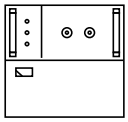


Bipolar Current Sources

Power Line

HighFinesse
Laser and Electronic Systems

Specifications

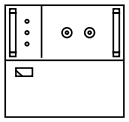
Architecture	Linear regulated unipolar (UCS) / bipolar (BCS) current generator with continuous sweep to / through zero Bipolar transistor technology
Current/Voltage range	Max. current: UCS up to 200 A BCS up to 100 A Current/Voltage pairs individually as required
Current outputs	Floating or grounded (adjustable) Short circuit and overvoltage protected
Output connectors	High power current connectors

Current control

Manual setting	10-turn precision-potentiometer
Analog Control	UCS: With 0–10 V control voltage corresponding to 0-I_{max} — BNC socket BCS: With ±10 V control voltage corresponding to ±I_{max} — BNC socket
Trigger User defined trigger logics.	TTL compatible trigger for switching off or on the current Priority over manual and analog setting BNC socket
Monitor	LCD current display

Characteristics

Current stability and reproducibility	< 2.5 × 10^{-5} under laboratory conditions with 1° temperature stability (< 25ppm / K) Option: Ultra-High Current Stability (UHCS) < 5 × 10^{-6} under laboratory conditions with 1° temperature stability (< 5ppm / K) The measurement and control electronics are equipped with ultra stable electronic components
Current noise	The mains' frequency and its harmonics on the source current are suppressed to a level below 10^{-5} × I_{max}
Response time	Adjustable between 50 µs and 100 ms
Case	Stand alone rack
Supply	Three phase mains supply
Cooling	Water cooling



Bipolar Current Sources

Power Line

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Options

UHCS	Ultra-High Current Stability $< 5 \times 10^{-6}$ under laboratory conditions with 1° temperature stability (< 5 ppm/K) The measurement and control electronics are equipped with ultra stable electronic components
Quasi-Galvanic Isolation of the analog control port	High ohmic input (5,1 MΩ) for the analog control port
Digital contol port	16 bit DAC, interface: virtual COM port via USB with SCPI compatible commands, fast SPI interface

Typical Applications

Feshbach resonances, high precision magnetic field control

Further Information

For further technical information, application examples, diagrams and for customisation of the current sources please contact:

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