

Title (en)
MECHANICAL-COMMUTATOR POLYPHASE SYNCHRONOUS ELECTRIC MACHINE

Title (de)
ELEKTRISCHER MEHRPHASEN-SYNCHRONMOTOR MIT MECHANISCHEM KOMMUTATOR

Title (fr)
MACHINE ÉLECTRIQUE SYNCHRONE POLYPHASÉE À COMMUTATEUR MÉCANIQUE

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Application
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Abstract (en)
[origin: WO2020165252A1] Mechanical commutator (40) for electric machine (1) suitable for supplying power via a polyphase current system comprising q phases, where q is a positive integer strictly greater than 1, to a rotary electric machine rotor (3) having $2 \cdot p$ magnetic poles, comprising: - a slip ring (41) that rotates about an axis (X) of the electric machine (X), of elementary pattern equal to $2 \cdot \pi / (p \cdot q)$; - at least one pair radially extending brushes, a positive brush (45) and a negative brush (46), suitable for rubbing against the slip ring (41), which are rotatably fixed and each defined over an angular sector, and suitable for connection to one and the same voltage source, in particular a vehicle battery (B), characterized in that the mechanical slip ring (41) comprises $n \cdot p \cdot q$, where in particular $n = 1$ or $n = 2$, conductive strips (60) which come one after the other circumferentially, each strip (60) being defined over an angular sector, adjacent strips being isolated from one another, the strips being distributed in q groups (a', b', c'), all of the strips (60) of one and the same group being electrically connected to one another, the q groups alternating circumferentially, and in that the brushes (45, 46) of one and the same pair are circumferentially offset relative to one another by $[(2k + 1) \cdot 2 \cdot \pi] / (2 \cdot p)$, k being a natural integer.

IPC 8 full level
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Citation (search report)
See references of WO 2020165252A1

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