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WU(10) **Pub. No.: US 2022/0360191 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **RECTIFICATION AND BOOST-BUCK  
CONTROL SYSTEM FOR ALTERNATING  
CURRENT**(52) **U.S. Cl.**  
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Shenzhen (CN)(57) **ABSTRACT**(72) Inventor: **Jun WU**, Shenzhen (CN)(73) Assignee: **SHENZHEN DOSO Technology Ltd.,**  
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A rectification and boost-buck control system for alternating current, includes a processor, a commutation detection circuit, a chopper circuit and a switch circuit. The chopper circuit includes upper bridge elements connected to corresponding phases of the alternating current. The switch circuit includes lower bridge elements connected to the upper bridge elements. The commutation detection circuit is configured to detect commutation signals. Based on the communication signals and current output current and/or current rectified voltage, the processor is capable of outputting a conduction angle control signal to the chopper circuit and output a switch control signal to the switch circuit to adjust on-off time of the chopper circuit and the switch circuit to thereby adjust the current output current and/or the current rectified voltage.

