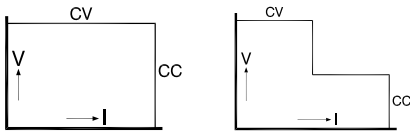


SM800 Series

800 W DC POWER SUPPLIES

APPLICATIONS & OPTIONS

SM800 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
- Laboratory use (feet included), 19" rack mounting optional
- Remote sensing
- Interlock

Typical Applications

- Accurate current sources
- Electronic circuit development
- Component device testing
- ATE in industrial production lines
- Automotive battery simulation
- Controlled battery (dis)charging
- Lasers
- Driving PWM-controlled DC-motors
- Medical research equipment
- 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 0.2 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

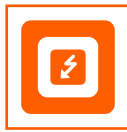
positive or negative. Ideal for PWM-speed controlled DC-motors and ATE systems.



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 1000 V.



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.

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 are 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.



Front Power Output

Bind posts at the front panel instead of at the rear panel.

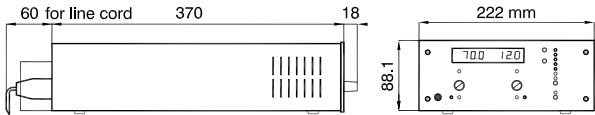


19" Rack Mounting Adapter

The 19" mounting adapters makes it possible to position one or two units side by side in a 19" rack.

Dimensions and Weight

Width = 19" Weight = 5,4 kg
Height = 2 U



Specifications

- Single phase input : 90-265 V AC (48-62 Hz)
- Active Power Factor Correction (PFC) : 0.99 (at 100% load)
- Efficiency : up to 89% (at full load)
- Output ripple and spikes : from 2 mV_{rms} / 8 mV_{pp}
- Regulation : from 0.2 mV (0-100% load step)
- Recovery time : from 100 μs (50-100% load step)
- Programming speed : from 4 ms (10-90%), optional from 0.2 ms
- Analog programming accuracy : from 0.2%
- Output voltage and current stability : 6.10⁻⁵ / 9.10⁻⁵
- 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