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(19) **United States**(12) **Patent Application Publication****Yang et al.**(10) **Pub. No.: US 2022/0360054 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **POWER DISTRIBUTION MODULE AND COMMUNICATION POWER SUPPLY SYSTEM**(71) Applicant: **Huawei Digital Power Technologies Co., Ltd., Shenzhen (CN)**(72) Inventors: **Yanxing Yang**, Dongguan (CN); **Wei Guo**, Dongguan (CN); **Tao Feng**, Dongguan (CN); **Liqiong Yi**, Shenzhen (CN)(21) Appl. No.: **17/848,740**(22) Filed: **Jun. 24, 2022****Related U.S. Application Data**

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(57)

ABSTRACT

The power distribution module includes a power busbar, a primary load output module, a secondary load output module, a battery module, and a signal-driven collection module, where each of the primary load output module, the secondary load output module, and the battery module includes a circuit breaker, the power busbar is connected to the circuit breaker, the signal-driven collection module is connected to the circuit breaker to collect a circuit breaker signal, the signal-driven collection module includes a plurality of first signal units sequentially arranged in a first direction, an integer quantity of first signal units are disposed in a connection area in which the signal-driven collection module is connected to each circuit breaker, and each circuit breaker is provided with a second signal unit.

