

ABSTRACT

DETACHABLE FUEL CELL POWER UNIT FOR VEHICLE APPLICATIONS

A detachable and portable fuel cell power unit (10) for a vehicle has a unitary housing (11) containing: a fuel reservoir (22) for storing fuel; at least one electrochemical fuel cell stack (20, 21) for delivering electrical power from the fluid fuel; a refuelling port (16) in an outer surface of the housing; and an airflow path extending between a first inlet port (12, 14) on an outer surface of the housing (11) and a first outlet port (15) on an outer surface of the housing (11), via cathode elements in the at least one fuel cell stack (20, 21). The unit includes a control circuit (23) for interfacing with a power controller on the vehicle for determining allowable operating conditions of the vehicle while the power unit (10) is coupled thereto.

Fig. 2