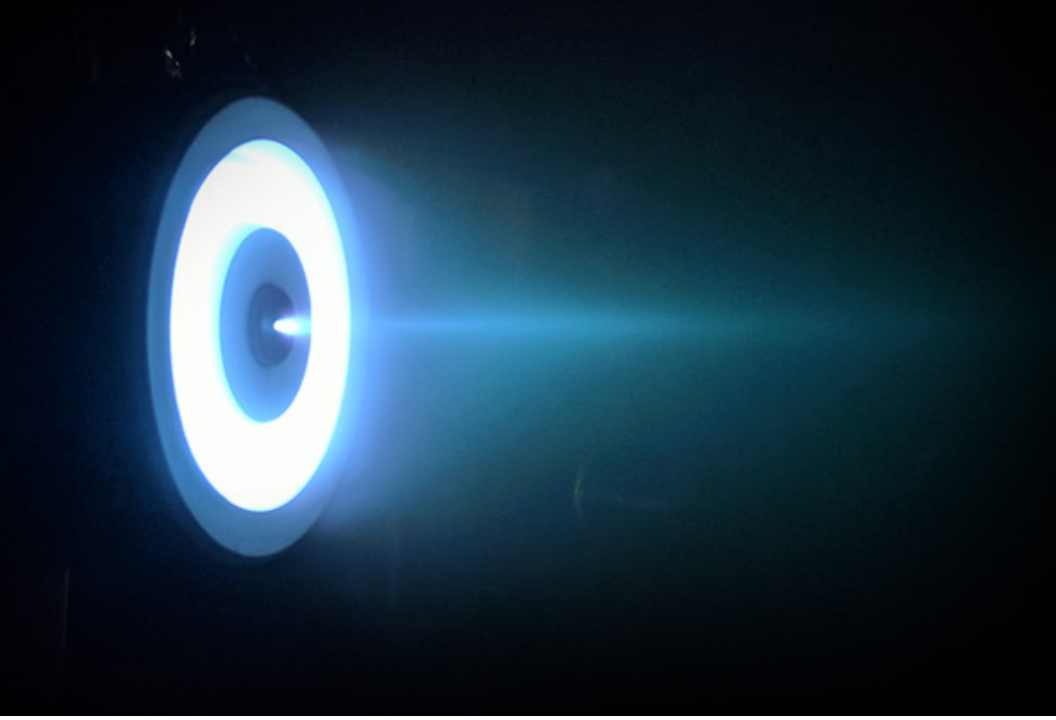
APOLLO CONSTELLATION ENGINE



Example mission profile

Thrusters	1
Total on-time	1,500 hrs
Total impulse*	170,000 Ns
Total Ns/kg, system*	11,000 Ns/kg
Total Ns/L, system*	68,000 Ns/L
Propellant	12 kg
Total delta-V*	700 m/s

* for a 250kg wet satellite

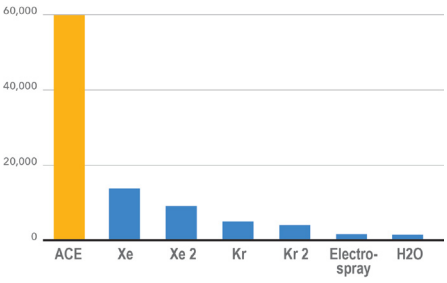
Best in class performance at a fraction of the size

Apollo's ACE Hall thruster is designed from the ground up to maximize overall system efficiency. ACE minimizes system mass and volume, making it possible to deploy large constellations of next generation communications and imaging satellites. For its power level, the ACE thruster system is the most compact in the world. ACE is 1/2 the mass and 1/5 of the volume of a comparable Xenon system. ACE is 1/3 the mass and 1/14th the volume of a comparable Krypton system. The ACE propellant tank can conform to the specific geometry of a satellite, remain safely below 15 psi, and employs no moving parts in its flow control system. The cathode starts instantly and contains no heater.

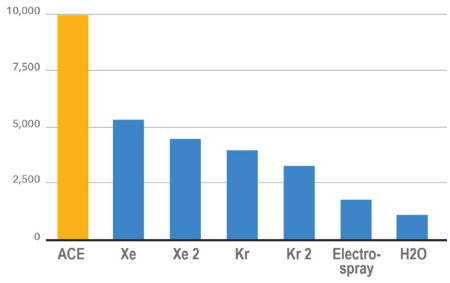
Specifications

Power, input to PPU & cathode	500 W
Thrust	33 mN
Specific impulse (system)	1,500 s
Total impulse	300,000 Ns
Mass (thruster, PPU, tank)	4.1 kg
Input voltage to PPU	27-38 VDC
Thruster lifetime	2,500 hrs

Impulse per system volume, Ns/liter
(250kg wet, 1 thruster, with propellant)



Impulse per system mass, Ns/kg
(250kg wet, 1 thruster, with propellant)



More information is available at apollofusion.com or via info@apollofusion.com

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