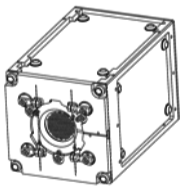
NPT30-I2 1U

SMART ELECTRIC PROPULSION SYSTEM

THRUSTME



ThrustMe's NPT30 family are fully integrated propulsion system marrying the traditional and space proven gridded ion thruster technology with breakthrough technological innovations. The NPT30 has a modular design, and include the ion thruster, the PPU, the propellant storage, feed system as well as passive thermal management and intelligent operation control. The NPT30-I2s use solid iodine propellant, allowing the systems to be non-pressurized throughout integration, launch and operation. The use of iodine reduces indirect cost and simplify logistics; the system is delivered pre-filled and do not require extra filling, shipping/storage qualifications nor pressurized launch qualifications.

PRODUCT INFORMATION

ADVANCED SAFETY FEATURES

- ✓ Built-in-self-test algorithms
- ✓ Embedded fail-safe modes
- ✓ Redundancy includes cathodes and ignition systems
- ✓ Rad-hardened main controller option
- ✓ Patented pipeless design to avoid clogging
- ✓ Non-pressurized solid propellant
- ✓ Continuous neutralization monitoring
- ✓ Iodine-compatible sealing for safe storage

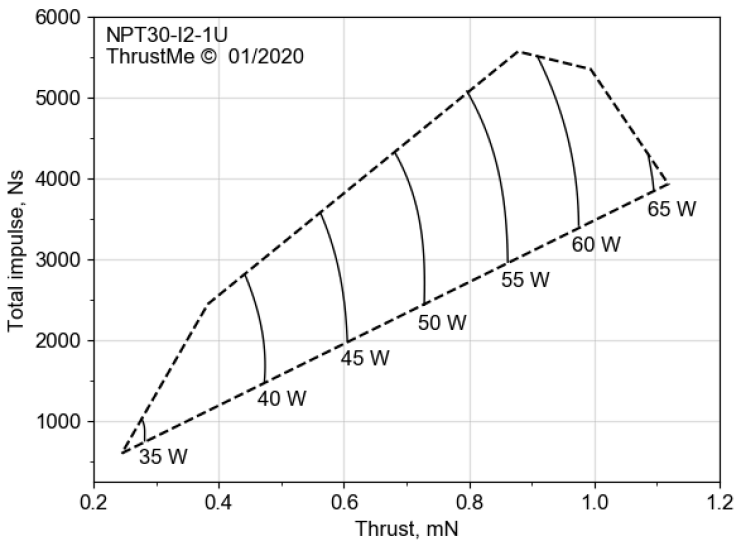
EMBEDDED INTELLIGENCE

- ✓ Built-in-self-tuning algorithms
- ✓ Integrated thrust computer
- ✓ Thrust can be continuously throttled
- ✓ Supports multiple customizable operating modes
- ✓ Possible operation with thrust or power lock
- ✓ Over 50 internal parameters are continuously monitored and used for algorithm adjustments

EASE OF ACCESS

- ✓ Platform agnostic
- ✓ Full AIT support
- ✓ System shipped pre-filled
- ✓ Lead times as short as 16 weeks
- ✓ Engineering models available on demand
- ✓ Clusterization possible for higher thrust & total impulse

PERFORMANCE MAP



Obtained from 120 data points

PERFORMANCE & SPECIFICATIONS

Thrust	0.3 – 1.1 mN
Total impulse	Up to 5500 Ns
Specific Impulse	Up to 2400 s
Total power	35-65 W
Form Factor	1U
Dimensions	96x96x113 mm
Total wet mass	1.2 kg
Thrust Vector Accuracy	< 1°

INTERFACE

Input Voltage	12 – 28 V
Bus interface	I²C, CAN

QUALIFIED FOR

Interface temp.	-40° to +50°C
Vibration & shock	ECSS-E-ST-10-03C
EMI/EMC	MIL-STD-461G
Static Magnetic Disturbances	None
Total radiation dose	>20 krad