



# INNERSPACE CORPORATION

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

## INNERSPACE - 10HP - 300VDC - 1002HL ELECTRIC THRUSTER

### Thruster Detail

MOTOR TYPE: **3 Phase BDC**  
 BUS VOLTAGE: **300-400 VDC**  
 THRUSTER DIA: **14.5 inch**  
 LENGTH: **23 inch**

### Performance

Max Current: **30.0 Amps**  
 Max THRUST: **460 lbs**  
 TOTAL DRY WEIGHT: **56 lbs**  
 TOTAL WET WEIGHT: **41 lbs**

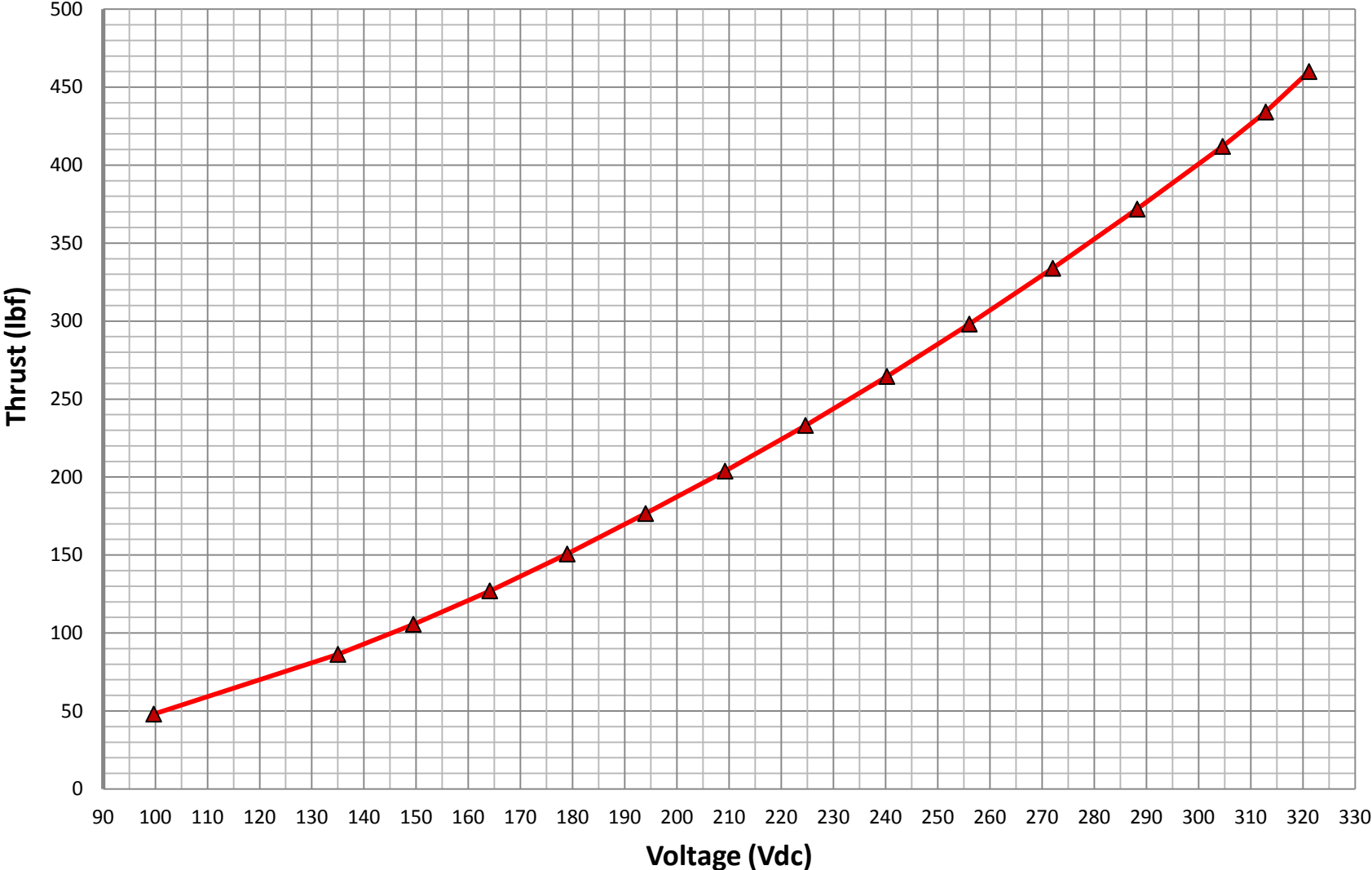
### Reference Operating Point

SPEED: **2000 RPM**  
 POWER IN: **8351 Watts**  
 MIN VOLTAGE: **288 VDC**  
 CURRENT: **25.1 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	100	4.1	750	5.9	52.3	48	22	214	0.62	465	483	0.6	96.2%
1000	135	6.7	1000	9.8	86.8	86	39	384	1.38	1028	1078	1.4	95.3%
1100	149	8.0	1100	11.7	103.4	106	48	470	1.80	1346	1417	1.9	95.0%
1200	164	9.4	1200	13.7	121.5	127	58	565	2.31	1726	1824	2.4	94.6%
1300	179	11.0	1300	16.0	141.2	151	68	670	2.91	2173	2306	3.1	94.2%
1400	194	12.6	1400	18.4	162.5	177	80	786	3.61	2693	2869	3.8	93.9%
1500	209	14.4	1500	20.9	185.3	204	92	907	4.41	3291	3520	4.7	93.5%
1600	225	16.3	1600	23.7	209.8	233	106	1037	5.33	3973	4267	5.7	93.1%
1700	240	18.3	1700	26.6	235.8	265	120	1177	6.36	4745	5116	6.9	92.7%
1800	256	20.4	1800	29.8	263.4	298	135	1326	7.52	5611	6075	8.1	92.4%
1900	272	22.7	1900	33.1	292.5	334	151	1485	8.82	6579	7151	9.6	92.0%
2000	288	25.1	2000	36.5	323.3	372	169	1654	10.26	7653	8351	11.2	91.6%
2100	305	27.6	2100	40.2	355.6	412	187	1833	11.85	8839	9684	13.0	91.3%
2150	313	28.9	2150	42.1	372.3	434	197	1931	12.70	9476	10402	13.9	91.1%
2200	321	30.2	2200	44.0	389.5	460	208	2042	13.60	10142	11156	15.0	90.9%

# 10 HP 1002 THRUST (lbf) vs VOLTAGE (Vdc)

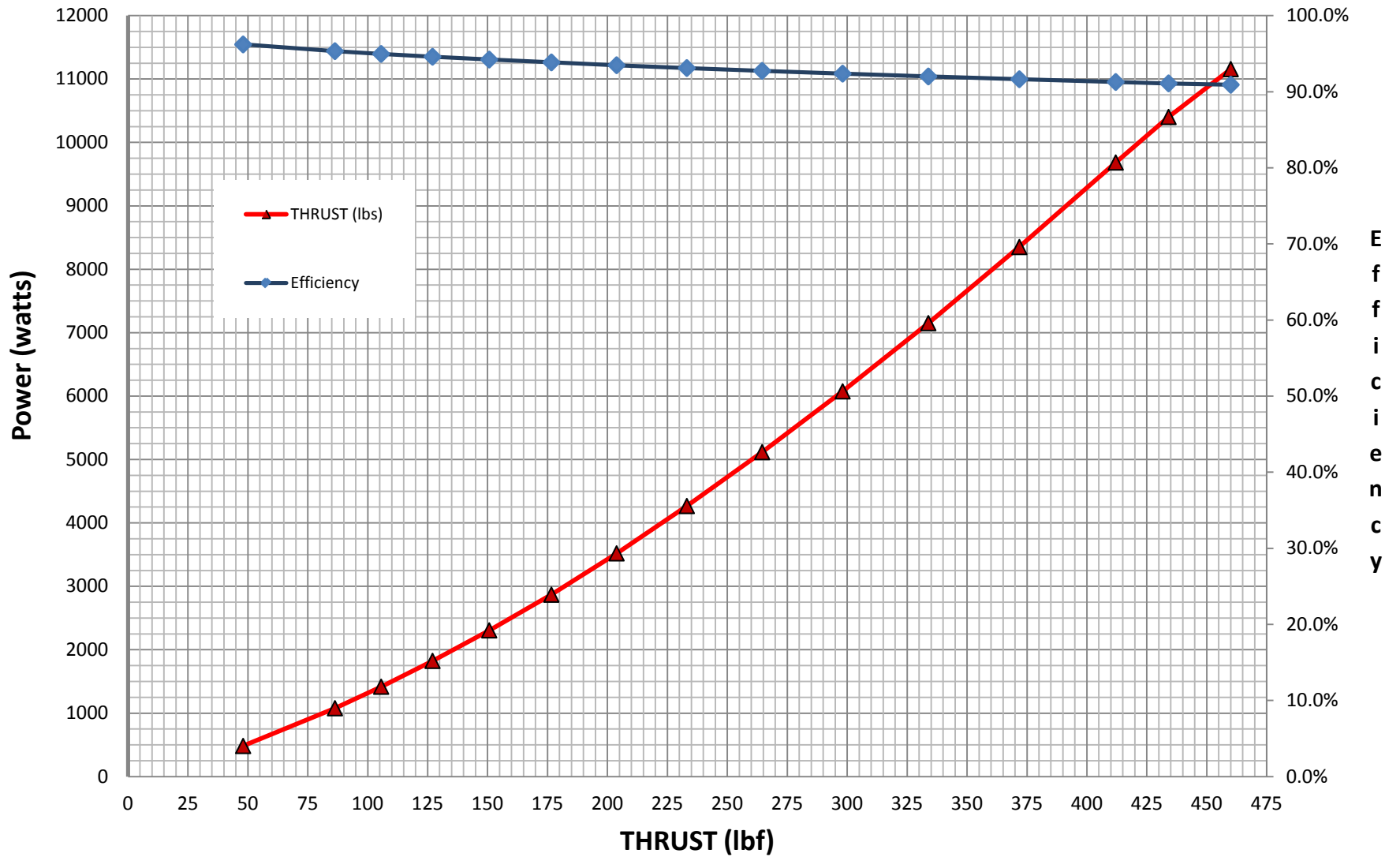
MOTOR: BDC 13300-10 (300 VDC, 10HP)



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# 10 HP 1002 THRUST (lbf) vs POWER IN (watts)

MOTOR: BDC 13300-10 (300 VDC, 10HP)



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