

Title (en)
Liquid cooled high-frequency filter

Title (de)
Flüssigkeitsgekühlter Hochfrequenzfilter

Title (fr)
Filtre à haute fréquence refroidi par liquide

Publication
EP 1748512 A1 20070131 (EN)

Application
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Abstract (en)
The invention refers to a high-frequency filter (1), comprising a filter housing (2), the filter housing (2) having at least one cover element (2a) with at least one resonator (5, 6, 7, 8, 9, 10, 11, 12) positioned therein and at least one signal input (3), through which a high frequency signal is coupled to the first resonator (5) and a signal output (4), through which a high frequency signal is coupled from the last resonator (10) to downstream appliances wherein the cover element (2a) is made from a thermally conductive material and the resonator (5, 6, 7, 8, 9, 10, 11, 12) is arranged to be in thermal connection with the cover element (2a). The cover element (2a) has at least one recess (23) arranged therein, along which a liquid coolant is guided in order to absorb thermal energy resulting from feeding the high frequency signal to the resonator (5, 6, 7, 8, 9, 10, 11, 12). The liquid cooled high-frequency filter according to the invention allows for an increased input power while retaining the physical dimensions of the filter assembly constant, thus, omitting resonator instabilities due to the development of higher TEM modes.

IPC 8 full level
H01P 1/208 (2006.01); **H01P 1/30** (2006.01)

CPC (source: EP)
H01P 1/208 (2013.01); **H01P 1/30** (2013.01)

Citation (search report)
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