



US 20230231477A1

(19) **United States**(12) **Patent Application Publication**
Hartman et al.(10) **Pub. No.: US 2023/0231477 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **POWER SUPPLY CONTROLLER****Publication Classification**(71) Applicant: **Rohm Powervation Limited,**
Blackrock (IE)(51) **Int. Cl.**
H02M 3/156 (2006.01)
H02M 1/00 (2006.01)(72) Inventors: **Mark Hartman**, Santa Clara, CA (US);
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CPC **H02M 3/156** (2013.01); **H02M 1/0025**
(2021.05); **H02M 1/0016** (2021.05)(21) Appl. No.: **18/126,011**(57) **ABSTRACT**(22) Filed: **Mar. 24, 2023****Related U.S. Application Data**(63) Continuation of application No. 16/323,497, filed on
Feb. 5, 2019, now Pat. No. 11,616,435, filed as
application No. PCT/EP2017/069877 on Aug. 6,
2017.(60) Provisional application No. 62/371,502, filed on Aug.
5, 2016.

The present application provides a controller for a switching power supply such as a DC-DC converter which provides an output voltage and an output current. The controller is configured to provide at least one control signal to operate the switching power supply to maintain the output voltage at a first reference voltage. The controller employs a load line compensator responsive to output current for adjusting the reference voltage employed by the compensator. The load line compensator employs one or either or both of a high pass filter or saturating element to provide a filtered/saturated value which is the value employed in adjusting the reference voltage.

