

Bilag A9: Interface Control Document

Kjøp av ambulansehelikoptertjenester for perioden

1.juni 2018 - 31.mai 2024

med mulighet for forlengelse 2 + 2 år

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1. Generelt

Dette dokumentet gir en oversikt over elektromedisinsk som Oppdragsgiver benytter i ambulansehelikoptertjenesten i inneværende kontraktperiode og som har interface med fartøy. Det omfatter ikke utstyr pakket i bag som ikke har elektrisk- eller gassforsyning og ECMO, IABP, NO. For kuvøse er kapittelet beskrivelse basert på hva det nå forhandles om i anskaffelsesprosessen for ny kuvøse. Mer informasjon om dette vil følge.

2. Elektromedisinsk utstyr

2.1 Corpuls 3 defibrillator/monitor



The Corpuls3 is a defibrillator/monitor with external pacer and 12 Lead ECG. The unit is modular, where the Monitor-, patient interface- and defibrillator unit may be detached, mounted and used individually. The units communicate internally with Bluetooth (detached) and IR (attached), externally with GPRS or Satellite. The unit is powered by three exchangeable lithium Ion batteries. The unit can be powered by 12 VDC, 230VAC or internal batteries. The equipment will normally be operated as one unit with an extra pouch on each side for cables and sensors.

Size/configuration: The unit is normally fixed in a carrying case as shown above.

The unit is connected to 12VDC with use of brackets with connectors or with magnet fixated connectors to each of the three modules.

Parameter	Value	reference	Note
Weight	8.5 Kg	Alere AS	Normal config 3 batteries
Size (H x W x D)	30 x 50 x 20 cm	Alere AS	Normal config, W/Case
Power consumption	108W	User manual	Defibrillator charging < 5s 100W
	20W		Batteries charging
			Batteries fully charged
EMC emissions	IEC60601-1-2	User manual	(CISPR 11) CE
	RTCA DO160G	GS	Section 21 / cat M
EMC susceptibility	IEC 60601-1-2	User manual	CE
	RTCA DO160G	GS	Section 20/ cat R
Power connector's	Magnetic/mounting bracket		
Battery runtime	7-10 hrs. or 428 shocks		3 batteries à 33Wh
Batteries fulfil IATA UN T1 – T8 Transportation tests UN 3480/3481			

2.2 LTV1200 Ventilator



The Carefusion LTV 1200 is a transport ventilator with built in compressor and internal sealed lead acid batteries. The unit can be powered by 12VDC, 230 VAC (with power adapter) or internal batteries.

Size/configuration: The unit is normally without rubber shockabsorbers. For extended battery capacity, there may be supplied a carrying case with external battery

Inputs:

Power: 11 – 15 VDC
O2: 40 – 80 PSI

Parameter	Value	Reference	Note
Weight	6.1 Kg	User manual	Normal config
Size (H x W x D)	7.6 x 25.4 x 30.6 cm	Normal config	
Power consumption	66W	User manual	11 – 15VDC
EMC emissions	IEC60601-1-2		CE
	DO160/21/M	Carefusion.com	Ext battery powered
EMC susceptibility	IEC 60601-1-2		CE
	DO160/20/S	Carefusion.com	Ext battery powered
Power connectors			
Battery runtime	Approx. 1 hrs.		Charge at AC or DC power
Battery chemistry	Sealed Lead Acid	2 x 6V/4.5Ah	
Ext Battery runtime	Approx. 3 hrs.		Charge at base
Battery chemistry	Sealed Lead Acid	12V/12Ah	Panasonic LC-RA1212PG

NOTE: The LTV1200 may be discontinued or replaced in 2017/2018

2.3 Propaq 204SPO2 monitor



The Propaq 204EL is a multiparameter patient monitor with electroluminescence display and internal sealed lead acid batteries.

Size/configuration: The unit is **with** SPO2 module and **without** CO2/printer module.

Parameter	Value	Reference	Note
Weight	4.1 Kg		
Size (H x W x D)	16.9 x 20.9 x 19.1 cm	User manual	
Power consumption	25W	User manual	12 – 28VDC
EMC emissions	CISPR11	EMC Sheet	
	IEC60601-1-2	EMC sheet	
	MIL STD 461	User manual	
	MIL STD 461/DO160 RNoAF	EMC Labwith incubator	
EMC susceptibility	20 V/m	EMC sheet	
Power connector	Hypertronics	D02EEB315SSTAH	3 socket
Battery runtime	4 hrs.		
Battery chemistry	Sealed Lead Acid 2 x Sonnenschein A208/2.5S		

NOTE: The Propaq may be discontinued or replaced in 2017/2018

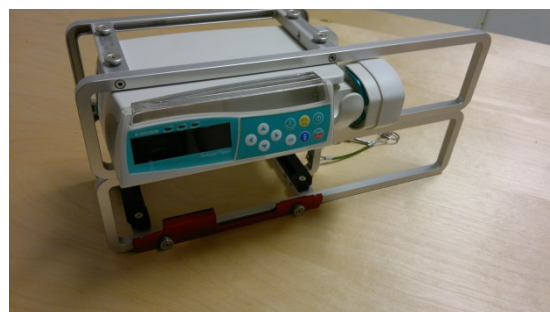
2.4 *Space sprøytepumpe*



The B. Braun Space syringe pump is a small syringe driver for administering drugs over time. The unit can be powered by 12VDC or internal batteries. Normally two units are used in one equipment setup. The unit has interchangeable NiMh batteries.

Size/configuration: The unit is normally mounted with a Aerolite fixation adapter.

Parameter	Value	Reference	Note
Weight	1.4 Kg	User manual	Without adapter
Size (H x W x D)	7 x 25 x 15.2 cm	User manual	Without adapter, off
Size (H x W x D)	7 x 37 x 15.2 cm		Without adapter, on
Power consumption	0,75A	User manual	11 - 16VDC
EMC emissions	IEC60601-1-2 RTCADO160D	Tender	CE
EMC susceptibility	IEC 60601-1-2		CE
Power connectors	Manufacturer specific.		
Battery runtime	Approx. 8 hrs.		
Battery chemistry	NiMh	8713180A	With control electronics



2.5 OB1000 Suction unit



The Boscarol OB1000Avio is a transport aspirator with collection jar and internal sealed lead acid batteries. The unit can be powered by 12VDC and 230 VAC (with power adapter) or internal batteries.

Size/configuration: The unit is normally with carrying bag and 1 litre jar.

Parameter	Value	Reference	Note
Weight	3.5 Kg	User manual	Normal config
Size (H x W x D)	25 x 32 x 10 cm	User manual	Normal config
Power consumption	6A	User manual	@12 VDC
EMC emissions	IEC60601-1-2 RTCADO160E	User manual	CE
EMC susceptibility	IEC 60601-1-2		CE
Power connectors	Lemo 4 pin or via bracket		
Battery runtime	Approx. 0.75 hrs.		Charge at AC or DC power
Battery chemistry	Sealed Lead Acid	12V/3.4Ah	Panasonic LC-R123R4P



2.6 Lucas2 Brystkompresjonsmaskin



The Physio Control Lucas 2 is a transportable chest compression unit. The unit has interchangeable Li-Ion (Li-Po) batteries. The unit can be powered by 12VDC, 230 VAC (with power adapter) or internal batteries.

Size/configuration: The unit is normally placed in a bag with three batteries.

Parameter	Value	Reference	Note
Weight	10.5 Kg	Measured	Normal config
Size (H x W x D)	65 x 33 x 25 cm	User manual	Normal config
Power consumption	100W	Powersupply	12 /24VDC
EMC emissions	IEC60601-1-2		CE
	DO160F/21/L	Tender	Ext battery powered
EMC susceptibility	IEC 60601-1-2	10 V/m	CE
Power connectors	Redel 2 pin		
Battery runtime	Approx. 1 hrs./battery		Charge only with AC adapter
Battery data	25.9V/3300 mAh (86Wh) each		
	Li-Po batteries UN3480 fulfill UN T1-T2 transportation tests.		

2.7 Transport Incubator

Luftambulansetjenesten ANS are in the process of purchasing a new unit. The configuration of the unit may be subjected to change until February 2016. This is the most probable configuration.

The International Biomed Voyager is a transport incubator system for transport of premature and neonatal patients. The unit consists of a frame, incubator, oxygen supply and medical devices as mounted accessories. The Patient monitor, Ventilator and oxygen bottle can be detached. The units needs 230VAC or 12VDC power and compressed O₂ for normal operation. The unit is alternatively powered by internal batteries.

The unit is mounted with standard "Lifeport Lifelocks"

Parameter	Value	Reference	Note
Weight	Approx. 120 Kg		Normal config
Size (H x W x D)	67 x 161 x 47 cm	Int. Biomed	Normal config
Power consumption	750 W @ 230VAC 500W @ 230VAC 15A + 10A @ 12VDC	Two connections required	Batteries charging Nominal
EMC emissions	IEC60601-1-2 RTCA DO160G		(CISPR 11) CE Section 21 / cat M
Power connectors	NOTE: Incubator, monitor and ventilator are tested separately 230V: EURO 12VDC: Defined later		
Battery	Incubator: Seald Lead acid > 150 min Ventilator; Li-Ion<100Wh > 6 hrs. Monitor; Li-Ion<100Wh > 6hr		
Flammability:	CS 23/27/29.853.		
Strength	CS 23/27/29.561		

NOTE: This document is confident to prequalified parties of this procurement to the end of January 2016.

2.7.1 Drawings complete system – probable configuration

