



Preliminary Datasheet

**DC-DC CONVERTER**

**SDC100-1.1HC  
100A 1.1V**

**APPLICATIONS:**

- \* Advanced Data Processing
- \* 1 Ghz Dual Processor Pentium
- \* Communication
- \* Automatic Test Equipment
- \* Control Equipment
- \* Solid State Laser
- \* Corrosion Control
- \* High Current Function Generator
- \* Mechanical Device Control

**DESCRIPTION:** The SDC 100.1-1HC is a very high current low voltage DC-DC Converter. The unit is intended for newly developed high density and very high speed processors and semiconductors for computing and communication devices. The unit features a unique design for optimum heat dissipation and mounting. Input voltage range is from 36 to 56 Volt (18 to 38 Volt optional). The output is galvanically isolated from the input. The unit features an extremely low profile of 0.3" and an all metal package design. (Patent applied for.)

**Highlights:**

- \* Input Filter
- \* Very low profile
- \* All metal package
- \* Best heat dissipation
- \* Standard Brick Size
- \* Short circuit protection
- \* Overtemperature limit
- \* Output overcurrent limit
- \* Low RF Radiation
- \* Screw Terminals f.HI Curr.Conn.
- \* Remote voltage sense terminals
- \* Galvanic isolation input / output
- \* Homogenous temperature distribution
- \* Very small footprint
- \* Easy Mounting

**FEATURES:**

**Input Filter and Transient Protection:** Input filtering with transient protection enable this unit to be used in high noise and transiental environments. These situations are present in most applications and are worsened by increasing power quality problems. The unit can be used in industrial, military and aerospace applications.

**Input Overvoltage Protection:** Should a lasting overvoltage condition occur (58V input), the unit is shut off and stops operating. When the input voltage is reduced to the operating voltage, it resumes operation.

**High Frequency Switching:** The module features a proprietary near zero loss high frequency switching method, with no ringing and switching transients. This feature provides high efficiency, with RF compliance and low interference and low noise outputs.

**Power Density:** Remarkable power density of 35 Watts / in<sup>3</sup>.

**Overtemperature Limit:** An internal overtemperature control limits the output power, so that the internal dissipation is reduced and overheating is prevented.

**Output Overcurrent and Short Circuit Protection:** If the output current is increased beyond its limit, the unit shuts down. The output current is limited to about 120 Amperes.

**Connection:** Screw terminals provide for high current input and output connections. Unit can be mounted and connected between bus bars with 4-40 screws. An optional package is for soldering into a printed circuit board.

**Output Voltage Control:** Eight control pins are provided for remote sensing, output voltage control and isolated shut-down. Output voltage can be adjusted with an external resistor or potentiometer.

**External Output Current Control:** T.B.D.

**Shut-down:** An isolated input allows for remote shut-down.

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## PRELIMINARY SPECIFICATIONS

### SDC 100-1.1HC:

**Input:** + 18 V MIN + 38V MAX. OPT.  
 + 36 V MIN + 56 V MAX.STD.  
 + 56 V MIN + 96 V MAX.OPT.

**Output:** + 100 A / 1.1 V  
 / 2.2 V  
 / 3.3 V

**Power:** 100 to 120 W

**Efficiency:** 70% Vers.A  
 About 90% Vers.B

**Current Limit:** 1.1 x I (load)

**Internal Temp. Limit:** 90 degrees C

**Isolation:** Input/Output 1500 VDC

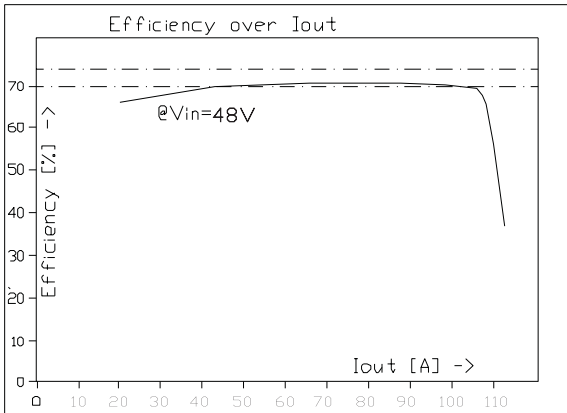
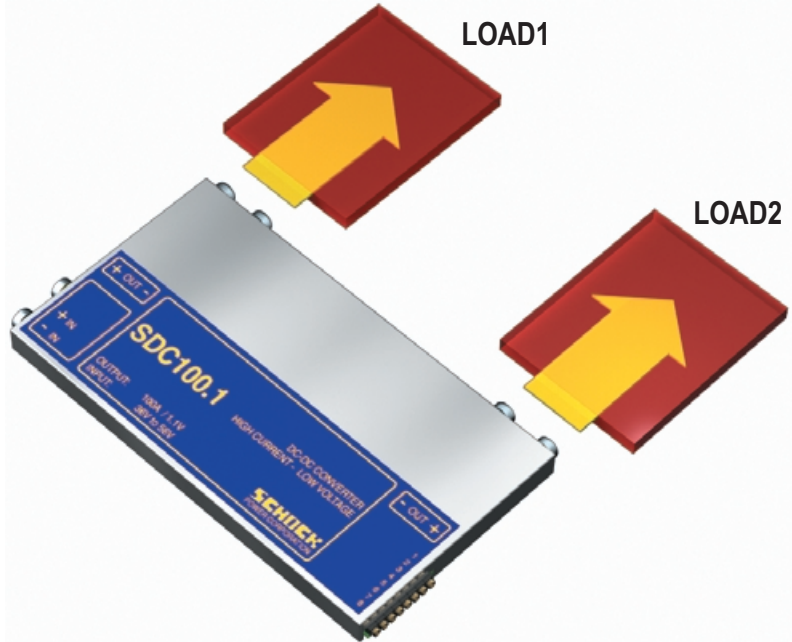
**Remote Sense Terminals**

**Remote Control of Output Voltage**

**Output Voltage Control Terminals**

**Isolated Shut Down Pins**

Specifications are initial and will be verified.



**Weight:** 8 oz. (0.5 lb), 227 grams  
**Screw Terminals:** for high current connection  
**Footprint:** 4.54" x 2.54" x 0.33" height  
 (2.70" with Terminals)  
 115mm x 64.5mm x 8.4 mm height

