

Title (en)
HEART CIRCULATORY SUPPORT

Title (de)
HERZ-KREISLAUFUNTERSTÜTZUNG

Title (fr)
DISPOSITIF D'ASSISTANCE CIRCULATOIRE POUR LE COEUR

Publication
EP 1778313 A1 20070502 (FR)

Application
EP 05788456 A 20050708

Priority
• FR 2005001764 W 20050708
• FR 0407603 A 20040708

Abstract (en)
[origin: WO2006016047A1] The invention concerns a heart circulatory support comprising an intake cannula designed to be introduced through the peripheral blood vessels of the patient's body into a vena cava or into a pulmonary vein to sample blood from the patient's venous system, an ejecting cannula designed to be introduced through the peripheral blood vessels of the patient's body into the aorta or the pulmonary artery to inject blood into said patient's arterial system, said input and ejection cannulas being connected through tubes to a pump system and an oxygenation system when said intake cannula is introduced in the vena cava and said ejection cannula is introduced in the aorta. The invention is characterized in that the pump system comprises a reservoir (10) provided with an intake conduit (103) including a hyperbolic divergent profile and with an ejection conduit (104) including a conical divergent profile, a piston (11) axially mobile in said reservoir and a linear motor (12) automatically controlled to monitor said piston in displacement, speed and acceleration depending on the patient's physiological needs. The invention enables the pumped blood flow to be rapidly and accurately adapted, both in frequency and in volume, in case of sudden variations of the patient's physiological needs, while minimizing the mechanical stresses on the cellular components of blood.

IPC 8 full level
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Citation (search report)
See references of WO 2006016047A1

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