075 / 3SPD

DUTY: CONT

ENCL: OAO

THERMALLY PROTECTED: AUTO

MFG. NO. PROT. CODE : 97020 AVG.F.L

MTR REF: K55HXRTZ-2356

PH: 1

HZ: 60

FR: 48YZ

INS CL: B

AMB: 40 °C

SF: 1.0

EFF.

**Disconnect Power Before Making Any
Electrical Connections or Changes**

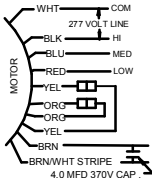


E37403



258501

TO REVERSE ROTATION
INTERCHANGE ORG AND YEL LEADS



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

Made in China