

ELECTRIC MOTOR STRUCTURE

ABSTRACT OF THE DISCLOSURE

The electric motor includes at least two opposing magnet sets, at least a coil assembly, and a detection switch circuit. Each magnet set includes at least
5 a magnet whose poles are arranged perpendicular to the movement of the magnet. The magnets in a same magnet set are stacked and have poles on a same side of reversed polarities. Opposing magnets from neighboring magnet sets have facing poles of a same polarity. The coil assembly is disposed between neighboring magnet sets, and axially parallel to an alignment
10 direction between the facing poles of opposing magnets. Each coil assembly includes a magnetizer wrapped in a winding. Yokes are extended from two ends of the magnetizer towards opposite directions and a specific distance is between the yokes' centers. Together with the detection switch circuit's switching between positive and negative power supplies, the electric motor
15 effectively reduces input power, and increases output power.

FIG. 4A