

HANGZHOU EV-TECH OBC(ON Board Charger) EQUIPPED GREAT WALL ORA-R1 EV TEARDOWN REPORT



ORA-R1 of Great Wall Motor
Company Limited
Source from Great Wall website



OBC unit

Vehicle overview

This OBC is produced by Chinese maker HANGZHOU EV-TECH for Great Wall Motor leader model ORA-R1 EV. Batteries reported to be 33 kWh are mounted under the floor. FF (Front Engine • Front Drive) system by maximum output of 35kW (about 48PS) motor is adopted.

OBC unit features

Input voltage: 90-264VAC / Output voltage: 200-420VDC Current: 12A 3.3kW

DC input voltage: 200-420VDC / DC output voltage: $14 \pm 0.1V$

OBC has a three-layer housing,

The upper layer mainly consists of a junction box board (hereinafter, JB board) and a power relay. The middle layer is equipped with a charger + DCDC circuit mainly composed of a control board and a main board. A cooling channel is provided in the lower layer (bottom side of the housing).

Report content

76 pages report includes the images of teardown process and BOM list of each PCBs.

Circuit analysis report: \$3,000

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