

RA Ecosystem Partner Solution

Chakra Fast Battery Chargers



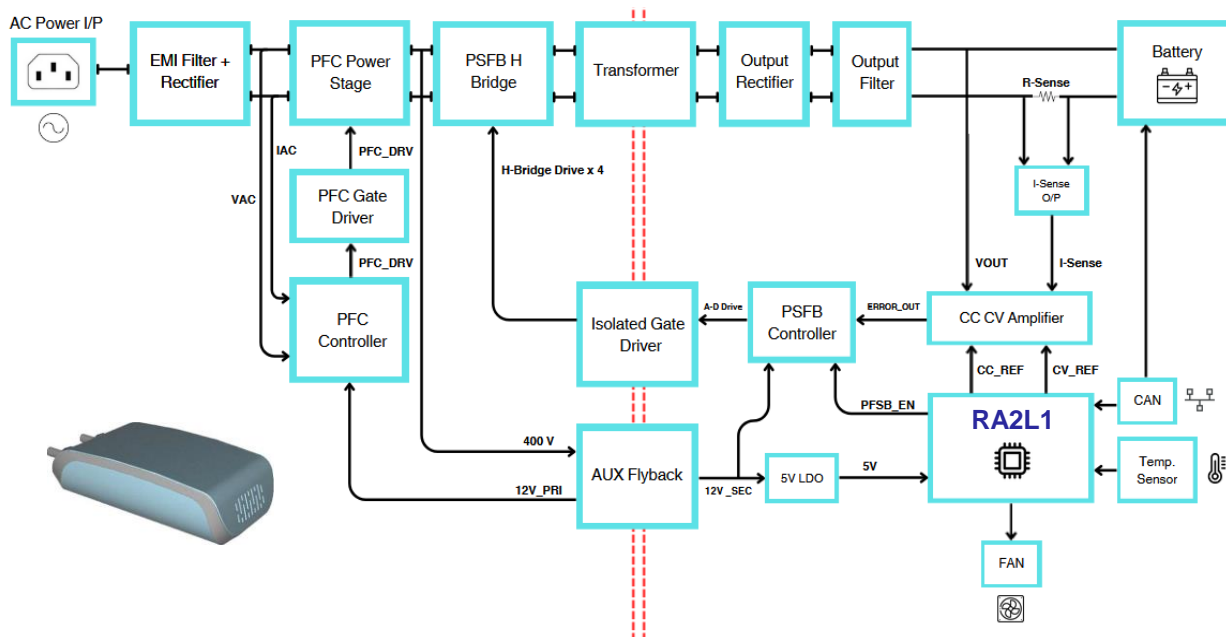
Solution Summary

Chakra Fast Battery Chargers provide highly power efficient battery solutions. The solution is designed for Li-ion, LiFePo4 and lead acid batteries. It operates under all types of harsh electrical and thermal environments and gives high power efficiency up to 93% suitable for 2W/3W E-bikes and energy storage applications. Out-of-box support is available for [Renesas RA2L1 MCUs](#).

Features/Benefits

- High efficiency of 93% with low ripple of 150mV to increases battery life
- Output power: 1.5KW, maximum output current: 22A
- Optimized charging algorithm for Li-ion, LiPeFo4 and Lead acid battery
- Programmable CC and CV limit with feedback through CAN interface
- Input AC undervoltage and overvoltage protection, output overvoltage protection, overload protection, over temperature protection
- Wide AC power input voltage (85-265V) and temperature range (-45°C to 65°C)

Diagrams/Graphics



Target Markets and Applications

- Electric and hybrid mobility
- Charging station
- Storage systems

[Products – Chakra Electronics](#)

CHAKRA is an electronic products company. Chakra Design, develop and Manufacture core electronic components industrialized for reliability, local regulations, and sustainability.

Chakra is working with leading semiconductor companies to bring latest Semiconductor innovation for the EV Market

Chakra EV/Mobility product portfolio includes Vehicle Control Units, Smart Clusters, Software driven Smart BMS, Smart Drives, Chargers & Charging stations. Chakra bring expertise in AI and cloud support for Autonomous vehicle information, Last mile connectivity and vehicle to cloud solutions..



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30 years

Industrial Experience



INDIA



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2+

Global Clients

Chakra is also building variants of VCU and other EV products, which will cater to both high- and low-end two-wheeler segments.

Chakra also has supporting software for VCU including cloud connect and android app. The app and Cloud connect works on HTTP/MQTT protocol while android app has option to connect to VCU using GSM(LTE) with SMS and Bluetooth pairing.

Chakra's next generation VCU will have a provision drive to a Display Cluster. The VCU will be high reliable IP67 compliant with automotive standards.

Chakra is also working on other EV/Mobility products which includes IP67 compliant wide range battery input supported 30V-90V DC-DC converter which has capabilities to load up to 10A. Also building Industry leading battery management system which supports both Active and passive cell balancing with options for different battery chemistry and voltages, BMS has a wide input range and can drive up to 180A. Chakra is also working on fast charger of 1KW

[Contact – Chakra Electronics](#)