

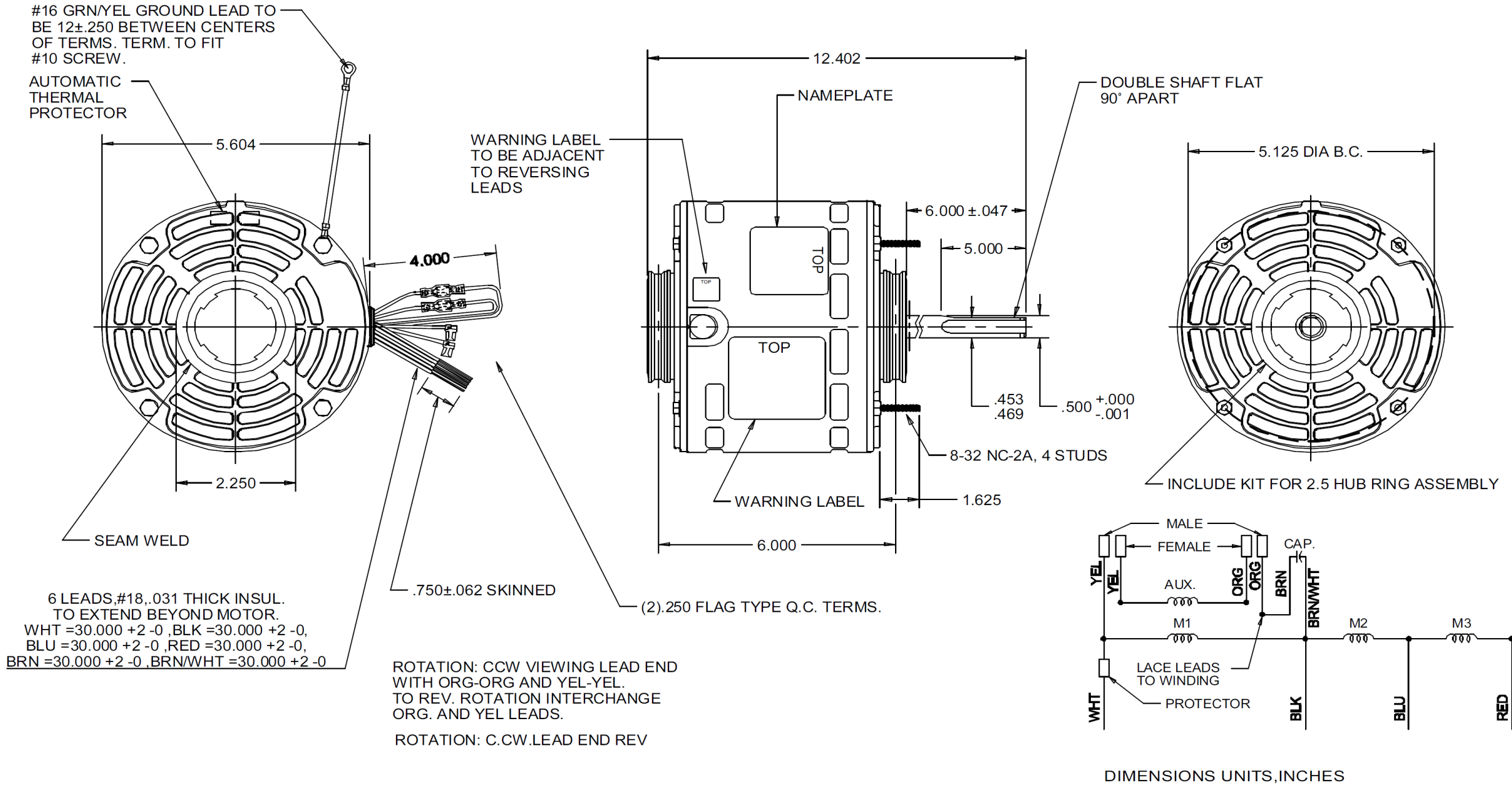
Dimensional Drawing



3M714BH

REV.
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MODEL	REF	CUSTOMER	HP	VOLTS	AMPS	HZ	RPM	ROTATION	CUSTOMER PN	DESCRIPTION / REMARKS
K55HXRJA-2159	E40997	DAYTON	1/2	277	2.6	60	1075	C.CW. LEAD END REV	3M714BH	SAB



DRAWING NO.	PAGE 1 of 1	REV.
	3M714BH	-

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

Performance Data



3M714BH

REV.

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SHADED-POLE & PSC MOTOR PERFORMANCE

HP:	1/2							
Poles:	4							
Ambient (°C):	40							
Altitude (FASL):	1000							
No. of Speeds:	3							
HIGH SPEED								
Volts:	277	120	208	230	277	460	100	200
HZ:	60	60	60	60	60	60	50	50
Service Factor:	1							
Efficiency:	@ Rated Load				59.4			
Power Factor:	@ Rated Load				89.7			
Amps:	@ No Load							
	@ Rated Load				2.6			
	@ Locked Rotor							
RPM:	@ Rated Load				1075			
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown				47.8			
	Locked Rotor				11.9			
	Pull-Up				11.6			
	Rated Load				40.1			
	Service Factor				1			
Watts:	Rated Load				644			
Temperature Rise:	@ Rated Load							
Thermal Protector:	Trip Temp (°C)				140~150			
Winding Material:	Start (Auxiliary)				Al			
	Run (Main)				Al			
Capacitor:	Run (MFD / Volts)	6.0 MFD 370 V						
	No. of Run Capacitors	1						
MEDIUM-HIGH SPEED								
HP:	1/2							
Volts:	277	120	208	230	277	460	100	200
HZ:	60	60	60	60	60	60	50	50
Efficiency:	@ Rated Load				57.6			
Power Factor:	@ Rated Load				89.7			
Amps:	@ No Load							
	@ Rated Load				1.8			
	@ Locked Rotor							
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown				30.6			
	Locked Rotor				6.5			
	Pull-Up				7.2			
	Rated Load				27			
Watts:	Rated Load				448			
Temperature Rise:	@ Rated Load							

DRAWING NO. PAGE 1 REV.
3M714BH -

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

3M714BH

REV.

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SHADED-POLE & PSC MOTOR PERFORMANCE

MEDIUM-LOW SPEED

HP:	1/2							
Volts:	277	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:	1/2							
Volts:	277	120	208	230	277	460	100	200
HZ:	60	60	60	60	60	60	50	50
Efficiency:	@ Rated Load				56.6			
Power Factor:	@ Rated Load				89.5			
Amps:	@ No Load							
	@ Rated Load				1.3			
Torques: Oz.Ft. / Lb.In. (Circle One)	Breakdown				21.6			
	Locked Rotor				4			
	Pull-Up				4.5			
	Rated Load				19.5			
Watts:	Rated Load				329			
Temperature Rise:	@ Rated Load							

Notes:

DRAWING NO. PAGE 1 REV.
3M714BH -

Performance Data



3M714BH REV.
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Dayton Manufacturing Company

Filtered

Motor Description

Model: 3M714BH
 Motor ID: 1 of 2
 Poles: 6
 Volts: 277
 Frequency: 60
 HP: 1/2
 Speed: 1075
 Phase: 1
 Protector: 7AM036-A5

Test Conditions

Test Type: Run
 Test Number: 12
 Poles: 6
 Volts: 277
 Hz: 60
 Rotation: CCW
 Special Cond:
 Speed Conn: LOW
 TestBoard: NMQC Plotter Fixture #1
 Run Cap: 6
 Start Cap: 0µfd
 Environment:
 Tested: 6/1/2015 9:04:29 AM
 Tested By: Liu, Bingmin
 Gear Ratio: 1:1
 Bearing Friction: -0.55 Oz-Ft
 Windage Torque: -0.84 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	277.0	258.6	349.4	0.441	85.3	1195	0.00	0.000	0.0	0.0
	277.0	255.7	346.0	0.457	93.5	1190	0.68	0.010	7.3	0.0
	277.0	245.8	330.5	0.532	121.1	1176	3.90	0.055	33.4	0.0
	277.0	234.8	309.0	0.674	161.1	1162	7.80	0.108	50.4	0.0
	277.0	224.7	291.2	0.844	205.7	1149	11.54	0.158	57.7	0.0
	277.0	217.2	281.3	0.946	231.7	1135	13.62	0.184	59.3	0.0
	277.0	210.5	274.4	1.025	251.5	1118	15.00	0.200	59.2	0.0
	277.0	204.4	268.3	1.098	270.6	1101	16.34	0.214	59.0	0.0
	277.0	189.6	251.0	1.253	310.7	1083	18.69	0.241	57.9	0.0
	277.0	176.8	238.2	1.404	346.8	1065	20.14	0.255	54.9	0.0
	277.0	168.2	230.6	1.505	368.8	1045	20.84	0.259	52.4	0.0
	277.0	160.3	223.8	1.599	389.2	1023	21.32	0.260	49.8	0.0
	277.0	151.3	216.7	1.703	411.2	999	21.58	0.257	46.6	0.0
BDT OZ-FT	277.0	146.8	213.4	1.755	421.7	987	21.64	0.254	45.0	0.0
	277.0	142.1	210.0	1.808	432.4	973	21.58	0.250	43.1	0.0
	277.0	132.7	203.7	1.913	452.3	944	21.22	0.239	39.3	0.0
	277.0	124.1	198.8	2.006	468.9	913	20.66	0.225	35.7	0.0
	277.0	116.2	195.0	2.091	483.5	879	20.00	0.209	32.3	0.0
	277.0	108.5	191.7	2.176	497.9	843	19.15	0.192	28.8	0.0
	277.0	100.6	189.2	2.261	511.1	803	17.90	0.171	25.0	0.0
	277.0	93.2	187.5	2.332	519.9	761	16.58	0.150	21.5	0.0
	277.0	87.6	186.6	2.400	528.9	715	15.58	0.133	18.7	0.0
	277.0	82.1	186.7	2.462	537.3	665	14.36	0.114	15.8	0.0
	277.0	76.4	187.5	2.514	543.6	612	12.95	0.094	12.9	0.0
	277.0	71.0	188.7	2.559	547.8	554	11.36	0.075	10.2	0.0
	277.0	66.1	190.2	2.601	549.9	493	9.72	0.057	7.7	0.0
	277.0	61.6	192.0	2.637	553.0	427	8.38	0.043	5.7	0.0
	277.0	57.6	193.7	2.669	556.5	357	7.62	0.032	4.3	0.0
	277.0	55.1	196.1	2.693	559.5	282	6.70	0.022	3.0	0.0
	277.0	53.0	198.8	2.705	559.7	203	6.15	0.015	2.0	0.0

DRAWING NO. PAGE 1 of 6 REV.
 3M714BH -

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

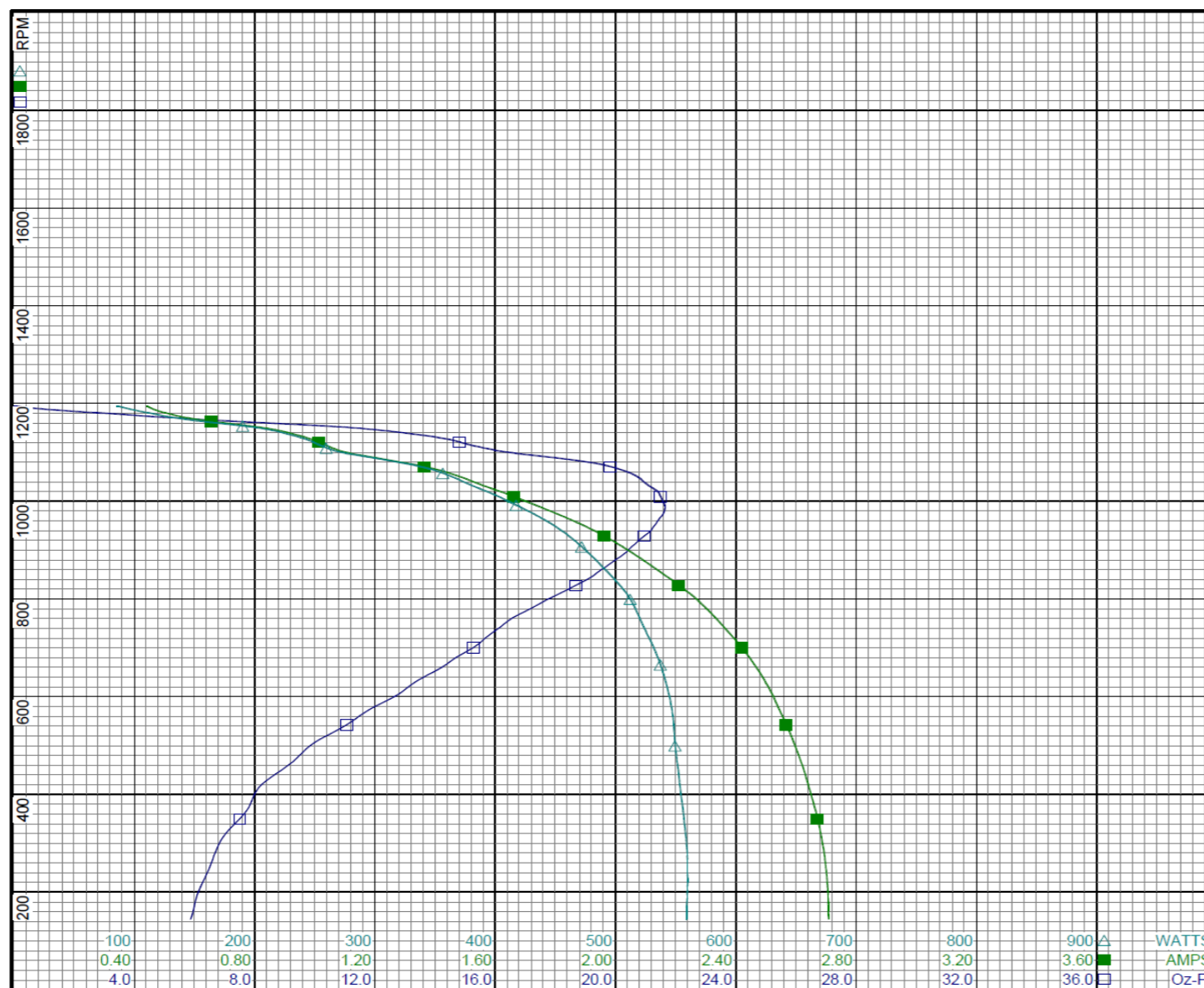
Performance Data



3M714BH

REV.

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Curve Descriptions:
 Motor(1) Test 12 Run 277V 60 Hz 6P
 LOW CCW 6ufd Run Filtered Data
 □ SPEED vs TORQUE
 ■ SPEED vs ILine
 △ SPEED vs WATTS

Motor Ratings:
 3M714BH

DRAWING NO.	PAGE 2 of 6	REV.
3M714BH		-

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

Performance Data



3M714BH	REV. -
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Dayton Manufacturing Company

Filtered

Motor Description

Model: 3M714BH
 Motor ID: 1 of 2
 Poles: 6
 Volts: 277
 Frequency: 60
 HP: 1/2
 Speed: 1075
 Phase: 1
 Protector: 7AM036-A5

Test Conditions

Test Type: Run
 Test Number: 8
 Poles: 6
 Volts: 277
 Hz: 60
 Rotation: CCW
 Special Cond:
 Speed Conn: MED
 TestBoard: NMQC Plotter Fixture #1
 Run Cap: 6
 Start Cap: 0µfd
 Environment:
 Tested: 6/1/2015 9:08:43 AM
 Tested By: Liu, Bingmin
 Gear Ratio: 1:1
 Bearing Friction: -0.52 Oz-Ft
 Windage Torque: -0.79 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	277.0	295.1	400.1	0.681	117.5	1196	0.00	0.000	0.0	0.0
	277.0	292.6	396.8	0.698	129.6	1192	1.29	0.018	10.1	0.0
	277.0	286.1	386.8	0.759	156.5	1178	4.35	0.061	29.1	0.0
	277.0	278.9	372.6	0.868	194.9	1164	8.35	0.116	44.4	0.0
	277.0	265.2	348.4	1.091	262.4	1151	14.68	0.201	57.4	0.0
	277.0	255.0	333.6	1.257	308.4	1138	18.39	0.249	60.5	0.0
	277.0	246.8	324.0	1.375	338.0	1122	20.66	0.276	60.9	0.0
	277.0	236.1	311.3	1.528	377.9	1105	23.45	0.308	60.9	0.0
	277.0	224.1	299.1	1.688	418.7	1087	25.71	0.333	59.3	0.0
1075 RPM	277.0	216.0	292.6	1.804	448.2	1075	27.02	0.346	57.6	0.0
	277.0	212.7	289.8	1.855	460.8	1069	27.52	0.350	56.7	0.0
	277.0	202.6	280.5	2.005	496.3	1049	28.87	0.361	54.2	0.0
	277.0	193.1	272.7	2.135	525.4	1027	29.69	0.363	51.5	0.0
	277.0	183.3	264.6	2.274	556.5	1003	30.33	0.362	48.5	0.0
BDT OZ-FT	277.0	173.4	257.0	2.414	586.7	979	30.58	0.356	45.3	0.0
	277.0	172.2	256.2	2.429	590.0	976	30.57	0.355	44.9	0.0
	277.0	160.8	248.1	2.587	622.0	948	30.20	0.341	40.9	0.0
	277.0	150.3	242.1	2.723	647.0	917	29.48	0.322	37.1	0.0
	277.0	141.1	237.5	2.844	669.7	883	28.76	0.302	33.7	0.0
	277.0	131.6	233.5	2.964	690.5	847	27.58	0.278	30.0	0.0
	277.0	122.9	230.4	3.076	708.9	808	26.25	0.252	26.6	0.0
	277.0	113.9	228.1	3.181	724.4	765	24.58	0.224	23.0	0.0
	277.0	105.5	226.5	3.275	737.0	719	22.72	0.194	19.7	0.0
	277.0	98.0	225.4	3.363	749.6	669	21.00	0.167	16.6	0.0
	277.0	91.0	225.1	3.444	760.0	617	19.17	0.141	13.8	0.0
	277.0	85.6	225.4	3.518	767.9	560	17.36	0.116	11.2	0.0
	277.0	80.0	226.9	3.578	772.8	499	15.39	0.091	8.8	0.0
	277.0	74.6	229.0	3.628	777.3	433	13.46	0.069	6.6	0.0
	277.0	69.5	231.2	3.672	781.7	363	11.70	0.050	4.8	0.0
	277.0	65.7	233.7	3.703	784.5	288	10.75	0.037	3.5	0.0
	277.0	63.0	237.0	3.730	788.1	209	9.48	0.023	2.2	0.0

DRAWING NO.	PAGE 3 of 6	REV.
3M714BH		-

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

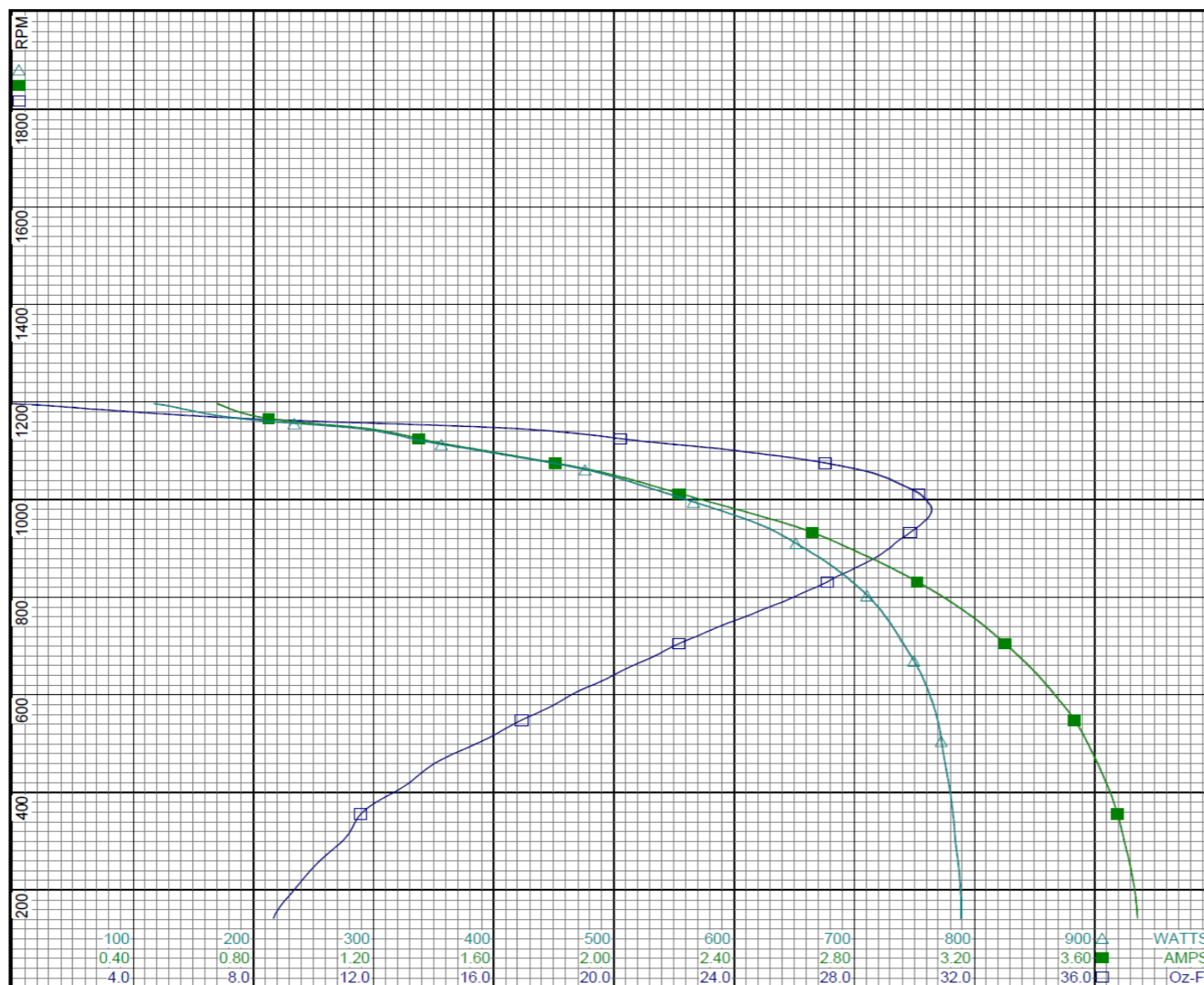
Performance Data



3M714BH

REV.

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Curve Descriptions:

Motor(1) Test 8 Run 277V 60 Hz 6P
MED CCW 6ufd Run Filtered Data

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

Motor Ratings:

3M714BH

DRAWING NO.	PAGE 4 of 6	REV.
3M714BH		-

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

Performance Data



3M714BH

REV.

-

Dayton Manufacturing Company

Filtered

Motor Description

Model: 3M714BH
 Motor ID: 1 of 2
 Poles: 6
 Volts: 277
 Frequency: 60
 HP: 1/2
 Speed: 1075
 Phase: 1
 Protector: 7AM036-A5

Test Conditions

Test Type: Run
 Test Number: 3
 Poles: 6
 Volts: 277
 Hz: 60
 Rotation: CCW
 Special Cond:
 Speed Conn: HI
 TestBoard: NMQC Plotter Fixture #1
 Run Cap: 6
 Start Cap: 0ufd
 Environment:
 Tested: 6/1/2015 9:12:41 AM
 Tested By: Liu, Bingmin
 Gear Ratio: 1:1
 Bearing Friction: -0.57 Oz-Ft
 Windage Torque: -0.84 Oz-Ft

Special Points	Vline (V)	Vaux (V)	Vcap (V)	Iline (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	277.0	334.3	465.4	1.313	178.1	1190	0.00	0.000	0.0	0.0
	277.0	333.5	462.4	1.316	194.7	1185	1.84	0.026	9.3	0.0
	277.0	329.0	453.2	1.359	241.1	1174	7.21	0.101	31.1	0.0
	277.0	322.5	439.8	1.489	312.4	1162	14.64	0.203	48.4	0.0
	277.0	313.8	425.8	1.677	382.5	1152	21.32	0.293	57.6	0.0
	277.0	305.8	415.6	1.816	424.5	1139	24.96	0.339	59.7	0.0
	277.0	297.3	404.6	1.968	469.6	1125	28.62	0.383	60.9	0.0
	277.0	288.6	394.0	2.157	524.3	1110	32.67	0.432	61.5	0.0
	277.0	280.7	386.3	2.328	572.0	1096	35.82	0.467	60.9	0.0
	277.0	270.5	375.5	2.540	631.0	1079	39.37	0.506	59.8	0.0
1075 RPM	277.0	268.2	373.1	2.591	643.6	1075	40.06	0.513	59.4	0.0
	277.0	259.0	364.5	2.787	690.5	1061	42.35	0.535	57.8	0.0
	277.0	249.2	356.7	2.984	736.1	1042	44.20	0.548	55.5	0.0
	277.0	240.0	348.6	3.171	782.0	1020	45.97	0.558	53.3	0.0
	277.0	229.2	340.0	3.381	829.8	998	47.07	0.559	50.3	0.0
	277.0	216.9	331.0	3.604	879.8	973	47.75	0.553	46.9	0.0
BDT OZ-FT	277.0	212.8	327.9	3.676	895.5	965	47.81	0.549	45.7	0.0
	277.0	205.0	322.5	3.809	923.4	946	47.67	0.537	43.4	0.0
	277.0	193.8	316.4	3.993	959.6	918	47.15	0.515	40.0	0.0
	277.0	183.1	310.9	4.176	994.6	888	46.20	0.488	36.6	0.0
	277.0	172.5	306.1	4.351	1027.2	855	44.87	0.457	33.2	0.0
	277.0	162.6	302.2	4.516	1056.6	820	43.28	0.422	29.8	0.0
	277.0	152.4	298.8	4.673	1082.5	782	41.15	0.383	26.4	0.0
	277.0	142.7	296.4	4.817	1105.1	742	38.87	0.343	23.2	0.0
	277.0	133.8	294.8	4.949	1124.8	699	36.52	0.304	20.1	0.0
	277.0	125.1	293.6	5.069	1143.3	653	34.10	0.265	17.3	0.0
	277.0	116.5	293.1	5.174	1157.9	604	31.23	0.224	14.5	0.0
	277.0	108.5	293.1	5.269	1166.4	551	28.14	0.185	11.8	0.0
	277.0	100.9	293.2	5.352	1172.7	496	25.20	0.149	9.5	0.0
	277.0	94.2	293.7	5.439	1182.6	438	23.00	0.120	7.5	0.0
	277.0	89.6	294.4	5.513	1190.3	376	21.45	0.096	6.0	0.0
	277.0	85.8	297.5	5.571	1197.7	311	19.86	0.074	4.6	0.0
	277.0	81.9	300.7	5.617	1202.9	242	17.65	0.051	3.1	0.0
	277.0	78.3	304.0	5.642	1204.1	167	16.08	0.032	2.0	0.0

DRAWING NO.	PAGE 5 of 6	REV.
3M714BH		-

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

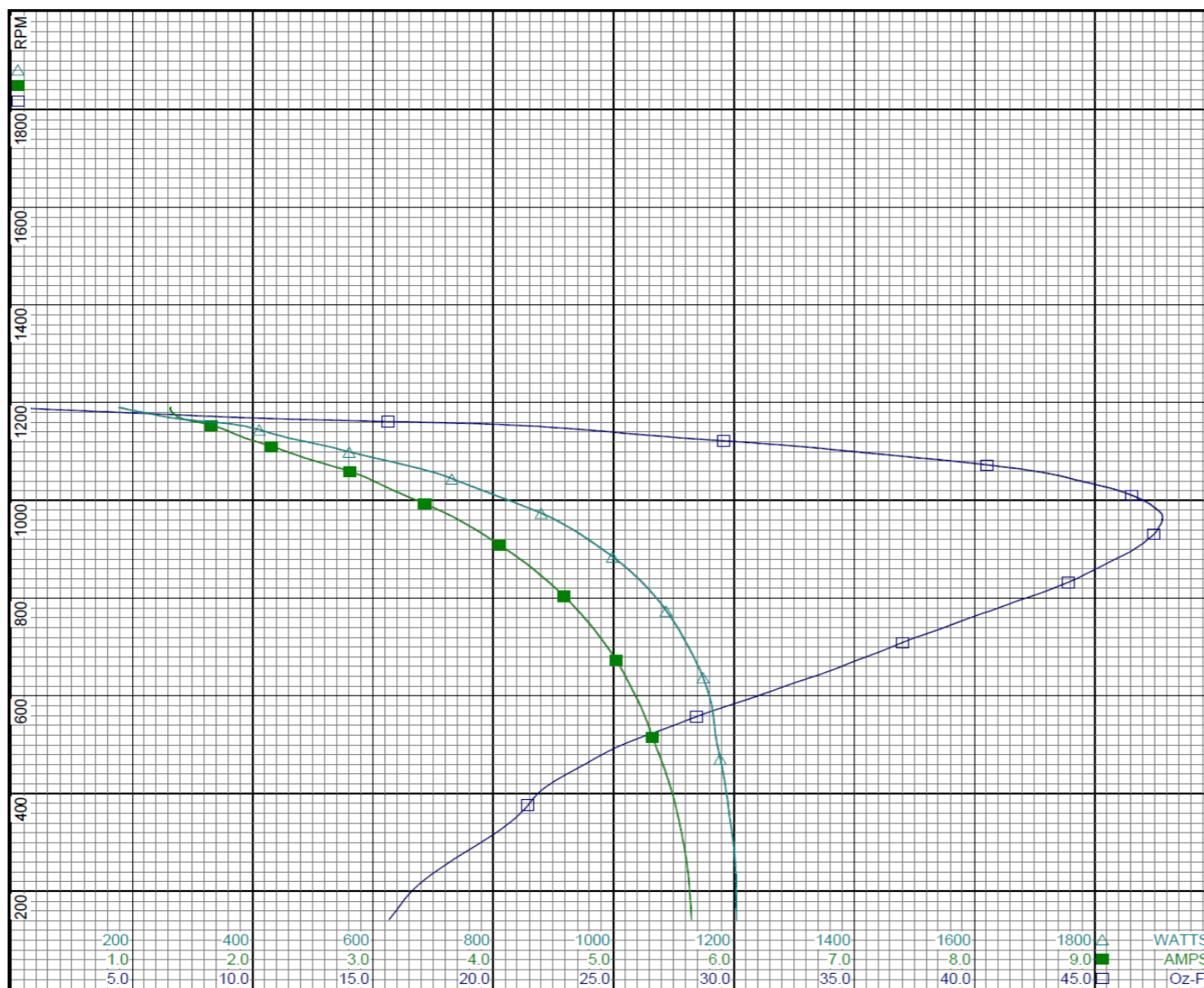
Performance Data



3M714BH

REV.

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Curve Descriptions:

Motor(1) Test 3 Run 277V 60 Hz 6P
HI CCW 6ufd Run Filtered Data

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

Motor Ratings:

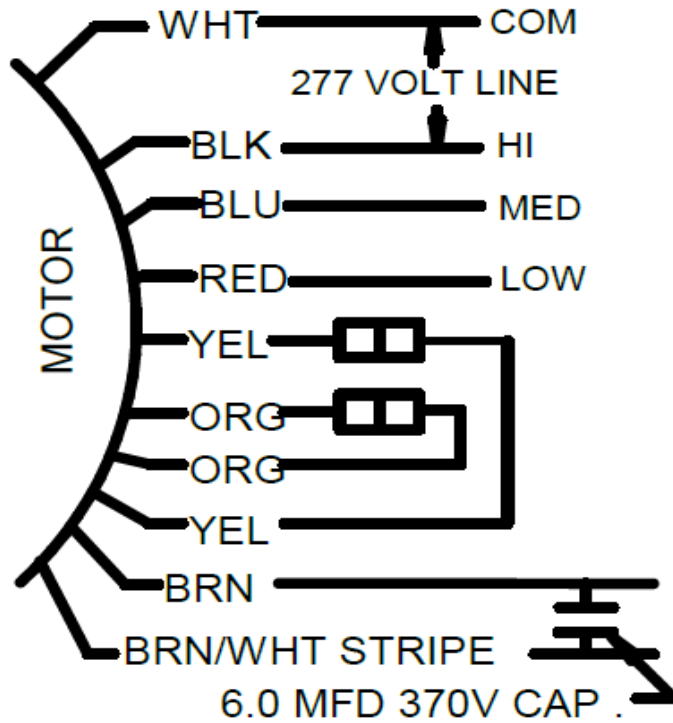
3M714BH

DRAWING NO.	PAGE 6 of 6	REV.
3M714BH		-

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

3M714BH	REV. -
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TO REVERSE ROTATION
INTERCHANGE ORG AND YEL LEADS



DRAWING NO.	PAGE 1 of 1	REV.
3M714BH		-

Dayton[®]**DIRECT DRIVE
BLOWER MOTOR**

HP: 1/2
VOLTS: 277
AMPS: 2.6
RPM: 1075 /3SPD
DUTY: CONT
SF: 1.0
KVA CODE:
ENCL: OAO
THERMALLY PROTECTED: AUTO

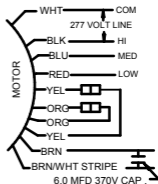
MFG. NO. **PROT. CODE:** 7A010 **AVG.F.L**
MTR REF: K55HXRJA-2159 **EFF.**

BAR CODE

Part
No 3M714BH

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

TO REVERSE ROTATION
INTERCHANGE ORG AND YEL LEADS



RU[®]
E37403

SA[®]
258501

US PAT 7709992

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

Made in China