

Title (en)

Process for supplying power to a three-phase motor of a lifting device, and device for carrying out the process.

Title (de)

Verfahren zur Energieversorgung eines Drehstrommotors eines Hubwerks und Einrichtung zur Durchführung des Verfahrens.

Title (fr)

Méthode d'alimentation d'un moteur à courant tri-phasé d'un dispositif de levage, et installation pour la mise en oeuvre de cette méthode.

Publication

EP 0259656 A1 19880316 (DE)

Application

EP 87111895 A 19870817

Priority

DE 3629266 A 19860828

Abstract (en)

1. A method for supplying a three-phase motor (M) of a hoisting unit provided with a load measuring unit (6), in particular an asynchronous motor and in particular a cage motor, with electric energy of variable frequency and variable voltage or current intensity, in particular from a converter (1, 2), wherein the frequency is regulated such that when lifting a lifting load the three-phase motor forms the required lifting moment and wherein a basic value of the voltage or the current intensity is preset to be so high in the lower frequency range, that the magnetization of the three-phase motor is also sufficient in the lower frequency range for forming the lifting moment and for lifting load, characterised in that the basic value (U2) of the voltage (U) or current intensity is lowered relative to the limiting basic value (U1) required for forming a limiting lifting moment and for lifting a limiting lifting load, if the lifting load (5) detected by the load measuring unit (6) is smaller than the limiting lifting load.

Abstract (de)

Bei der Versorgung eines Drehstrommotors (M) eines mit einer Lastmeßeinheit (6) versehenen Hubwerks mit elektrischer Energie variabler Frequenz (f) und variabler Spannung (U) oder Stromstärke, insbesondere aus einem Umrichter (1,2), wird der Grundwert (U2) der Spannung bzw. Stromstärke im unteren Frequenzbereich in Abhängigkeit von der durch die Lastmeßeinheit (6) erfaßten tatsächlichen Hublast (5) unter den Grenzgrundwert (U1) abgesenkt, um die thermische Belastung des Drehstrommotors (M) zu minimieren.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

B66C 13/26 (2013.01); **B66D 1/485** (2013.01)

Citation (search report)

- [A] US 3614996 A 19711026 - SAITO KENJI, et al
- [A] US 3940110 A 19760224 - MOTODA KENRO
- [A] DE 3048097 A1 19820729 - LOHER GMBH [DE]
- [A] IEEE TRANSACTIONS ON INDUSTRY AND GENERAL APPLICATIONS, Band IGA-2, Nr. 5, September/Okttober 1966, Seiten 334-339, New York, US; L. ABRAHAM et al.: "AC motor supply with thyristor converters"

Cited by

CN104925686A; CN105439022A; EP0544084A3; EP0710619A3; EP2357724A1; DE102007062609A1; US9950914B2; US8816619B2

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