

Vaccine Storage Solution





Display panel



Lock catch designed to match padlock



Handgrip



HTCD-160

Storage Security

- The internal temperature of the cooling chamber is not lower than 0°C due to its anti-freeze function.
- Under ambient temperature of 43 degrees, the inner box temperature will be no more than 8°C after power outage for more than 121 hours and no more than 10°C after power outage for more than 160 hours, so as to guarantee safe storage of vaccine.
- The freezing chamber can freeze 2.08kg of ice every day, with storage of 10.68kg in total.
- Solar energy temperature display, clear temperature in the inner box.
- Lock catch designed to match padlock
- Cooling chamber meet the A level WHO requirements of anti-freezing protection.

Temperature control

- Microprocessor Control; guarantee temperature precision.

Ergonomic Design

- Equipped with USB charging socket, for charging the mobile phone, etc.
- Eliminate storage battery and only provide solar energy power, which is green and friendly environment.
- There is illumination on temperature display screen, it can display the inner box temperature even though it is powered off, which is convenient for administration.
- The refrigerating chamber and freezing chamber both have the separate refrigerating systems; the two independent refrigerating systems ensure safety of the vaccine storage.
- Sensor error alarm.
- Low noise.

Model		HTCD-160	
Technical Data	Cabinet Type	Upright	
	Ambient Temperature(°C)	5-43	
	Cooling Type	Direct Cooling	
	Defrost Mode	Manual	
	Refrigerant	CFC-Free	
	Noise(dB(A))	38	
Performance	Temperature Range(°C)	Freezer ≤-10 Refrigerator: 2-8	
Control	Controller	Microprocessor	
	Display	Solar LED Temperature Display	
Electrical Data	Power Supply(V)	24	
	Maximal Current(A)	9	
	Energy Consumption: Stable Running(KWh/24h)	0.86	
	Energy Consumption: Cool Down Test(KWh/24h)	0.86	
	Holdover Time at 43°C	160hrs8mins	
	Autonomy Time	121hrs27mins	
	Solar Radiation Reference Period	3.5kwh/m²/day	
	Voltage of Solar Panel	24V	
	Power of Solar Panel	255W*3	
Dimensions	Vaccine Storage Capacity(L/Cu.Ft)		100/3.5
	Gross Volume(L/Cu.Ft)		Refrigerator: 120/4.2 Freezer: 40/1.4
	Net/Gross Weight(approx)	kg	160/186
		lbs	352.7/410.1
	Interior Dimensions(W*D*H)	mm	Cooling Chamber: 545*500*530 Freezer Chamber: 560*520*150
		in	Cooling Chamber: 21.5*19.7*20.9 Freezer Chamber: 22.0*20.5*5.9
	Exterior Dimensions(W*D*H)	mm	865*825*1695
		in	34.1*32.5*66.7
	Packing Dimensions(W*D*H)	mm	960*890*1860
		in	37.8*35.0*73.2
	Solar Panel(L*W*D)	mm	1640*990*35
		in	64.6*39.0*1.4
	Container Load(20'/40'/40'H)		12/26/26
Alarm	High/Low Temperature	N	
	Sensor Error	Y	
	Low Battery	-	
Accessories	Baskets	/	
	Shelves	2(Refrigerator Room)	
Others	Certificate	CE/WHO/PQS	
	Data Logger	Y	
	Freezer Protection Level	A	
	Freezer Gross Volume (L/Cu.Ft)	40/1.4	
	Waterpack Storage Capacity(kg)	10.68	
	Waterpack Freezing Capacity(kg/24h)	2.08	

The refrigerator with freezer combination, this product can be used to store vaccine, reagent and freeze ice pack. Applicable to the sunny and power shortage remote area.



Solar energy display panel

HTCD-90

Product features

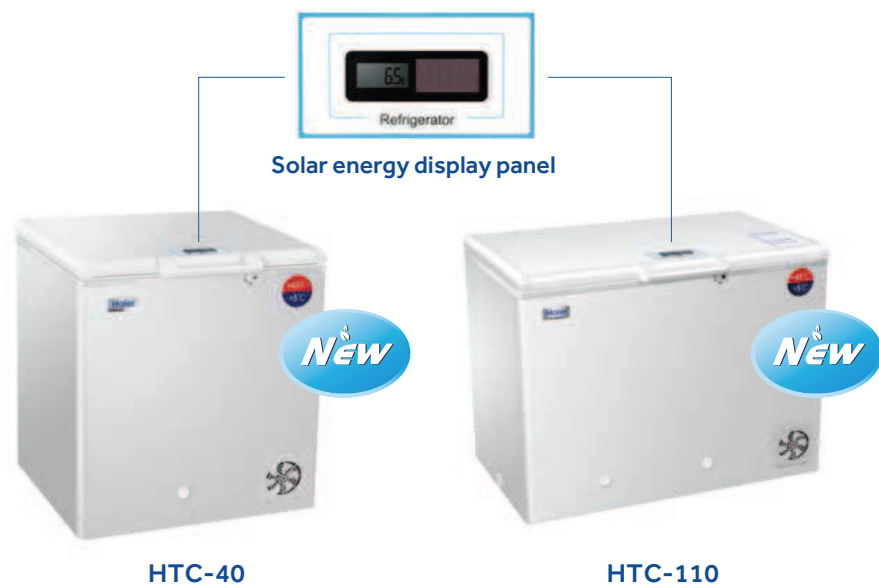
- The refrigerating chamber and freezing chamber both have the separate refrigerating systems; the two independent refrigerating systems ensure safety of the vaccine storage
- Solar direct drive, green and environment-friendly
- Microprocessor control, solar energy display panel for showing refrigerator and freezer interior temperature, refrigerator temperature range is 2~8°C, freezer temperature is less than -10°C
- Cooling chamber with water tank for keeping interior temperature, holding time is longer when power off
- Cooling chamber meet the A level WHO requirements of anti-freezing protection
- Patented technology, better temperature uniformity
- Wide temperature range, working normally at 5~43°C ambient

Ergonomic design

- Safety lock for unauthorized access control
- Equipped with USB charging socket, for charging the mobile phone, etc
- Equipped with storage basket, easy-reach retrieval of sample
- Low noise
- Aluminum chamber interior, corrosion-proof and ease to clean
- Equipped with handles on both sides of the cabinet, easy to move

Model			HTCD-90
Technical Data	Cabinet Type		Chest
	Ambient Temperature(°C)		5~43
	Cooling Type		Direct Cooling
	Defrost Mode		Manual
	Refrigerant		CFC-Free
	Noise(dB(A))		<38
Performance	Temperature Range(°C)		Freezer ≤-10 Refrigerator: 2-8
Control	Controller		Microprocessor
	Display		Solar LED Temperature Display
Electrical Data	Power Supply(V)		24
	Maximal Current(A)		7
	Energy Consumption: Stable Running(KWh/24h)		0.86
	Energy Consumption: Cool Down Test(KWh/24h)		0.81
	Holdover Time at 43°C		137hrs 47mins
	Autonomy Time		114hrs 56mins
	Solar Radiation Reference Period		3.5kwh/m²/day
	Voltage of Solar Panel		24V
	Power of Solar Panel		180W *4
Dimensions	Vaccine Storage Capacity(L/Cu.Ft)		37.5/1.3
	Gross Volume(L/Cu.Ft)		Refrigerator: 58/2.1 Freezer: 32 /1.1
	Net/Gross Weight(approx)	kg	83/108
		lbs	183.0/238.1
	Interior Dimensions(W*D*H)	mm	Cooling Chamber: 270*345*555 Freezer Chamber: 170*370*575
		in	Cooling Chamber: 10.6*13.6*21.9 Freezer Chamber: 6.7*14.6*22.6
	Exterior Dimensions(W*D*H)	mm	1128*645*875
		in	44.4*25.4*34.4
	Packing Dimensions(W*D*H)	mm	1175*775*1080
		in	46.3*30.5*42.5
	Solar Panel(L*W*D)	mm	1335*990*40
		in	52.6*39.0*1.6
	Container Load(20'/40'/40'H)		30/60/60
Alarm	High/Low Temperature		N
	Sensor Error		Y
	Low Battery		-
Accessories	Baskets		4
	Shelves		-
Others	Certificate		CE/WHO/PQS
	Data Logger		Y
	Freezer Protection Level		A
	Freezer Gross Volume (L/Cu.Ft)		32/1.1
	Waterpack Storage Capacity(kg)		12.52
	Waterpack Freezing Capacity(kg/24h)		2.43

This product is designed to store vaccine, reagents, etc. Applicable to the sunny and power shortage remote area.



HTC-40

HTC-110

Product features

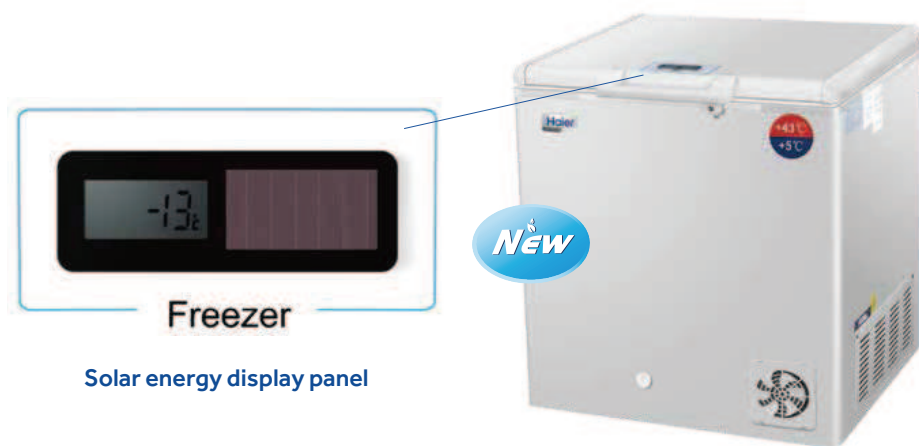
- Solar direct drive, green and environment-friendly
- Microprocessor control, solar energy display panel for showing interior temperature
- Water tank for keeping interior temperature, holding time is longer when power off
- Cooling chamber meet the A level WHO requirements of anti-freezing protection
- Patented technology, better temperature uniformity
- Inner door offer additional temperature protection
- Wide temperature range, working normally at 5-43°C ambient

Ergonomic design

- Safety lock for unauthorized access control
- Equipped with USB charging socket, for charging the mobile phone, etc.
- Equipped with storage basket, easy-reach retrieval of samples
- Low noise
- Aluminum chamber interior, corrosion-proof and ease to clean
- Equipped with handles on both sides of the cabinet, easy to move

Model		HTC-40	HTC-110
Technical Data	Cabinet Type	Chest	Chest
	Ambient Temperature(°C)	5-43	5-43
	Cooling Type	Direct Cooling	Direct Cooling
	Defrost Mode	/	/
	Refrigerant	CFC-Free	CFC-Free
	Noise(dB(A))	<30	<30
Performance	Temperature Range(°C)	2-8	2-8
Control	Controller	Microprocessor	Microprocessor
	Display	Solar LED Temperature Display	Solar LED Temperature Display
Electrical Data	Power Supply(V)	24	24
	Maximal Current(A)	5	5
	Energy Consumption: Stable Running(KWh/24h)	0.69	0.58
	Energy Consumption: Cool Down Test(KWh/24h)	0.71	0.62
	Holdover Time at 43°C	122hrs18mins	106hrs17mins
	Autonomy Time	117hrs18mins	96hrs24mins
	Solar Radiation Reference Period	3.5kwh/m ² /day	3.5kwh/m ² /day
	Voltage of Solar Panel	24V	24V
	Power of Solar Panel	180W*2	180W*2
	Vaccine Storage Capacity(L/Cu.Ft)	22.5/0.8	59/2.08
Dimensions	Gross Volume(L/Cu.Ft)		40/1.4
	Net/Gross Weight(approx)	kg	55/75
		lbs	121.3/165.0
	Interior Dimensions(W*D*H)	mm	200*345*575
		in	7.9*13.6*22.6
	Exterior Dimensions(W*D*H)	mm	788*645*875
		in	31.0*25.4*34.4
	Packing Dimensions(W*D*H)	mm	835*775*1080
		in	32.9*30.5*42.5
	Solar Panel(L*W*D)	mm	1335*990*40
		in	52.6*39.0*1.6
Alarm	Container Load(20'/40'/40'H)		36/78/78
			30/60/60
	High/Low Temperature	N	N
	Sensor Error	Y	Y
Accessories	Low Battery	-	-
	Baskets	2	4
	Shelves	-	-
Others	Certificate	CE/WHO/PQS	CE/WHO/PQS
	Data Logger	Y	Y
	Freezer Protection Level	A	A
	Freezer Gross Volume (L/Cu.Ft)	-	-
	Waterpack Storage Capacity(kg)	-	-
	Waterpack Freezing Capacity(kg/24h)	-	-

This product can be used to freeze ice pack, applicable to the sunny and power shortage remote area.



Solar energy display panel

HTD-40

Product features

- Solar direct drive, green and environment-friendly
- Solar energy display panel for showing interior temperature, the interior temp less than -10°C
- High-performance refrigeration
- Wide temperature range, working normally less than 43°C ambient
- Heavy insulation layer, high-efficiency of heat insulation

Ergonomic design

- Safety lock for unauthorized access control
- Equipped with storage basket, easy-reach retrieval of samples
- Low noise
- Aluminum chamber interior, corrosion-proof and ease to clean
- Equipped with USB charging socket, for charging the mobile phone, etc

Model		HTD-40
Technical Data	Cabinet Type	Chest
	Ambient Temperature(°C)	≤43
	Cooling Type	Direct Cooling
	Defrost Mode	Manual
	Refrigerant	CFC-Free
	Noise(dB(A))	<30
Performance	Temperature Range(°C)	<-10
Control	Controller	Microprocessor
	Display	Solar LED Temperature Display
Electrical Data	Power Supply(V)	24
	Maximal Current(A)	5
	Energy Consumption: Stable Running(KWh/24h)	0.46
	Energy Consumption: Cool Down Test(KWh/24h)	0.50
	Holdover Time at 43°C	-
	Autonomy Time	-
	Solar Radiation Reference Period	3.5kwh/m ² /day
	Voltage of Solar Panel	24V
	Power of Solar Panel	180W*2
	Vaccine Storage Capacity(L/Cu.Ft)	-
Dimensions	Gross Volume(L/Cu.Ft)	48/1.7
	Net/Gross Weight(approx)	kg 65/85
		lbs 143.0/187.4
	Interior Dimensions(W*D*H)	mm 265*370*575
		in 10.4*14.6*22.6
	Exterior Dimensions(W*D*H)	mm 788*654*875
		in 31.0*25.7*34.4
	Packing Dimensions(W*D*H)	mm 835*775*1080
		in 32.9*30.5*42.5
	Solar Panel(L*W*D)	mm 1335*990*40
		in 52.6*39.0*1.6
	Container Load(20'/40'/40'H)	36/78/78
Alarm	High/Low Temperature	N
	Sensor Error	Y
	Low Battery	-
Accessories	Baskets	2
	Shelves	-
Others	Certificate	CE/WHO/PQS
	Data Logger	-
	Freezer Protection Level	/
	Freezer Gross Volume (L/Cu.Ft)	48/1.7
	Waterpack Storage Capacity(kg)	16.8
	Waterpack Freezing Capacity(kg/24h)	2.4

Refrigeration System

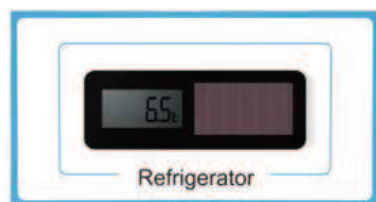
- Optimized refrigeration system design
- special structure design to maintain 2°C to 8°C for more than 30 hours at 43°C ambient
- CFC-free high density foam insulation
- Complied with WHO/UNICEF standards **Grade A** freeze protection to make the vaccine never frozen in the compartment
- Wide ambient temperature range, 5-43°C

Temperature Control

- Digital Solar driven temperature display
- Inner temperature range is 2°C to 8°C

Ergonomic Design

- Door lock for storage safety
- Indicator light to show run or stop of the compressors
- Independent temperature data logger, monitoring, recording, and managing
- Wide voltage design, 172-264 volts



Solar energy display panel



HBC-80



Model		HBC-80	HBC-150	HBC-260
Technical Data	Cabinet Type	Chest	Chest	Chest
	Ambient Temperature(°C)	5-43	5-43	5-43
	Cooling Type	Direct Cooling	Direct Cooling	Direct Cooling
	Defrost Mode	Auto	Auto	Auto
	Refrigerant	CFC-Free	CFC-Free	CFC-Free
	Noise(dB(A))	44	44	44
Performance	Temperature Range(°C)	2-8	2-8	2-8
Control	Controller	Microprocessor	Microprocessor	Microprocessor
	Display	Solar LED Temperature Display	Solar LED Temperature Display	Solar LED Temperature Display
Electrical Data	Power Supply(V/Hz)	220-240/50	220-240/50	220-240/50
	Power(W)	105	110	230
	Electrical Current(A)	0.9	1	1.8
	Power Consumption:Stable Running(KWh/24h)	0.57	0.53	1.62
	Power Consumption:Cool Down Test(KWh/24h)	0.63	0.61	1.47
	Holdover Time at 43°C	More than 30hrs	More than 30hrs	More than 30hrs
Dimensions	Vaccine Storage Capacity(L/Cu.Ft)	61/2.2	122/4.3	211/7.5
	Gross Volume(L/Cu.Ft)	80/2.8	150/5.3	260/9.2
	Net/Gross Weight(approx)	kg	73/85	85/97
	Interior Dimensions(W*D*H)	mm	480*345*570	825*345*575
		in	18.9*13.6*22.4	32.5*13.6*22.6
	Exterior Dimensions(W*D*H)	mm	788*654*875	1128*654*875
		in	31*25.7*34.4	44.4*25.7*34.4
	Packing Dimensions(W*D*H)	Paper	Paper	Paper
		mm	480*770*1080	1175*770*1080
Functions	Container Load (20'/40'/40'H)	36/78/78	30/60/60	18/42/42
	High/Low Temperature	Y	Y	Y
	Power Failure	Y	Y	Y
Accessories	Sensor Error	Y	Y	Y
	Foot	Y	Y	Y
Others	Baskets	2	4	6
	Certificate	CE,WHO/PQS	CE,WHO/PQS	CE,WHO/PQS
	Data Logger	Y	Y	Y
	Freezer Protection Level	A	A	A

Refrigeration System

- Optimized refrigeration system design
- Built-in ice packs maintain 2°C to 8°C for more than 25 hours at 43°C ambient
- CFC-free high density foam insulation
- Complied with WHO/UNICEF standards

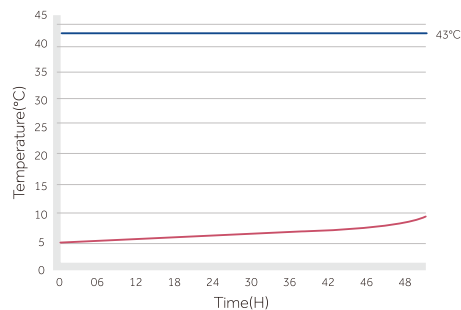
Temperature Control

- Digital temperature display
- Inner temperature range is 2°C to 8°C

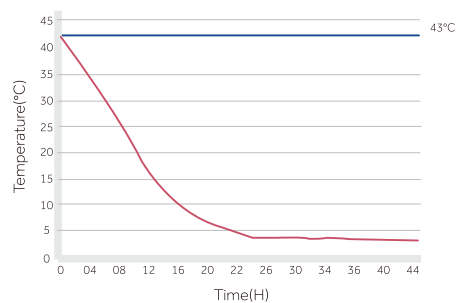
Ergonomic Design

- Door lock for storage safety
- Stainless steel interior for ease of cleaning and corrosion proof

HBC-340 Pull-up test at 43°C ambient



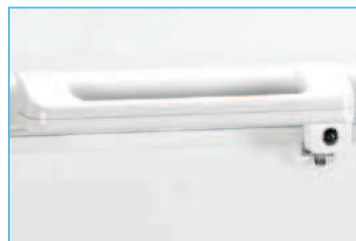
HBC-340 Pull down test at 43°C ambient



Inside structure



Interior icepack



Lock



Controller



Model		HBC-70		HBC-110		HBC-200		HBC-340		
Technical Data	Cabinet Type	Chest		Chest		Chest		Chest		
	Ambient Temperature(°C)	5-43		5-43		5-43		5-43		
	Cooling Type	Direct Cooling		Direct Cooling		Direct Cooling		Direct Cooling		
	Defrost Mode	Auto		Auto		Auto		Auto		
	Refrigerant	CFC-Free		CFC-Free		CFC-Free		CFC-Free		
Performance	Noise(dB(A))	43		43		44		42.5		
	Temperature Range(°C)	2-8		2-8		2-8		2-8		
Control	Controller	Microprocessor		Microprocessor		Microprocessor		Microprocessor		
	Display	LCD		LCD		LCD		LCD		
Electrical Data	Power Supply(V/Hz)	220-240/50	220-240/60	220-240/50		220-240/50	208-230/60	220-240/50/60		
	Power(W)	156	180	155		208	205	264		
	Electrical Current(A)	1.1	1.4	1.2		1.4	1.4	2.1		
	Power Consumption: Stable Running(KWh/24h)	0.64	1.1	1.2		1.34	1.6	2.06		
	Power Consumption: Cool Down Test(KWh/24h)	2.4	2.4	1.28		4.1	4.1	2.13		
	Holdover Time at 43°C	More than 25hrs		More than 36hrs		More than 30hrs		More than 50hrs		
Dimensions	Vaccine Storage Capacity(L/Cu.Ft)	45/1.6		52.5/1.8		90/3.3		211/7.4		
	Gross Volume(L/Cu.Ft)	71/2.5		110/3.9		198/7.0		340/12.0		
	Net/Gross Weight (approx)	kg	75/79		87/93		108/114		152/165	
		lbs	165.3/174.2		191.8/205.0		238.1/251.3		335.1/363.8	
	Interior Dimensions (W*D*H)	mm	400*360*610		595*360*610		970*360*610		1410*415*645	
		in	15.7*14.2*24.0		23.4*14.2*24.0		38.2*14.2*24.0		55.5*16.3*25.4	
	Exterior Dimensions (W*D*H)	mm	670*630*818		860*630*818		1243*630*818		1650*650*855	
		in	26.4*24.8*32.2		33.9*24.8*32.2		48.9*24.8*32.2		65.0*25.6*33.7	
	Packing Dimensions (W*D*H)	Paper	755*760*880		950*760*880		1325*760*880		1705*760*1010	
		mm	29.7*29.9*34.6		37.4*29.9*34.6		52.2*29.9*34.6		67.1*29.9*39.8	
		in	11.7*11.8*13.6		14.7*11.8*13.6		20.5*11.8*13.6		26.4*11.8*15.6	
		Wooden	Wooden		Wooden		Wooden		/	
		mm	820*820*1045		1000*820*1045		1375*820*1045		/	
		in	32.3*32.3*41.1		39.4*32.3*41.1		54.1*32.3*41.1		/	
Container Load (20'/40'/40'H)	Paper	42/90/135		36/72/108		24/54/81		18/42/42		
	Wooden	28/56/56		20/44/44		16/32/32				
Functions	High/Low Temperature	Y		Y		Y		Y		
	Power Failure	Y		Y		Y		Y		
	Sensor Error	Y		Y		Y		Y		
Accessories	Foot	Y		Y		Y		Y		
	Baskets	3		5		9		11		
Others	Certificate	CE,WHO/PQS		CE,WHO/PQS		CE,WHO/PQS		CE,WHO/PQS		

Product appearance and specifications are subject to change without notice

The refrigerators are designed to store vaccine, freeze icepack, pharmaceuticals and so on. Applications could be found in epidemic prevention, clinics, hospitals, research institutes etc.



HBD-286



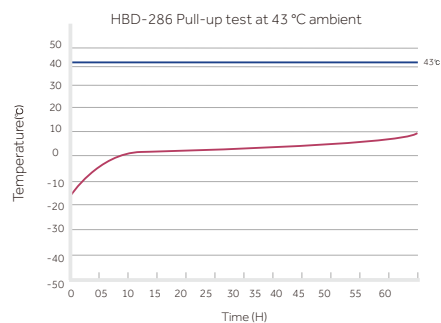
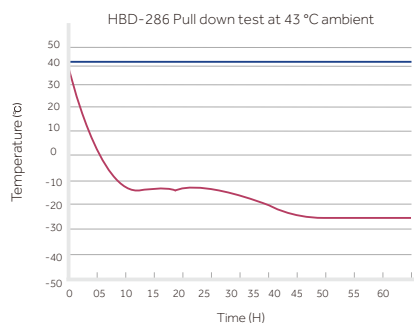
HBD-116

Refrigeration System

- Famous brand high quality compressor
- CFC-free high density foam insulation
- Optimized refrigeration system design

Temperature Control

- Digital display
- Inner temperature range is -15°C to -25°C



WHO/UNICEF qualified supplier

- From 2004 until now, Haier awarded the tender from India MOHFW, WHO, UNICEF, Africa market to supply about 50,000 units icepack freezers and ice-lined refrigerators
- 2009, World Health Organization (WHO) qualified Haier Medical as the supplier of ice-lined refrigerators and -25°C vaccine and ice pack freezer lines. The pre-qualified models include HBC-70, HBC-200, HBD-286, HBD-116
- 2011, Haier obtained the LTA of Ice-Lined Refrigerator and Vaccine Freezer. Haier is the long term supplier of UNICEF
- 2014, Haier broke the European & USA monopoly of the vaccine refrigerator in Africa market - 1000 units was awarded by the PFSA Ethiopia

Model		HBD-116	HBD-286
Technical Data	Cabinet Type	Chest	Chest
	Ambient Temperature(°C)	<43	<43
	Cooling Type	Direct Cooling	Direct Cooling
	Defrost Mode	Manual	Manual
	Refrigerant	CFC-Free	CFC-Free
	Noise(dB(A))	43	44
Performance	Temperature Range(°C)	-15~-25	-15~-25
Control	Controller	Mechanical	Mechanical
	Display	LCD	LCD
Electrical Data	Power Supply(V/Hz)	220-240/50	208-230/60
	Power(W)	134	166
	Electrical Current(A)	1.1	1.65
	Power Consumption:Stable Running(KWh/24h)	3.01	3.53
	Power Consumption: Cool Down Test(KWh/24h)	3.77	3.25
	Holdover Time at 43°C	More than 3hrs(up to -5°C) More than 50hrs(up to 10°C)	More than 5hrs(up to -5°C) More than 60hrs(up to 10°C)
Dimensions	Vaccine Storage Capacity(L/Cu.Ft)	-	-
	Gross Volume(L/Cu.Ft)	121/4.3	286/10.1
	Waterpack Freezing Capacity(kg/24h)	12	16.8
	Waterpack Storage Capacity(L)	136*0.6	310*0.6
	Net/Gross Weight(approx)	kg	50/55
		lbs	110.3/121.3
	Interior Dimensions(W*D*H)	mm	497*457*655
		in	19.6*18.0*25.8
	Exterior Dimensions(W*D*H)	mm	670*630*818
		in	26.4*24.8*32.2
	Packing Dimensions(W*D*H)	Paper	Paper
		mm	755*760*880
		in	29.7*29.9*34.6
		Wooden	Wooden
		mm	820*820*1045
		in	32.3*32.3*41.1
	Container Load(20'/40'/40'H)	Paper	42/90/135
		Wooden	28/56/56
Accessories	Foot	Y	Y
	Baskets	2	3
Others	Certificate	CE,WHO/PQS	CE,WHO/PQS