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(54) Title: PLANAR MOTOR DISPLACEMENT DEVICE

(54) 发明名称: 平面电机位移装置

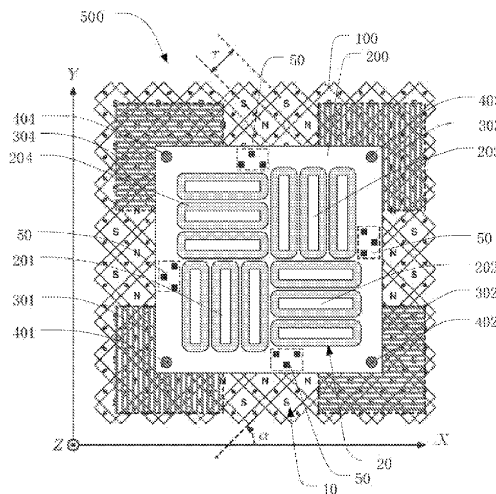


图 1

(57) Abstract: A planar motor displacement device (500), comprising a mover (200) and a stator (100). A magnet array (10) is provided on the stator (100) to form a working area; at least one first-direction plane grating ruler (301) and at least one second-direction plane grating ruler (302) which are not overlapped with each other are tiled in the working area; traces of the at least one first-direction plane grating ruler (301) are parallel to each other and are arranged at intervals along a first direction, traces of the at least one second-direction plane grating ruler (302) are parallel to each other and are arranged at intervals along a second direction, and the first direction and the second direction intersect with each other. The mover (200) is provided with a first-direction three-phase coil array (201) and a second-direction three-phase coil array (202), is configured to move above the working area, and is provided with at least one first-direction

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reading head (401) and at least one second-direction reading head (402); the at least one first-direction reading head (401) and the at least one second-direction reading head (402) respectively move within a tiling range of the at least one first-direction plane grating ruler (301) and a tiling range of the at least one second-direction plane grating ruler (302) along with movement of the mover (200).

(57) 摘要: 一种平面电机位移装置(500), 包括动子(200)和定子(100), 其中定子(100)上设有磁体阵列(10), 形成工作区域, 工作区域内平铺有彼此不交叠的至少一个第一方向平面栅尺(301)和至少一个第二方向平面栅尺(302), 至少一个第一方向平面栅尺(301)的迹线彼此平行且沿第一方向间隔排列, 至少一个第二方向平面栅尺(302)的迹线彼此平行且沿第二方向间隔排列, 第一方向和第二方向彼此相交; 动子(200)上设有第一方向三相线圈阵列(201)和第二方向三相线圈阵列(202), 并设置成能够在工作区域上方运动, 且设有至少一个第一方向读数头(401)和至少一个第二方向读数头(402), 至少一个第一方向读数头(401)和至少一个第二方向读数头(402)随着动子(200)的运动分别在至少一个第一方向平面栅尺(301)和至少一个第二方向平面栅尺(302)的平铺范围内移动。