

Hardware specifications IviumBoost



IviumBoost1040



IviumBoost10012



IviumBoost1010



IviumBoost205



IviumBoost1001

| System | IviumBoost1040 | IviumBoost10012 | IviumBoost1010 | IviumBoost205 | IviumBoost1001 |
|-------------------------|--|---|--|--|---|
| Current compliance | ±40A | ±100A | ±10A | ±5A | ±0.6A |
| Maximum output Voltage | ±10V | ±12V | ±10V | ±20V | ±100V |
| Applied potential range | ±10V | ±10V | ±10V | ±10V, ±20V | ±10V, ±100V |
| Potentiostat Bandwidth | >100kHz | >100kHz | >100kHz | >100kHz | >100kHz |
| Connection | 2, 3 and 4 electrodes/terminals | | | | |
| Signal acquisition | Analog power booster: resolution determined by controlling potentiostat (16bit/24bit) | | | | |
| Rise time | < 50 µs | < 50 µs | < 50 µs | < 50 µs | < 50 µs |
| EIS range | 10µHz to 100 kHz | 10µHz to 100 kHz | 10µHz to 100 kHz | 10µHz to 100 kHz | 10µHz to 100 kHz |
| EIS amplitude | 0.015mV to 1.0V, or 0.03% to 100% of current range | 0.015mV to 1.0V, or 0.03% to 100% of current range | 0.015mV to 1.0V, or 0.03% to 100% of current range | 0.015mV to 1.0V, or 0.03% to 100% of current range | 0.015mV to 1.0V, or 0.03% to 100% of current range |
| Measurement | | | | | |
| Potential accuracy | Better than 0.1% FSR | Better than 0.1% FSR | Better than 0.1% FSR | Better than 0.1% FSR | Better than 0.1% FSR |
| Current accuracy | Better than 0.1% FSR | Better than 0.1% FSR | Better than 0.1% FSR | Better than 0.1% FSR | Better than 0.1% FSR |
| Current ranges | Same as controlling potentiostat; additional: ±10 A (clamped at ±40A) | ±10A, ±100A (clamped at ±105A) | Same as controlling potentiostat; additional: ±10 A (clamped at ±15A) | Same as controlling potentiostat; additional: ±10 A (clamped at ±5A) | Same as controlling potentiostat |
| Electrometer | | | | | |
| Input impedance | Same as controlling potentiostat | | | >1000 Gohm // <8pF | >1000 Gohm // <8pF |
| Input bias current | | | | <10 pA | <10 pA |
| Bandwidth | | | | >16 MHz | >16 MHz |
| Peripheral I/O | | | | | |
| Signals | Same as controlling potentiostat | Same as controlling potentiostat | Same as controlling potentiostat | Same as controlling potentiostat | Same as controlling potentiostat |
| Safety features | <ul style="list-style-type: none"> Current clamp protection: current is limited at maximum value and the experiment continues at this value (the measurement is not terminated). Automatic action/disconnect on user selectable internal/external exceptions. EMO button Electronic safeties and self protection | | <ul style="list-style-type: none"> Current clamp protection: current is limited at maximum value and the experiment continues at this value (the measurement is not terminated) value; the measurement is not terminated. Automatic action/disconnect on user selectable internal/external exceptions. Electronic safeties and self protection. | | |
| Environment | | | | | |
| power requirements | 100-240 V, 50-60 Hz, 500 VA | 100-240 V, 50-60 Hz, 1500 VA | 100-240 V, 50-60 Hz, 150 VA | 100-240 V, 50-60 Hz, 150 VA | 100-240 V, 50-60 Hz, 150 VA |
| Interfacing | USB | USB | USB | USB | USB |
| Size w x d x h = | 47 x 36 x 14 cm | 47 x 36 x 14 cm | 26 x 33 x 12 cm | 26 x 33 x 12 cm | 26 x 33 x 12 cm |
| Weight | 15.2 kg | 12.3 kg | 6.0 kg | 6.0 kg | 6.0 kg |

FSR: full scale range