

# MOTION PLATFORM QS-220-PL

**800mm/s**

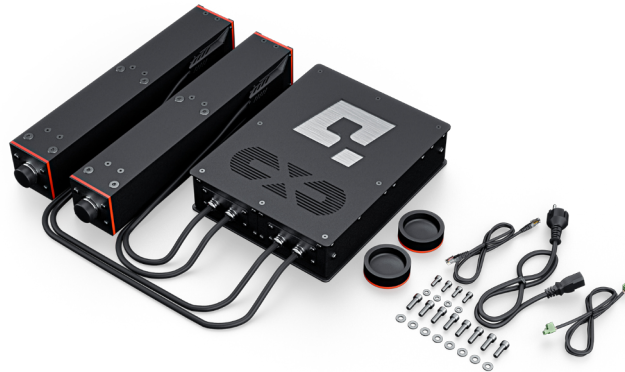
MAXIMUM VELOCITY

**100mm**

ACTUATOR STROKE

**1000Hz**

MAXIMUM CONTROL FREQUENCY



**0.8G**

MAXIMUM ACCELERATION

**<8ms**

LATENCY

**0-100Hz**









VIBRATIONS FREQUENCY RANGE

## MOTION PLATFORM **QS-220-PL**

QS-220-PL patent pending technology of linear actuators allows to develop highly realistic applications with detailed motion textures, velocity, suspension interaction feedback, engine vibrations, tactile feedback, haptic system and vehicle dynamics.

Innovative technology, modular and compact design, as well as the quiet operation makes the QS-220-PL a perfect motion base not only for professional applications but also for home users in various types of cockpits. Additional sets of QS-220-PL can be configured as a 4 and 6 actuated system to provide 3 / 4 / 6 DOF using dedicated cockpits from Qubic System product line.

## KEY FEATURES

|  |  |  |   |
|--|--|--|---|
|  <p><b>Real-Time vibrations</b></p> <p>Generate precise real-time vibrations up to 100 Hz</p> |  <p><b>Compact design</b></p> <p>Small footprint and lightweight body</p> |  <p><b>Easy to deploy</b></p> <p>Predefined set of motion profiles for various actuators configurations</p> |  <p><b>Modular and Reconfigurable</b></p> <p>Possibility to expand the system up to 8 cooperating actuators.</p> |
|  <p><b>Wide range of motion</b></p> <p>Linear actuators with stroke up to 100 mm</p>          |  <p><b>Super silent</b></p> <p>Extremely quiet and smooth operation</p>   |  <p><b>Low power consumption</b></p> <p>High performance devices with minimal power budget</p>              |  <p><b>Plug&amp;Play</b></p> <p>Ready to work in a few minutes</p>   |



## GENERAL SPECIFICATION

|                           | Q-MODE<br>230V   | PERFORMANCE MODE<br>115 / 230V | HEAVY DUTY MODE<br>115 / 230V |
|---------------------------|------------------|--------------------------------|-------------------------------|
| MAXIMUM VELOCITY          | 800 mm/s         | 400 mm/s                       | 300 mm/s                      |
| MAXIMUM ACCELERATION      | LIMITED TO 0,8G* | LIMITED TO 0,7G*               | LIMITED TO 0,4G*              |
| MAXIMUM PAYLOAD IN 3DOF** | 200 kg           | 250 kg                         | 350 kg                        |

\* value of acceleration is limited for safety reasons.  
\*\* configuration of 2 x QS-220-PL.

|                            |   |
|----------------------------|---|
| ARCHITECTURE               | 2 / 3 / 4 / 6 DOF (depending on user configuration and number of modules) |
| ACTUATOR STROKE            | 100 mm   3,93 in  |
| MAXIMUM CONTROL FREQUENCY  | 1000 Hz   |
| VIBRATIONS FREQUENCY RANGE | 0-100 Hz  |
| LATENCY                    | < 8 ms  |
| PRODUCT WEIGHT             | 30 kg   66 lb   |

|              | QS-L1 ACTUATOR        | QS-SB2 POWER CABINET |
|--------------|-----------------------|----------------------|
| TOTAL LENGTH | 90 mm   3,55 in       | 385 mm   15,16 in    |
| TOTAL WIDTH  | 90 mm   3,55 in       | 300 mm   11,81 in    |
| TOTAL HEIGHT | 553-653 mm   22-26 in | 88 mm   3,46 in      |

|  |   |
|--|---|
| CABLE LENGTH (QS-L1 actuator - QS-SB2 Power cabinet) | 1150 mm   45,2 in   |
| POWER SUPPLY REQUIREMENTS                            | 115 / 230 VAC Single Phase  |
| CONNECTION   | USB   |
| CONFORMITY INFORMATION                               |   |

## POWER REQUIREMENTS IN 3DOF CONFIGURATION (2 x QS-220-PL)

|  | Q-MODE<br>230V | PERFORMANCE MODE<br>115 / 230V | HEAVY DUTY MODE<br>115 / 230V |
|--|----------------|--------------------------------|-------------------------------|
| AVERAGE POWER CONSUMPTION              | 260W           | 270W / 280W                    | 462W / 436W                   |
| PEAK CURRENT FOR BREAKER SPECIFICATION | 5,17A          | 7,35A / 4,55A                  | 9,89A / 5,88A                 |

---

## QS-220-PL **MOTION SET**

---

|             |   |
|-------------|---|
| QS-L1       | 2 pcs of linear actuator with cup holder  |
| QS-SB2      | 1 pcs of power cabinet (control module)   |
| QS-SBML-2   | 1 pcs of motion lock cable (up-link/down-link) - 2 meters long                      |
| Power cable | 1 pcs of 1,8 m long cable for EU market / or 1 pcs of 2 m long cable for USA market |

---

## QS-MC6 **MOTION CONTROLLER SET**

---

|                         |   |
|-------------------------|---|
| M10                     | 1 pcs of USB controller                             |
| QS-SBML-1               | 1 pcs of motion lock with additional 2 m long cable |
| QS-MBT-1                | 1 pcs of M-BUS terminator                           |
| USB cable               | 1 pcs of 0,5 m long cable (USB micro B)             |
| CAT.5E patch cord cable | 1 pcs of 2 m long cable                             |

---

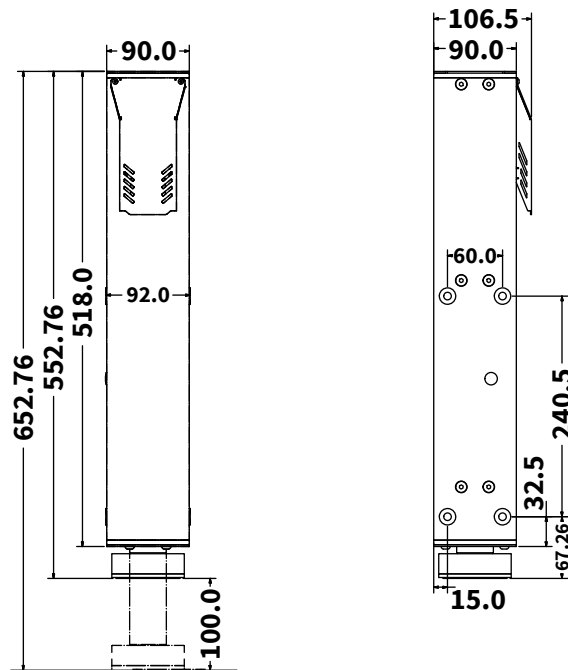
## OUR **SOFTWARE**

---

Qubic Manager (free-of-charge license included) | Motion SDK - ForceSeatDI | Motions SDK - ForceSeatMI | Motion Theater

---

## QS-L1 ACTUATOR **GENERAL DIMENSIONS**



## QS-SB2 POWER CABINET **GENERAL DIMENSIONS**

