

**Analysis of design requirements and optimization possibilities of partial power converter for photovoltaic string applications in DC microgrids**

**Chub, Andrii; Hassanpour, Naser; Yadav, Neelesh; Jalakas, Tanel; Blinov, Andrei; Vinnikov, Dmitri** IEEE Access 2024 / p. 14605-14619 <https://doi.org/10.1109/ACCESS.2024.3354375>

**Analysis of holdup time for DC grid-forming isolated active front-end converters**

**Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri** IECON 2022 - 48th Annual Conference of the IEEE Industrial Electronics Society 2022 / p. 1-6 <https://doi.org/10.1109/IECON49645.2022.9969075> [Conference proceedings at Scopus](#) [Article at Scopus](#)

**Black start and fault tolerant operation of isolated matrix converter for DC microgrids**

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**Concept of wireless low-voltage DC socket for the residential house application**

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**Current-fed partial power converter for photovoltaic applications in DC microgrids**

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**Design considerations of dual-active bridge DC grid-forming converter for DC buildings**

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**High-efficiency partial power converter for integration of second-life battery energy storage systems in DC microgrids**

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**Real-time optimal power management for a hybrid energy storage system with battery thermal consideration and DC microgrid current estimation capability**

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