

# A New Standard in Precision Current Stability and Programming Accuracy

Keysight Technologies  
and BiRa Systems Inc.

## Achieve higher levels of precision current stability and programming accuracy

There are applications that require current stability exceeding the capability of most commercial off the shelf power supplies. For these situations, BiRa Systems manufactures a Precision Current Regulator Controller (PCRC) in a slim 1U package. Used in systems with Keysight N5700 and N8700 Series DC power supplies, the BiRa's PCRC is able to stabilize output current as low as 5ppm.

The PCRC power supply controller has the ability to read back voltage, current, and ground current/faults. In addition to standard closed loop feedback system, PCRC uses (provides) an additional secondary independent channel to measure currents up to 600A RMS at 20 bits with 0.0001% precision.

The PCRC system uses highly stable direct current current transformer (DCCT) as a loop sensor for output regulation.

PCRC is compatible (and can be interfaced<sup>1</sup>) with a variety of Keysight N5700 and N8700 Series DC system power supplies from 750W to 60kW. It provides additional connections for up to 4 independent external interlocks to allow integration with machine protection systems and other necessary facility safety controls.

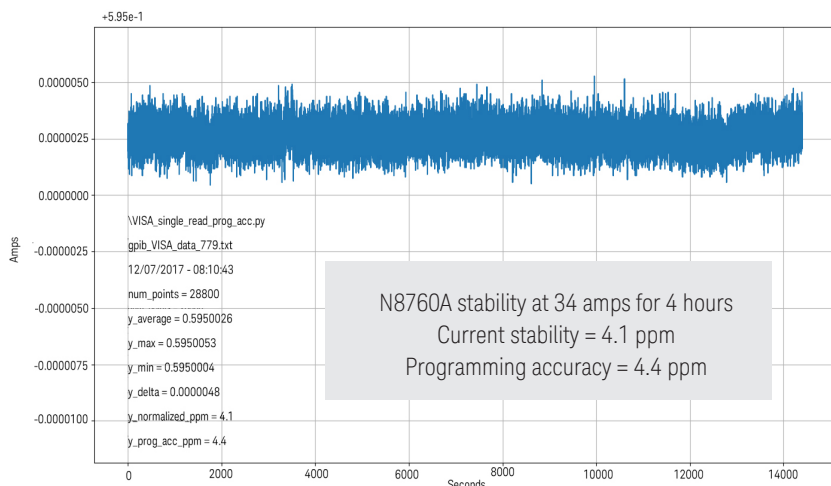
All the communication is done over Ethernet with a large array of drivers available.

1. PCRC-7273-INT power supply interface card required.

- Current precision, accuracy and stability
- Adds an external constant current feedback loop
- Versatile controller compatible with Keysight N5700 and N8700 power supplies<sup>1</sup>
- Independent high current measurement system
- Additional connections for 1-4 external interlocks for personnel safety and equipment protection



## N8760A power supply stability using the PCRC



Keysight N8760A power supply's performance enhanced by BiRa Systems' Precision Current Regulator Controller (PCRC).

## Example configurations

### System components

#### Keysight Technologies

N5700 and N8700 Series DC system power supplies (GPIB, single output)

#### BiRa Systems Inc

PCRC-7272	Precision current regulator controller
PCRC-2722.02	Current card for 200 mA DCCT <sup>1</sup>
PCRC-2722.04	Current card for 400 mA DCCT <sup>1</sup>
PCRC-7273-INT	Power supply interface card

1. Consult BiRa Systems

[www.keysight.com/find/powersupply](http://www.keysight.com/find/powersupply)

To learn how this solution can address your specific needs please contact Keysight's solutions partner, **BiRa Systems Inc.** [www.bira.com](http://www.bira.com)



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