

B

# B Medical Systems provides reliable cold chain solutions to preserve the potency and integrity of COVID-19 vaccines.



### **Ultra-low Freezers**

Up to 280.000 vaccine doses

-86°C -20°C



### Ice Lined Refrigerators & Freezers

Up to 50.000 vaccine doses

-20°C +8°C



## **Transport Boxes**

Up to 10.000 vaccine doses (depending on dry ice/PCMs)

-80°C +8°C



### Laboratory & Solar Direct Drive Refrigerators

🗓 Up to 146.000 vaccine doses

+2°C +8°C

We have the solutions for any vaccine at any temperature to help you transport and store COVID-19 vaccines around the world.



## U201 & U701

- Certified Medical Devices according to MDR (EU) 2017/745, Class IIa and 21CFR Part 864.9700 (FDA), Class II
- Highly energy efficient
- Green Refrigerants
- Uniform temperature distribution
- 24\*7 Remote Temperature Monitoring















## **COVID-19 Vaccine Storage**

- O Can be used for storing both Pfizer and Moderna vaccines
- O Can be used in country hubs, regional hubs or last mile



# Multi-mode Refrigerator / Freezer

from B Medical Systems can help you secure the broad temperature range of +8°C to -20°C.



-20°C to +8°C



Vaccine capacity

150 L



Ice-packs capacity

187 (at 0.6 L)



- Can act as vaccine refrigerator (Set-point at +5°C)
   or vaccine & ice-packs freezer (Set-point at -20°C)
- Hold over time at +43°C: 53 h 10 min. (Refrigerator)
   3 h 55 min. (Freezer)
- Rotomolded body
- Designed for tropical temperatures: +15°C to +43°C
- 24\*7 Remote Temperature Monitoring











### **COVID-19 Vaccine Storage**

- Can be used for storing Moderna vaccines or any other vaccines requiring 2-8°C
- O Can be used in country hubs, regional hubs or last mile



# **Transport Boxes**

from B Medical Systems can be used for transporting all COVID-19 vaccines between country, regional hubs and the last mile.



Temperature\* -80°C to +8°C



Vaccine capacity





**Gross Volume** 

1.73 & 44 L

## RCW1 & RCW25

- Rotomolded body
- Designed for Hot temperature zone: +15°C to +43°C







Subject to change without prior notice. Some of the accessories shown in the pictures are optional.

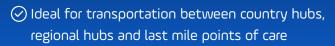


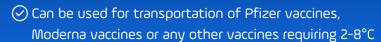






### **COVID-19 Vaccine Transportation**







# Optimum control and protection

## B Medical Systems | °B Connected & RTMD



### **°B CONNECTED MONITORING SOFTWARE**

Universal software for the monitoring of refrigeration devices, including the acquisition, recording and visualization of temperature data.

- Unique monitoring software for the full range of Blood Management Solutions and Medical Refrigeration products
- Web-based interfaces for computers and mobile devices
- Modern design for simple and intuitive use
- Graphic display of temperature curves
- Integrated event and activity history of appliances' components
- Data recording on centralized database for long-term archiving
- Easy setting of specific alarm, via email or SMS alerts
- Generation of reports compiling crucial data and activities
- Temperature and detailed device data export for third-party software
- Important cost advantage compared to a traditional circular chart recorder and its spare parts
- REST API to access raw data directly from the database in read-only mode

#### **KEY BENEFITS:**

- Unique interface for the monitoring of the full range of refrigeration devices
- Centralized database providing data access to entire customer network

### REMOTE TEMPERATURE MONITORING DEVICE (INTEGRATED)

Integrated Remote Temperature Monitoring through our web based Vaclog network ensuring a high performing and reliable cold chain 24\*7.

- Real time monitoring of temperature(s), door openings & GPS position
- Crucial for the quality surveillance of the cold chain and monitoring of vaccines
- Rechargeable battery
- Worldwide remote monitoring & data access over WEB
- Only GSM network coverage is necessary to operate
- Google Maps positioning using integrated GPS module
- Alarms include temperature deviations and door openings
- Alarms are sent by text messages or emails





# **Technical Data**Ultra Low Freezers











			ι	J <b>201</b>	ι	J <b>401</b>	ι	J <b>501</b>		J701	ι	J <b>901</b>
Gros	s / Net vol	ume (I)	214 / 20	6	451 / 43	4	598 / 57	7	747 / 72	10	895 / 86	3
		Vials	15000 (2	ml)	30000 (2	lml)	40000 (2	ml)	50000 (2	2ml)	60000 (2	ml)
Stord capa	_	Cryoboxes	150 (mod	el H50)	345 (mod	el H50)	460 (mod	el H50)	575 (mod	lel H50)	690 (mod	el H50)
сири	city	Plasma bags	150 (350ml)		300 (350)	ml)	400 (350r	ml)	500 (350	ml)	600 (350r	nl)
Set to	emperatur	re (preset)						-82°C				
	emperatur adjusted in st	re (setting range) teps of 0.1°C					-86°	°C to -20°C				
Prese	et cold / w	arm alarm limit					-87	°C / -77°C				
Hold	over time	(-82°C to -60°C)	1 h 00 m	in.	1 h 18 m	nin.	1 h 18 m	nin.	1 h 18 n	nin.	1 h 24 m	in.
Clim	ate class (d	ambient temperature range)					SN / T (+	-10°C to +43°C	C)			
Defro	osting tech	nique					1	Manual				
Refri	gerant typ	е					R25	90 / R170				
Exter	rnal dimen	sions H x W x D (mm)	1293 x 6	99 x 1039	1988 x 6	699 x 1039	1988 x 8	345 x 1039	1988 x 9	992 x 1039	1988 x 1139 x 1039	
Innei	r dimensio	ns H x W x D (mm)	672 x 44	7 x 713	1370 x 4	47 x 713	1370 x 5	81 x 713	1370 x 7	40 x 713	1370 x 8	87 x 713
Net v	weight witi	h standard equipment (kg)	195		250		276		297		320	
9	Supply volt	tage (V)	230	220	230	220	230	220	230	220	230	220
le l	Frequency	(Hz)	50	60	50	60	50	60	50	60	50	60
Sav	Power (W)		2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
<u> </u>	Energy con	sumption (kWh/24h)	12.0	12.0	11.0	12.5	11.3	12.5	11.9	13.5	12.4	15.5
	Heat emiss	sion (Kcal/h)	209	338	326	405	404	433	426	511	444	567
	Compresso	or running time (%)	45	45	46	44	51	47	50	55	59	61
	Noise level at 1m height	(dB(A)) & 1m distance)	49	50	49	50	52	53	48	49	51	52





## Technical Data

# Laboratory











Re	efrigerators	ı	<b>.</b> 55	ι	.130	L	290	L	380	LF	260	Refrigerator combined	· & Freezer	
Gro	oss / Net volume (I)	52 / 45		121 / 106		297 / 269		362 / 329		R   121 / 1	.06	F   121 / 1	.06	
Set	temperature (preset)						+5°C					-32°C		
	Set temperature (setting range) can be adjusted in steps of 0.1°C					+4°C	to +15°C					-32°C to -	20°C	
Preset cold / warm alarm limit						+3°	C / +7°C					-37°C / -2	7°C	
Hold over time		1.3 h (+5°C	to +10°C)	1.5 h (+5°C	to +10°C)	1.0 h (+5°C	to +10°C)	0.9 h (+5°C	to +10°C)	1.5 h (+5°C	to +10°C)	0.7 h (-32°C	c to -23°C)	
Clir	mate class (ambient temperature range)					SN (+10	)°C to +32°C)							
Defrosting technique						Ν	latural				Manual			
Refrigerant type						F	R600a					R290		
Ext	ernal dimensions H x W x D (mm)	670 x 495	x 575	830 x 595	x 695	1670 x 59	5 x 695	1980 x 59	5 x 695		1650	x 595 x 695	595 x 695	
Inn	er dimensions H x W x D (mm)	470 x 375	x 350	630 x 475	x 470	1470 x 47	5 x 470	1790 x 47	5 x 470	630 x 475	x 470	595 x 695 630 x 475 x 470		
Ne	t weight with standard equipment (kg)	38		59		94		107				117		
	Supply voltage (V)	220-240	115-127	220-240	115-127	220-240	115-127	220-240	115-127	220-240	115-127	220-240	115-127	
ı ve	Frequency (Hz)	50 / 60	60	50 / 60	60	50 / 60	60	50 / 60	60	50 / 60	60	50 / 60	60	
y S(	Power (W)	100	100	200	200	200	200	200	200	200	200	300	360	
nerg	Energy consumption (kWh/24h)	0.7 / 0.8	0.8	1.0 / 1.0	0.8	1.8 / 1.9	1.9	1.8 / 1.9	1.8	1.0 / 1.0	0.8	2.8 / 2.9	3.1	
E	Heat emission (Kcal/h)	25	29	36	29	64	68	64	64	36	20	100	111	
	Compressor running time (%)	26	22	17	18	28	35	28	35	17	18	51	50	
	Noise level (dB(A)) (at 1m height & 1m distance)	35 / 36	37	35 / 36	38	38 / 40	39	40	38	35 / 36	38	45 / 47	47	



## Technical Data

## Laboratory Refrigerators









Reffigerators	L400 L500		L700	L900					
Gross / Net volume (I)	451 / 384	598 / 510	747 / 636	895 / 763					
Set temperature (preset)			+5°C						
Set temperature (setting range) can be adjusted in steps of 0.1°C	+4°C to +15°C								
Preset cold / warm alarm limit	+3°C / +7°C								
Hold over time	1.6 h (+5°C to +10°C)								
Climate class (ambient temperature range)	SN / T (+10°C to +43°C)								
Defrosting technique	Natural								
Refrigerant type	R600a								
External dimensions H x W x D (mm)	1988 x 699 x 1039	1988 x 845 x 1039	1988 x 992 x 1039	1988 x 1139 x 1039					
Inner dimensions H x W x D (mm)	1167 x 447 x 713	1167 x 590 x 713	1167 x 740 x 713	1167 x 887 x 713					
Net weight with standard equipment (kg)	194	215	237	259					

Net	weight with standard equipment (kg)	194		215		237		259	
	Supply voltage (V)	220-240	115-127	220-240	115-127	220-240	115-127	220-240	115-127
ver	Frequency (Hz)	50 / 60	60	50 / 60	60	50 / 60	60	50 / 60	60
y Saı	Power (W)	300	300	300	300	300	300	300	300
	Energy consumption (kWh/24h)	1.40 / 1.40	1.30	1.40 / 1.40	1.30	1.40 / 1.50	1.30	1.50 / 1.50	1.30
	Heat emission (Kcal/h)	29	27	33	28	32	30	35	29
	Compressor running time (%)	22	22	25	23	24	25	25	24
	Noise level (dB(A)) (at 1m height & 1m distance)	46 / 49	52	47 / 51	50	50 / 51	46	47 / 47	46

















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**TCW 15 SDD** TCW 15R SDD

**TCW 40 SDD** 

**TCW 40R SDD** 

**TFW 40 SDD** 

Function		Vaccine Refrigerator	Vaccine Refrigerator & Ice-pack Freezer	Vaccine Refrigerator	Vaccine Refrigerator & Ice-pack Freezer	Vaccine Refrigerator	Ice-pack Freezer
Climate zone				Hot	zone (+43°C)		
Vaccine storage	e capacity (I)	16	16	16	36	36	-
ce-pack storag	e capacity (at 0.6 L)	-	4 (in ice-packs holders)	-	8 (in ice-packs holders)	-	60 + 8 (in ice-packs holders)
ce-pack freezii	ng capacity	-	1.97 kg / 24 h	-	1.89 kg / 24 h	-	2.16 kg / 24 h
Autonomy time	? (+2°C to +8°C)	477 h 56	84 h	81 h 52	81 h 54	81 h 54	120 h
Hold over time	(+2°C to +10°C)	-	-	87 h 48	93 h 24	93 h 24	-
Cool down time		312 h	35 h	36 h	36 h	36 h	313 h
Dimensions	External	1130 x 850 x 780	950 x 730 x 730	950 x 730 x 730	900 x 1030 x 780	900 x 1030 x 780	900 x 1030 x 780
H x W x D 'mm)	Shipping	1260 x 940 x 878	1088 x 770 x 778	1088 x 770 x 778	1060 x 1040 x 800	1060 x 1040 x 800	1060 x 1040 x 800
Shipping weigh	it (kg)	203	87	85	120	120	119
Number & type	e of solar panels	2 x 200 W / 25 V	2 x 200 W / 25 V	2 x 200 W / 25 V	2 x 200 W / 25 V	2 x 200 W / 25 V	2 x 200 W / 25 V
nergy	Stable running	0.34 KWh	0.49 KWh	0.43 KWh	0.57 KWh	0.80 KWh	0.59 KWh
onsumption	Cool down	0.38 KWh	0.50 KWh	0.43 KWh	0.67 KWh	0.67 KWh	0.59 KWh
′ 24 h	During freezing	-	0.69 KWh	-	0.69 KWh	-	0.64 KWh
PQS code		E003 / 090	E003 / 077	E003 / 067	E003 / 042	E003 / 068	E003 / 073
CCEOP-eligible		Yes	Yes	Yes	Yes	Yes	Yes
Freeze protection		Grade A	Grade A	Grade A	Grade A	Grade A	-













### TCW 2000 SDD TCW 2043 SDD TCW 3000 SDD TCW 3043 SDD TCW 4000 SDD

Function		Vaccine Refrigerator & Ice-pack Freezer	Vaccine Refrigerator & Ice-pack Freezer	Vaccine Refrigerator	Vaccine Refrigerator	Vaccine Refrigerator
Climate zone		Temperate zone (+32°C)	Hot zone (+43°C)	Temperate zone (+32°C)	Hot zone (+43°C)	Hot zone (+43°C)
Vaccine storage capacity (I)		99	70	156	89	220
lce-pack storag	e capacity (at 0.6 L)	24	17	-	-	-
ce-pack freezin	g capacity	4.8 kg / 24 h	2.5 kg / 24 h	-	-	-
Autonomy time	(+2°C to +8°C)	85 h 24	73 h 54	86 h 56	116 h 41	91 h 16
Hold over time	(+2°C to +10°C)	92 h	79 h	94 h 05	124 h 48	-
Cool down time		12 h	56 h	36 h	145 h	312 h
Dimensions	External	910 x 1270 x 780	910 x 1270 x 780	910 x 1270 x 780	910 x 1270 x 780	915 x 1625 x 780
H x W x D (mm)	Shipping	1030 x 1300 x 800	1030 x 1300 x 800	1030 x 1300 x 800	1030 x 1300 x 800	1040 x 1660 x 805
Shipping weigh	t (kg)	149	160	143	169	192
Number & type	of solar panels	4 x 200 W / 25 V	4 x 200 W / 25 V	2 x 200 W / 25 V	2 x 200 W / 25 V	2 x 200 W / 25 V
Energy	Stable running	0.78 KWh	0.73 KWh	0.25 KWh	0.68 KWh	0.83 KWh
consumption	Cool down	0.74 KWh	0.79 KWh	0.34 KWh	0.68 KWh	0.84 KWh
/ 24 h	During freezing	0.96 KWh	1.05 KWh	-	-	-
PQS code		E003 / 035	E003 / 043	E003 / 030	E003 / 045	E003 / 093
CCEOP-eligible		-	Yes	-	Yes	Yes
Freeze protection		Grade A	Grade A	Grade A	Grade A	Grade A











TCW 40R AC TCW 80	AC
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**TCW 2000 AC** 

**TCW 2000 DC** 

Function		Vaccine Refrigerator	Vaccine Refrigerator	Vaccine Refrigerator & Ice-pack Freezer	Vaccine Refrigerator & Ice-pack Freezer	
Climate zone			Hot zor	ne (+43°C)		
Vaccine storage	capacity (I)	36.5	80.5	60	76	
Ice-pack storag	e capacity (at 0.6 L)	-	-	20	24	
Ice-pack freezin	g capacity	-	-	10 kg / 24 h	3.4 kg / 24 h	
Hold over time (+2°C to +10°C)		121 h 54	72 h 09	39 h 24	13 h 35	
Dimensions H x W x D mm)	External	888 x 1022 x 778	888 x 1022 x 778	910 x 1270 x 780	910 x 1270 x 780	
	Shipping	1040 x 1060 x 800	1040 x 1060 x 800	1030 x 1300 x 800	1030 x 1300 x 800	
Shipping weigh	t (kg)	128	113	128	120	
Operating volta	ige range	AC I 110-240 V - 50/60 Hz	AC I 110-240 V - 50/60 Hz	AC I 230 V - 50 Hz 110 V - 60 Hz	DC I 12 or 24 V	
Energy	Stable running	0.80 KWh	1.16 KWh	1.87 KWh	0.58 KWh	
consumption	Cool down	0.76 KWh	0.60 KWh	4.34 KWh	1.23 KWh	
/ 24 h	During freezing	-	-	1.95 KWh	0.99 KWh	
PQS code		E003 / 100	E003 / 101	E003 / 014	E003 / 001	
CCEOP-eligible		Yes	Yes	Yes	-	
Freeze protection	on	Grade A	Grade A	Grade A	Grade A	













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Function		Vaccine Refrigerator or Ice-pack Freezer	Vaccine Refrigerator or Ice-pack Freezer	Ice-pack Freezer	Vaccine Refrigerator
Climate zone			Hot	zone (+43°C)	
Vaccine storage	e capacity (I)	150	109.5	-	240
Ice-pack storag	ge capacity (at 0.6 L)	187	80	162	-
Ice-pack freezii	ng capacity	-	17 kg / 24 h	32.4 kg / 24 h	-
Hold over time	(+2°C to +10°C)	53 h 10	23 h 24	-	77 h 18
Dimensions	External	910 x 1270 x 780	910 x 1270 x 780	910 x 1270 x 780	915 x 1625 x 780
H x W x D (mm)	Shipping	1030 x 1300 x 800	1030 x 1300 x 800	1030 x 1300 x 800	1040 x 1660 x 805
Shipping weigh	nt (kg)	123	115	126	192
Operating volte	age range	AC I 230 V - 50 Hz 110 V - 60 Hz	DC I 12 or 24 V	AC I 220-240 V - 50/60 Hz 115 V - 60 Hz	AC I 220-240 V - 50/60 Hz 115 V - 60 Hz
Energy	Stable running	3.83 KWh at +43°C	1.01 / 1.82* KWh	2.15 KWh	0.85 KWh
consumption	Cool down	3.91 KWh at +43°C	2.15 / 2.13* KWh	2.20 KWh	1.24 KWh
/ 24 h	During freezing	-	- / 2.35* KWh	2.20 KWh	-
PQS code		E003 / 017	E003 / 008	E003 / 071	E003 / 066
CCEOP-eligible		-	-	Yes	Yes
Freeze protecti	on	Grade A	Grade A	-	Grade A



# **Technical Data**Transport Boxes













V	1	RCW 2
VV.		RLUU Z

RCW 4 RCW 8

**RCW 12** 

**RCW 25** 

		ICOU I	ICOU E	1700 4	ICOU O	ICOU IZ	1,000 23
Cooling system	1				Passive		
Climate zone				Hot	zone (+43°C)		
Gross volume (	(1)	1.73	2.2	8	20	24	44
Vaccine storag	e capacity (I)	1.04	0.6	3	6	7	20
Required Ice-pack (for vaccine)		3 x 0.6 L	2 x 0.3 L	1 x 0.6 L 6 x 0.3 L	10 x 0.6 L 2 x 0.3 L	14 x 0.6 L	24 x 0.6 L
Cold life (up to +10°C) at +43°C		32 h 06	17 h (22 h at +32°C)	30 h 18	57 h 54	114 h 54	134 h 36
Cool life (up to +20°C) at +43°C		-	-	6 h 42	12 h	26 h 24	34 h 24
Warm life (dov	vn to 0°C) at -20°C	17 h 06	-	12 h 54	21 h 36	40 h 54	49 h 30
Dimensions	External	430 x 347 x 281	210 x 250 x 150	299 x 362 x 283	437 x 588 x 288	499 x 550 x 475	499 x 710 x 550
H x W x D	Inner	208 x 103 (Ø)	130 x 190 x 90	186 x 260 x 156	245 x 460 x 180	270 x 340 x 260	264 x 496 x 334
mm)	Shipping	460 x 356 x 295	230 x 285 x 160	320 x 380 x 300	470 x 610 x 310	530 x 570 x 490	530 x 730 x 570
	Net - empty	4.8	1.2	3.1	6.8	11.7	15.9
Veight (kg)	Gross - fully stocked	7.6	2.1	7.3	16.4	23.3	38.9
	Shipping	7	2	4.2	11	17	23
Insulation thickness (polyurethane)		51-116 mm	30 mm	23-27 mm	50-60 mm	90-105 mm	90-105 mm
PQS code		E004 / 059	-	E004 / 002	E004 / 003	E004 / 004	E004 / 005

## B Medical Systems provides reliable cold chain solutions. Upgrade your cold chain today and protect your population.



Vaccine Cold Chain Solar Direct Drive



Pharmacy Refrigerators



Laboratory Refrigerators



Laboratory Freezers



Ultra-low Freezers



Transport Boxes





**C** € 0123























<sup>\*</sup>Applicable to all products except Vaccine Cold Chain and Transport Boxes. \*\*Applicable only to most of the Cold Chain products.



Safe global blood management:

transportation, processing and storage

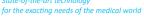
from collection to transfusion,





State-of-the-art technology

Reliable solutions for safe vaccination around the world



Our Global Expertise







### After Sales support and service

We strive to provide you with the highest standards of service; not only through our selected distributors and partners for all your maintenance and service but also our second line trouble shooting and after sales service. This factory-based group of engineers is there to help our partners and yourself to get the best solution for your cold storage needs.



#### SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

B Medical Systems (formerly Dometic Medical Systems) has more than 40 years' experience in the medical refrigeration sector.

The company, formerly known as Electrolux Medical Systems, was founded in 1979 when the World Health Organization approached Electrolux in Vianden, Luxembourg, to create a solution for the safe storage and transport of vaccines around the world. In 2001, Electrolux Medical Systems became part of the Dometic Group, and was renamed Dometic Medical Systems. Having established a legitimate reputation in the medical equipment industry, the company has also become a global leader in vaccine cold chain.

### B Medical Systems S.à r.l.

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Since 2019 B Medical Systems has been committed to the UN Global Compact corporate responsibility initiative and its principles in the areas of human rights, labour, the environment and anti-corruption.

### Luxembourg, in the heart of Europe

