Simulink Block Diagram

Voltage at 100V

f(x) = 0

- Output voltage is

☒ ☴ ▼ **Cursor Measurements**   ☝ ✕
▶ Settings
▼ Measurements

	Time	Value
1	2.500	79.599 V
2	7.500	80.000 V
ΔT	5.000 s	ΔY 401.347 mV
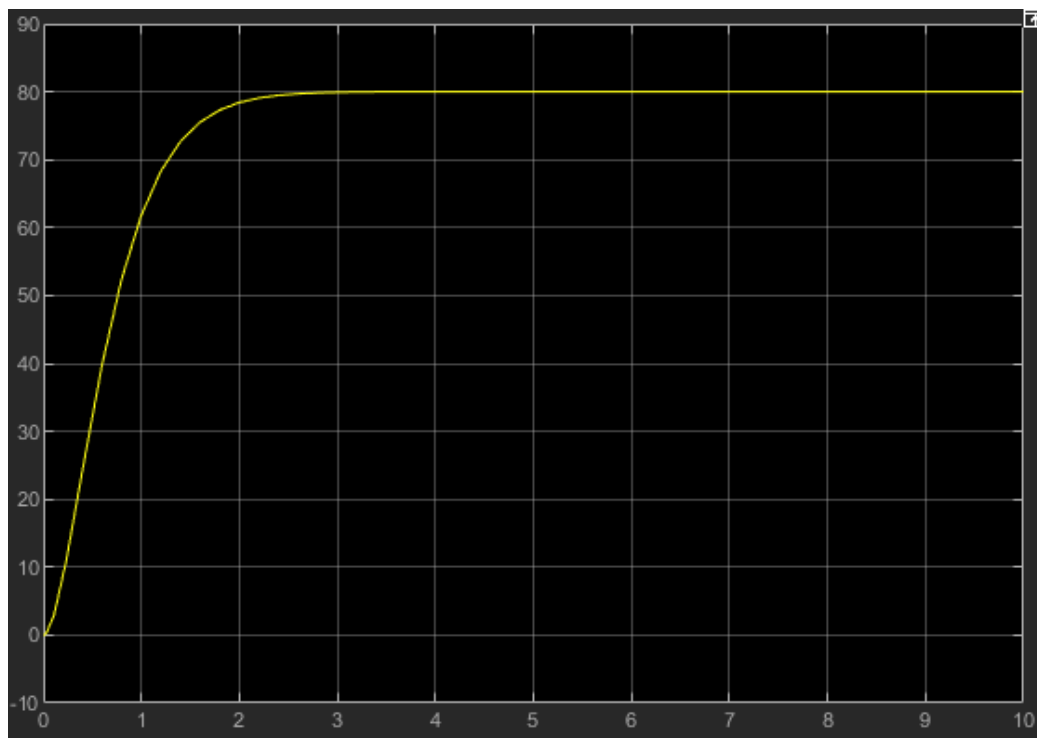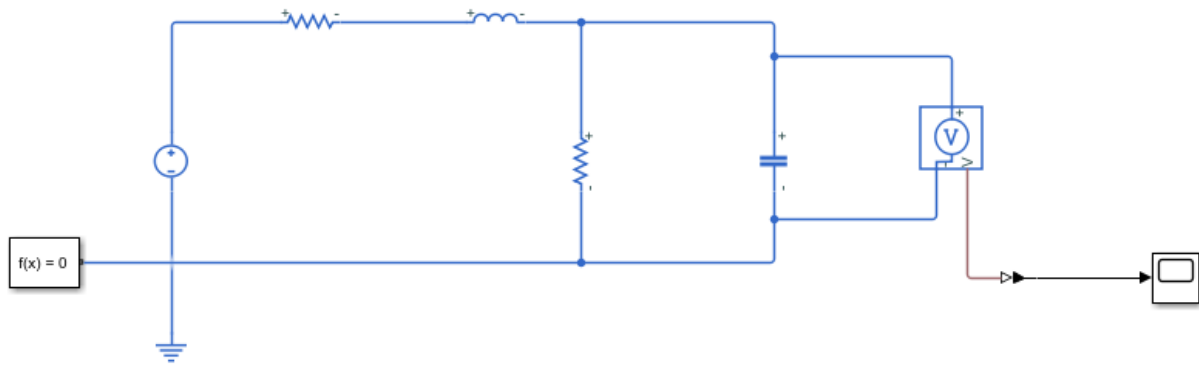
1 / ΔT	200.000 mHz
ΔY / ΔT	80.269 V/ks
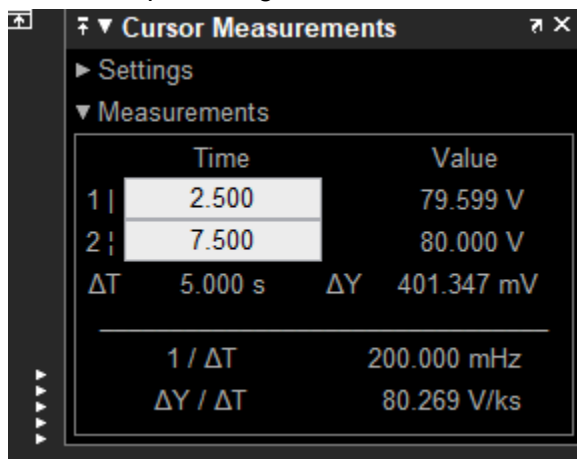
Simscape Block Diagram

$$\dot{x} = Ax + Bu$$
$$y = Cx + Du$$
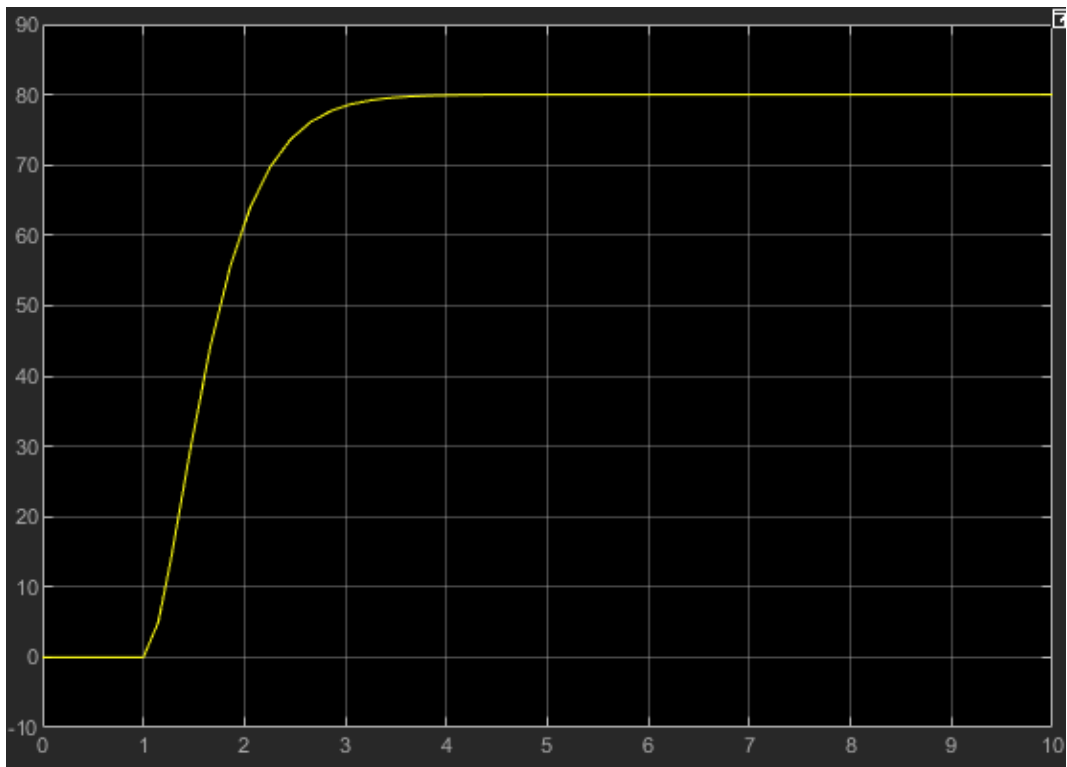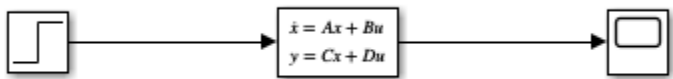
Cursor Measurements

▶ Settings

▼ Measurements

	Time	Value
1│	2.500	7.418e+01
2┊	7.500	8.000e+01
ΔT	5.000 s	ΔY 5.821e+00

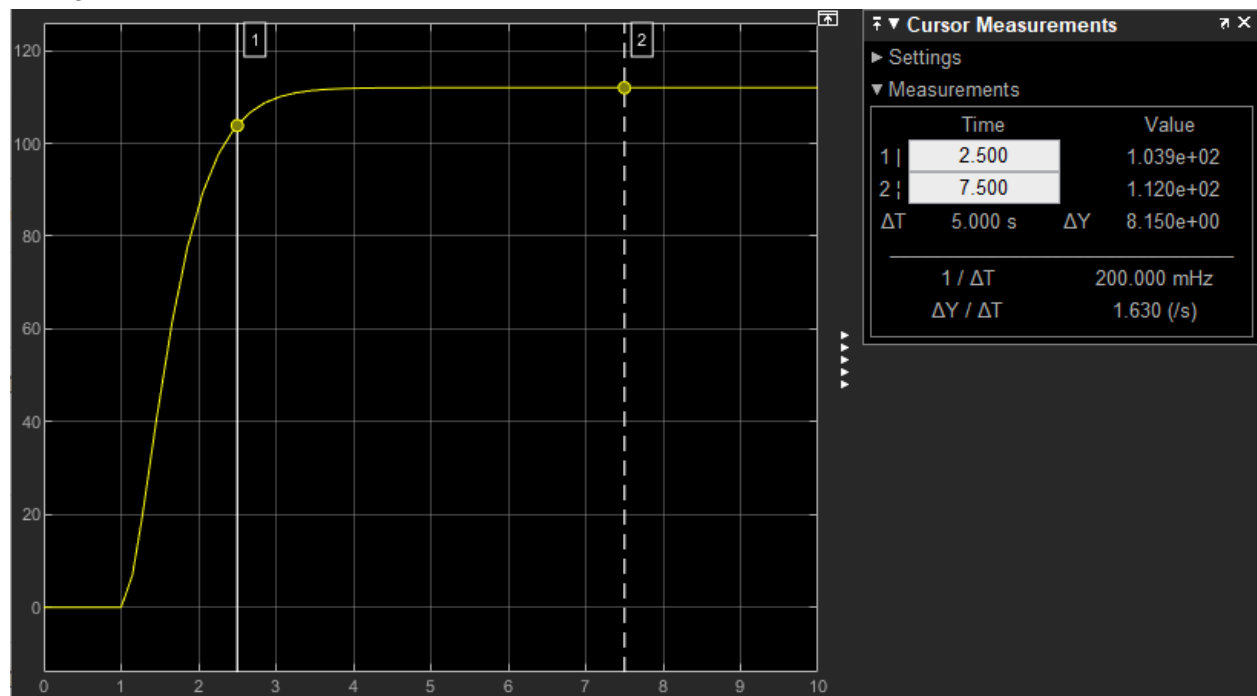| 1 / ΔT	200.000 mHz
ΔY / ΔT	1.164 (/s)

```
DC = 100; %volts

A = [-R1/L, -1/L; 1/C, -1/(R2*C)];
B = [1/L;0];
C = [0, 1];
D = 0;
```

A	[-5,-0.0500;120,-0.3000]
B	[0.0500;0]
C	[0,1]
D	0
DC	100

Voltage = 120 V
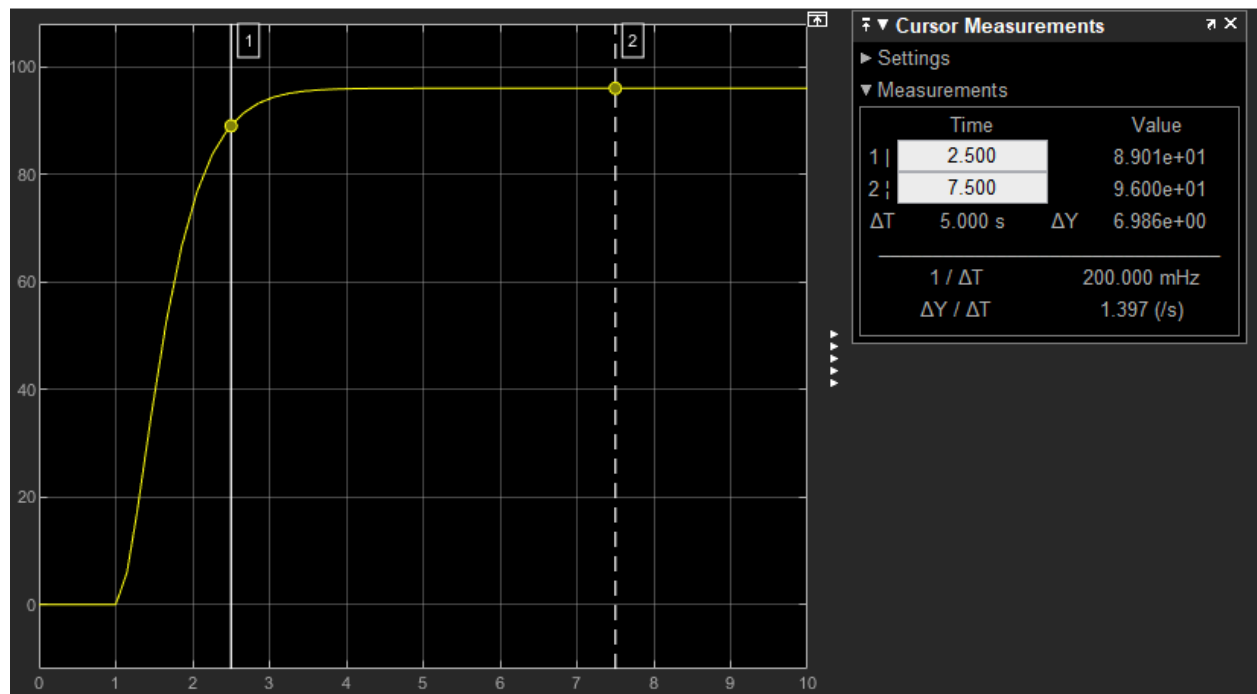
Voltage = 140 V

Voltage = 80 V