

Title (en)
SWITCHABLE-REACTOR UNIT, VARIABLE REACTOR, HIGH-FREQUENCY GENERATOR, AND IMPEDANCE ADJUSTMENT ASSEMBLY
HAVING A SWITCHABLE-REACTOR UNIT

Title (de)
SCHALTBARE-REAKTANZ-EINHEIT, VERÄNDERBARE REAKTANZ, HF-GENERATOR UND IMPEDANZANPASSUNGSANORDNUNG MIT
EINER SCHALTBARE-REAKTANZ- EINHEIT

Title (fr)
UNITÉ DE RÉACTANCE COMMUTABLE, RÉACTANCE MODIFIABLE, GÉNÉRATEUR HF ET ENSEMBLE D'ADAPTATION D'IMPÉDANCE DOTÉ
D'UNE UNITÉ DE RÉACTANCE COMMUTABLE

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Abstract (en)
[origin: WO2021255250A1] The invention relates to a switchable-reactor unit (100, 101), comprising: - a high-frequency terminal (112) for connecting to a transmission line (114) for the transmission of a signal at a frequency in the range of 1–200 MHz; and - a circuit assembly (116) having a plurality of switching elements (T1-T3) used in parallel, which each have a gate terminal (G), characterized in that each switching element is connected, via at least one individual reactor (C11-C13, C21-C23) assigned to the switching element and connected in series with the switching element, to the high-frequency terminal (12), wherein the switching elements can be or are controlled via their gate terminals in such a way that the switching elements switch simultaneously. The invention also relates to a variable reactor (18, 20, 22) comprising a switchable-reactor unit (100). The invention also relates to an impedance adjustment assembly (11), comprising a switchable-reactor unit (100, 101) and a controller (32). The invention also relates to a high-frequency power generator (40) comprising at least one variable reactor (18, 20, 22). The invention also relates to a plasma supply system (1), comprising a high-frequency power generator (40), a load (28) in the form of a plasma process operated with high frequency (HF), for coating or etching a substrate, and an impedance adjustment assembly (11). The invention also relates to a method for operating an impedance adjustment assembly (11) and/or a high-frequency power generator (40), e.g. in a plasma supply system (1).

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