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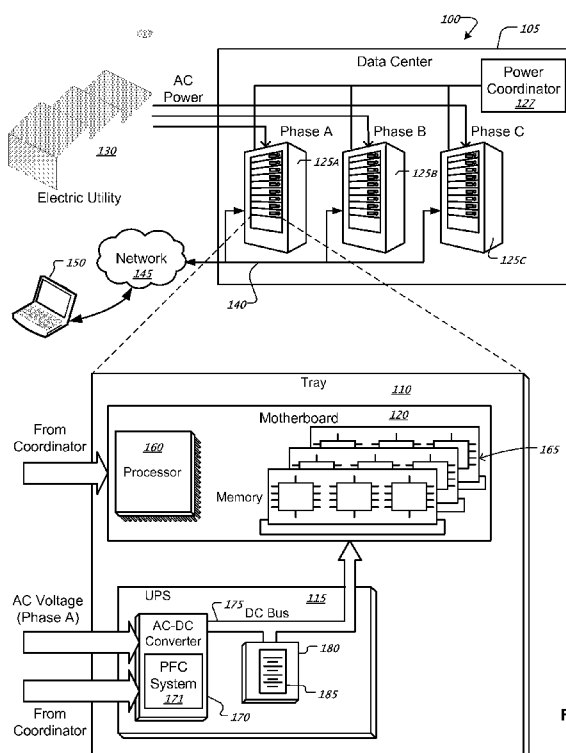
(54) **Title:** POWER SUPPLY SOURCE BLENDING AND SMOOTHING

FIG. 1

(57) **Abstract:** The subject matter of this specification can be embodied in, among other things, a power distribution system that includes a DC bus configured to deliver operating power to a DC load, a conversion circuit configured to receive AC power and convert the received AC power to DC power that is provided to the DC bus, and a battery system configured to provide DC power from a battery to the DC bus. A controller determines an amount of DC power to be provided to the DC bus by the conversion circuit, determines an amount of DC power to be provided to the DC bus by the battery system, and controls the conversion circuit and the battery system such that the conversion circuit provides the first amount of DC power to the DC bus and the battery system concurrently provides the second amount of DC power to the DC bus.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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