**SIMPLE SWITCHER®**

**Synchronous Regulator Series**

**Synchronous design made easy**

The LM4360x and LM4600x are the first fully synchronous family of SIMPLE SWITCHER converters with up to 60V input capability and a high light-load efficiency architecture. Load currents of up to 3A are supported for the 36V devices, and up to 2A for the 60V devices. Each device is available in a pin- and footprint-compatible HTSSOP-16 package, offering scalability benefits and simplifying design reuse.

Due to a unique pin configuration, all can easily be laid out to exhibit excellent radiated EMI performance. It’s even easy to determine which device to use with a simple part numbering scheme so you can quickly match your requirements. As with all SIMPLE SWITCHER devices, these are fully supported by WEBENCH® design tools with all of the latest features, like Schematic Editor and PCB Export.

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### Synchronous SIMPLE SWITCHER feature set

- Fully synchronous
- Low quiescent current
- Power Good
- Precision Enable
- Internal compensation

### Max operating input rail

- 36: 36V
- 60: 60V

### Output current

- 00: 500 mA
- 01: 1A
- 02: 2A
- 03: 3A

Example: LM43603

4: Synchronous family

Max Vin: 36V

Iout: 3A
Synchronous Regulator Series

Design Resources

WEBENCH Design Tools
Use popular WEBENCH design tools to create complete power systems in seconds and optimize your design for efficiency, size, and cost. Get instant access to the latest simulation models, parametric data, and packages and download designs directly to your CAD environment. The easy-to-use tools allow you to make value-based tradeoffs at a design, system, and supply chain level before your design is committed to production.

Get more information on WEBENCH tools, including demo videos and tutorials at ti.com/webench

WEBENCH Schematic Editor
Edit and simulate your custom schematic instantly

WEBENCH PCB Export
Download board layouts instantly to CAD tools

Reference designs
- PMP9398: CISPR 25 Class 5-rated design for LM46002
- PMP9450: Battery charger reference design with LM46001
- PMP9450: LM2592HV TO-220 upgrade with LM46002
- PMP9454: PTN78060W module replacement with LM43603
- PMP9379: Positive/negative output design with LM46002
- PMP9080: Automotive USB charging with LM43603
- PMP9462: Triple output industrial design with LM43603 and LM26420
- PMP9483: Triple output industrial power supply with LM49603 and LMZ10501

Instructional Videos
- Loop compensation made simple lab demo
- PCB thermal management lab demo
- Layout tips for EMI reduction lab demo
- Auto front-end protection lab demo
- Synchronous regulator family overview video
- Most interesting engineer video
- PCB export for synchronous regulators training presentation
- Wide VIN multi-rail power made simple

Visit ti.com/simpleswitcher for more design resources and product information
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