

High Power Argon, Nitrogen Plasma Torches

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Abstract

© Published under licence by IOP Publishing Ltd. The paper describes a high power supply for Argon and Nitrogen plasma torches. A high frequency was used in order to drive the pulse width modulation circuit. The average output current consumption (AOCC) was modified from 20A up to 80A by increasing the pulse width from 2 μ sec up to 3 μ sec for Argon gas plasma torches. The (AOCC) was reduced from 70A down to 25A by increasing the pulse width from 6 μ sec up to 8 μ sec in the case of Nitrogen gas plasma torches.

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Keywords

Argon plasma, Bridge converter, LPF, Modulation circuit, MOSFET transistors, Nitrogen plasma

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