

MOTION SYSTEM

QS-220

2 / 2.5 / 3 DOF

The QS-220 is the compact-line flagship for professional and VR simulators, sim racing, and flight simulation. QS-L1 linear actuators reach 0.8 G and 800 mm/s in Q-MODE, so weight transfers and curb strikes register with under 8 ms latency.

WHY QS-220

Q-MODE: 800 mm/s
Lightning-fast response for competitive racing

Ultra-low sub-8ms latency
Feel every curb and bump the instant it happens

Modular & Reconfigurable
Start with 2DOF today, upgrade to 3DOF anytime

3 Operating Modes
Match platform behavior to the rig weight and driving style

0.8G	100mm	800mm/s	<8ms	0-100Hz
MAX ACCELERATION	ACTUATOR STROKE	MAX VELOCITY	LATENCY	VIBRATIONS

WHAT TO EXPECT

RACING

- Acceleration & braking G-forces
- Lateral acceleration in corners
- Wheel slip and wheel lock
- Rumble strips feedback

FLIGHT SIMULATION

- Positive & negative G-forces
- Engine & rotor vibrations
- Turbulence effects
- Landing gear feedback

COMPATIBLE WITH

- QS-Pivot (2.5 DOF upgrade)
- QS-H13 Seat Mover
- QS-CH2 Motion Platform
- QS-BT1 Belt Tensioner
- Most Aluminum Cockpits

SPECIFICATIONS

AXIS	RANGE	HEAVY DUTY Velocity / Acceleration	PERFORMANCE Velocity / Acceleration	Q-MODE* Velocity / Acceleration
Heave (Vertical)	±50 mm	300 mm/s / 0.4 G	400 mm/s / 0.6 G	800 mm/s / 0.8 G
Max Payload (3DOF)		350 kg	250 kg	200 kg
Voltage		120 / 230 V	120 / 230 V	230 V
PAYLOAD SPECIFICATIONS				
Payload	350 kg (Heavy Duty mode)			
ACTUATOR DIMENSIONS				
Total Width	92 mm			
Total Length	106 mm			
Min Height	560 mm			
Max Height	660 mm			
Product Weight	30 kg			
PERFORMANCE				
Architecture	2 / 2.5 / 3 DOF			
Connection	USB			
Stroke	100 mm			
Vibration Range	0-100 Hz			
Latency	<8 ms			
Power Supply	120/230V AC, 1-phase			
Noise Level	54-59 dB (home-friendly)			

*Q-MODE is available only in the 3DOF configuration (4 actuators).

QS-220 Technical Specifications

MOTION SYSTEM

POWER DRAW	1× · 120 V	1× · 230 V	2× · 120 V	2× · 230 V
Average Power	0.6 kVA	0.7 kVA	1 kVA	1.8 kVA
Peak Power	0.7 kVA	0.8 kVA	1.1 kVA	1.9 kVA
Average Current	5 A	3 A	8 A	8 A
Peak Current	10 A	7 A	18 A	17 A
Avg Power - Stress Test	0.21 kW	0.24 kW	0.5 kW	0.65 kW
Avg Power - Typical Game	0.06 kW	0.06 kW	0.11 kW	0.11 kW

WHAT'S IN THE BOX? (3DOF CONFIGURATION)

QS-220 Motion Set

- 4x linear actuators
- 8x mounting brackets
- 2x power cabinets
- Set of cables

QS-MC6 Controller Set

- USB motion controller
- Motion-Lock switch
- Connection cables

QUBIC SYSTEM
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PRODUCT MANUAL

CONNECT WITH US
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