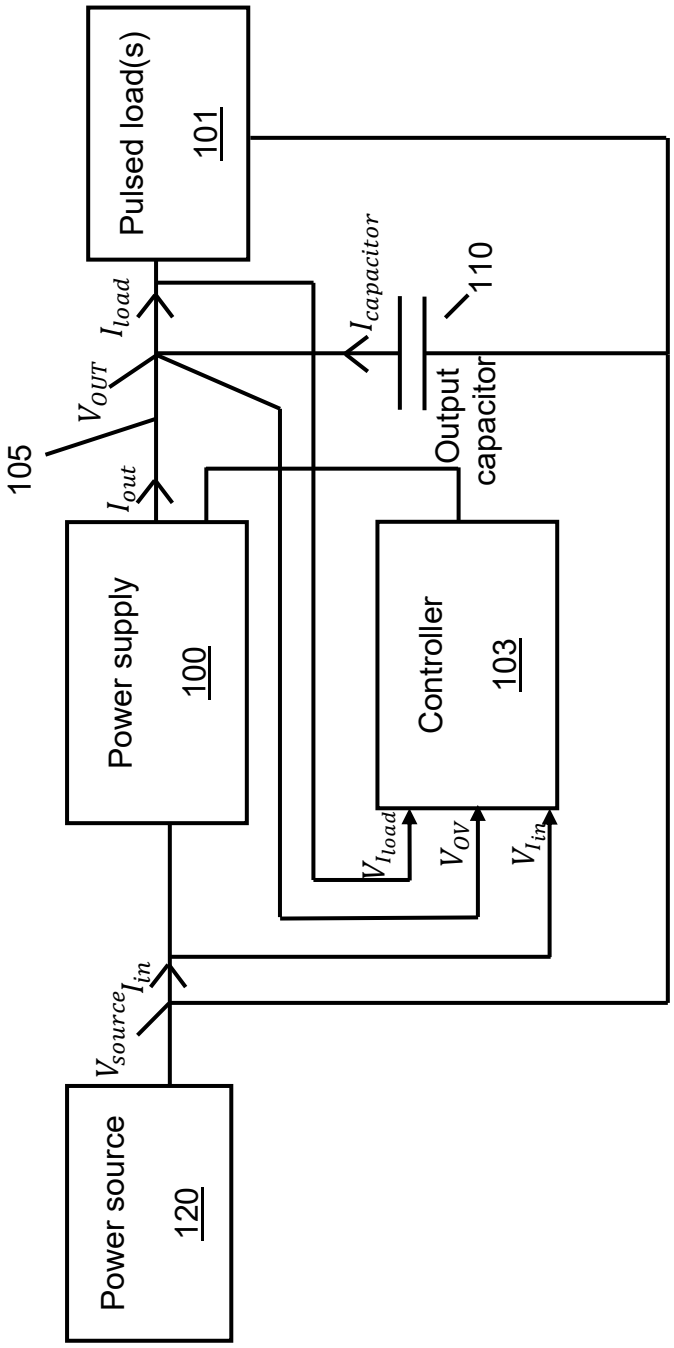

Pulsed load(s)
101
I_{load}
$I_{capacitor}$
110
V_{OUT}
105
Output capacitor
I_{out}
Power supply
100
Controller
103
$V_{I_{load}}$
V_{OV}
$V_{I_{in}}$
V_{source}
I_{in}
Power source
120

FIG. 1A

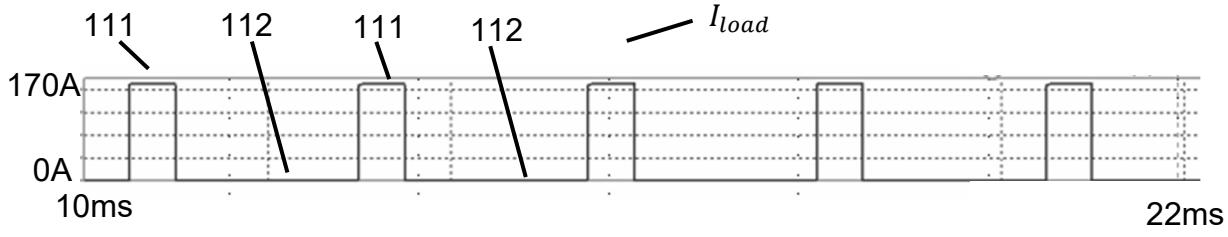

111
112
111
112
I_{load}
170A
0A
10ms
22ms

FIG. 1B

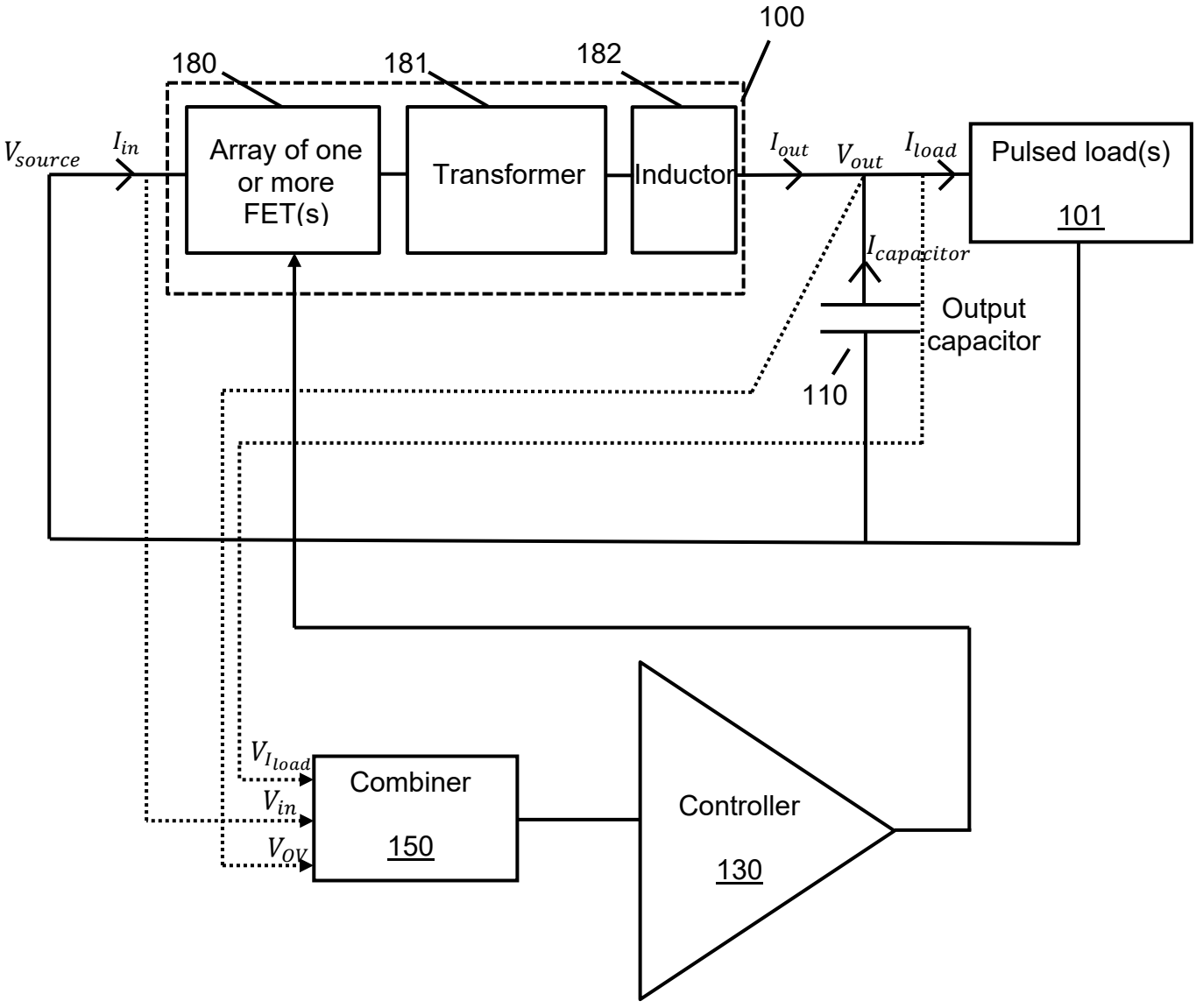

100
180
181
182
V_{source}
I_{in}
Array of one or more FET(s)
Transformer
Inductor
I_{out}
V_{out}
I_{load}
Pulsed load(s)
101
$I_{capacitor}$
Output capacitor
110
$V_{I_{load}}$
V_{in}
V_{OV}
Combiner
150
Controller
130

FIG. 1C

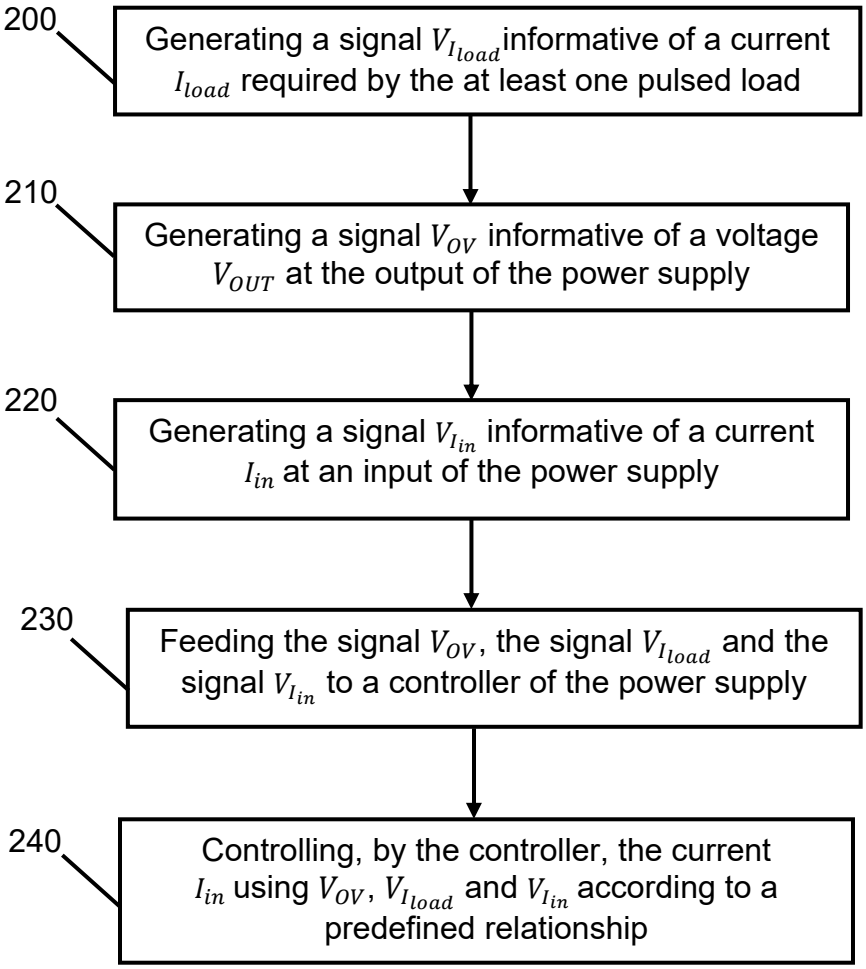

200
Generating a signal $V_{I_{load}}$ informative of a current I_{load} required by the at least one pulsed load
210
Generating a signal V_{OV} informative of a voltage V_{OUT} at the output of the power supply
220
Generating a signal $V_{I_{in}}$ informative of a current I_{in} at an input of the power supply
230
Feeding the signal V_{OV}, the signal $V_{I_{load}}$ and the signal $V_{I_{in}}$ to a controller of the power supply
240
Controlling, by the controller, the current I_{in} using V_{OV}, $V_{I_{load}}$ and $V_{I_{in}}$ according to a predefined relationship

FIG. 2

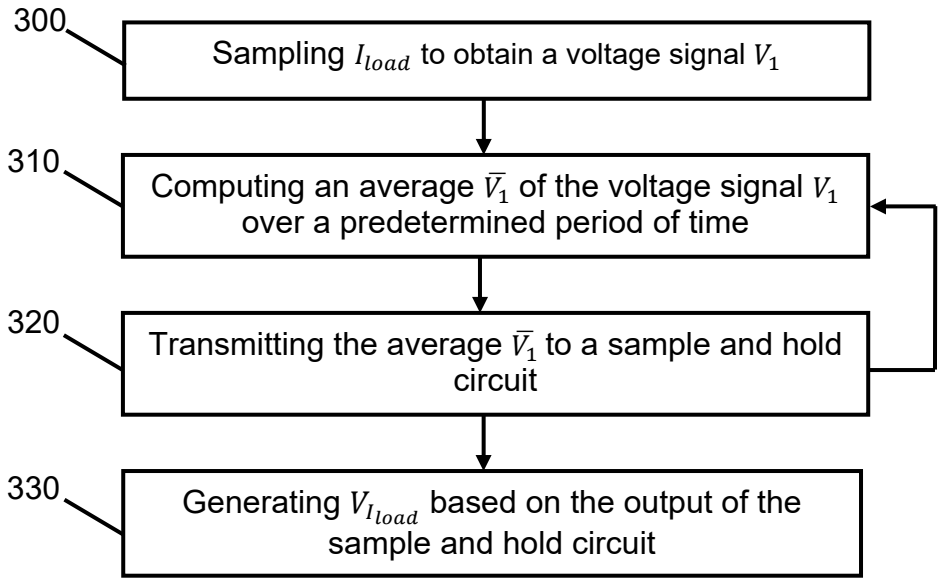

300
Sampling I_{load} to obtain a voltage signal V_1
310
Computing an average $\bar{V}_1$ of the voltage signal V_1 over a predetermined period of time
320
Transmitting the average $\bar{V}_1$ to a sample and hold circuit
330
Generating $V_{I_{load}}$ based on the output of the sample and hold circuit

FIG. 3A

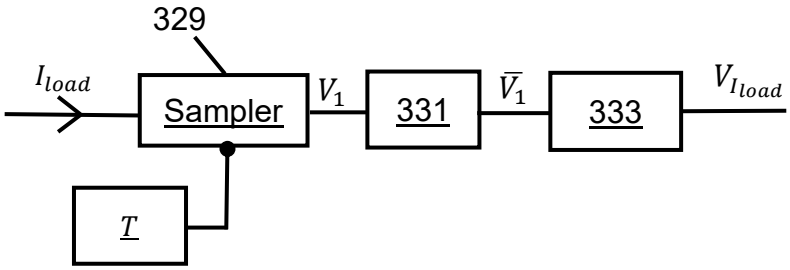

329
I_{load}
Sampler
V_1
331
$\bar{V}_1$
333
$V_{I_{load}}$
T

FIG. 3B

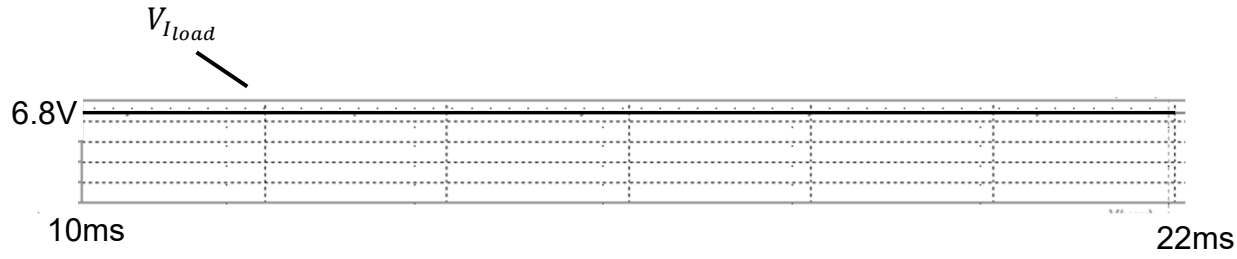


FIG. 3C

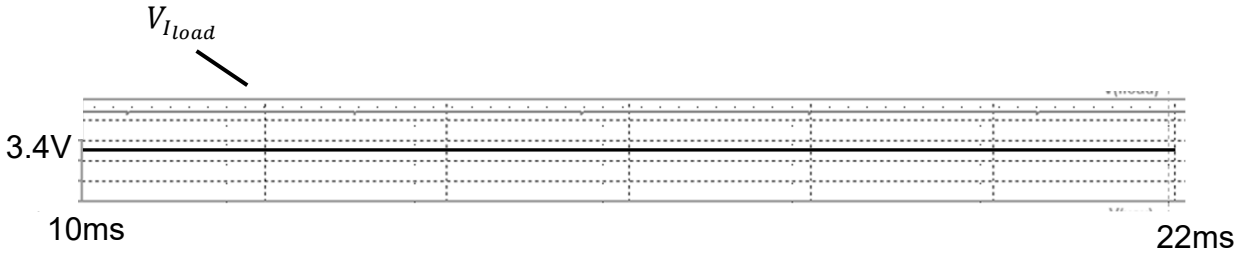


FIG. 3D

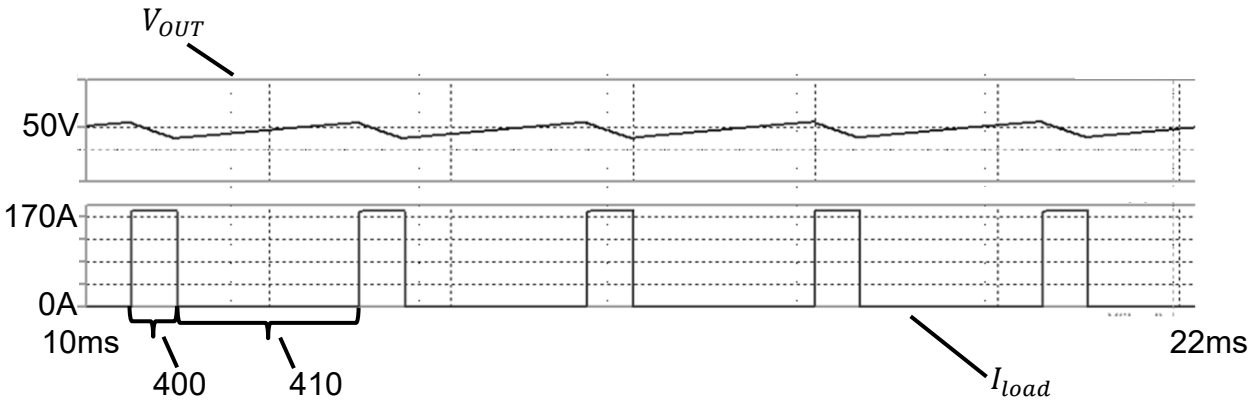


FIG. 4

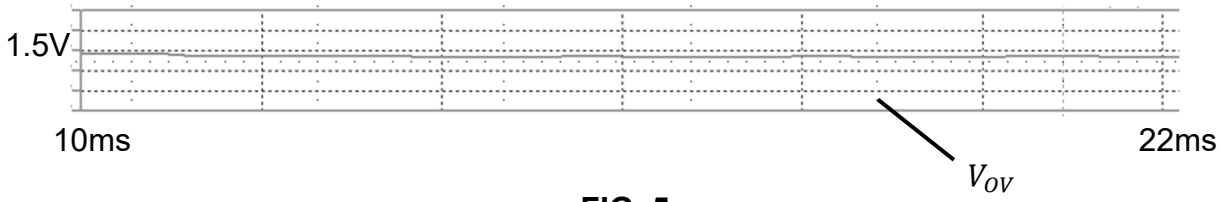


FIG. 5

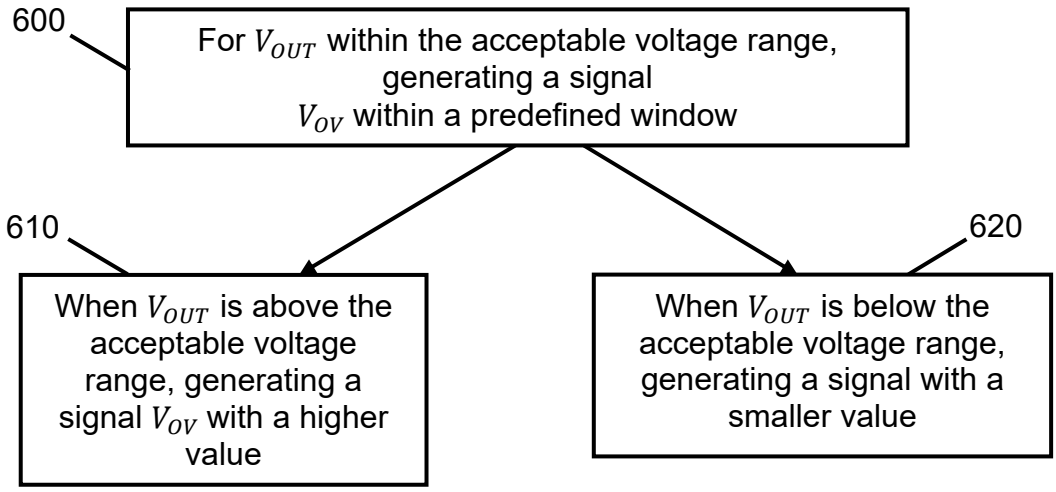


FIG. 6

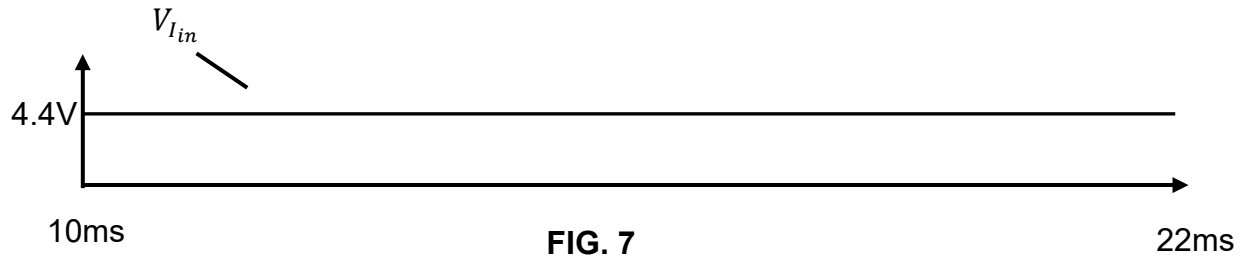

$V_{I_{in}}$
4.4V
10ms
22ms

FIG. 7

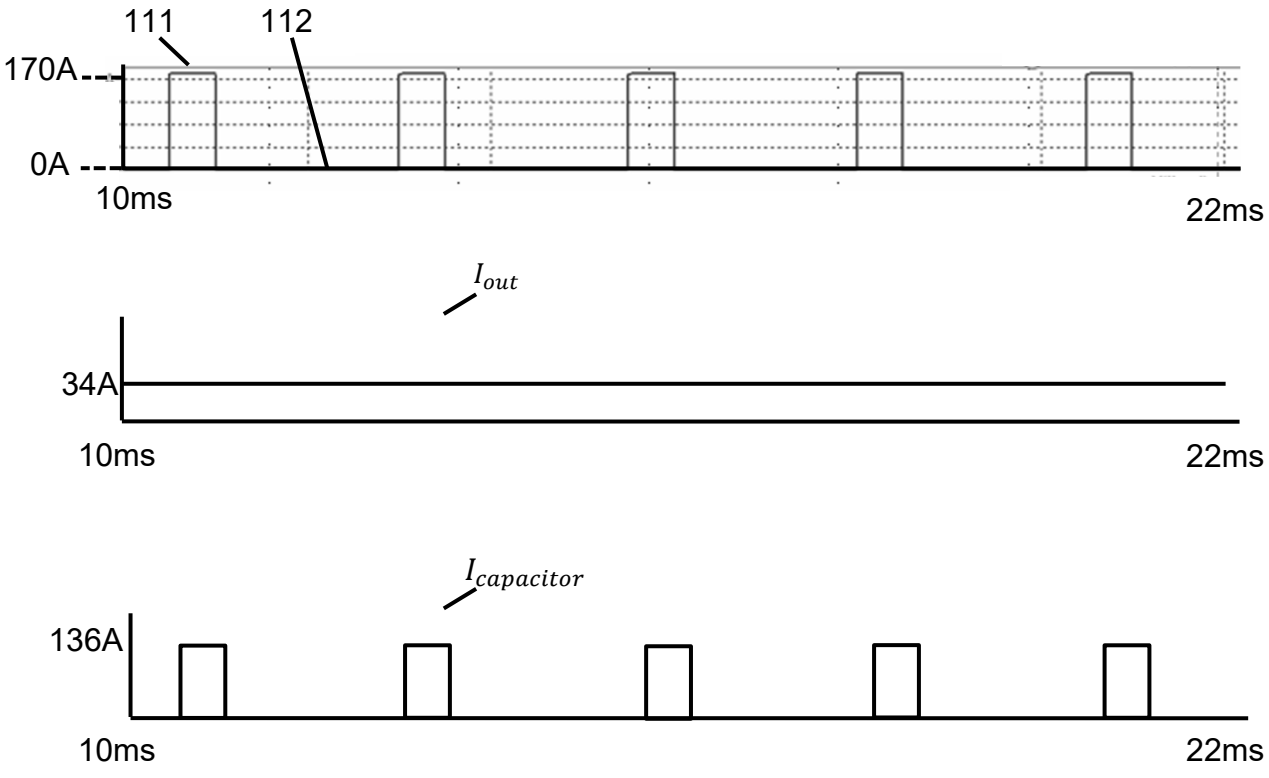

111
112
170A
0A
10ms
22ms
I_{out}
34A
10ms
22ms
$I_{capacitor}$
136A
10ms
22ms

FIG. 8

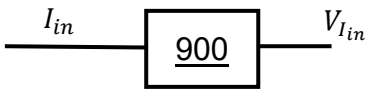

I_{in}
900
$V_{I_{in}}$

FIG. 9

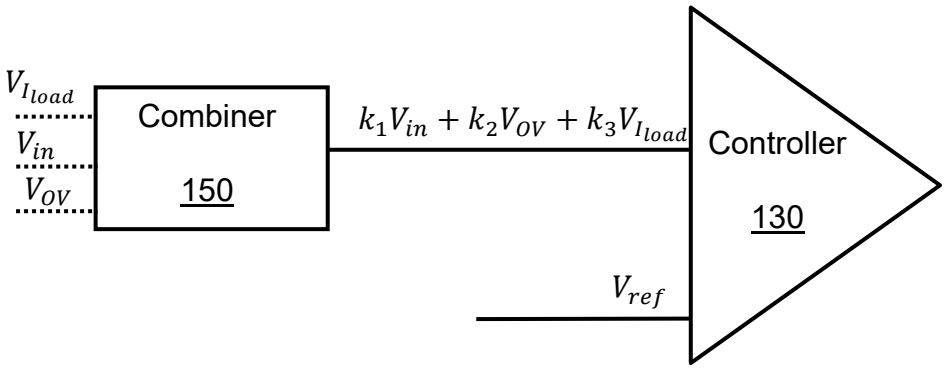

$V_{I_{load}}$
V_{in}
V_{OV}
Combiner
150
$k_1V_{in} + k_2V_{OV} + k_3V_{I_{load}}$
Controller
130
V_{ref}

FIG. 10

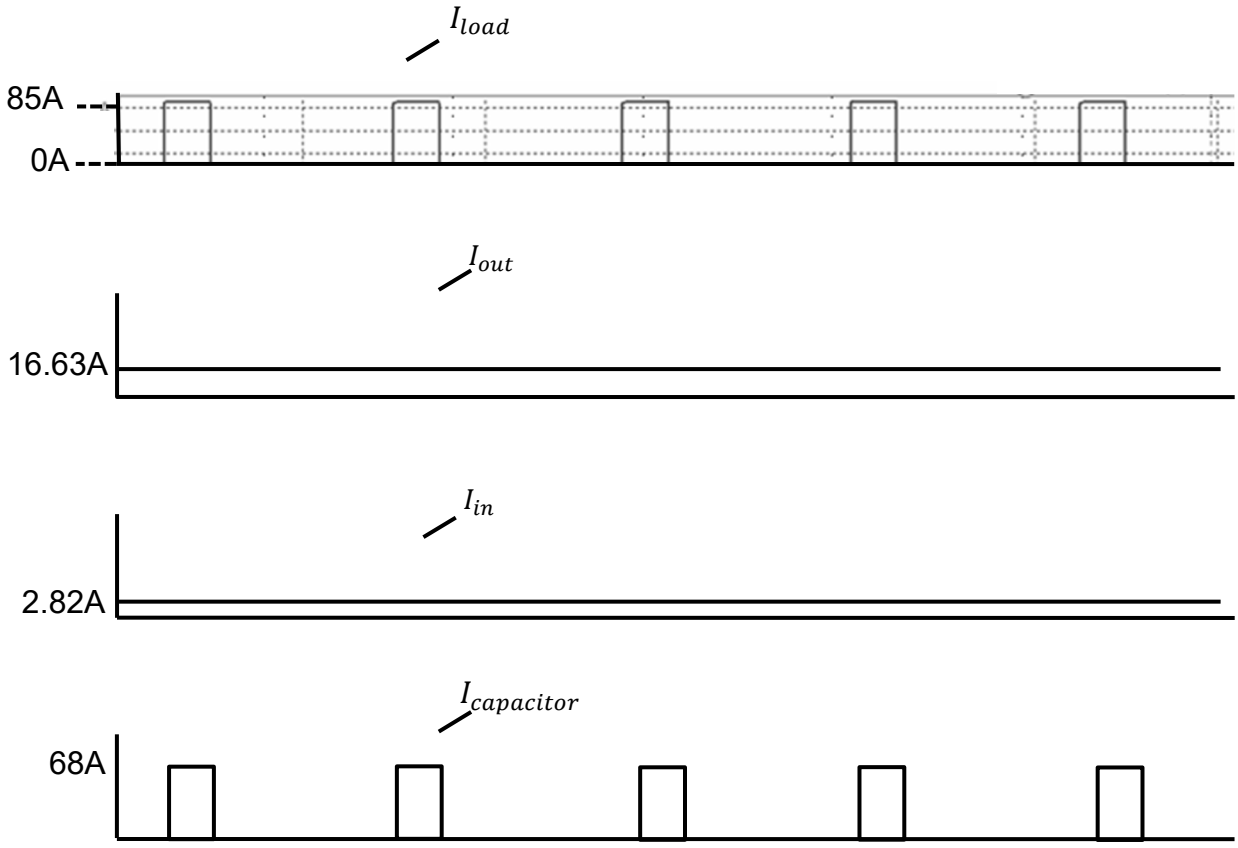


FIG. 11