

Bipolar Current Sources Compact Line



Specifications

Architecture	Linear regulated bipolar current generator with continuous sweep through zero Bipolar transistor technology						
Current/Voltage range	Max. current up to 20 A						
	Current/Voltage pairs individually as required						
	See figure "BCS current/voltage pairs" (page 2)						
Current outputs	Floating or grounded (adjustable)						
	Shorten circuit and overvoltage protected						
Output connectors	Twinaxial socket or banana sockety						
Manual setting	10-turn precision-potentiometer						
Analog Control	With ±10 V control voltage						
	BNC socket						
Trigger	TTL compatible trigger for switching off or on the current						
	User defined trigger logics						
	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)
Current noise	The mains' frequency and its harmonics on the source current are suppressed to a level below 10 ⁻⁵ x I _{max}
Response time	Adjustable between 50 μs and 100 ms
Case	Standard electronic case and 19" rack systems
Supply	One / three phase mains voltage
	Optionally battery
Cooling	Air cooling / forced air cooling



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Options

Galvanic Isolation of the analog control port	Optical isolation amplifier for the analog control port (150 ppm/K)
Quasi-Galvanic Isolation of the analog control port	High ohmic input (5,1 $M\Omega)$ for the analog control port
Digital Contol Port	16 bit DAC, interface: virtual COM port via USB with SCPI compatible commands, fast SPI interface
Monitor output port	Voltage signal proportional to the source current Direct or optically isolated output
Battery Connection Set	Cable set for connection to batteries (up to 20 A)

BCS current/voltage pairs

I [A]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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Power Category

Design

- 1 One phase mains voltage supply, air cooling
- 2 Three phase mains voltage supply, air cooling
- 3 Three phase mains voltage supply, ventilator cooling
- S Water cooled models
- B For battery models up to 10 mA, please see our separate data sheet.





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Further Information

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

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