



4 Channel module that can be rack-mounted,  
or used as a bench-top system \*with the included software – Control Panel

- Reliable, Accurate Current
- Independent Programmable Source Channels
- 96% Efficiency; reduces lifetime electricity costs
- Scalable; easily add to existing SpikeSafe-based systems or build up a new one
- 2nd Generation Patented SpikeSafe LED Protection
- One Module; appropriate for low, mid and high power devices

## HIGH CURRENT TO 15A MULTI-CHANNEL DC CURRENT SOURCE

### CONFIGURATION

4 CHANNEL/MODULE

### DRIVE CAPABILITY

To 4kW  
50V, 100V  
To 15A



### OVERVIEW

The SpikeSafe™ High Current (SSHC) current source supplies precise and reliable current. Developed for LED reliability applications; it provides a flexible, scalable foundation that meets stringent LED test protocols. Pin compatible with the industry standard SpikeSafe 200, the SSHC may be installed in existing SpikeSafe based system.

### HIGH POWER DENSITY

Offering industry's highest power density, the SSHC sources up to 4kW of sustained power.

### INDEPENDENT PROGRAMMABLE SOURCE CHANNELS

Each source channel functions as an independent source channel with settings for current, voltage, and SpikeSafe protection parameters. This flexibility allows one module to drive a wide variety of products, from single emitters to arrays and modules.

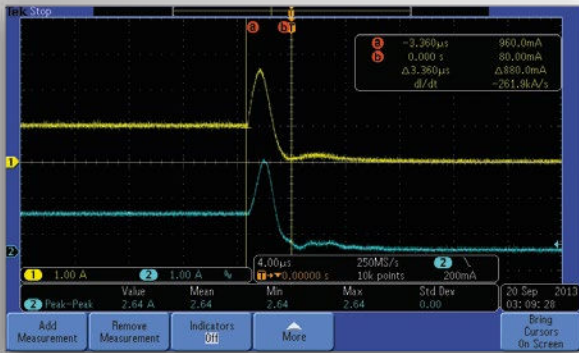
### COMPATIBLE FORM FACTOR

The SpikeSafe High Current (SSHC) is pin compatible with the industry standard SS200 and it includes a regulator to step up bulk voltage. This feature allows the SSHC to be installed in existing SS200 reliability systems to drive high voltage LEDs without any other system hardware changes.

### APPLICATIONS

- LED Reliability, Burn-in
- LM-80
- LM-85, LM-79, CIE127
- DC Light Measurement
- Multichannel Binning
- Other Semiconductor and Non-Inductive Test Applications

**HIGH CURRENT UP TO 15A MULTI-SOURCE CHANNEL DC CURRENT SOURCE**



4µS shutdown in 10 LED circuit due to single LED failure

**2nd Generation SpikeSafe™ LED Protection**

SpikeSafe proprietary protection algorithms continuously monitor voltage and current on all source channels for anomalies. If an anomaly is detected, drive to the affected source channel is immediately terminated. This rapid shutdown preserves the individual device for failure analysis, and it ensures other devices in the circuit are not damaged, ultimately improving overall reliability.

**SPIKESAFE HIGH CURRENT MODEL NUMBERS**

MODELS	8A	10A	15A
100V	SS400-DC-100-8-X4	SS400-DC-100-10-X4	
50V	SS400-DC-50-8-X4	SS400-DC-50-10-X4	SS400-DC-50-15-X4

**CURRENT SOURCE PERFORMANCE**

Mode	DC		
Output Current	40mA - 8A	40mA to 10A	40mA to 15A
Maximum Compliance Voltage	Models to: 50V and 100V		
Output Power	3kW/module; 1.5kW/group of 2 channels		
Setpoint Resolution	40mA to 800mA: 10µA 801mA to 15A; 200µA		
Output Current Accuracy	40mA to 800mA: 0.2% + 2mA 801mA to 15A: 0.3% + 6mA		
Calibration Interval	1 year after put into use		
Device Protection	SpikeSafe protection		
Output Current Ripple	100kHz, 0.3% p-p typical at 7A		

**PHYSICAL AND ENVIRONMENTAL**

Available Packages	2U Chassis for benchtop or rackmount. Eurocard compatible with Vektrex systems
Operating Conditions	10 to 35C, 70% R.H. , Air cooled
Input Power	Selectable; single and three phase available; 50HZ/60HZ
Particulate Level	Clean lab conditions

**OUTPUT CONFIGURATION**

Current Sources	4 independent source channels
Type	Differential drive (anode and cathode driven)

**REMOTE CONTROL**

Physical	Ethernet
Protocol	TCP/IP
Command Set	SCPI

**MONITORING SYSTEM**

Type	Built-in data acquisition system monitors voltage, current and fault conditions.
Voltage readback accuracy	3% + 1V
Current readback accuracy	80mA to 800mA: 0.7% + 20mA 801mA to 15A: 0.7% + 40mA

**ISOLATED CONTROL INPUTS**

Pause	Optoisolated input; signals software to pause current
Disable	Optoisolated input; halts output current



The SpikeSafe 400 is easy to use with included Control Panel software