



INNERSPACE CORPORATION

1138 E. EDNA PLACE, COVINA, CA 91724
 TEL: (626) 331-0921 FAX: (626) 966-6391
 www.innerspacethrusters.com

INNERSPACE BDC 13150HB-05

INNERSPACE - 5HP - 150VDC - 1002 ELECTRIC THRUSTER

Thruster Detail

MOTOR TYPE: **3 Phase BDC**
 BUS VOLTAGE: **150 VDC**
 THRUSTER DIA: **14.5 inch**
 LENGTH: **21.9 inch**

Performance

Max Current: **40.0 Amps**
 Max THRUST: **320 lbs**
 TOTAL DRY WEIGHT: **57 lbs**
 TOTAL WET WEIGHT: **38 lbs**

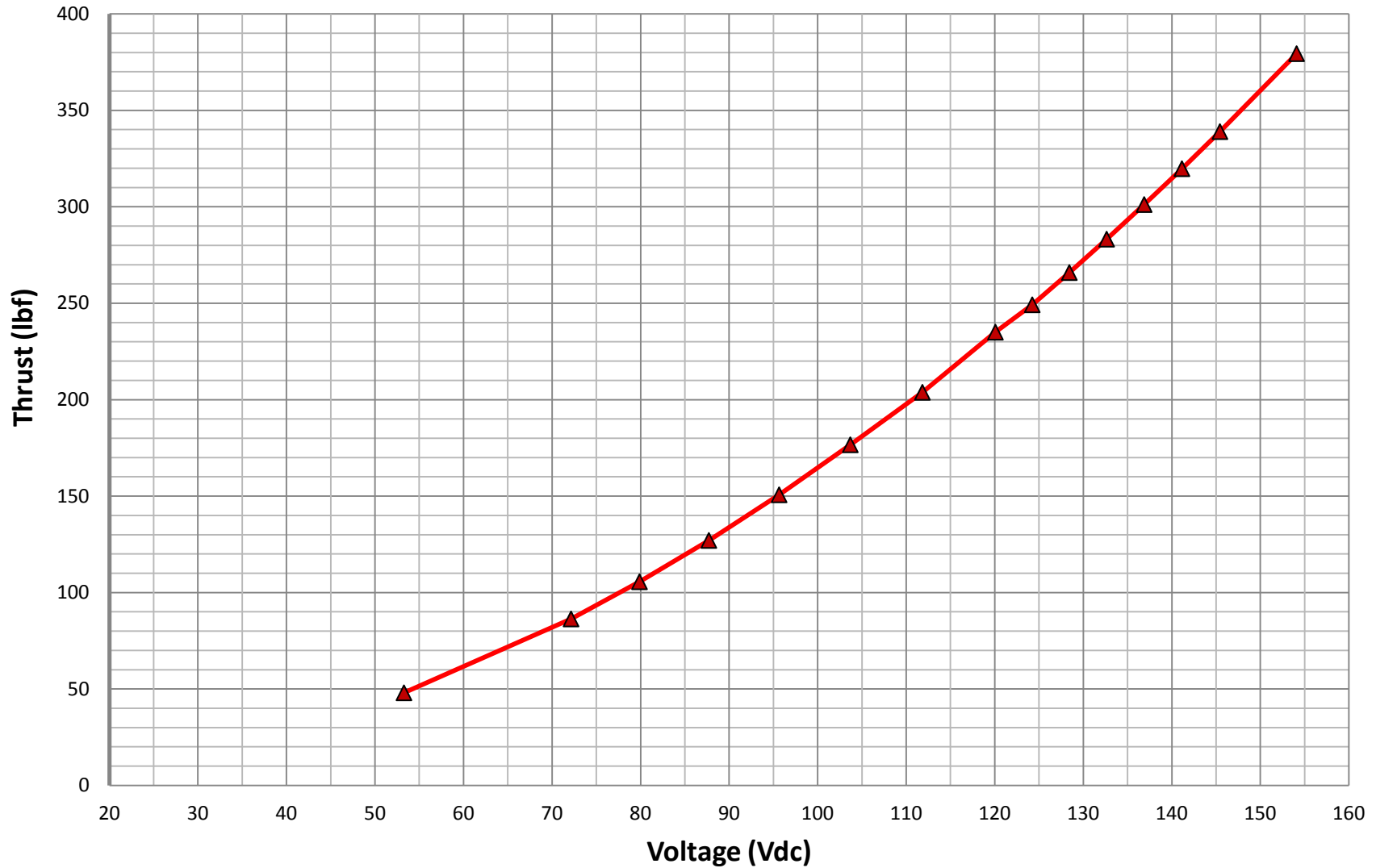
Reference Operating Point

SPEED: **1600 RPM**
 POWER IN: **4270 Watts**
 MIN VOLTAGE: **120 VDC**
 CURRENT: **30.5 Amps**

Command SPEED (RPM)	Motor Voltage (Peak)	Current (A rms)	Motor SPEED RPM	Torque		Thrust			SHAFT POWER		POWER IN (watts)	POWER IN (HP)	Efficiency Pout/Pin
				N-M	in-lbs	lbf	Kgf	N	(HP)	(watts)			
750	53	7.6	750	5.9	52.3	48	22	214	0.62	465	483	0.6	96.2%
1000	72	12.6	1000	9.8	86.8	86	39	384	1.38	1028	1078	1.4	95.3%
1100	80	15.0	1100	11.7	103.4	106	48	470	1.80	1346	1418	1.9	94.9%
1200	88	17.7	1200	13.7	121.5	127	58	565	2.31	1726	1825	2.4	94.6%
1300	96	20.5	1300	16.0	141.2	151	68	670	2.91	2173	2307	3.1	94.2%
1400	104	23.6	1400	18.4	162.5	177	80	786	3.61	2693	2870	3.8	93.8%
1500	112	26.9	1500	20.9	185.3	204	92	907	4.41	3291	3522	4.7	93.4%
1600	120	30.5	1600	23.7	209.8	235	106	1037	5.33	3973	4270	5.7	93.1%
1650	124	32.4	1650	25.2	222.6	249	113	1108	5.83	4347	4681	6.3	92.9%
1700	128	34.3	1700	26.6	235.8	266	121	1183	6.36	4745	5119	6.9	92.7%
1750	133	36.3	1750	28.2	249.4	283	128	1260	6.92	5166	5585	7.5	92.5%
1800	137	38.3	1800	29.8	263.4	301	137	1340	7.52	5611	6078	8.1	92.3%
1850	141	40.4	1850	31.4	277.8	320	145	1422	8.15	6082	6602	8.8	92.1%
1900	145	42.5	1900	33.1	292.5	339	154	1508	8.82	6579	7155	9.6	91.9%
2000	154	47.0	2000	36.5	323.3	379	172	1688	10.26	7653	8357	11.2	91.6%

5 HP 1002 THRUST (lbf) vs VOLTAGE (Vdc)

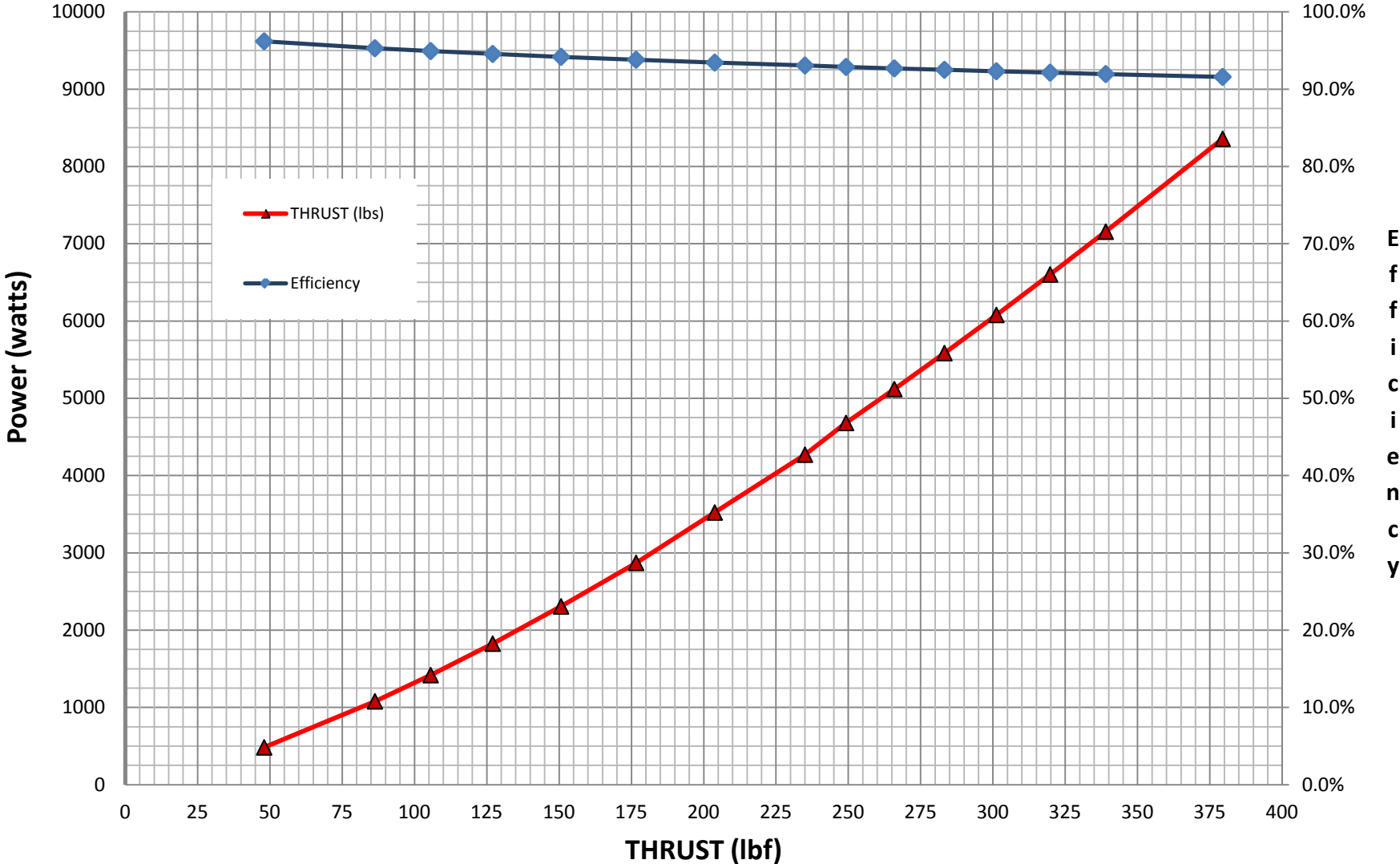
MOTOR: BDC 13150HB-05 (150 VDC, 5HP)



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5 HP 1002 THRUST (lbf) vs POWER IN (watts)

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