Fuji Electric
Innovating Energy Technology

Fuji Electric Power Supply Control IC
Product Series

Eco-Friendly Power Supply Control ICs achieving High Efficiency and Low Standby Power

Fuji Electric's products of power supply control ICs includes PWM*1 control ICs for flyback converters, quasi-resonant control ICs, power factor correction (PFC*2) control ICs, and LLC current resonant control ICs. High voltage start up circuit and various protection reduce the number of power supply components and high-efficiency control enables smaller and low loss power supply. Fuji Electric's power supply control ICs help reduce the power consumption of power supplies and contribute to the realization of a decarbonized society.
*1 PWM : Pulse Width Modulation *2 PFC : Power Factor Correction

Product Series

- for Flyback converter
  - PWM control ICs : FA8A series, FA8C series
  - QR* control ICs : FA5640 series
- for PFC converter : FA1A50N, FA1B00N, FA5612N, FA5613N
- for LLC converter : FA6A30N, FA6A31N

*QR: Quasi-resonant

Key features

High efficiency
Low standby power
High power factor
Reduce components
HV
High voltage start-up circuit
Transformer audible noise reduction
High-speed response

MTET0-3729-EN

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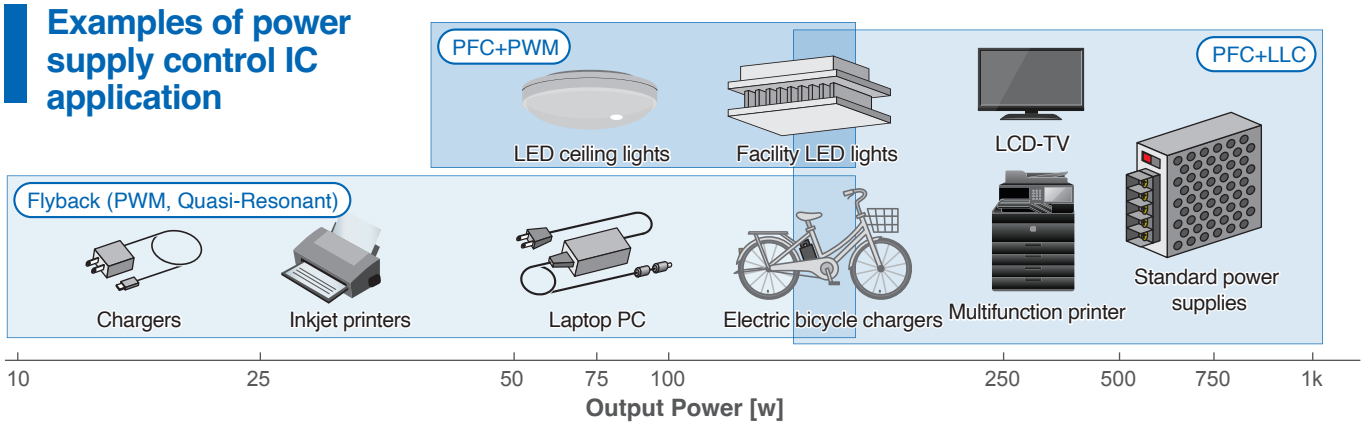
Examples of power supply control IC application



1. Control ICs for flyback converters

Fuji Electric's control ICs for flyback converters include PWM control types and quasi-resonant (QR) control types.

PWM control

FA8A series, FA8C series

- High voltage startup circuit and X-CAP discharge function
- Low input power during burst mode operation

QR control

FA5640 series

- High voltage start-up circuit
- Low turn-on loss

QR: Quasi-Resonant

2. Power factor correction control ICs

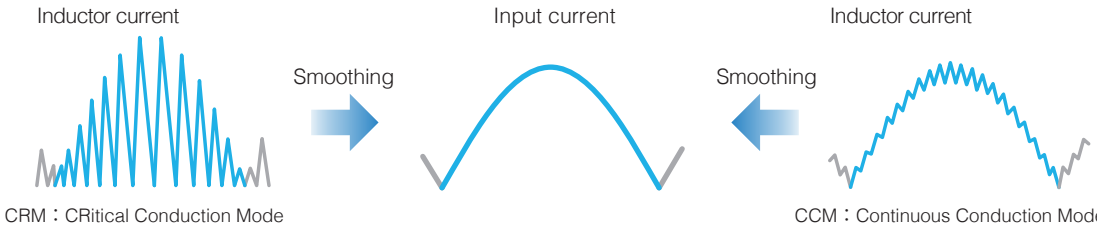
PFC control ICs include a critical conduction mode (CRM) control type and continuous conduction mode (CCM) control type.

CRM control

FA1A50N, FA1B00N

CCM control

FA5612N, FA5613N



CRM : CRitical Conduction Mode

CCM : Continuous Conduction Mode

3. LLC current resonant control ICs

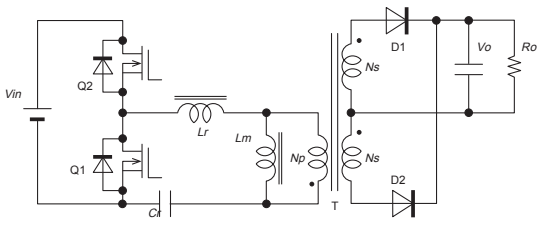
Fuji Electric's LLC ICs include various protections, such as a function for capacitive mode prevention.

LLC current resonant control

FA6A30N, FA6A31N

- Capacitive mode prevention function
- Overload protection (auto restart or latch stop)
- Overcurrent protection (auto restart or latch stop)

LLC current resonant converter



⚠ Safety Precautions

＊Before using this product, read the "Instruction Manual" and "Specifications" carefully, and consult with the retailer from which you purchased this product as necessary to use this product correctly.
＊The product must be handled by a technician with the appropriate skills.

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