

FORM 2
THE PATENT ACT 1970
(39 of 1970)
&
THE PATENT RULES, 2003
COMPLETE SPECIFICATION
(See section 10 and rule 13)

INDUCTIVE POWER SUPPLY SYSTEM

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The following specification particularly describes the invention and the manner in which it is
to be performed

WE CLAIM :

1. A power supplying device (20) for providing electrical power to a power receiving device (30), the power supplying device (20) comprising:

- two plates (22),
 - two electrode structures (23, 43, 81, 82) being arranged to be coupled to an AC power source (41), each electrode structure (23, 43, 81, 82) being attached to one of said two plates (22),
 - at least one power transmitter (21) situated in between the two plates (22) and comprising an electrically conductive coil (28) and at least two electrical contacts (25) coupled to the electrically conductive coil (28),
- the plates (22) and the power transmitter (21) being arranged such that the power transmitter (21) is movable in a direction parallel to the surfaces of the plates (22) with the electrical contacts (25) in contact with the respective two electrode structures (23, 43, 81, 82) for obtaining power from the AC power source (41).

2. A power supplying device (20) according to claim 1, wherein each one of the two plates (22) comprises a respective one of the two electrode structures (23, 43), said two electrode structures (23, 43) facing each other.

3. A power supplying device (20) according to claim 1, wherein both electrode structures (81, 82) are attached to the same one of the two plates (22), the two electrode structures (81, 82) being electrically separated.

4. A power supplying device (20) according to claim 1, wherein the power transmitter (21) further comprises a ferromagnetic material (29).

5. A power supplying device (20) according to claim 1, wherein the electrical contacts (25) are spring loaded contacts.

6. A power supplying device (20) according to claim 1, wherein the electrical contacts (25) are sliding contact or rolling contacts.

7. A power supplying device (20) according to claim 1, wherein at least one of the plates (22) is at least partially transparent.

8. A power supplying device (20) according to claim 7, wherein at least one of the electrode structures (23, 43, 81, 82) comprises an at least partially transparent conductive material.

9. A power supplying device (20) according to claim 1, wherein at least one of the electrode structures (23, 43, 81, 82) is at least partially slotted for eddy current reduction.

10. A power supplying device (20) according to claim 1, wherein at least one of the plates (22) comprises a transmitter position indicator for indicating a position of the power transmitter (21) relative to said at least one of the plates (22).

11. A power receiving device (30) for cooperation with a power supplying device (20) as claimed in any one of the claims 1 to 10, the power receiving device (30) comprising at least one power receiver (31) with an electrically conductive coil.

12. A power consuming system (10) comprising a power supplying device (20) as claimed in any one of the claims 1 to 10 and a power receiving device (30) as claimed in claim 11.

Dated this 11th day of January 2013.