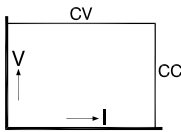


SM6000 Series

6000 W DC POWER SUPPLIES

APPLICATIONS & OPTIONS

SM6000 Series



Features

- Designed for long life at full power
- Excellent dynamic response to load changes
- Protected against all overload and short circuit conditions
- EMC surpasses CE requirements: low emission & high immunity
- Low audible noise: fans are temperature controlled

Functionalities

- Master / Slave parallel and series operation with voltage and current sharing
- Stacking is allowed, space between units is not required
- High power system configuration from multiple units
- 19" rack mounting or for laboratory use (feet included)
- Remote sensing
- Interlock

Typical Applications

- Solar Inverter testing, PV-simulation
- Plasma chambers
- Hybrid car test systems
- ATE in industrial production lines
- Automotive battery simulation
- Controlled battery (dis)charging
- Lasers
- Driving PWM-controlled DC-motors
- Accurate current sources
- Aerospace and military equipment

Available Options



Increased Output Power

The conservatively rated unit allows to deliver extra output power with the same reliability.

At some derating, either the maximum output voltage or the maximum output current can be increased by about 10%.



High Speed Programming

A 10 to 20 times higher programming speed (down to 0.4 ms rise time at full load) and

lower output capacitance. Excellent for laser applications, test systems or as current source with low parallel capacitance as used in plasma chambers.



Two-Quadrant Output: Power Sink

Two quadrant operation maintains the output voltage constant regardless the output power is

positive or negative. Ideal for PWM-speed controlled DC-motors and ATE systems.



Sequencer

Arbitrary Waveform generator or stand-alone automation.

The sequencer is integrated in the Ethernet controller.



High Voltage Isolation

A higher output isolation allows series operation up to 1200 V.



High Input Voltage

Higher input voltages possible for operation at line voltages of 440 V AC and 480 V AC (for USA).

More information about this: Page 21



Software Control and Interfaces

Factory installed programming interfaces:

- Ethernet controller (incl. sequencer)
- PROFIBUS controller
- CANBUS controller
- RS232 controller
- IEEE488 controller
- ISO AMP CARD – isolated analog

Details about interfaces: Page 21-24



Digital Voltage and Current Setting

Reliable, longlife digital encoders can be implemented at the front panel. Includes total front panel

lock (also for CV/CC-knobs) and a coarse or fine pitch adjustment depending on the turning speed.

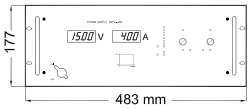
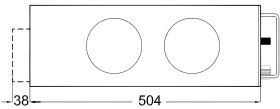


Secured Voltage and Current Setting

For maximum security, the CV / CC settings can be adjusted with a screwdriver only and are protected with a plastic cap from accidental adjusting.

Dimensions and Weight

Width = 19" Weight = 27 kg
Height = 4 U



Specifications

- Three phase input : 380 / 400 / 415 V AC, optional 440 / 480V AC V_{nom.} line to line (48-62 Hz)
- Active Power Factor Correction (PFC) : 0.98 (at 100% load)
- Efficiency : up to 90% (at full load)
- Output ripple and spikes : from 0.8 mV_{rms} / 8 mV_{pp}
- Regulation : from 2.5 mV (0-100% load step)
- Recovery time : from 100 μs (50-100% load step)
- Programming speed : from 3.3 ms (10-90%), optional from 0.4 ms
- Analog programming accuracy : from 0.2%
- Output voltage and current stability : 5.10⁻⁵ / 10.10⁻⁵
- MTBF : 500.000 hrs
- Operating ambient temperature : -20 to +50 °C

Standards

- Power supply standard EN 61204-3
- Generic Emission EN 61000-6-3 (EN55022B)
- Generic Immunity EN 61000-6-2
- Safety EN 60950 / EN 61010
- Insulation input / output 3750 V_{rms}
- Enclosure IP20