

Step-Down dc-dc Converter for Low Temperature Plasma

Hakki A., Kashapov N., Maiorova I., Sadikov K.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2018 Institute of Physics Publishing. All rights reserved. This paper presents a step down converter with a high speed rectifier and filter for Argon plasma torches. Buck circuit with a high frequency pulse width modulation control and very fast MOSFET transistor were used for switching. For Argon (Ar) gas Plasma Torches, and by increasing the pulse width, the average output voltage has modified from 80 V up to 100 V. The frequency of the designed step down converter was steady at 20 KHz.

<http://dx.doi.org/10.1088/1742-6596/1058/1/012041>

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