

Model SPPC-1505 Capacitor Charging High Voltage Power Supply



Designed for pulsed power applications using a high peak-current inverter stage, a high leakage inductance transformer, a high voltage dump relay, and a high peak-current output diode. The high peak-current inverter is designed for power transfers up to 300 J/s. The high leakage inductance transformer can be wound at up to 20:1 allowing output voltages up to 4 kV. A high voltage dump relay is integrated with the circuit to assure safe operation. The high peak-current output diode protects the power supply from the normal voltage reversals seen in pulsed capacitor discharge applications.

Operational Parameters

Parameter	Test Condition	Rating	Unit
Output Voltage	12 μ F Load	0-1500	V
Voltage Regulation	25 $^{\circ}$ C	\pm 1	%
Peak Rate of Charge	10 ms	50	J/s
Output Over-Voltage Limit	Transient	2400	V
Reverse Current Limit	Transient	50	A
Series Charge Resistance	25 $^{\circ}$ C	300	Ω
Dump Resistance	25 $^{\circ}$ C	1.3	k Ω
Peak AC Power Input Current	80-265 VAC 50/60 Hz	3.5	A
24 VDC Control	25 $^{\circ}$ C	80	mA
Dump Relay Operate Time	25 $^{\circ}$ C	3	ms
Dump Relay Release Time	25 $^{\circ}$ C	1.5	ms
Temperature Range		0-50	$^{\circ}$ C

Features

- Capacitor Charging
- Built-in Dump Relay
- High Peak-Current Rectifiers
- Continuous Load Fault Protection
- Input Power Filter
- Ground Fault Protection

Applications

- Pulsed Capacitor Charging
- Pulsed Electromagnetic Field Therapy (PEMF)
- Extra-corporeal Shock Wave Therapy (ESWT)

PRELIMINARY DATA

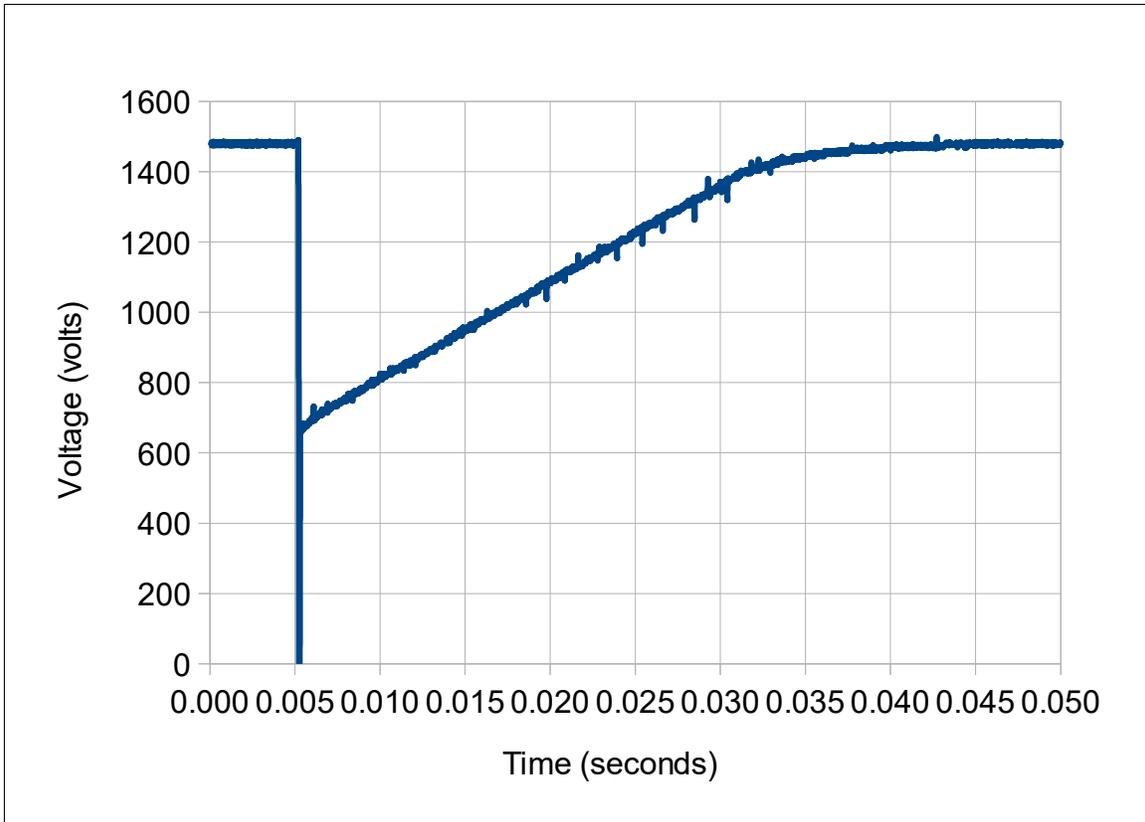


Figure 1: Example Capacitor Charge Waveform Using 12 μ F

