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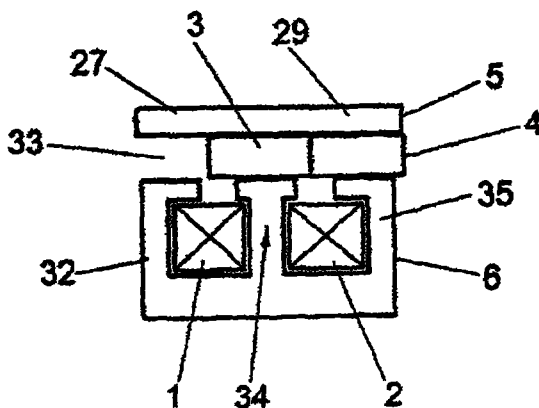
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(54) Title: LINEAR MOTOR



(57) Abstract: The present invention provides an improved design of linear motor as well as an improved control strategy. The design allows for a shorted stator, where the armature magnets are controlled to reciprocate to a greater maximum displacement than for a equivalent conventional linear motor. The control strategy is such that a minimum of external sensors are required. The linear motor is driven at its resonant frequency ensuring optionally efficient operation. A determination of the maximum current is made based on a relationship with the resonant frequency and the evaporating temperature/pressure of the vapour entering the compressor. The current is then limited to control the maximum displacement to avoid damage.

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