

# ADVANCED ELECTRIC PROPULSION SYSTEM (AEPS)

# High-powered solar electric propulsion

### SYSTEM PERFORMANCE

Input Voltage Range	95V - 140V
Number of Cycles	5000
Total Impulse	10^8 N-sec
Efficiency	> 60% (at 13.3 kW system input power)
Mass	< 99 kg (including XFC and harnessing)
Life Capability	> 15 yrs

## HALL THRUSTER

Propellant	Xenon
Mass	< 47 kg
Envelope	530 mm (diam) x 210 mm (height)
Low Power Performance	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



L3Harris' advanced electric propulsion system will significantly advance the nation's commercial space capabilities and enable deep space exploration missions.

#### Advanced Electric Propulsion System (AEPS)

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