

Parameters Subject to Change Without Notice

DESCRIPTION

The JW[®]3655A/JW3655A-1 is a buck boost converter targets HVDC fast charging system.

The JW3655A/JW3655A-1 supports 1 to 3 cells Li-ion battery, the full charge voltage and charge current can be programmed through external resistor.

The JW3655A/JW3655A-1 implements the Buck Boost converter with an H-bridge. The integrated low $R_{DS(on)}$ MOSFET minimizes physical footprint, maximizes charge efficiency. Built-in loop compensation simplifies the circuit and design. PFM is engaged to maintain high efficiency at light load current.

JW3655A/JW3655A-1 guarantees robustness with thermal protection and battery under voltage lockout.

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FEATURES

- Integrate low $R_{DS(on)}$ power MOSFET
- Wide input range: 4.2V-20.0V, support 1 to 3 cells battery charge
- Full charge voltage: 1.2V-20.0V through external resistor or selectable by BATFB pin JW3655A (4.2V/cell)/JW3655A-1 (4.35V/cell)
- High efficiency buck-boost transition
- 450kHz Switching frequency
- Programmable charge current, up to 3A
- Quiescent current: <60uA
- Integrate battery short protection
- Integrate thermal protection
- QFN3*4 package

APPLICATIONS

- Power bank systems
- Battery and supercapacitor charging
- USB power delivery
- Industrial applications
- Automotive systems

TYPICAL APPLICATION

