

Title (en)

CONTROLLABLE INDUCTOR COIL AND METHOD FOR RESTRICTING ELECTRIC CURRENT

Title (de)

STEUERBARE DROSSELSPULE UND VERFAHREN ZUR BEGRENZUNG EINES ELEKTRISCHEN STROMS

Title (fr)

BOBINE D'ARRÊT POUVANT ÊTRE COMMANDÉE ET PROCÉDÉ DE LIMITATION D'UN COURANT ÉLECTRIQUE

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Application

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Abstract (en)

[origin: WO2023006730A1] The invention relates to a controllable inductor coil (100), comprising at least one inductor winding (2) and a magnetic coil core (3), which coil core has a direction of longitudinal extent (Z) matching the main magnetic flux direction, a first direction of transverse extent (X) and a second direction of transverse extent (Y), wherein the three directions of extent (X, Y, Z) are oriented with respect to one another at right angles in pairs, wherein the coil core (3) has at least three holes (4), - wherein the holes (4) run substantially along the second direction of transverse extent (Y), - wherein no more than one hole (4) runs in each plane of transverse extent of the coil core (3), which plane of transverse extent is defined by the first direction of transverse extent (X) and the second direction of transverse extent (Y), and - wherein a distance (x1) of at least one hole (4) from an outer edge of the coil core (3) in the first direction of transverse extent (X) is greater than - a distance (x2, z1) of the hole (4) from another periphery of the coil core (3), and/or - half a distance (d4) from another hole (4), wherein a control winding (5) runs through the holes (4) such that pre-magnetisation of the coil core (3) can be generated by energising the control winding (5).

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