

### **Adaptive frequency-based power management for off-grid hybrid photovoltaic converters**

Gonschorowsk, Ezequiel; Cardoso, Rafael; **Carvalho da Silva, Edivan Laercio**; **Stein, Carlos Marcelo De Oliveira**; Carati, Emerson Giovanni; Denardin, Gustavo Weber; da Costa, Jean Patric Eletronica de potencia 2024 / art. e202440 <https://doi.org/10.18618/REP.e202440>

### **Addressing cross-coupling issues in magnetically integrated three-port DC-DC converters**

**Carvalho da Silva, Edivan Laercio**; **Blinov, Andrei**; Sohail, Umer; **Chub, Andrii** 2024 IEEE 21st International Power Electronics and Motion Control Conference (PEMC) 2024 / 5 p <https://doi.org/10.1109/PEMC61721.2024.10726373>

### **Air-core coupled inductor based modular solid-state circuit breaker with reduced components for DC buildings**

Pogulaguntla, Aditya; Dsa, Daniel; Yagna, Griddaluru Venkata; Banavath, Satish Naik; **Carvalho da Silva, Edivan Laercio**; **Chub, Andrii**; **Vinnikov, Dmitri** IEEE journal of emerging and selected topics in power electronics 2024 / 12 p <https://doi.org/10.1109/JESTPE.2024.3485735>

### **Alalisvoolu tagasitulek - unistus vői reaalsus?**

**Roasto, Indrek**; **Vinnikov, Dmitri**; **Blinov, Andrei**; **Chub, Andrii**; **Carvalho da Silva, Edivan Laercio** Elektriala 2023 / lk. 22-25 : ill, portr [https://www.ester.ee/record=b1240496\\*est](https://www.ester.ee/record=b1240496*est)

### **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](#)

### **Analysis of the use of supercapacitors and batteries as energy storage elements for off-grid hybrid photovoltaic inverters**

Gonschorowski, E.; Cardoso, Rafael; **Carvalho da Silva, Edivan Laercio**; de Oliveira Stein, Carlos Marcelo; Carati, Emerson Giovanni; Denardin, Gustavo Weber; da Costa, Jean Patric 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 7 p <https://doi.org/10.1109/SPEC56436.2023.10407182>

### **Comparative evaluation of a DAB converter and SRC for DC buildings application**

**Carvalho da Silva, Edivan Laercio**; **Chub, Andrii**; **Blinov, Andrei**; Banavath, Satish Naik; **Vinnikov, Dmitri** 2024 IEEE 21st International Power Electronics and Motion Control Conference (PEMC) 2024 / 6 p <https://doi.org/10.1109/PEMC61721.2024.10726346>

### **Comparison of decoupling control strategies for multiple active bridge DC-DC converter**

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

**Carvalho da Silva, Edivan Laercio**; **Sidorova, Aleksandra**; **Blinov, Andrei**; **Chub, Andrii**; **Vinnikov, Dmitri** IEEE transactions on industrial electronics 2024 / p. 10601-10611 <https://doi.org/10.1109/TIE.2023.3331125>

### **Distributed price-based power management for multibuses DC nanogrids EEMS**

**Carvalho da Silva, Edivan Laercio**; Bellinaso, Lucas V.; Cardoso, Rafael; Michels, Leandro IEEE journal of emerging and selected topics in power electronics 2022 / p. 5509-5521 <https://doi.org/10.1109/JESTPE.2022.3152101> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Dynamic reconfiguration for wide output voltage range isolated buck-boost PFC converter**

**Verbytskyi, Ievgen**; **Nadeem, Mohammad Mahad**; **Blinov, Andrei**; **Carvalho da Silva, Edivan Laercio**; **Chub, Andrii**; **Vinnikov, Dmitri** 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 5 p. : ill <https://doi.org/10.1109/SPEC56436.2023.10407792>

### **Effect of droop control curves on the efficiency of dual-active bridge converters**

**Carvalho da Silva, Edivan Laercio**; **Blinov, Andrei**; **Chub, Andrii**; **Vinnikov, Dmitri** IECON 2023- 49th Annual Conference of the IEEE Industrial Electronics Society IECON Proceedings (Industrial Electronics Conference) 2023 / 6 p <https://doi.org/10.1109/IECON51785.2023.10312056> [Conference proceedings at Scopus](#) [Article at Scopus](#)

### **Evaluation of dual-active bridge converter for DC energy buildings**

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### **Extended ZVS-On/ZCS-Off range for CF-DAB converter under DCM operation for residential energy storage systems**

**Carvalho da Silva, Edivan Laercio**; Cardoso, Rafael; Felipe, Carla Aparecida; Stein, Carlos Marcelo De Oliveira; Bellinaso, Lucas Vizzotto; Michels, Leandro; **Vinnikov, Dmitri** IEEE Access 2023 / p. 119231-119243 <https://doi.org/10.1109/ACCESS.2023.3327219> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Grid integration of DC buildings : standards, requirements and power converter topologies**

**Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Emiliani, Pietro; de Carne, Giovanni; Vinnikov, Dmitri** IEEE open journal of power electronics 2022 / p. 798-823 <https://doi.org/10.1109/OJPEL.2022.3217741> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Hybrid inverter and control strategy for enabling the PV generation dispatch using extra-low-voltage batteries**

Meneghetti, Luiz Henrique; **Carvalho da Silva, Edivan Laercio**; Carati, Emerson Giovanni; Denardin, Gustavo Weber; da Costa, Jean Patric; de Oliveira Stein, Carlos Marcelo; Cardoso, Rafael Energies 2022 / art. 7539 <https://doi.org/10.3390/en15207539> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Implementation of protection features for a modular bidirectional solid-state battery disconnecter**

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### **Inverters for power systems with renewable sources: basic topologies and purposes**

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### **Magnetically integrated multiport converter for energy management in DC-powered buildings**

**Carvalho da Silva, Edivan Laercio; Chub, Andrii; Blinov, Andrei; Banavath, Satish Naik; Vinnikov, Dmitri** Eletrônica de Potência 2024 / art. 202445 <https://doi.org/10.18618/REP.e202445%20%20>

### **Multi-port i-AFE converter for grid-interactive buildings: design requirements and efficiency evaluation**

**Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Galkin, Ilya; Vinnikov, Dmitri** 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 5 p <https://doi.org/10.1109/SPEC56436.2023.10408230>

### **Overview of single-stage isolated AC-DC topologies for interfacing DC and AC grids**

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### **P3R : partial power postregulated gridforming converter for prosumer DC buildings**

**Carvalho da Silva, Edivan Laercio; Chub, Andrii; Hassanpour, Naser; Blinov, Andrei; Rathore, Akshay Kumar; Vinnikov, Dmitri** IEEE transactions on industrial electronics 2024 / 10 p <https://doi.org/10.1109/TIE.2024.3423358>

### **Resonant DC transformer for grid-interactive energy efficient buildings**

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### **Three-phase bidirectional isolated AC-DC matrix-converter with full soft-switching range**

**Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Emiliani, Pietro; Chub, Andrii; Vinnikov, Dmitri** IEEE Access 2023 / p. 119270-119283 <https://doi.org/10.1109/ACCESS.2023.3327224> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Using electric vehicles to enhance power supply resilience of buildings during emergencies and critical situations**

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