

ABSTRACT

APPARATUS AND METHOD TO ELECTRICALLY POWER AN ELECTRIC ARC FURNACE

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An electric power apparatus for an electric arc furnace (60) comprises at least one electrode (62) and is connectable to a power network (50) to supply to the electrode (62) the electric energy to generate an electric arc to melt a metal mass. The apparatus comprises an electric regulation unit (12) interposed and connected
10 to the power network (50) and to the electrode (62) and configured to regulate at least one electric quantity for powering the electrode (62). The apparatus comprises at least one detection device (20, 22) to detect the electric quantity, interposed between the electrode (62) and the electric regulation unit (12), a positioning device (46) to move the at least one electrode (62) nearer to/away
15 from the metal mass to be melted and a control and command unit (16).

Fig. 1