

# CARDIOHELP System

designed to save lives

**MAQUET**  
GETINGE GROUP





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## CARDIOHELP System the **multi-therapy solution**

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For many years now, Maquet Cardiovascular has been one of the world's leading manufacturers of heart-lung machines and components for extracorporeal circulation. Maquet has developed CARDIOHELP as a multi-therapy heart-lung assist system which can be rapidly deployed and used for a wide range of indications in intensive care, emergency medicine, cardiology and cardiac surgery. The CARDIOHELP device is a compact and light weight system making it ideal for transporting patients whilst on respiratory and/or circulatory support.

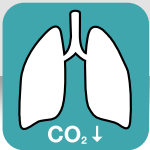


The CARDIOHELP System is used to restore and stabilize the patient's cardiopulmonary functions so clinicians can gain valuable time to save patients' lives – even in situations where no other alternatives were possible in the past. From resuscitation to both short and long term extracorporeal support the CARDIOHELP System has proven to be an effective and reliable life saver. It has a compact and functional design associated with intuitive software that optimises existing therapies and is compatible with the wide range of new upcoming therapies.

Maquet | The Gold Standard


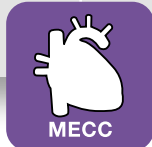


# CARDIOHELP System

One platform – multiple applications

CARDIOHELP System			
Application	Pump Assisted Lung Protection	Respiratory Assist	Respiratory & Cardiac Assist
Disposable	PALP Set*	HLS Set Advanced 5.0 HLS Set Advanced 7.0 ECLS Set 2.8*	HLS Set Advanced 5.0 HLS Set Advanced 7.0 ECLS Set 2.8*
Place	ICU/IMC/ER	ICU/ER/OR	ICU/Cath Lab/ER/OR
Fields of application	<ul style="list-style-type: none"> <li>• Early ARDS</li> <li>• Decompensated hypercarbic COPD</li> <li>• Hypercapnia</li> </ul>	<ul style="list-style-type: none"> <li>• ARDS</li> <li>• Pulmonary embolism</li> <li>• Septic shock</li> <li>• Bridge to lung transplant</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory failure with cardiac impairment</li> <li>• Circulatory failure with respiratory impairment</li> <li>• Cardiogenic shock</li> <li>• Myocardial infarction</li> <li>• Resuscitation</li> <li>• Bridge to transplant</li> </ul>
Duration of use	Up to 30 days	Up to 30 days	Up to 30 days
Flow	0.2–2.8 l/min	HLS 5.0: 0.5–5.0 l/min HLS 7.0: 0.5–7.0 l/min ECLS: 0.2–2.8 l/min	HLS 5.0: 0.5–5.0 l/min HLS 7.0: 0.5–7.0 l/min ECLS: 0.2–2.8 l/min
Temperature regulation	–	33–40 °C	15–40 °C
Transport	Air/Ground	Air/Ground	Air/Ground
“thApp” – Therapy Application modes	 <p>PALP</p>	 <p>v-v-ECLS</p>	 <p>v-a-ECLS</p>

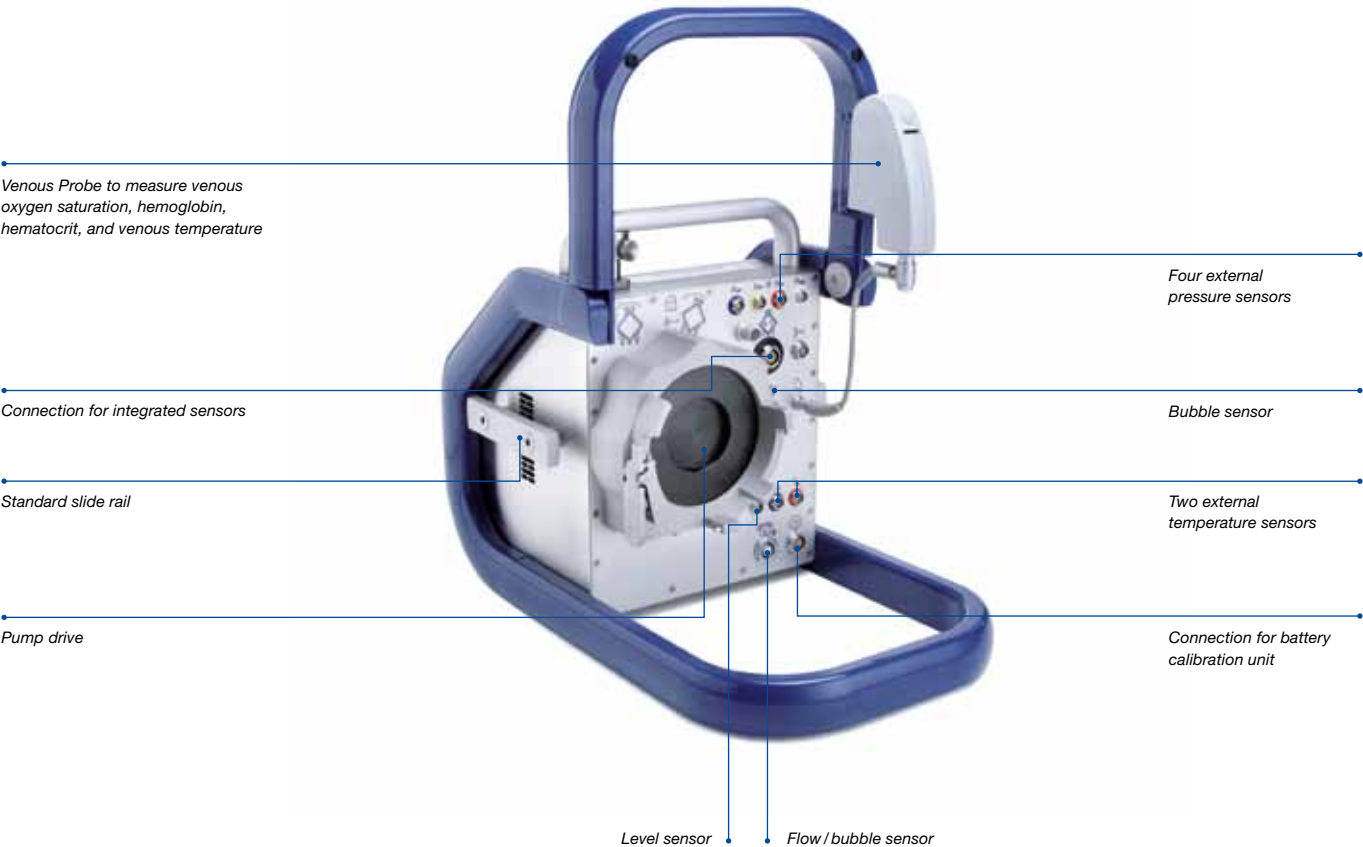
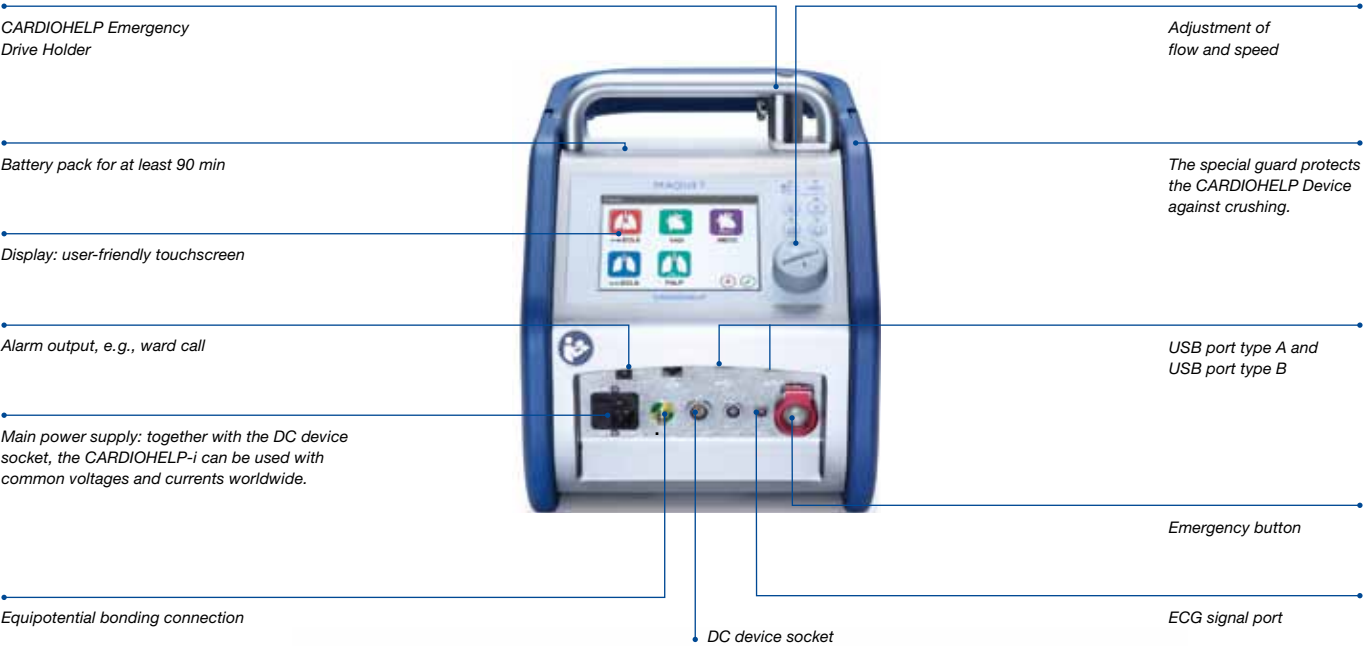
\*These new upcoming therapy sets are not yet officially launched.

Cardiac Assist	Cardiac Surgery & Intervention		Application
<b>ROTASSIST Set 9.9*</b> <b>ROTASSIST Set 2.8*</b>	<b>MECC-i Set</b>	<b>Cardiac Intervention Set</b>	Disposable
ICU/OR	OR/Hybrid OR	Cath Lab/Hybrid OR	Place
<ul style="list-style-type: none"><li>• Post-cardiotomy failure</li><li>• Bridge to decision or recovery</li><li>• Pre- or post-transplant support</li><li>• Acute cardiac failure of different origins</li></ul>	<ul style="list-style-type: none"><li>• CABG</li><li>• AVR</li><li>• Pre- and post-operative heart-lung support</li></ul>	<ul style="list-style-type: none"><li>• Elective high risk PCI</li><li>• Other elective cardiac interventions</li></ul>	Fields of application
Up to 30 days	Up to 6 hours	Up to 6 hours	Duration of use
9.9: 0.5–9.9 l/min 2.8: 0.2–2.8 l/min	0.5–7 l/min	0.5–7 l/min	Flow
–	15–40 °C	15–40 °C	Temperature regulation
Air/Ground	–	–	Transport
			“thApp” – Therapy Application modes
VAD	MECC		

\*These new upcoming therapy sets are not yet officially launched.

# CARDIOHELP device

## Connections and components





# CARDIOHELP device

## Benefits and technical data

### CARDIOHELP device:

- The CARDIOHELP-i is ideally designed for use in the intensive care unit, operating room, catheter laboratory and emergency room
- The compact and functional design gives maximum flexibility and easy handling of the device and the CARDIOHELP-i disposables
- The combination of a touchscreen with a newly designed user interface allows greater intuitive control even in emergency situations

### Safety features:

- The patient's blood parameters can be accessed by continuous inline measurement including temperature, hemoglobin, hematocrit and venous saturation, while integrated sensors provide a comprehensive overview of pressures and the flow rate
- Sophisticated safety management allows individual alarms, warning limits and interventions to be set thereby assuring a high degree of safety during use
- CARDIOHELP-i provides an extensive back-up system with a 90 min battery supply (when fully charged) and an Emergency Drive. Furthermore the CARDIOHELP can be run in a special Emergency Mode
- An automatic screen lock prevents accidental operating and configuration changes

Technical Data	CARDIOHELP-i
Dimensions (HxWxD) with guard closed	315x255x427 mm (without holder/disposable)
Weight	Approx. 10 kg
Display	5.7" LCD touchscreen
Sensors	4 x External pressures 3 x Internal pressures 2 x External temperatures 2 x Internal temperatures 1 x Venous oxygen saturation 1 x Hemoglobin 1 x Hematocrit 1 x Flow-bubble sensor 1 x Bubble sensor 1 x Level sensor
Operating voltage range	11–28 Volt DC 100–240 Volt AC/50–60 Hz
Interfaces for	1 x USB port type A (for data export on USB stick) 1 x USB port type B (for data recording system and service purposes) 1 x Connection for alarm output (ward call)
Battery operating time	Min. 90 min (fully charged batteries)

# CARDIOHELP **disposables**

## Convenient handling



*HLS Module Advanced*



*QUADROX-IR*



*ROTASSIST\* with  
Drive Adapter and  
Venous Probe*

\* These new upcoming therapy sets are not yet officially launched.



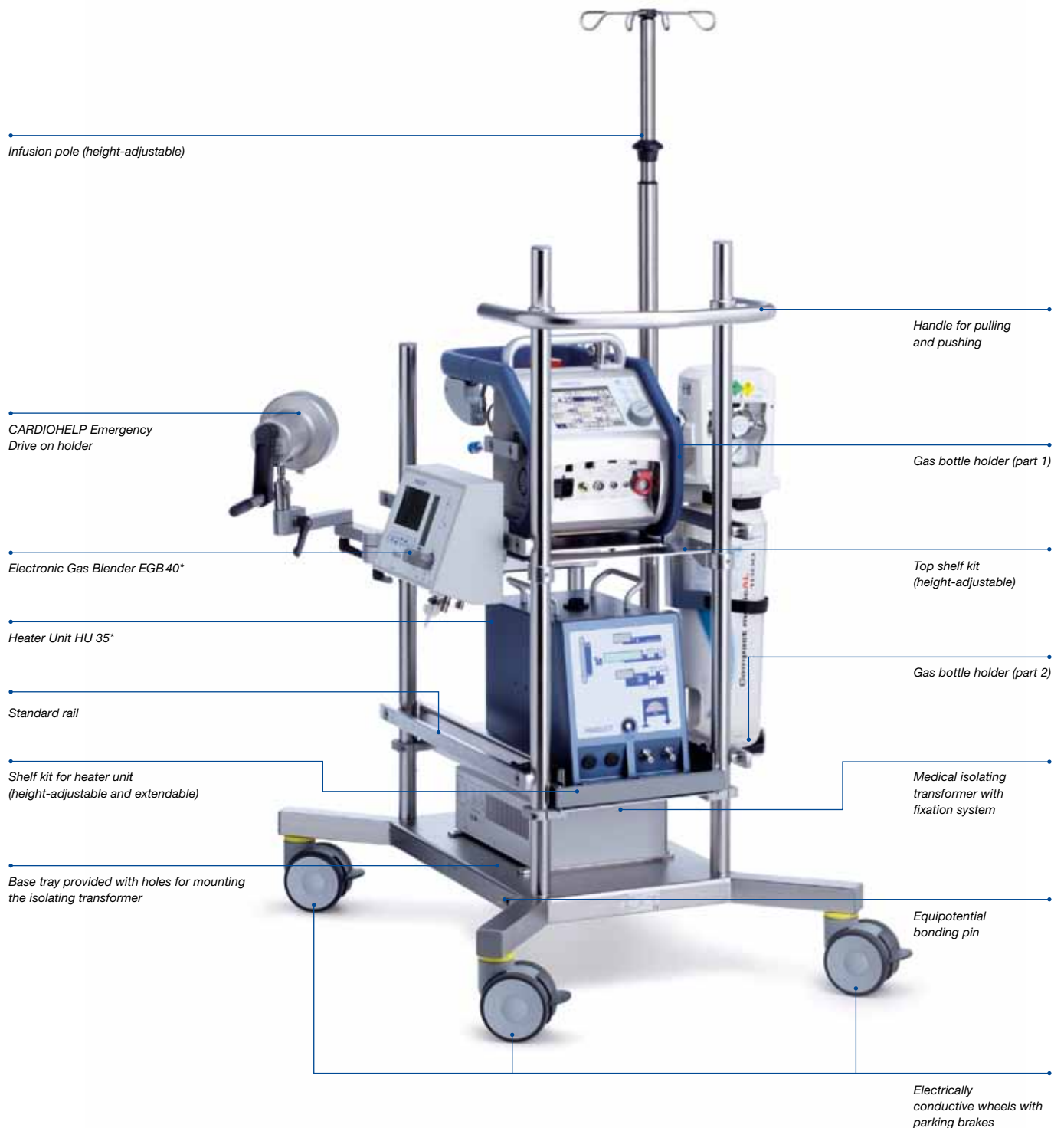
# CARDIOHELP System the perfect solution for **patient transport**

- The world's smallest portable heart-lung support system – perfect for safe and effective inter- and intra-hospital patient transport by air or ground
- Intuitively operated system which can be deployed rapidly in emergency situations
- Transport of severely ill patients to specialized centers during ongoing circulatory support
- Approvals conforming to RTCA DO 160\*, EN 13718 Part 1, EASA Part 21, BK117 & EC145 (air ambulance) and EN 1789 (road ambulance)
- Secure installation in any ambulance and various helicopter types
- Broad variety of transport accessories such as the HKH 8860 Mobile Holder, HKH 8850 Base Plate and the CARDIOHELP Trolley System is available
- Connection to the electrical system on a helicopter or ground transport vehicle
- Integrated lithium-ion batteries guarantee 90 minutes of operating time when fully charged



# Completely Equipped **Sprinter Cart XL**

## A stable, compact and multi-functional workstation



\* These products are currently pending CE certification.





This brochure contains information about products which may be pending regulatory approval to be marketed in your country.  
**Contact your local Maquet representative for more information.**

See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions and adverse events.

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**GETINGE GROUP**

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