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

NOMINAL VOLTAGE: 150 VDC

1002H Hexscreen Electric Thruster with 14150XLR Motor Performance Table

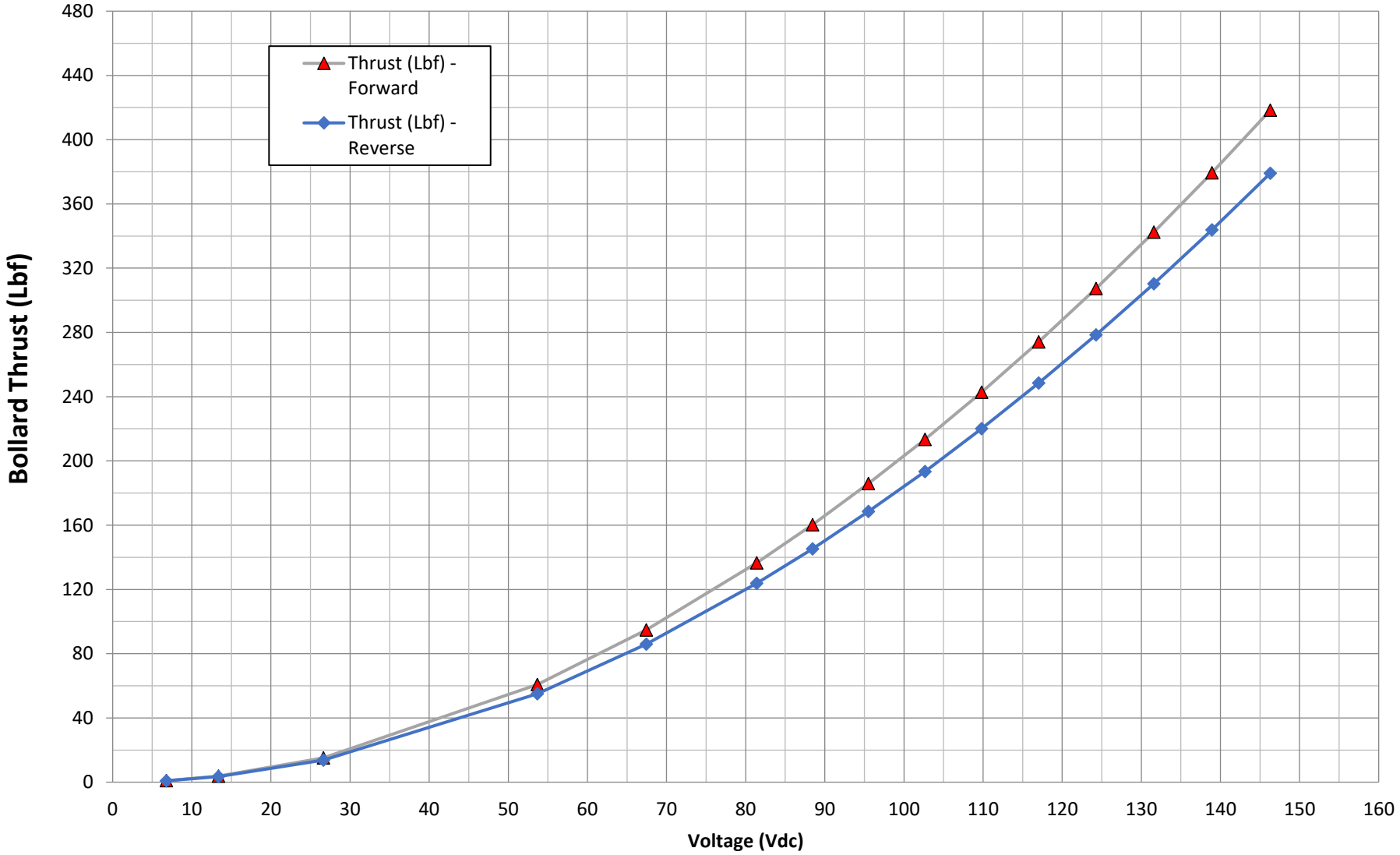
Speed	System Voltage	Min Voltage	Current	Torque		Bollard Thrust		Reverse Thrust		Power Shaft		Power In		Efficiency
(RPM)	(VDC)	(VDC)	(A rms)	(N-M)	(In-Lbs)	0 (Lbf)	0 (Kgf)	(Lbf)	(Kgf)	(HP)	(Watts)	(Watts)	(HP)	(Pout/Pin)
100	150	6.8	1.7	1.2	10.8	1	0.4	1	0.4	0.02	13	13	0.0	97.4%
200	150	13.4	2.1	1.5	13.2	4	1.7	3	1.6	0.04	31	32	0.0	98.4%
400	150	26.6	3.6	2.6	22.8	15	6.9	14	6.2	0.14	108	109	0.1	98.6%
800	150	53.7	9.6	6.9	61.1	61	27.5	55	25.0	0.78	579	590	0.8	98.1%
1000	150	67.5	14.0	10.2	89.9	95	43.0	86	39.0	1.43	1064	1088	1.5	97.8%
1200	150	81.4	19.5	14.1	125.0	137	62.0	124	56.1	2.38	1775	1822	2.4	97.5%
1300	150	88.4	22.7	16.4	145.0	160	72.7	145	65.9	2.99	2231	2293	3.1	97.3%
1400	150	95.5	26.0	18.8	166.5	186	84.3	168	76.4	3.70	2759	2842	3.8	97.1%
1500	150	102.6	29.7	21.4	189.7	213	96.8	193	87.7	4.51	3368	3474	4.7	96.9%
1600	150	109.8	33.5	24.2	214.4	243	110.1	220	99.8	5.44	4061	4197	5.6	96.8%
1700	150	117.0	37.6	27.2	240.8	274	124.3	248	112.7	6.49	4845	5017	6.7	96.6%
1800	150	124.3	42.0	30.4	268.7	307	139.4	279	126.3	7.68	5726	5940	8.0	96.4%
1900	150	131.6	46.6	33.7	298.3	342	155.3	310	140.8	8.99	6708	6972	9.3	96.2%
2000	150	138.9	51.5	37.2	329.4	379	172.1	344	156.0	10.45	7798	8120	10.9	96.0%
2100	150	146.3	56.6	40.9	362.2	418	189.7	379	171.9	12.07	9002	9391	12.6	95.9%

Table Information:

1) The Minimum Voltage column in the above table shows the minimum Voltage needed to achieve the performance at that corrosponding propeller RPM/Thrust.
2) The Current shown represents the continues RMS Current to the motor to achieve the Thrust at the corresponding propeller RPM.
3) The Shaft HP developed is a function of the propeller and increases with propeller RPM.
4) The maximum performance achieved will depend on the limitations of customers system Voltage and driver Current capacity.
5) For Thrust at Forward Vehicle Speed (Kts), anything lower than 500 RPM varies greatly with vehicle design.
6) The Current/RPM might need to be limited depending on customer connector spec and or system Current limitations.
7) Minimum Voltage to achieve full Thrust is 146 VDC.
8) Max Voltage should not exceed 10% of rated Voltage.

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

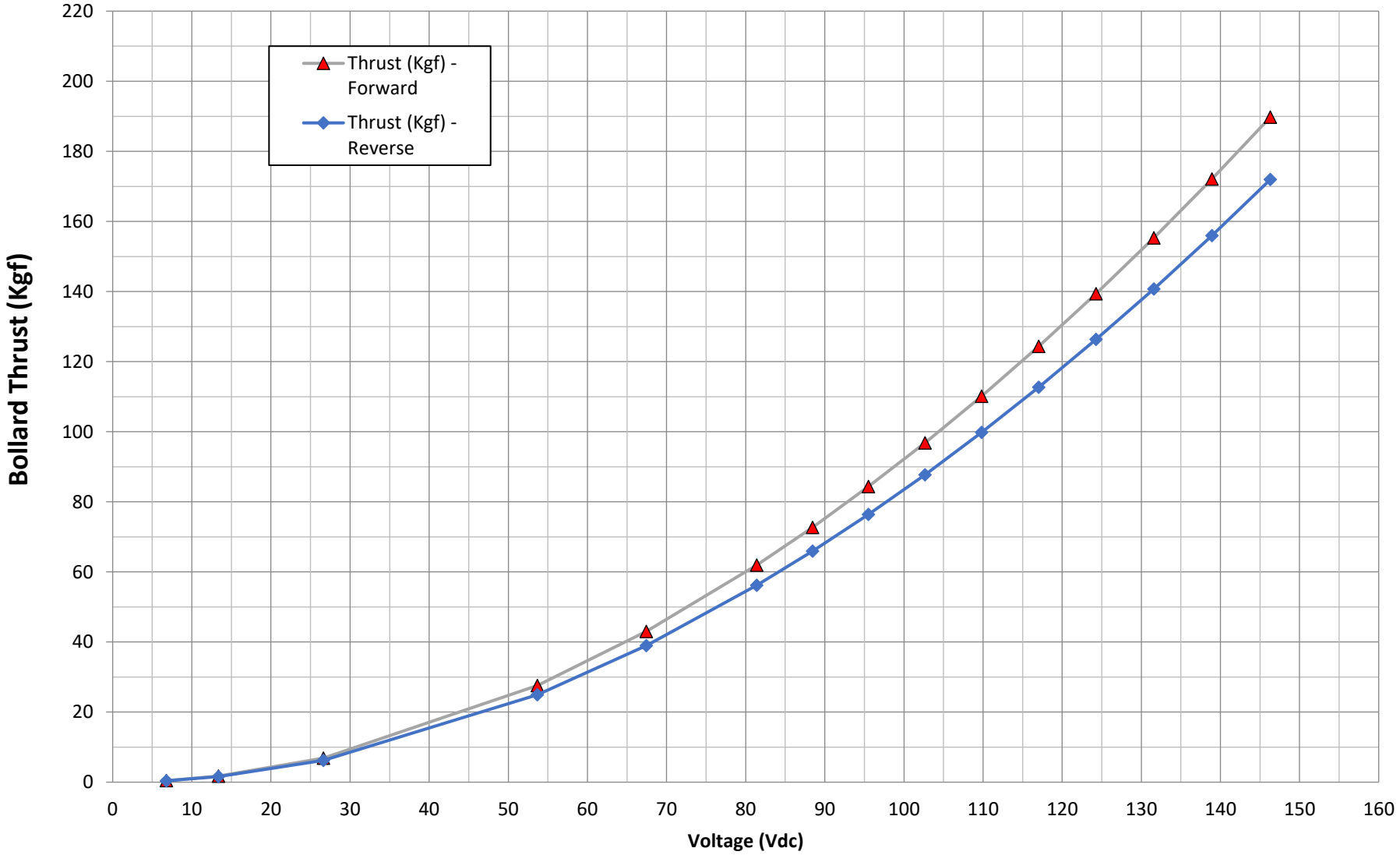
1002H-14150XLR Hexscreen Electric Thruster
Thrust (Lbf) vs Voltage (Vdc)



Note:
System Voltage equals 150VDC. Graph shows Thrust with Voltages below 150VDC.

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

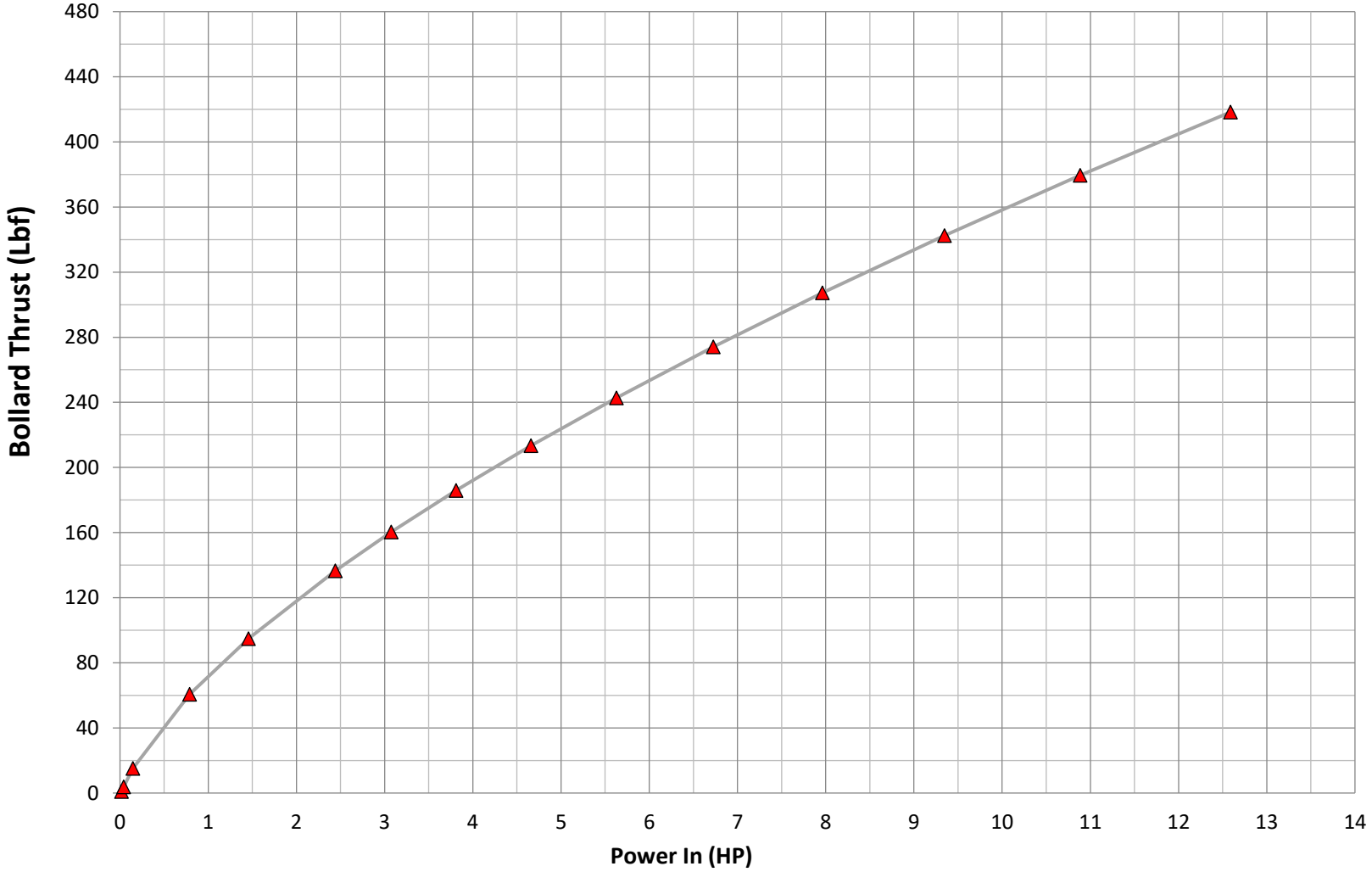
1002H-14150XLR Hexscreen Electric Thruster
Thrust (Kgf) vs Voltage (Vdc)



Note:
System Voltage equals 150VDC. Graph shows Thrust with Voltages below 150VDC.

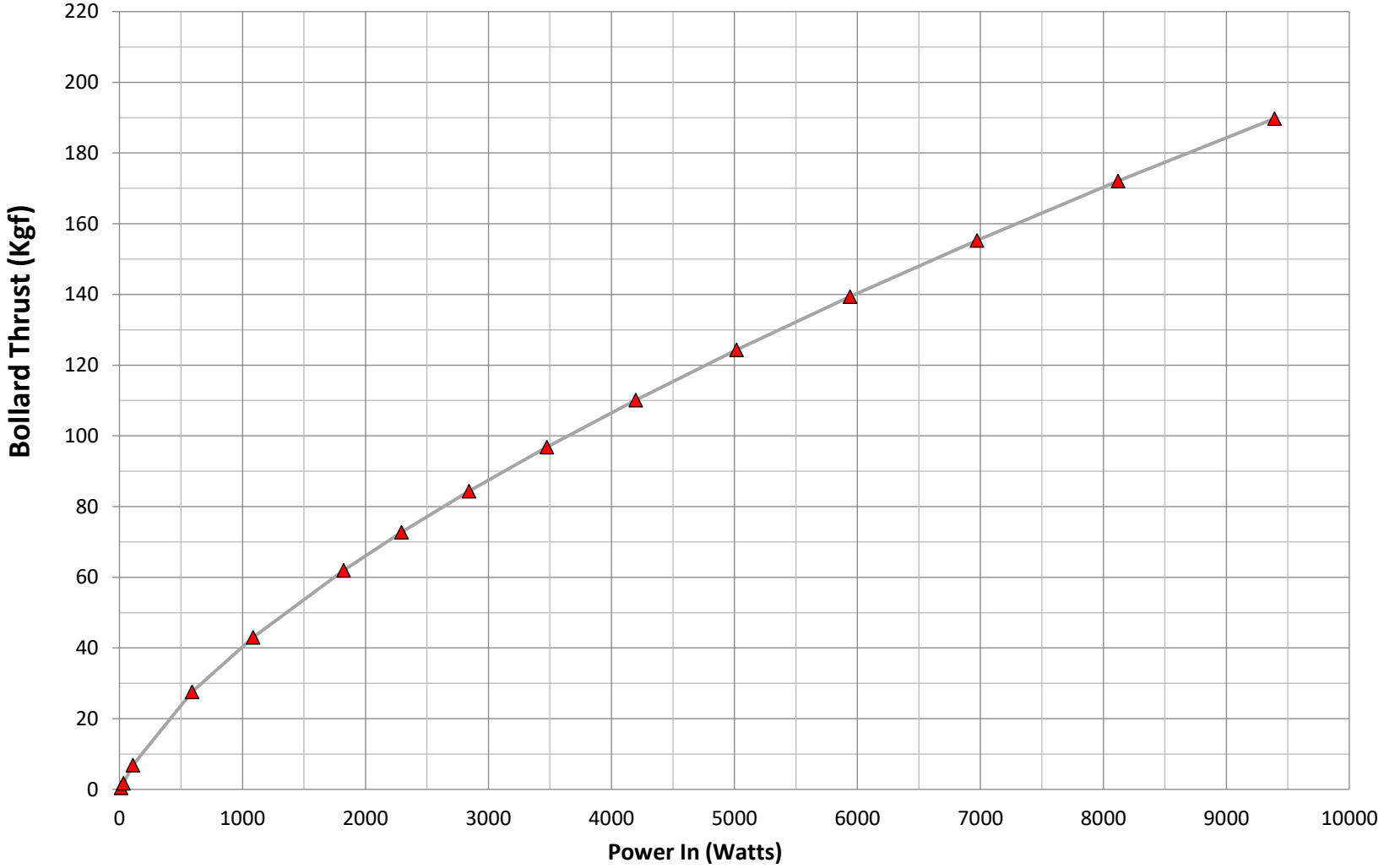
INNERSPACE CORPORATION
E. EDNA PLACE, COVINA, CA 91724 1138
TEL: (626) 331-0921 FAX: (626) 966-6391
www.innerspacethrusters.com

1002H-14150XLR Hexscreen Electric Thruster
Thrust (Lbf) vs Power In (HP)



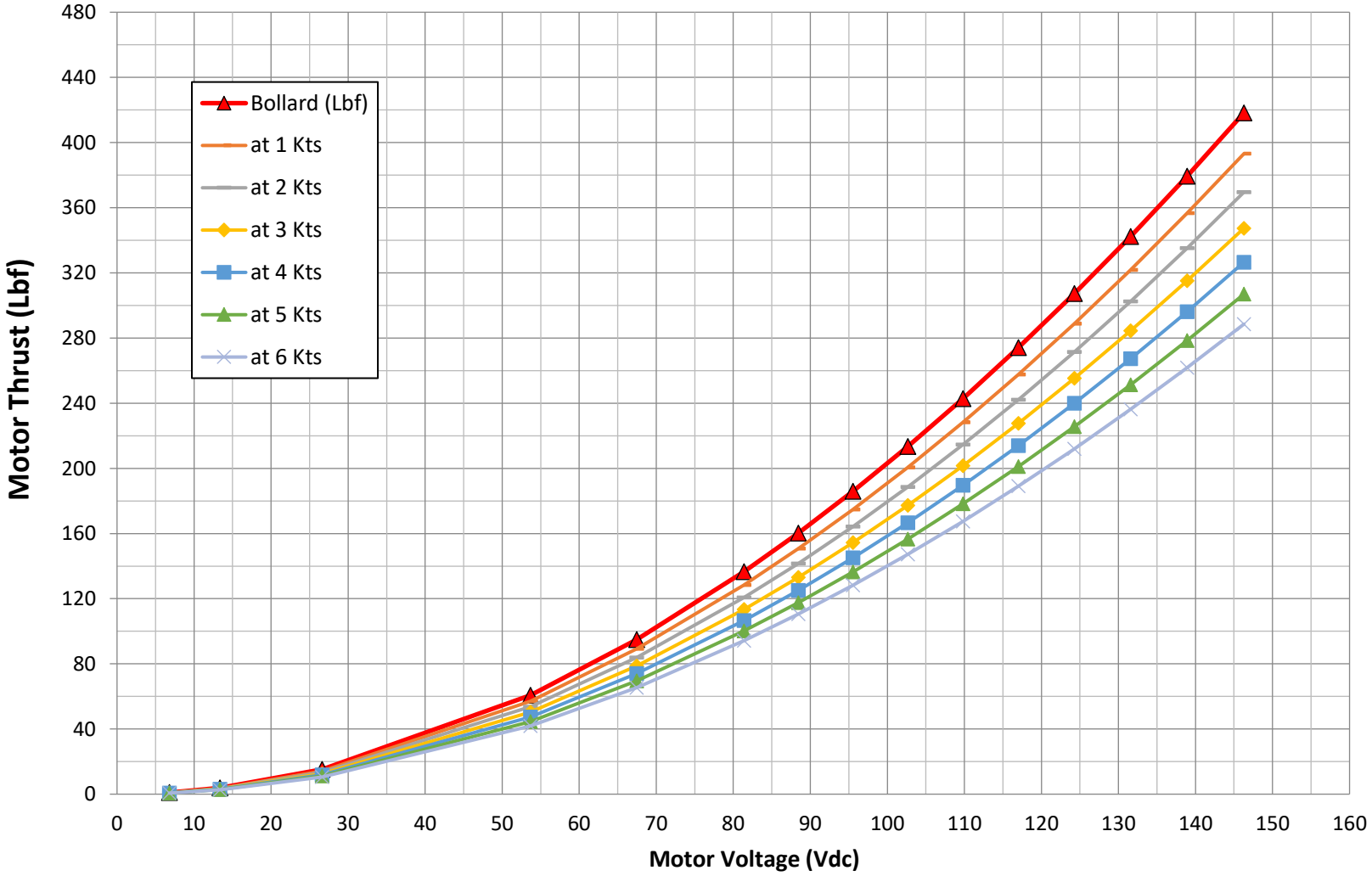
INNERSPACE CORPORATION
E. EDNA PLACE, COVINA, CA 91724 1138
TEL: (626) 331-0921 FAX: (626) 966-6391
www.innerspacethrusters.com

1002H-14150XLR Hexscreen Electric Thruster
Thrust (Kgf) vs Power In (Watts)



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

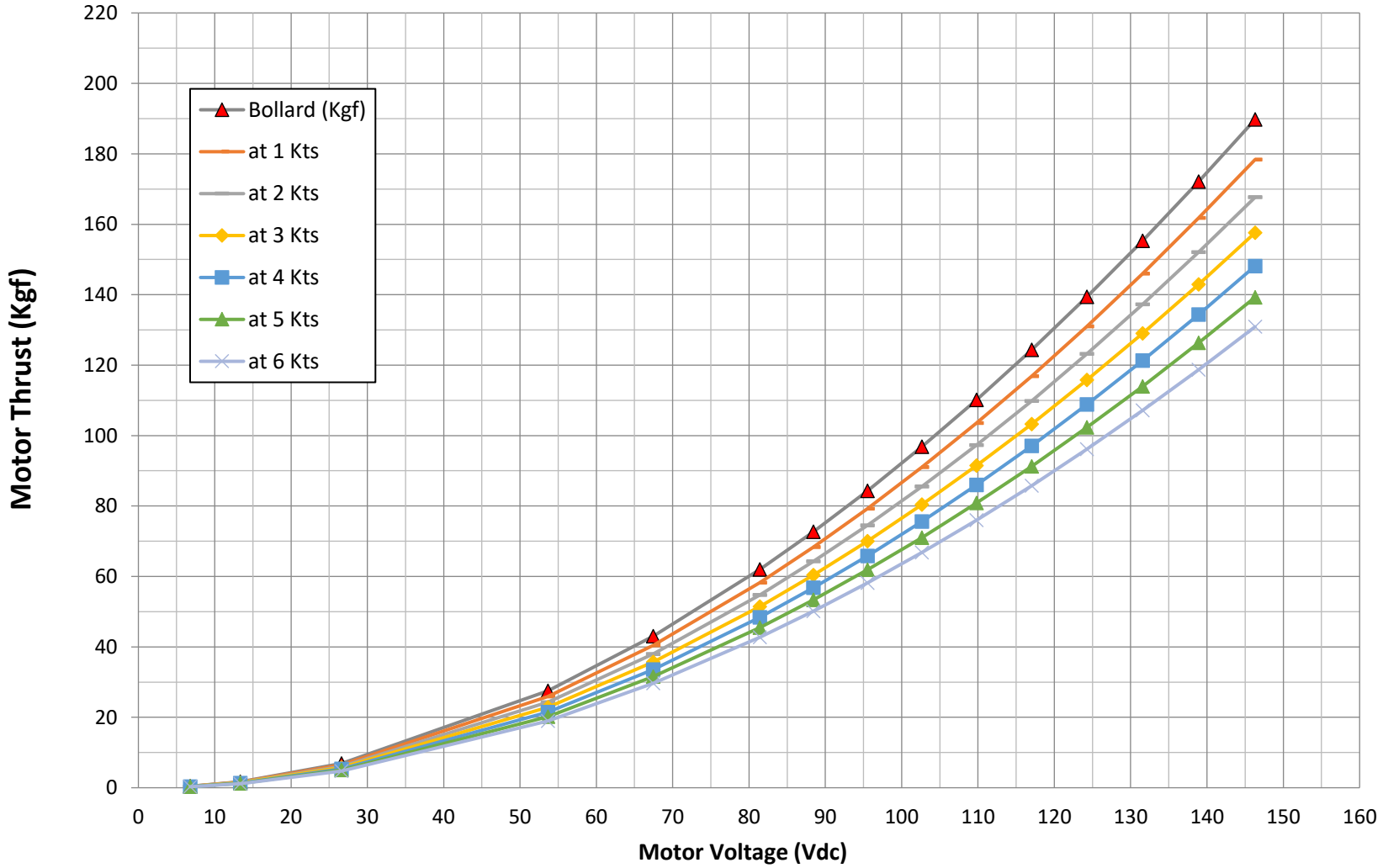
1002H-14150XLR Hexscreen Electric Thruster
Thrust (Lbf) vs Voltage (Vdc)



Note:
1) For Thrust at Forward Vehicle Speed (Kts), anything lower than 500 RPM varies greatly with vehicle design.
2) Thrust at forward vehicle speed from 1 Kts to 6 Kts is based on a local water speed with a very conservative vehicle wake factor.
3) System Voltage equals 150VDC. Graph shows Thrust with Voltages below 150VDC.

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

1002H-14150XLR Hexscreen Electric Thruster
Thrust (Kgf) vs Voltage (Vdc)



Note:
1) For Thrust at Forward Vehicle Speed (Kts), anything lower than 500 RPM varies greatly with vehicle design.
2) Thrust at forward vehicle speed from 1 Kts to 6 Kts is based on a local water speed with a very conservative vehicle wake factor.
3) System Voltage equals 150VDC. Graph shows Thrust with Voltages below 150VDC.