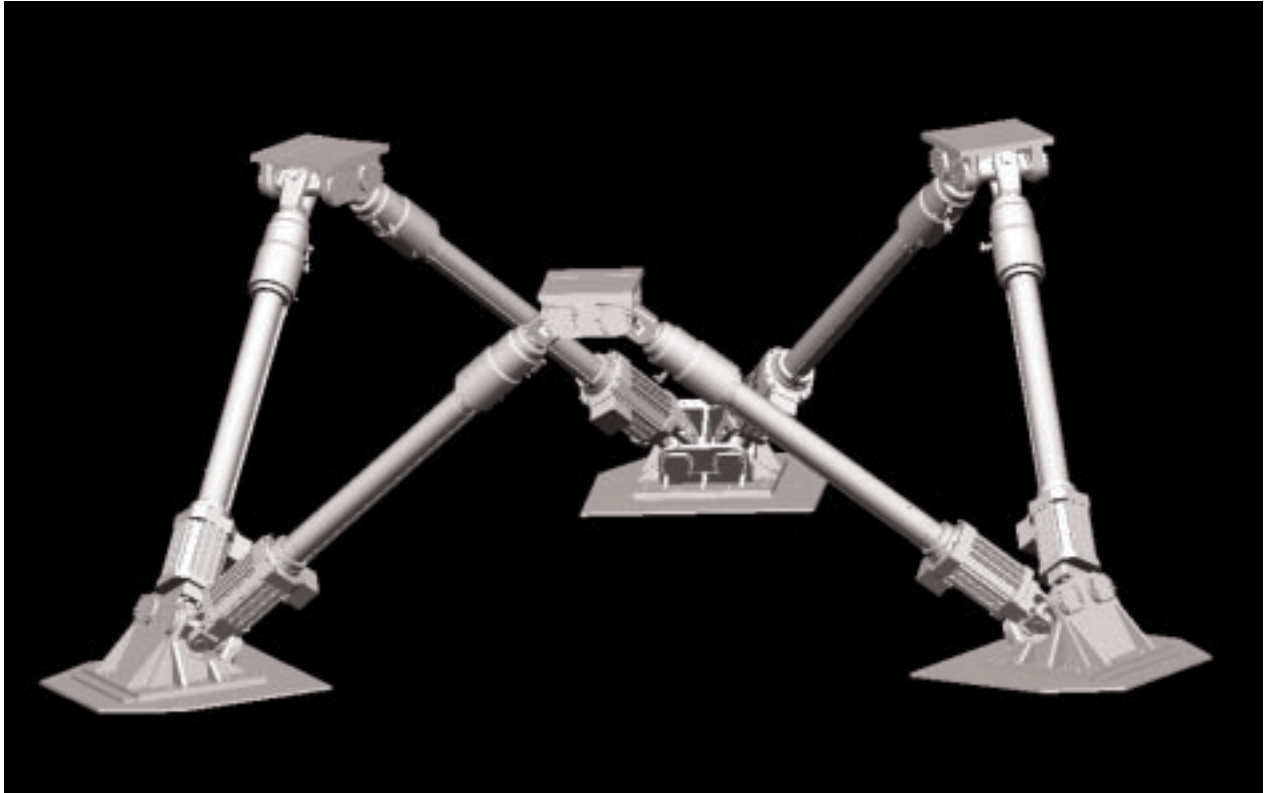


Series 6DOF25000E

Electric Motion Platform



- **6 Degrees of Freedom**
- **10,500 Kg / 23,150 lbs Customer Installed Payload**
- **Modular Actuator and Joint Design**
- **100% Electric Actuation**
- **100% Digital Control Electronics and Power Amplifiers**

Worldwide Support

North & South America:

Moog Inc., Industrial Controls Division, East Aurora, New York 14052-0018
Telephone: 716/655-3000 • Fax: 716/687-4401

Europe:

Moog Controls Ltd., Tewkesbury, United Kingdom • Telephone: +44(0)1684-296600 • Fax: +44(0)1684-296760
Moog GmbH, Böblingen, Germany • Telephone: +49(0)7031-622-0 • Fax: +49(0)7031-622-100
Moog Sarl, Cedex, France • Telephone: +33(0)1 45607000 • Fax: +33(0)1 45607001
Moog Sarl Sucursal En España, Orio, Spain • Telephone: +34(0)9 43133240 • Fax: +34(0)9 43133180

Pacific:

Moog Australia Pty. Ltd., Mulgrave, Australia • Telephone: +61(0)3 9561-6044 • Fax: +61(0)3 9562-0246
Moog Japan Ltd., Hiratsuka, Japan • Telephone: +81(0)463-55-3615 • Fax: +81(0)463-54-4709

Series 6DOF25000E

Moog Inc.

Moog Industrial Controls offers high performance solutions to motion simulator requirements. Fifty years of experience and a proven track record makes Moog the world's leading supplier of motion system components and integrated platforms in both the training and entertainment markets.

Moog produces both 4 degree and 6 degree of freedom (DOF) motion bases, with actuator strokes ranging from 12 to 62 inches and load capacities up to 14,600 Kg (32,200 lbs).

Specifications: 6DOF25000E Size:

Settled Height
(top of joint interface).....2.5 m (82.94")
(with 60" stroke)

Foot Print.....6.3 m (w) x 5.5 m
(247" (w) x 215")

System Weight
(actuators and joints)6170 Kg (13,600 lbs)

Facility:

Floor Loading Compression
Average Operating
(0.8 g heave)6347 Kg/m²
(1300 lb/ft²)

Main.....3 ϕ , 460-500 vac.
50-60 Hz
150 Amp service

Load:

Max. Flying Payload..11,430 Kg (25,200 lbs)
Max. Customer Added Payload
.....10,500 Kg (23,150 lbs)

CG Location

Horizontal \leq 0.15 m (6.0")
Vertical \leq 1.78 m (70")
(above the motion centroid)
Motion Centroid0.152 m (6.0")
(below the top of the platform joints)

Mass Moment of Inertia (relative to motion centroid)

Pitch Axis67,790 Kg-m²
(50,000 Slug-ft²)
Roll Axis.....67,790 Kg-m²
(50,000 Slug-ft²)
Yaw Axis.....54,230 Kg-m²
(40,000 Slug-ft²)

Actuator Features:

- 60" Stroke Actuators
- DC Brushless Servomotor
- In-line motor design, direct drive
- High efficiency, low friction actuator design
- Ballscrew or rollerscrew design available
- Patented internal hydraulic snubbers
- High resolution absolute encoder feedback
- Home limit switches
- Motors contain internal thermal protection

Documentation:

- Facility Requirements
- Installation Instructions
- Operation/Maintenance Manual

Reliability:

- Custom high efficiency drives and actuators optimized for performance and long life in demanding applications. Designed for a minimum 10 year life.
- Detailed fault tree analysis for all single point and multiple failure modes has been performed.
- Drives have been life cycle tested and have proven field history.

Field Service and Repair:

- One (1) year part warranty from the date of shipment
- Worldwide support
- Installation and training support provided

Compliance:

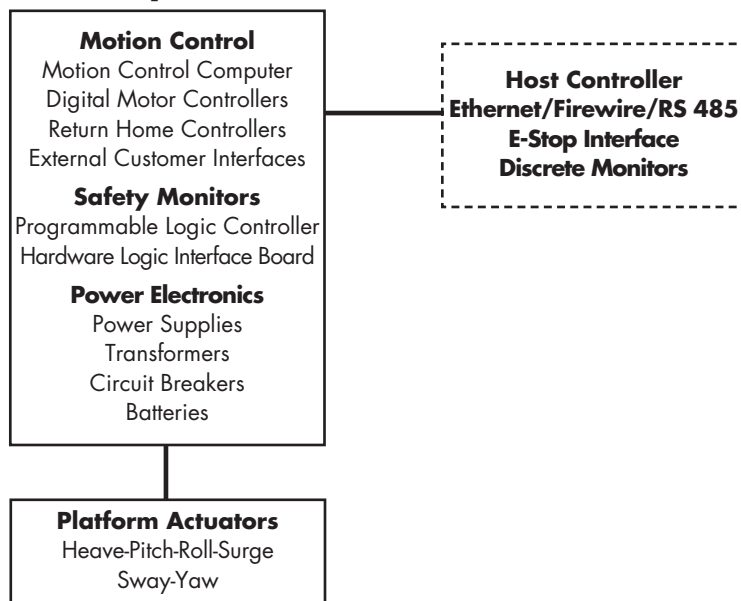
- The system is designed to U.S. and European electrical codes.
- The system utilizes UL and CE compliant components.
- Designed to meet the AFGS-87241A requirement to egress to home position in event of major single point failures.
- Electronics are CE marked

Interface Options:

Ethernet or Firewire Interface

- Profile Storage
- Real Time
- Real Time with Motion Cueing (Motion Dynamics Algorithm)

Motion System Interfaces:



Specifications are subject to change without notice.

Motion:

Degree of Freedom	Displacement Comb. Motion	Displacement Single DOF	Velocity	Acceleration
Pitch	+36.3 deg -32.4 deg	+26.3 deg -24.0 deg	\pm 21.6 deg/s	\pm 200 deg/s ²
Roll	\pm 32.5 deg	\pm 26.2 deg	\pm 24.0 deg/s	\pm 200 deg/s ²
Yaw	\pm 35.1 deg	\pm 32.9 deg	\pm 28.9 deg/s	\pm 200 deg/s ²
Heave	\pm 0.87 m (\pm 34.4 in)	\pm 0.88 m (\pm 34.7 in)	\pm 0.77 m/s (\pm 30.2 in/s)	\pm 0.8 g
Surge	+1.39,-1.42 m (+54.8,-56.0in)	+1.32,-1.08 m (+52.0,-42.5in)	\pm 1.03 m/s (\pm 40.7 in/s)	\pm 1.0 g
Sway	\pm 1.54 m (\pm 60.5 in)	\pm 1.09 m (\pm 42.9 in)	\pm 1.05 m/s (\pm 41.2 in/s)	\pm 1.0 g

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Moog Inc., Industrial Controls Division • East Aurora, New York 14052-0018
716/655-3000 • Fax 716/687-4401 • www.moog.com/industrial