



The E1 5 kA system satisfies the MIL-STD-188-125 requirement for E1 short-pulse direct-current injection up to 5kA.

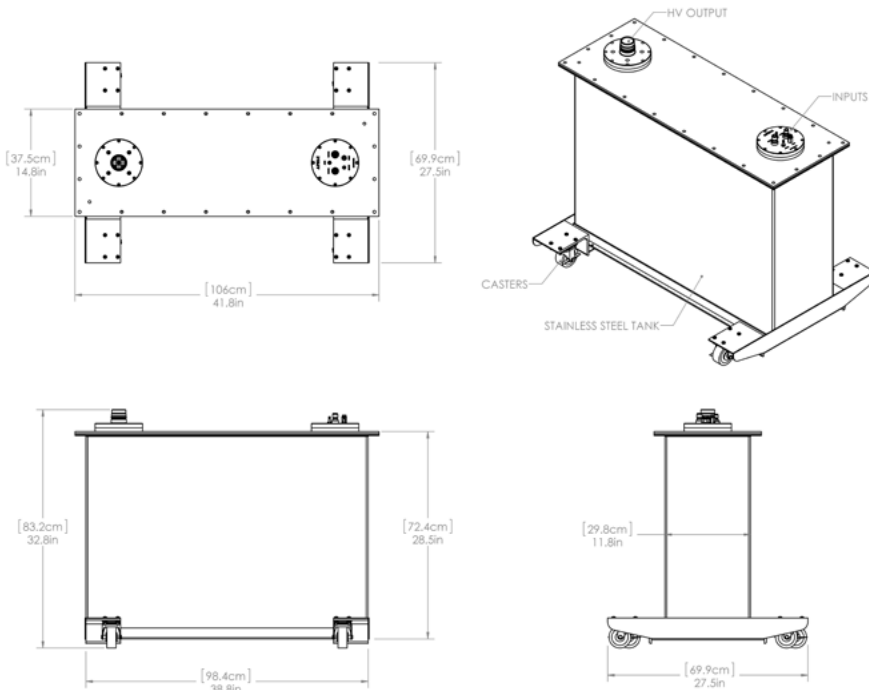
It is a dual-use system for an MOV coupler or a direct injection output coupler. Operated either locally or remotely using high-voltage power and a control rack, the E1 5 kA includes a calibration fixture that uses a current transformer with traceable components from the U.S. Department of Commerce's National Institute of Standards and Technology (NIST).

The system comes with a complete power and control system, which includes a high-voltage power supply, trigger unit, 2-channel gas control panel, and control. The system may be locally controlled, via the front panel of the power and control rack, or remotely via computer.



The control and data acquisition option for this system allows the user to enter a desired output current and have the software calculate and set the required charge voltage and air pressure for the Marx and peaking circuits. The data acquisition portion of the software automatically acquires the injected and residual current waveforms from the oscilloscope, scales them based upon calibration factors and attenuation, and displays them along with peak current, rise-time, and FWHM. A separate control in the software allows the user to automatically generate a test report at the push of a button.

Parameter	Description	Value	Unit
V_e	Erected voltage	300	kV
C_e	Erected capacitance	15	nF
V_{ch}	Operating charge voltage range	8–40	kV
Pres.	Operating pressure range	atm–150	psi
L	Length	42	in
W	Width	27.5	in
H	Height	29.5	in
Wt	Weight	400	lbs
T_R	Current rise time	<20	ns
T_w	Pulse width, Full Width Half Maximum (FWHM)	500–550	ns



Components

- 188-125 E1 portable test system
- Test fixture with current transformer diagnostic
- Direct connection output adapter
- Fiber-optic remote control

Characteristics

- Dual-use system for an MOV coupler or a direct injection output coupler
- Calibration fixture uses a current transformer with traceable components from NIST
- Controlled locally or remotely

Peak output current: **5 kA**

Pulse rise-time: **<20 ns**

Pulse-width (FWHM): **500–550 ns**

Size: **39" x 27.5" x 23"**

Weight: **250 lb dry, 450 lb with oil**

