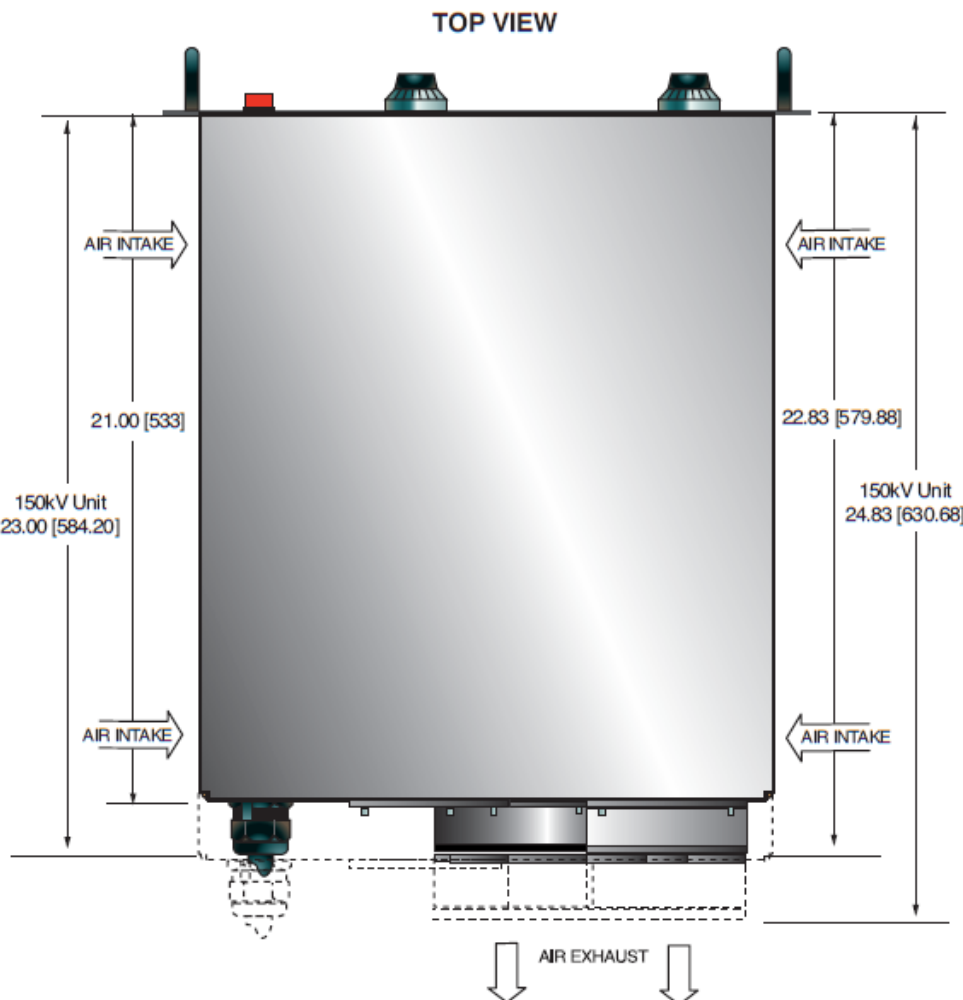
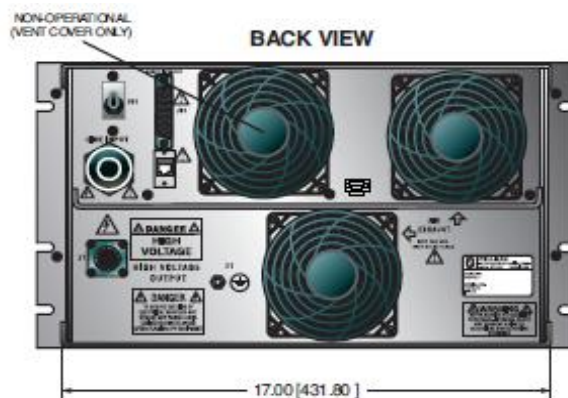
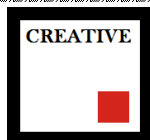


1. PRODUCT OVERVIEW

DIMENSIONS: in.[mm]





2. KEY FEATURES

- 6 kW rated output power.
- 0 to -60 kV DC continuously adjustable output voltage.
- 0 to 100 mA output current at -60 kV.
- Negative output polarity.
- 6U rack-format chassis, nominally 19 in wide.
- Forced-air cooling.
- Analog remote control and monitoring capability.
- RS-232 and Ethernet digital interfaces.
- Arc and short-circuit protection.
- User-configurable protection and operating functions.
- Digital voltage and current metering with accuracy within 1%.

3. MODEL-SPECIFIC RATING

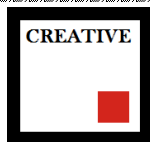
Parameter	Specification
Model Number	SMC-60N6
Rated Output Voltage	0 to -60 kV DC
Maximum Output Current	100 mA at -60 kV
Rated Output Power	6 kW
Output Polarity	Negative
Application	High-voltage DC power source

4. ELECTRICAL SPECIFICATIONS

Parameter	Specification
Input Voltage – Standard	180–264 VAC, 50/60 Hz, 3-phase
Input Current – Standard	25 A maximum
Input Voltage – 400 VAC Option	360–528 VAC, 50/60 Hz, 3-phase
Input Current – 400 VAC Option	12.5 A maximum
Input Voltage – Single Phase Option	180–264 VAC, 50/60 Hz
Input Current – Single Phase Option	57 A maximum
Efficiency	90% (standard input specification)
Power Factor	0.85
Voltage Regulation – Load	0.05% of full voltage + 500 mV for full-load change
Voltage Regulation – Line	0.05% of full voltage + 500 mV over specified input range
Current Regulation – Load	0.05% of full current $\pm 100 \mu\text{A}$ for any voltage change
Current Regulation – Line	0.05% of full current over specified input range
Ripple	0.1% peak-to-peak + 1 Vrms
Stability	0.02%/hour after 1 hour warm-up
Temperature Coefficient	100 ppm/°C standard; 50 ppm/°C high-stability option

5. CONTROL & INTERFACE

Feature	Description
Local Voltage Control	10-turn potentiometer with lockable counting dial
Local Current Control	10-turn potentiometer with lockable counting dial
Analog Interface	50-pin female D connector



Digital Interface	RS-232 and Ethernet
Voltage Test Point	0–10 VDC = 0–100% rated output; 1 kΩ output impedance
Current Test Point	0–10 VDC = 0–100% rated output; 1 kΩ output impedance
Power Test Point	0–10 VDC = 0–100% rated output; 5 kΩ output impedance
Remote Voltage/Current Programming	0–10 VDC = 0–100% rated output

6. ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

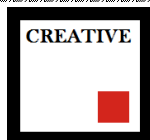
Parameter	Specification
Operating Temperature	0°C to 40°C
Storage Temperature	-40°C to 85°C
Relative Humidity	10% to 90%, non-condensing
Cooling	Forced air; air inlet through side panels and exhaust at rear
Dimensions – 1 to 120 kV Models	10.5 in (6U) H × 19 in W × 21 in D
Dimensions – Metric	266 mm H × 482 mm W × 533 mm D
Weight – 60 to 120 kV Models	Less than 140 lb (63.50 kg)
High-Voltage Output Cable	Detachable, shielded, 10 ft (3.05 m) cable
Analog Connector	50-pin female D connector
Installation	Designed for installation as a component of a system

7. PROTECTION & SAFETY FUNCTIONS

- Arc intervention / arc fault detection.
- Short-circuit protection.
- Over-voltage fault protection.
- Over-current fault protection.
- Over-power fault protection.
- Over-temperature fault protection.
- AC input fault monitoring.
- External interlock input.
- Reset / high-voltage inhibit function.
- System and regulation fault indication.

8. SOFTWARE-CONFIGURABLE FUNCTIONS

Function	Description
Adjustable Overload Trip	User-configurable within preset limits
Arc Trip Count	Configurable arc-count threshold
Arc Quench Time	Configurable within preset limits
Arc Re-Ramp Time	Configurable within preset limits
Constant Power Control	Available
Adjustable Power Trip	Available
Slow Start Ramp Times	Configurable



9. STATUS INDICATIONS & REMOTE SIGNALS

Signal / Status	Function
HV ON / HV OFF	Indicates high-voltage operating state
Voltage Mode Status	Open collector, low = active
Current Mode Status	Open collector, low = active
Power Mode Status	Open collector, low = active
Interlock Closed Status	Open collector, low = active
Over Power Fault	Open collector, low = active
Over Voltage Fault	Open collector, low = active
Over Current Fault	Open collector, low = active
System Fault	Open collector, low = active
Regulation Error Fault	Open collector, low = active
Arc Fault	Open collector, low = active
Over Temperature Fault	Open collector, low = active
AC Fault	Open collector, low = active

10. ANALOG INTERFACE – SELECTED CONNECTIONS

Pin	Signal	Parameter / Function
1	Power Supply Common	Power supply ground
2	Reset / HV Inhibit	Normally open; low = reset/inhibit
3	External Interlock	+24 VDC when open; <25 mA when closed
5	mA Test Point	0–10 VDC = 0–100% rated output
6	kV Test Point	0–10 VDC = 0–100% rated output
7	+10 VDC Reference	+10 VDC @ 1 mA
8	mA Program Input	0–10 VDC = 0–100% rated output
10	kV Program Input	0–10 VDC = 0–100% rated output
12	Remote Power On	+24 VDC @ open; 2 A peak, 1 A DC @ closed
16	Remote HV On	+24 VDC @ open; momentarily connect to common to enable HV
20	+24 VDC Output	+24 VDC @ 100 mA maximum
25	Power Test Point	0–10 VDC = 0–100% rated output
42	Remote Power Program Input	0–10 VDC = 0–100% rated output
47	RS-232 Tx	RS-232 transmit
48	RS-232 Rx	RS-232 receive
49	RS-232 GND	RS-232 ground
50	Power Supply Common	Power supply ground