

Title (en)

Polyphase power supply for continuous levitation casting.

Title (de)

Mehrphasen-Leistungseinrichtung für kontinuierliches Levitationsgiessen.

Title (fr)

Alimentation de puissance multiphasée pour coulée continue en lévitation.

Publication

EP 0294913 A2 19881214 (EN)

Application

EP 88301503 A 19880223

Priority

US 6090087 A 19870612

Abstract (en)

An apparatus (50) for supplying polyphase power to an induction coil (62) for magnetically levitating metal to be cast comprises an input (52) for connecting the apparatus to a source of polyphase AC power and a polyphase rectifier (54) for rectifying the AC power. A first controller (56) selectably varies the magnitude of RMS current supplied to the induction coil by controlling the electrical phasing of the rectifier. A polyphase inverter (58) operatively associated with the rectifier converts the rectified AC power to polyphase AC power and supplies the polyphase AC power to the induction coil at a preselected frequency. A second controller (60), independent of the first controller, controls the frequency of the AC power supplied to the induction coil by controlling the electrical phasing of the inverter. The induction coil has a plurality of sections (01 to-O3), each section being wound to provide a phase rotation of a magnetic force vector over substantially the entire length of the coil to produce a continuous magnetic levitation force.

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IPC 8 full level

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