

Title (en)  
MULTI-OUTPUT SWITCHED-MODE POWER SUPPLY FOR MULTI- CELL-IN-SERIES BATTERY CHARGING

Title (de)  
SCHALTNETZTEIL MIT MEHREREN AUSGÄNGEN ZUM LADEN EINER MEHRZELLEN-IN-SERIEN-BATTERIE

Title (fr)  
ALIMENTATION ÉLECTRIQUE À DÉCOUPAGE À SORTIES MULTIPLES POUR LA CHARGE DE BATTERIES À CELLULES MULTIPLES EN SÉRIE

Publication  
**EP 4282061 A1 20231129 (EN)**

Application  
**EP 22703246 A 20220113**

Priority  
• US 202163139257 P 20210119  
• US 202117448306 A 20210921  
• US 2022070182 W 20220113

Abstract (en)  
[origin: WO2022159927A1] Methods and apparatus for converting power using a multi-output switched- mode power supply (SMPS) coupled to a multi-cell-in-series battery, such as charging a two-cell-in-series (2S) battery using a dual-output three-level buck converter coupled thereto, or using a multi-input SMPS circuit receiving power from a multi-cell-in-series battery. One example power supply circuit generally includes a switched-mode power supply circuit having an input node and an output node, a battery comprising multiple cells connected in series, a charge pump circuit having a first terminal and a second terminal, the second terminal of the charge pump circuit being coupled to the battery, a first switch coupled between the output node of the switched-mode power supply circuit and the first terminal of the charge pump circuit, and a second switch coupled between the output node of the switched-mode power supply circuit and the second terminal of the charge pump circuit.

IPC 8 full level  
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Citation (search report)  
See references of WO 2022159927A1

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KH MA MD TN

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