AEPS Advanced Electric Propulsion System 13 kW Hall Thruster AEROJET. ROCKETDYNE

High Powered Solar Electric Propulsion

Aerojet Rocketdyne's advanced electric propulsion system will significantly advance the nation's commercial space capabilities and enable deep space exploration missions.

System Performance

Input Voltage Range

95V - 140V

Number of Cycles

5000

Total Impulse

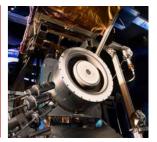
10⁸ N-sec

Efficiency Mass

> 60% (at 13.3 kW system input power) < 99 kg (including XFC and harnessing)

Life Capability

> 15 yrs



Hall Thruster

Propellant

Xenon

Mass

< 47 kg

Envelope

Low Power Performance

530 mm (diam) X 210 mm (height) 390 mN, 1900 seconds (at 300V, 20.8A)

High Power Performance

600 mN, 2800 seconds (at 600V, 20.8A)

Efficiency

> 65% (600V, 20.8A)

Power Processing Unit



Mass

< 50 kg

Envelope

520 mm X 900 mm X 200 mm

Efficiency

> 94% (at 13.3 kW input power)

Command Interface

Mil-Std-1553B

Discharge Output Power

3.0 kW to 12.5 kW

Features

Flexible and automated startup, monitoring, and fault protection of Thruster and XFC