



2 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
- Appropriate for mid and high current devices

OVERVIEW

SpikeSafe DC Series instruments are true current sources providing precise and reliable DC current. Developed for demanding semiconductor applications requiring currents to 30A, SpikeSafe modules source up to 8kW of sustained power. Patented SpikeSafe protection preserves devices rapidly shutting down power when an anomaly is detected. Dual channel modules support increased automation enabling expensive equipment to be leveraged.

HIGH POWER DENSITY

Offering the industry's highest power density, the SpikeSafe instruments source up to 8kW of sustained power. Unlike other sources, there are no duty cycle limitations.

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.

HIGH CURRENT TO 30A DUAL-CHANNEL DC CURRENT SOURCE

CONFIGURATION

2 CHANNEL/MODULE

DRIVE CAPABILITY

DC CONSTANT CURRENT

3kW

50V

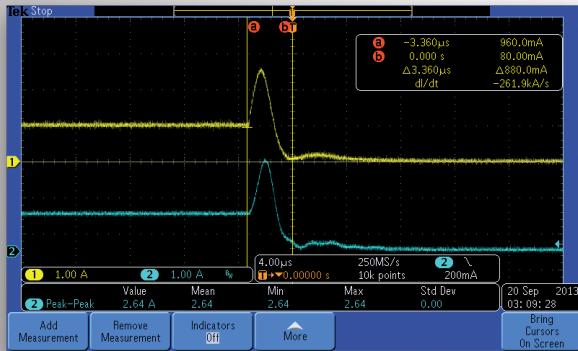
143mA to 30A



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 TO 30A DUAL-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	30A
50V	SS400-DC-50-30-M2

REMOTE CONTROL

Physical	Ethernet
Protocol	TCP/IP
Command Set	SCPI

CURRENT SOURCE PERFORMANCE

Mode	DC
Output Current	143mA - 30A
Maximum Compliance Voltage	50V
Output Power	3kW/module; 1.5kW/channel
Setpoint Resolution	143mA to 1600mA: 20µA 1601mA to 30A: 800µA
Output Current Accuracy	143mA to 1600mA: 0.2% + 4mA 1601mA to 30A: 0.3% + 12mA
Calibration Interval	2 years after put into use
Device Protection	SpikeSafe protection
Nominal Current Ripple	<5A: 0.05%+250µA, >5A: 0.02%+1.5mA at 100kHz

MONITORING SYSTEM

Type	Built-in data acquisition system monitors voltage, current and fault conditions.
Voltage Measure Accuracy	3% + 1V
Current Measure Accuracy	143mA to 1600mA: 0.5% + 20mA 1601mA to 30A: 0.5% + 20mA

PHYSICAL AND ENVIRONMENTAL

Available Packages	Chassis suitable for benchtop or rackmount; Circuit card module compatible with Vektrex Systems
Operating Conditions	10 to 35C, 70% R.H. , Air cooled, <2000m altitude
Input Power	Selectable; single and three phase available; 50HZ/60HZ
Particulate Level	Clean lab conditions

OUTPUT CONFIGURATION

Current Sources	2 independent source channels
Type	Differential drive (anode and cathode driven)

ISOLATED CONTROL INPUTS

Remote Pause	Optoisolated input, pauses output, selectable polarity
Remote Disable	Optoisolated input, halts output, selectable polarity



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