ST-40 PRODUCT SHEET

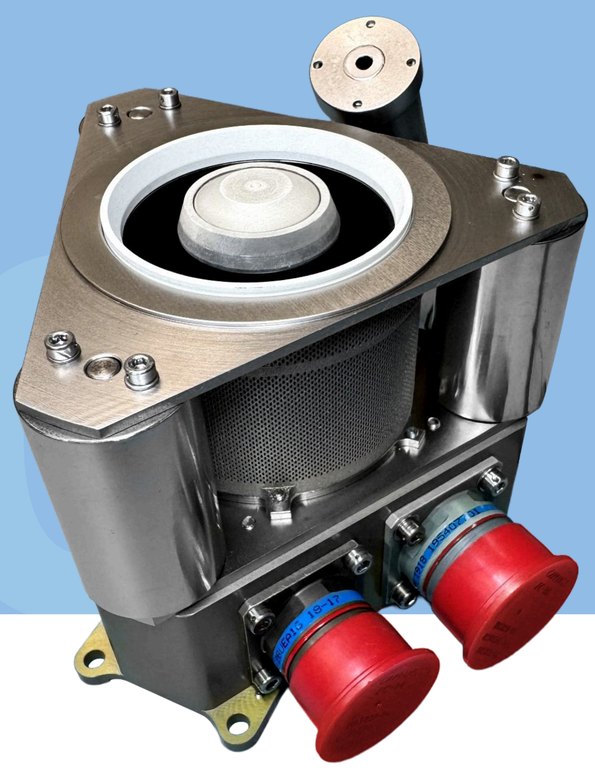
SETS
SPACE ELECTRIC THRUSTER SYSTEMS

The ST-40 is a Hall-effect thruster designed for efficient and reliable propulsion across a wide range of satellite missions. Operating in the low-power class, it delivers thrust of up to 36 mN, providing an effective balance between performance and propellant efficiency.

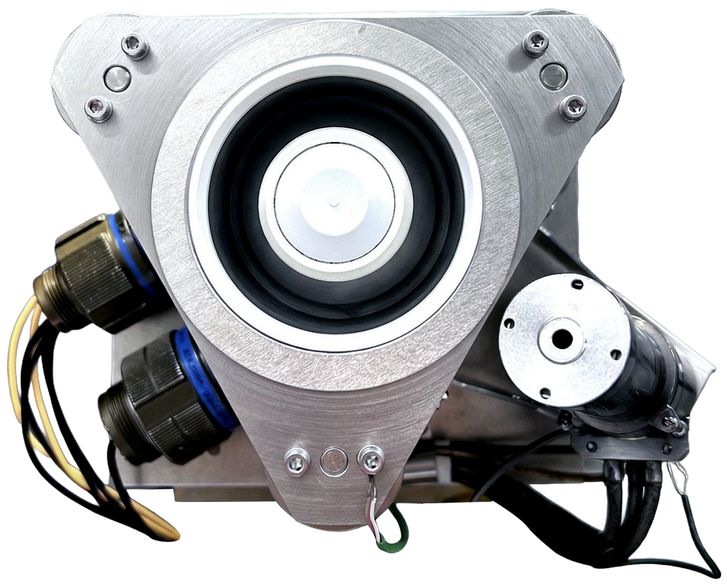
The thruster utilizes heated cathodes to ensure reliable ignition and stable operation across all mission phases, providing consistent performance over long-duration operation.

The ST-40 was developed for use in propulsion systems for LEO to GEO satellites.

Modern mass manufacturing approaches make it a cost-effective solution for large satellite constellations. Its multi-propellant capability enables flexibility in thrust and specific impulse, allowing adaptation to a wide range of mission requirements.



Technical Information



Propellant	Xenon, Krypton
Total power consumption, W	250 – 600
Thrust, mN	13 – 36
Specific impulse, s	1000 – 1750
Total Impulse, kN•s	Up to 300
Efficiency, %	Up to 46
Mass (including two cathodes), kg	1.4
Dimensions, mm	156 x 130 x 105
Cathode type	Heated hollow cathode(s)
[1] TRL Level	9

1 – TRL-9 is the previous configuration of the ST-40 Hall thruster launched into orbit in 2022. Based on the obtained experience from multiple systems and flight telemetry, some modifications have been implemented in the design.