



Helix Semiconductors

HS100 Product Brief

HS100 MuxCapacitor™ SMPS Pre-Regulator

The Helix Semiconductors HS100 Mux-Capacitor SMPS Pre-Regulator IC enables off-the-shelf 10W switching PMICs to operate at their highest efficiency World-Wide. A programmable gain MuxCapacitor reduces the variation of the input AC Mains voltage delivered to the power transformer enabling high efficiency operation.

An external AC Mains voltage monitor determines whether US/Japan or European operation is required. This monitor or a PMIC provided signal controls a MuxCapacitor output gain setting pin to provide the appropriate output voltage.

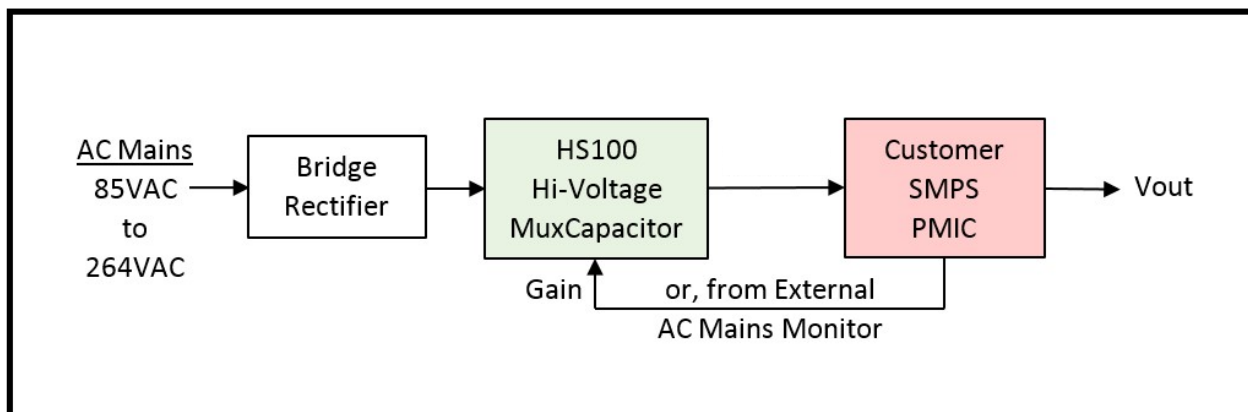
Features

- 85-264VAC Input Voltage
- High Voltage MuxCapacitor
- Soft-Start
- 100mA Max. Output Current
- Pin Configurable Output Setting
- > 98% Efficiency @ 10mA
- > 92% Efficiency @ 100mA
- 10mW No-Load Power Consumption

Applications

- Smart Outlets
- IoT and IIoT Gateways
- Remote Sensors
- Smoke and CO Detectors

HS100 System Application Diagram





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