Model 2854-1 Transient Generator
for MIL-STD-461F CS106 Conducted Transient Susceptibility Test

APPLICATION:
Solar Model 2854-1 Transient Generator is designed for screen room use in making conducted transient susceptibility tests as specified in MIL-STD-461F, Test Method CS106.

DESCRIPTION:
The generator provides 5 μS ± 22 %, pulse with a 1.5 μS ± 0.5 μS rise time across a 5.0 ohm non-inductive resistor. Voltage is adjustable to greater than 600 volts. The undershoot is limited to less than 120 volts peak (maximum) and less than 20 μS. The repetition rate is variable and can be adjusted from 0.8 p.p.s. to 10 p.p.s. Single transients can be applied with the pushbutton on the front panel.

FEATURES:
• Provides output levels from 10 volts to more than 600 volts into 5 ohms.
• Adjustable pulse position on A.C. lines relates the transient susceptibility to real time aspects of digital systems.
• Single pulse feature for controlled isolation of transient effects
• Output terminals for series and parallel injection.
• Standard rack panel construction: 7” high, 19” wide, 12.75” deep. (17.78 cm wide, 48.26 cm x 32.38 cm)

SPECIFICATIONS:
Spike Amplitude: Continuously adjustable from 10 volts to over 600 volts peak.
Repetition Rate: Continuously adjustable

Phase Adjustment: Pulse position adjustable from 0° to 360° periodically on 50, 60 or 400 Hz sine wave.
Internal Impedance: less than 2.0 ohms.
Power Requirements: 115 volts 60 Hz, 1.6 amperes. (230 volts, 50 Hz, 0.8 amperes available.)
Size: Standard rack panel: 7” high x 19” wide x 12.75” deep. (17.78 cm x 48.26 cm x 32.38 cm)
ACCESSORIES RECOMMENDED FOR CS106 TESTING:
Type 8525-1 Five Ohm Non-Inductive Load
Type 9133-1 10 μF Delta Capacitor Assembly
Type 9146-1 10 μF Wye Capacitor Assembly
Type 9233-50-TS-50-N Line Impedance Stabilization Network
Type 7032-1 Power Line Isolation Transformer

Calibration waveform per MIL-STD-461F CS106 FIGURE CS106-1

V sag returns to 0 volts in about 15 μS. There is a small positive voltage just after returning to 0 volts.