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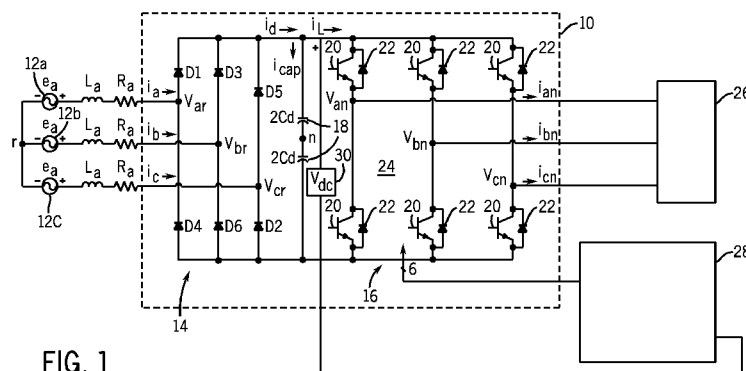


FIG. 1

(57) **Abstract:** A system for controlling operation of a motor drive during fast start-up of an induction motor includes an AC motor drive having a PWM inverter and a control system to generate a command signal to cause the PWM inverter to control an output of the AC motor drive. The control system includes a start-up modulator that is selectively operable during start-up acceleration of the AC motor, the start-up modulator programmed to determine a motor current applied to the AC motor and a voltage of a DC bus, generate a first frequency offset that causes a frequency reference of the command signal to be decreased when the motor current is greater than a reference current threshold, and generate a second frequency offset that causes the frequency reference of the command signal to be increased when the DC bus voltage is greater than a reference voltage threshold.

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 089 760 A (JOYNER JR F CARL [US]) 18 February 1992 (1992-02-18) column 6, line 48 - column 8, line 61; figures 4,5,7 -----	1-20
X	US 6 229 278 B1 (GARCES LUIS J [US] ET AL) 8 May 2001 (2001-05-08) column 1, line 15 - column 2, line 55; figures 1,2,4 column 7, lines 43-51 -----	1-20
X	JP H05 300751 A (HITACHI LTD) 12 November 1993 (1993-11-12) abstract; figures 1-5 -----	1-20
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
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INTERNATIONAL SEARCH REPORT

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