

ABSTRACT OF THE DISCLOSURE

OVER-UNITY ENERGY MOTOR-GENERATOR

An over-unity motor-generator is provided. The over-unity
5 motor-generator includes a motor circuit unit, a motor-generator
unit for generating an electric energy by rotating by an electric
energy, and a generator circuit unit for commutating an
alternating current generated from the motor-generator unit and
outputting a direct current. The motor-generator unit includes a
10 stator including a motor winding having n -phases, the motor
winding being magnetized by receiving an electric power from the
motor circuit unit and wound in an independent, multi-phase
parallel distribution manner of an n -phase and a generator
winding having $2n$ -phases and supplying the electric energy to the
15 generator circuit unit, the generator winding being wound in an
independent, multi-phase parallel distribution manner, a rotor
having stacked silicon plates, flat permanent magnets buried in
the stacked silicon plate and arranged in a radial direction, and
a shaft located on a center of the stacked silicon plates, a
20 commutation encoder having detection regions and non-detection
regions and disposed on an end of the shaft of the rotor, and $2n$ -
number photo sensors for transmitting an optical sensor signal to
the motor circuit unit by, when the commutation encoder rotates
together with the shaft, being turned on at the detection regions
25 and off at the non-detection regions.

[Figure 2]