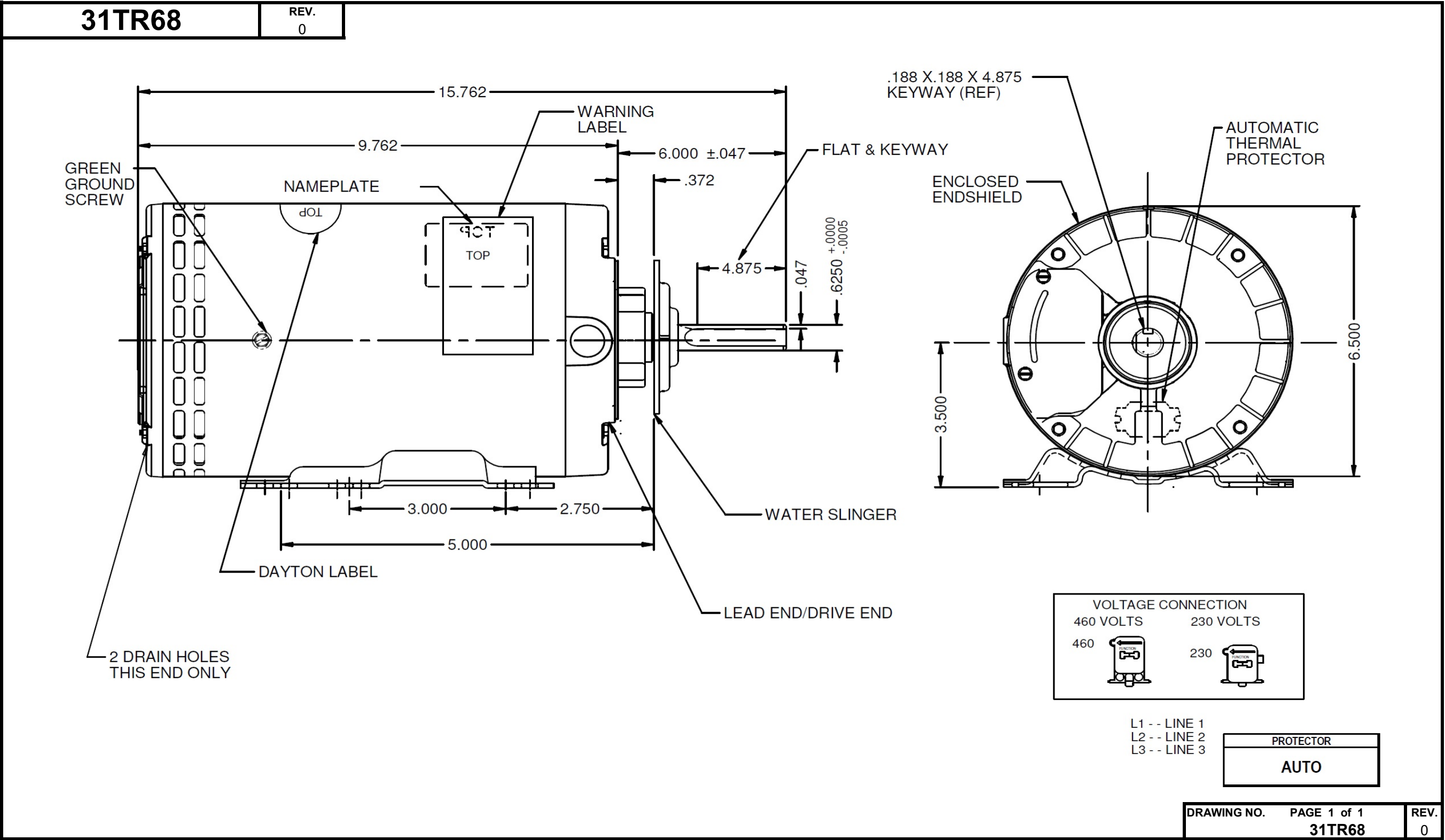


Dimensional Drawing



Performance Data



31TR68

REV.

-

THREE PHASE MOTOR PERFORMANCE

HP:	1 1/2					
Poles:	6					
Volts:	208-230/460	208	230	460		
HZ:	60	60	60	60		
Service Factor:	1.00					
Efficiency (%):	Full Load	79.4	80.1	80.8		
	Service Factor	79.4	80.1	80.8		
	3/4	80.0	79.6	79.5		
	1/2	78.1	76.1	76.8		
	1/4	69.4	65.2	65.6		
Power Factor (%):	Full Load	73.5	67.4	66.9		
	Service Factor	73.5	67.4	66.9		
	3/4	66.0	58.3	58.3		
	1/2	53.4	46.0	45.6		
	1/4	34.4	29.3	29.1		
Amps:	Full Load	5.3	5.2	2.6		
	Service Factor	5.3	5.2	2.6		
	3/4	4.4	4.5	2.3		
	1/2	3.7	4.0	2.0		
	1/4	3.3	3.7	1.8		
	No Load					
	Locked Rotor	24.4	27.6	13.8		
KVA Per HP		0.00	0.00	0.00	0.00	0.00
KVA Codes						
NEMA Code Letter:						
NEMA Design Letter:						
Full Load RPM:		1135	1150	1152		
NEMA Nominal Efficiency (%):						
Guaranteed Efficiency (%):						
Max KVAR:						
Ambient (°C):						
Altitude (FASL):						
Full Load Torque	Lb.Ft. / Oz.Ft. (Circle One)	111.00	109.50	109.40		
Torques: % Full-Load	Breakdown	274.50	344.30	348.10		
	Locked Rotor	203.30	259.90	263.00		
	Pull-Up					
	Service Factor	111.00	109.50	109.40		
Temperature Rise:	Full Load					
	Service Factor					
Winding Material:		CU				
Notes:						

DRAWING NO. PAGE 1 of 1
31TR68

REV.

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

Performance Data



31TR68

REV.

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Dayton Manufacturing Company

Motor Description

Model: P063ABU1278
Motor ID: 1/2
Poles: 6
Volts: 208-230/460
Frequency: 60
HP: 1.5
Speed: 1140
Phase: 3
Protector:

Test Conditions

Test Type: Run
Test Number: 1
Poles: 6
Volts: 208
Hz: 60
Rotation:
Special Cond:
Speed Conn:
TestBoard: Amtps Performance Fixture #2
Run Cap: 0
Start Cap: 0μfd
Environment: 20.5 Deg C 15 % RH 973 hPa
Tested: 1/25/2013 3:33:56 PM
Tested By: Sharp, Gerald
Gear Ratio: 1:1
Bearing Friction: -1.12 Oz-Ft
Windage Torque: -3.04 Oz-Ft

Special Points	Vab (V)	Vbc (V)	Vca (V)	Ia (A)	Ib (A)	Ic (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	207.7	208.7	207.7	3.07	3.04	3.07	103	1199	0.0	0.000	0.0	9.4
	207.7	208.6	207.6	3.23	3.18	3.21	362	1187	23.0	0.325	66.9	31.3
	207.7	208.7	207.6	3.58	3.50	3.54	612	1177	44.7	0.626	76.3	48.0
	207.7	208.7	207.6	4.05	3.94	3.98	849	1165	65.2	0.904	79.5	59.1
	207.7	208.6	207.6	4.60	4.47	4.50	1095	1153	85.7	1.176	80.1	67.2
1140 RPM	207.8	208.6	207.6	5.15	5.01	5.04	1311	1140	103.4	1.403	79.8	71.8
	207.7	208.7	207.6	5.24	5.09	5.11	1343	1139	105.7	1.433	79.6	72.4
110.5 OZ-FT	207.8	208.6	207.6	5.41	5.25	5.27	1405	1135	110.5	1.494	79.3	73.4
1.5 HP	207.8	208.6	207.6	5.42	5.26	5.28	1409	1135	111.0	1.500	79.4	73.5
	207.8	208.6	207.6	5.92	5.76	5.76	1596	1125	125.9	1.685	78.8	76.2
	207.8	208.6	207.6	6.68	6.50	6.50	1863	1109	145.1	1.916	76.7	78.8
	207.8	208.7	207.5	7.47	7.27	7.26	2123	1092	164.5	2.139	75.2	80.3
	207.9	208.6	207.5	8.36	8.13	8.11	2399	1073	182.4	2.331	72.5	81.2
	207.9	208.6	207.5	9.25	9.01	8.97	2669	1053	200.2	2.509	70.1	81.6
	207.9	208.6	207.5	10.16	9.90	9.85	2939	1031	216.3	2.655	67.4	81.8
	207.9	208.6	207.5	11.11	10.82	10.77	3203	1007	230.3	2.760	64.3	81.6
	207.9	208.6	207.6	12.12	11.78	11.72	3469	980	243.0	2.836	61.0	81.1
	207.8	208.6	207.6	13.07	12.70	12.63	3713	952	253.8	2.875	57.8	80.5
	207.9	208.6	207.5	14.07	13.68	13.60	3959	919	262.3	2.870	54.1	79.7
	207.9	208.6	207.6	15.14	14.73	14.63	4205	881	268.8	2.819	50.0	78.7
	207.8	208.6	207.6	16.06	15.61	15.52	4402	845	272.5	2.741	46.4	77.7
	207.8	208.6	207.5	16.99	16.52	16.41	4589	804	274.1	2.625	42.7	76.5
BDT OZ-FT	207.8	208.6	207.5	17.24	16.76	16.65	4639	792	274.5	2.589	41.6	76.3
	207.8	208.6	207.6	17.85	17.35	17.24	4751	762	273.7	2.483	39.0	75.5
	207.8	208.6	207.6	18.69	18.18	18.07	4900	715	271.7	2.312	35.2	74.3
	207.8	208.6	207.7	19.50	18.97	18.85	5031	665	267.5	2.118	31.4	73.1
	207.7	208.7	207.6	20.27	19.71	19.61	5149	611	261.3	1.900	27.5	71.9
	207.7	208.6	207.7	21.00	20.42	20.30	5246	552	253.9	1.669	23.7	70.8
	207.7	208.7	207.6	21.66	21.06	20.95	5323	491	248.0	1.449	20.3	69.6
	207.7	208.7	207.6	22.29	21.67	21.57	5391	423	239.1	1.205	16.7	68.5
	207.7	208.7	207.6	22.87	22.24	22.13	5444	353	229.0	0.963	13.2	67.4
	207.7	208.7	207.6	23.37	22.73	22.63	5482	279	218.6	0.725	9.9	66.4
	207.6	208.7	207.7	23.86	23.20	23.11	5502	198	208.8	0.492	6.7	65.3
	207.6	208.7	207.7	24.28	23.61	23.54	5506	112	203.1	0.271	3.7	64.2

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

Performance Data



31TR68

REV.

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DRAWING NO.	PAGE 2 of 6	REV.
	31TR68	-

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

Performance Data



31TR68

REV.

-

Dayton Manufacturing Company

Motor Description

Model: P063ABU1278
Motor ID: 1/2
Poles: 6
Volts: 208-230/460
Frequency: 60
HP: 1.5
Speed: 1140
Phase: 3
Protector:

Test Conditions

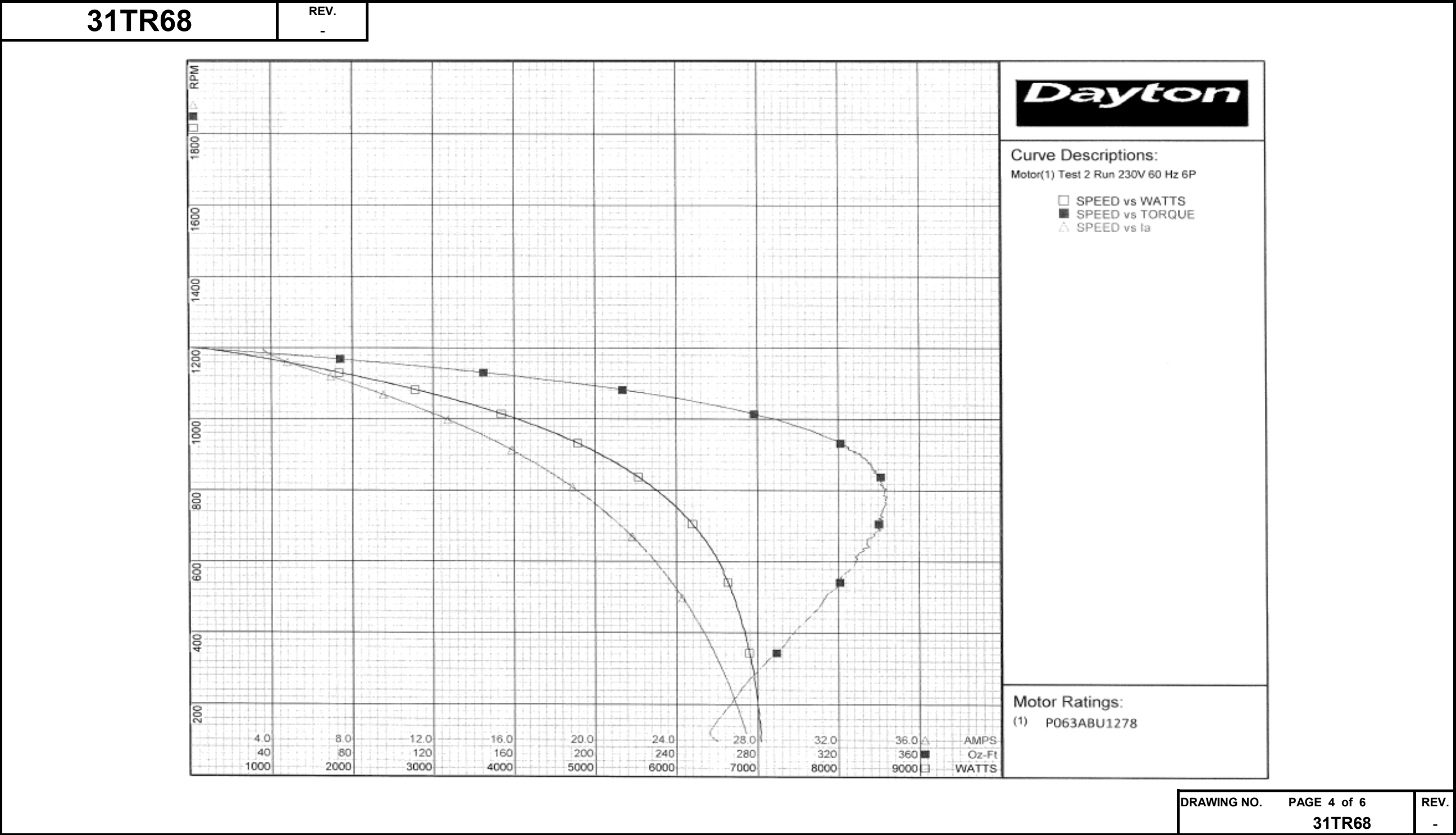
Test Type: Run
Test Number: 2
Poles: 6
Volts: 230
Hz: 60
Rotation:
Special Cond:
Speed Conn:
TestBoard: Amtps Performance Fixture #2
Run Cap: 0
Start Cap: 0μfd
Environment: 20.5 Deg C 15 % RH 973 hPa
Tested: 1/25/2013 3:34:53 PM
Tested By: Sharp, Gerald
Gear Ratio: 1:1
Bearing Friction: -1.28 Oz-Ft
Windage Torque: -3.20 Oz-Ft

Special Points	Vab (V)	Vbc (V)	Vca (V)	Ia (A)	Ib (A)	Ic (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)
	230.4	229.9	229.7	3.58	3.57	3.50	134	1199	0.0	0.000	0.0	9.5
	230.4	229.9	229.7	3.71	3.71	3.61	427	1189	26.3	0.373	65.1	29.2
	230.4	229.9	229.7	4.02	4.02	3.91	712	1178	51.5	0.722	75.7	44.9
	230.4	229.9	229.7	4.49	4.48	4.36	1003	1167	76.5	1.063	79.0	56.7
	230.4	229.9	229.7	5.04	5.02	4.90	1293	1155	101.0	1.388	80.1	65.1
110.5 OZ-FT	230.4	229.9	229.7	5.29	5.26	5.14	1410	1150	110.5	1.512	80.0	67.7
1.5 HP	230.4	229.9	229.7	5.26	5.23	5.11	1398	1150	109.5	1.500	80.1	67.4
	230.3	229.9	229.7	5.71	5.68	5.56	1599	1141	125.8	1.709	79.7	71.1
1140 RPM	230.3	229.9	229.8	5.77	5.73	5.63	1625	1140	128.1	1.738	79.8	71.4
	230.2	230.4	229.4	6.49	6.34	6.26	1907	1127	150.2	2.015	78.8	75.2
	230.6	230.3	229.1	7.33	7.14	6.99	2219	1112	173.5	2.296	77.2	77.8
	230.7	230.2	229.2	8.19	8.04	7.84	2549	1095	197.6	2.576	75.4	79.7
	230.8	230.0	229.2	9.11	8.96	8.73	2882	1076	220.2	2.821	73.0	81.0
	230.8	229.9	229.3	10.12	9.95	9.71	3227	1056	243.5	3.061	70.8	81.6
	230.8	229.9	229.3	11.14	10.95	10.70	3565	1034	263.2	3.239	67.8	81.9
	230.8	229.9	229.3	12.45	12.19	11.92	3971	1005	284.6	3.406	64.0	81.8
	230.8	229.9	229.4	13.55	13.27	12.98	4300	978	301.0	3.503	60.8	81.4
	230.9	229.8	229.3	14.65	14.34	14.02	4620	949	314.9	3.555	57.4	80.9
	231.0	229.7	229.4	15.71	15.40	15.03	4914	918	325.1	3.554	54.0	80.2
	231.0	229.6	229.4	16.41	16.09	15.70	5105	896	331.3	3.532	51.6	79.8
	231.1	229.6	229.4	17.65	17.29	16.89	5415	855	338.9	3.449	47.5	78.7
	231.0	229.6	229.4	18.78	18.39	17.98	5687	813	342.3	3.314	43.5	77.7
BDT OZ-FT	231.0	229.6	229.3	19.53	19.11	18.69	5855	782	344.3	3.206	40.8	76.9
	231.1	229.5	229.4	19.86	19.44	19.01	5927	767	342.9	3.132	39.4	76.6
	231.0	229.6	229.4	20.85	20.40	19.96	6135	720	339.8	2.915	35.4	75.5
	231.1	229.5	229.4	21.83	21.34	20.89	6318	669	336.8	2.682	31.7	74.3
	231.1	229.5	229.4	22.75	22.23	21.78	6488	614	328.4	2.399	27.6	73.2
	231.1	229.6	229.4	23.57	23.03	22.57	6605	556	321.0	2.124	24.0	71.9
	231.1	229.5	229.4	24.37	23.80	23.33	6719	492	312.4	1.831	20.3	70.8
	231.1	229.5	229.4	25.11	24.53	24.06	6806	423	301.8	1.521	16.7	69.5
	231.1	229.5	229.4	25.79	25.18	24.72	6893	352	290.5	1.216	13.2	68.6
	231.0	229.7	229.3	26.38	25.73	25.30	6956	278	277.5	0.919	9.9	67.7
	231.1	229.6	229.4	26.95	26.28	25.86	6999	196	265.9	0.620	6.6	66.6
	231.1	229.5	229.4	27.45	26.78	26.35	7030	111	256.7	0.340	3.6	65.7

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31TR68 -

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

Performance Data



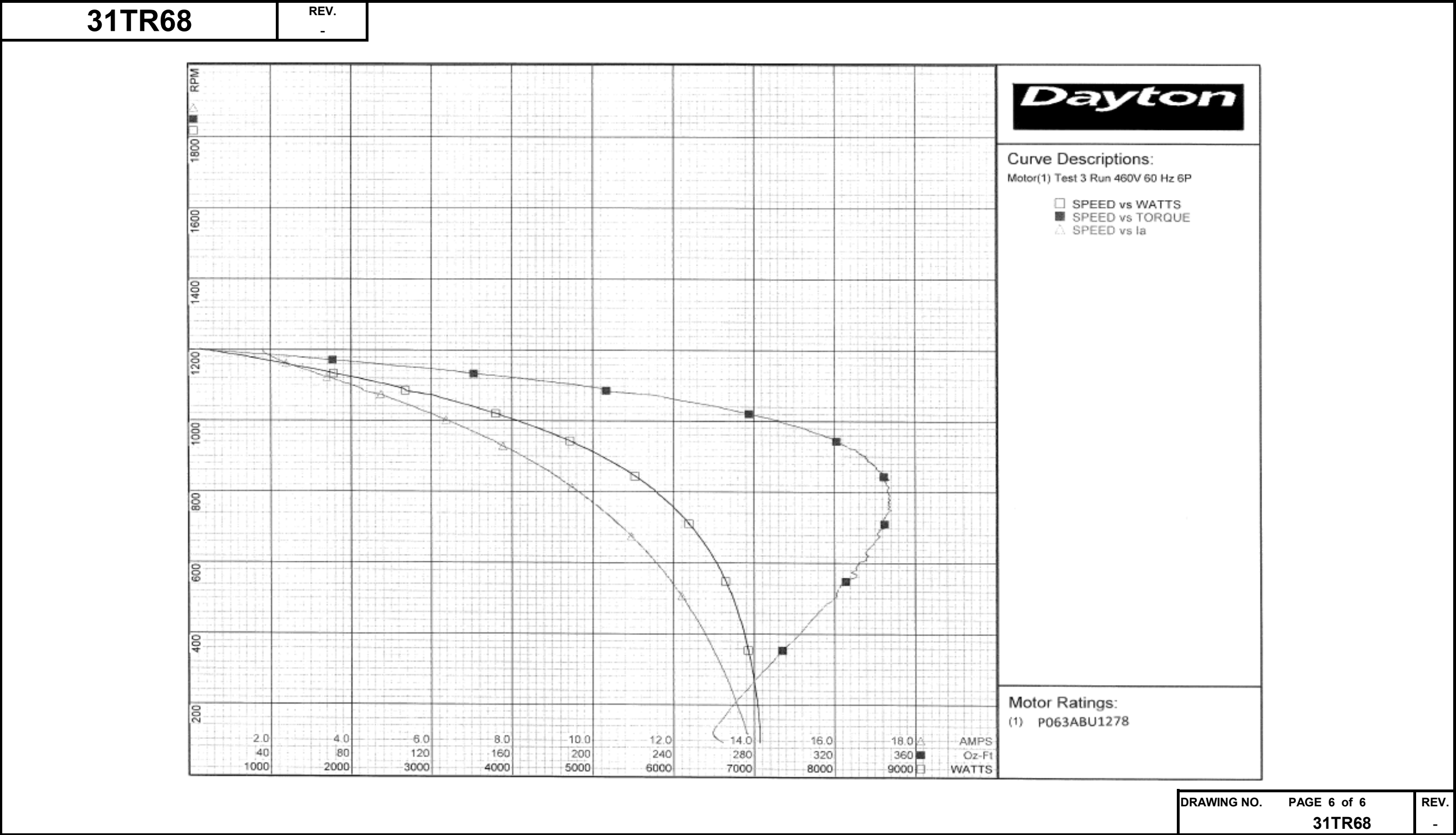
Performance Data



31TR68		REV. -											
Dayton Manufacturing Company													
Motor Description				Test Conditions									
Model:	P063ABU1278			Test Type:	Run		Run Cap:	0					
Motor ID:	1/2			Test Number:	3		Start Cap:	0μfd					
Poles:	6			Poles:	6		Environment:	20.4 Deg C 49 % RH 993 hPa					
Volts:	208-230/460			Volts:	460		Tested:	1/28/2013 8:24:58 AM					
Frequency:	60			Hz:	60		Tested By:	Sharp, Gerald					
HP:	1.5			Rotation:			Gear Ratio:	1:1					
Speed:	1140			Special Cond:			Bearing Friction:	-0.96 Oz-Ft					
Phase:	3			Speed Conn:			Windage Torque:	-3.20 Oz-Ft					
Protector:				TestBoard:	Amps Performance Fixture #2								
Special Points	Vab (V)	Vbc (V)	Vca (V)	Ia (A)	Ib (A)	Ic (A)	Watts	RPM	Tq (Oz-ft)	HP	Eff (%)	PF (%)	
	460.1	460.5	459.4	1.796	1.781	1.764	120	1202	0.0	0.000	0.0	8.5	
	460.1	460.5	459.4	1.837	1.819	1.801	375	1193	21.7	0.309	61.3	25.9	
	460.1	460.5	459.4	2.005	1.976	1.961	690	1182	49.6	0.698	75.5	43.7	
	460.2	460.5	459.4	2.219	2.182	2.163	959	1170	73.1	1.017	79.1	55.0	
	460.1	460.5	459.3	2.497	2.451	2.431	1245	1158	97.5	1.343	80.5	63.5	
110.5 OZ-FT	460.0	460.6	459.5	2.649	2.599	2.585	1398	1152	110.5	1.515	80.8	67.2	
1.5 HP	460.0	460.5	459.5	2.635	2.586	2.571	1385	1152	109.4	1.500	80.8	66.9	
	459.8	460.7	459.5	2.824	2.760	2.757	1553	1145	123.0	1.676	80.5	70.1	
1140 RPM	459.9	460.8	459.3	2.960	2.888	2.879	1660	1140	131.6	1.786	80.2	71.7	
	460.0	460.8	459.1	3.184	3.101	3.084	1844	1131	145.6	1.960	79.3	74.1	
	460.2	460.8	459.0	3.611	3.514	3.485	2174	1116	171.0	2.271	77.9	77.1	
	460.2	460.8	459.0	4.056	3.944	3.913	2505	1099	195.6	2.558	76.2	79.2	
	460.3	460.8	459.0	4.433	4.314	4.277	2783	1080	214.7	2.761	74.0	80.4	
	460.3	460.8	459.0	5.025	4.876	4.831	3181	1061	240.9	3.042	71.3	81.3	
	460.3	460.7	459.0	5.557	5.394	5.338	3530	1039	263.2	3.254	68.8	81.6	
	460.3	460.8	458.9	6.192	6.009	5.950	3934	1010	285.7	3.435	65.1	81.6	
	460.4	460.6	459.0	6.756	6.556	6.487	4274	983	302.7	3.542	61.8	81.3	
	460.4	460.7	458.9	7.309	7.091	7.014	4591	954	317.0	3.601	58.5	80.7	
	460.3	460.7	459.0	7.642	7.416	7.340	4779	936	323.1	3.601	56.2	80.3	
	460.6	460.7	458.8	8.294	8.045	7.953	5124	897	334.8	3.575	52.1	79.4	
	460.6	460.6	458.8	8.883	8.622	8.521	5421	859	341.8	3.497	48.1	78.4	
	460.6	460.6	458.8	9.428	9.164	9.057	5690	817	346.4	3.369	44.2	77.5	
	460.6	460.6	458.8	9.956	9.677	9.567	5918	774	346.4	3.190	40.2	76.3	
BDT OZ-FT	460.6	460.6	458.8	10.225	9.937	9.828	6032	749	348.1	3.104	38.4	75.7	
	460.6	460.5	458.9	10.458	10.163	10.052	6126	727	344.8	2.986	36.4	75.2	
	460.6	460.6	458.9	10.954	10.644	10.530	6317	675	342.3	2.750	32.5	74.0	
	460.6	460.5	458.8	11.417	11.092	10.973	6480	620	336.9	2.486	28.6	72.9	
	460.6	460.5	458.9	11.852	11.515	11.396	6621	561	330.5	2.205	24.8	71.7	
	460.6	460.6	458.8	12.244	11.893	11.774	6739	500	319.4	1.900	21.0	70.7	
	460.6	460.5	458.9	12.612	12.249	12.133	6836	434	307.6	1.589	17.3	69.6	
	460.6	460.5	458.9	12.957	12.585	12.468	6916	361	295.4	1.270	13.7	68.5	
	460.5	460.6	458.9	13.276	12.895	12.788	6987	284	282.9	0.958	10.2	67.5	
	460.6	460.5	458.9	13.556	13.172	13.058	7037	205	270.4	0.661	7.0	66.6	
	460.6	460.5	458.9	13.814	13.413	13.324	7071	120	259.2	0.371	3.9	65.7	
DRAWING NO.										PAGE 5 of 6		REV.	
31TR68													

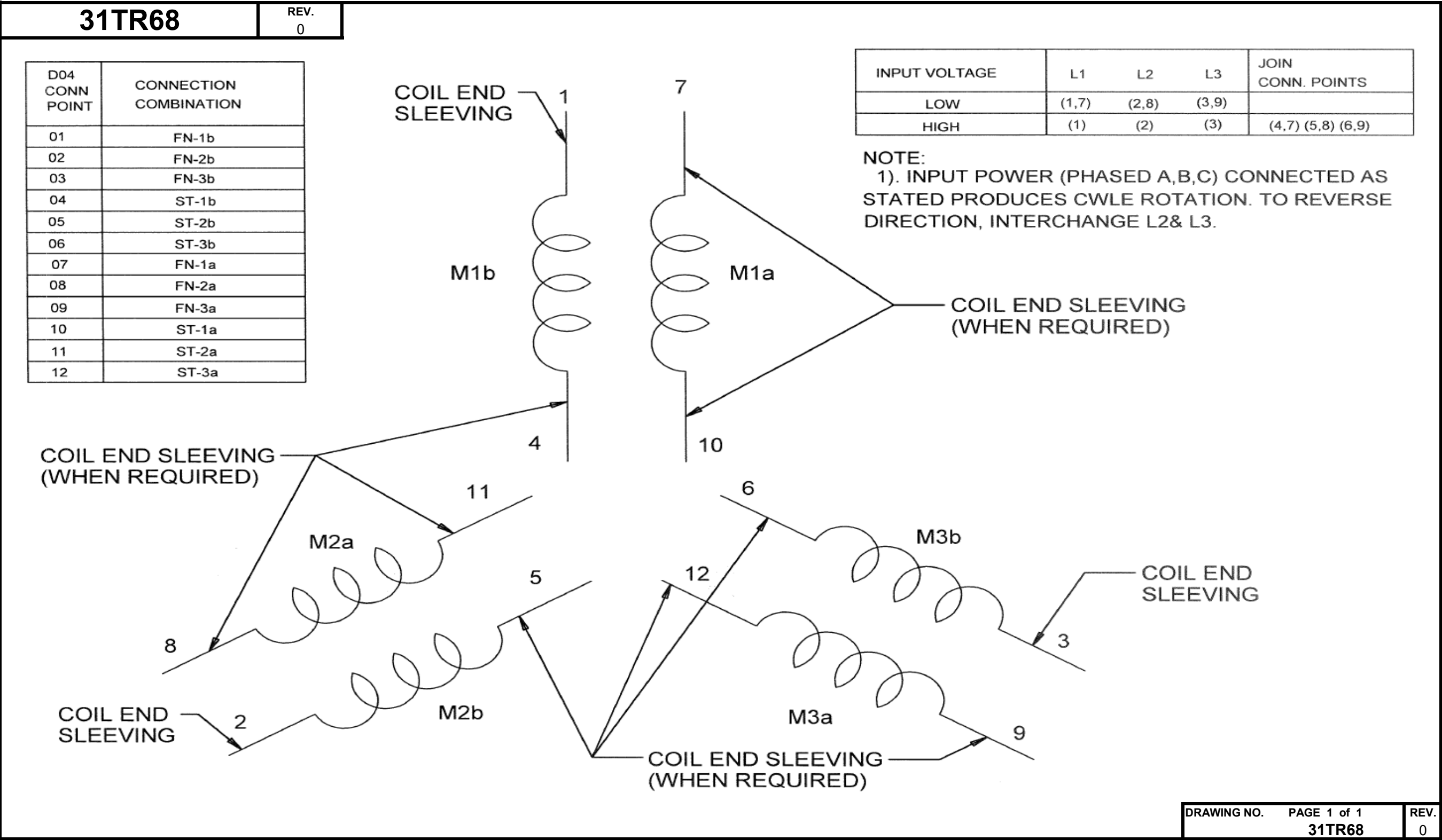
Dayton Electric Mfg. Co. Lake Forest, IL 60045 USA

Performance Data



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

Wiring Diagram



Dayton®**CONDENSER FAN MOTOR**Part
No31TR68 [BAR CODE]**HP:** 1.5**PH:** 3**VOLTS:** 208-230/460**HZ:** 60**AMPS:** 5.4/2.7**FR:** 56Z**RPM:** 1140**INS CL:** F**DUTY:** CONT**AMB:** 70 °C**SF:** 1.0**SFA:****KVA CODE:** L**ENCL:** OAO**THERMALLY PROTECTED:** AUTO

MFG. NO. [] []

PROT. CODE : [06090]

AVG. F.L.
EFF.**MTR REF:** P63SYABU-1278**USABLE FOR 208 V AT 1.0 SF**

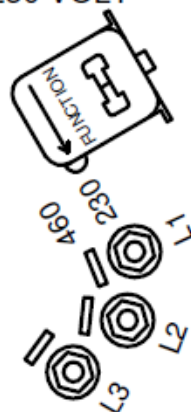
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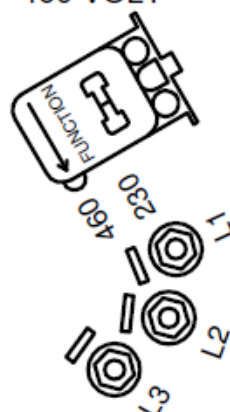
258501

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

230 VOLT



460 VOLT

**TO REVERSE ROTATION INTERCHANGE
ANY TWO LINE LEADS.****Mfd for Dayton Electric Mfg. Co., Lake Forest, IL 60045 USA****Made in Mexico**