Haier Biomedical
Intelligent Protection of Life Science

Sparkfree Refrigerators
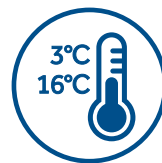## ATEX Certified

Haier Biomedical's range of ATEX II C-T6 Explosion Proof certified laboratory refrigerators.

360° Explosion Proof Interior
with ATEX II C-T6 EU Explosion Proof Certification.

Setting Temperature Range +3°C to +16°C
with precise control, keeps internal temperature variation within 3°C for excellent temperature uniformity.

Clear and Complete Alarm System with One Key Search
multiple alarms and data function which allows users to check and save historical data, which is useful and convenient for laboratory inspection processes.

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Safer by Design

The new sparkfree laboratory refrigerator, developed in-house, offers 360° internal explosion protection and is fully compliant and certified to the ATEX II C-T6 EU standard. This is one of the highest ATEX rated refrigerators available to life science customers, requiring a safety barrier to protect the temperature sensor. Utilising a zener barrier, the new sparkfree laboratory refrigerators use a current limiting resistance or voltage limiting diode. This limits the input of electrical energy to ensure that the sensor will not be a source of ignition for flammable and explosive substances in the cabinet. This is different from other sparkfree refrigerators, ensuring that the Haier Biomedical units are safer by design. This means that these appliances can be used in zone 2 environments.

ATEX II C-T6 EU Explosion Proof Certified
Our 360° all-around explosion proof system uses an antistatic liner, gasket and explosion proof fan motor. It is also equipped with an overcurrent and overvoltage protection system. All components within the unit are earthed to ensure static is discharged safely.

Multiple Alarms
The refrigerator comes with hi/low temperature alert, door open alarm, sensor error and optional power failure alarm. Optional remote alarm contacts ensure the unit can be monitored remotely and will rapidly alert users when in an alarm state.

Energy Efficient Design
The hydrocarbon cooling system doubles the cooling efficiency and reduces energy costs by 50% when compared to traditional refrigerants. In addition, the cabinet is fitted with an energy saving explosion proof fan.

Safe and Secure
Refrigerator doors have a built-in lock and are also equipped with an adapter kit to allow user to add a padlock. The control panel is lockable to prevent anyone turning off the unit by mistake or adjusting the temperature by accident.

Low Noise Design
Designed to keep noise to a minimum, the refrigerators have a noise level of below 40dB, creating a quieter working environment.

Flexible Configuration
Adjustable, toughened glass shelves with 40kg capacity allow user to store different sizes of reagents.

PRODUCT ADVANTAGES
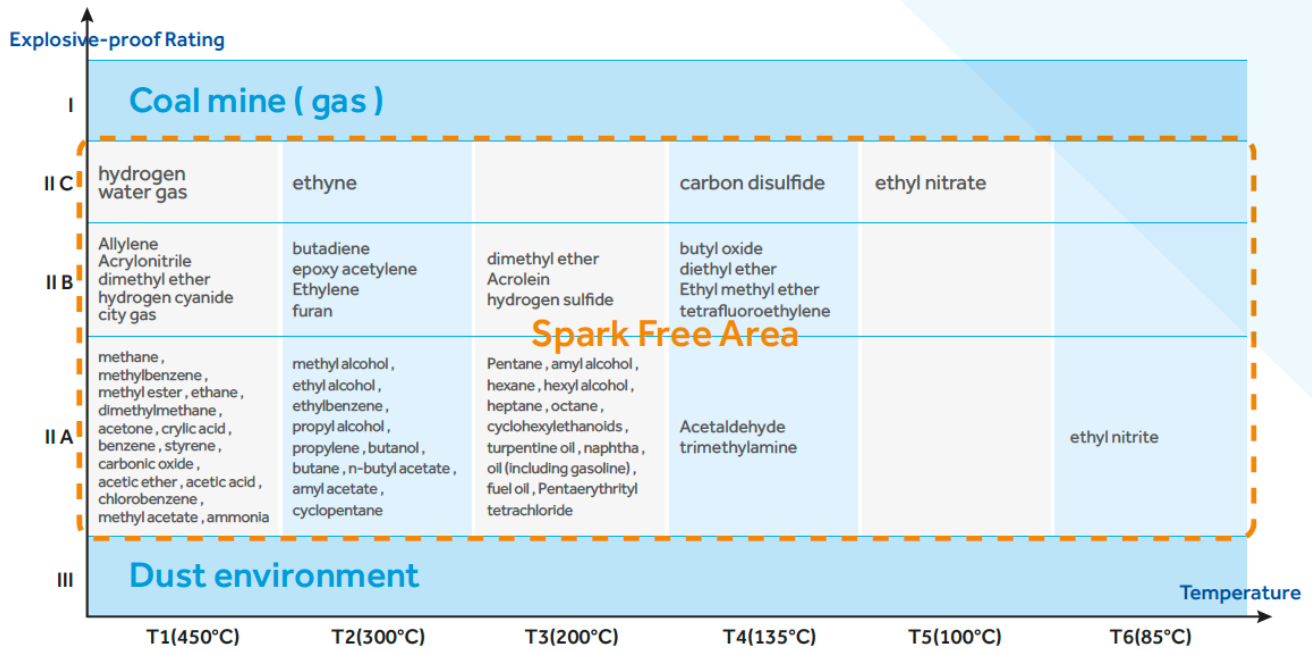

Cabinet Structure

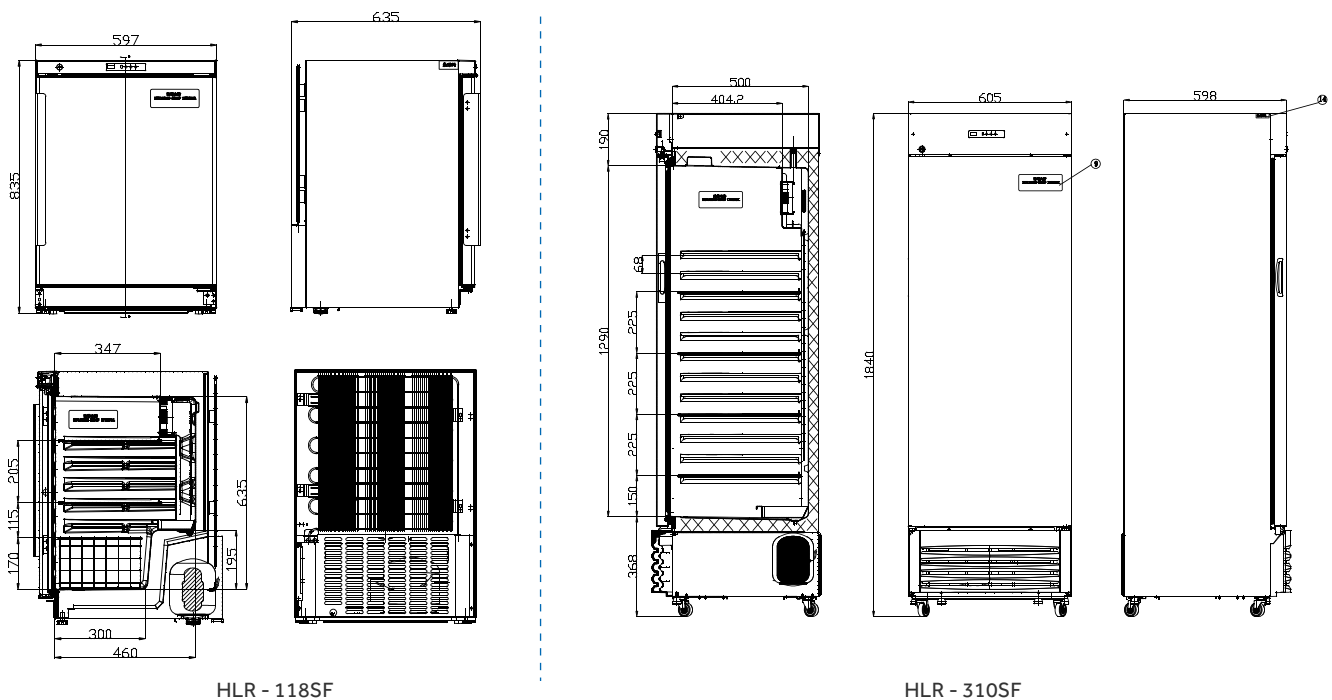Glass Shelves

ATEX Certification Label

Explosion Proof Cabinet/Fan

ATEX Certification

Haier Biomedical sparkfree refrigerators are ATEX certified in the application range II 3G Ex nA II T6. This means that the appliances can be found in the whole 2 zone environment (including II A, II B and II C), making our range one of the safest laboratory grade refrigerators available, helping to lower costly insurance premiums.

Explosive-proof Rating

	T1(450°C)	T2(300°C)	T3(200°C)	T4(135°C)	T5(100°C)	T6(85°C)
I	**Coal mine (gas)**					
II C	hydrogen water gas	ethyne		carbon disulfide	ethyl nitrate	
II B	Allylene Acrylonitrile dimethyl ether hydrogen cyanide city gas	butadiene epoxy acetylene Ethylene furan	dimethyl ether Acrolein hydrogen sulfide	butyl oxide diethyl ether Ethyl methyl ether tetrafluoroethylene		
II A	methane , methylbenzene , methyl ester , ethane , dimethylmethane , acetone , crylic acid , benzene , styrene , carbonic oxide , acetic ether , acetic acid , chlorobenzene , methyl acetate , ammonia	methyl alcohol , ethyl alcohol , ethylbenzene , propyl alcohol , propylene , butanol , butane , n-butyl acetate , amyl acetate , cyclopentane	Pentane , amyl alcohol , hexane , hexyl alcohol , heptane , octane , cyclohexylethanoids , turpentine oil , naphtha , oil (including gasoline) , fuel oil , Pentaerythrityl tetrachloride	Acetaldehyde trimethylamine		ethyl nitrite
III	**Dust environment**					

Spark Free Area

Temperature

PRODUCT DIMENSION DRAWING

HLR - 118SF

HLR - 310SF

PRODUCT SPECIFICATIONS

Model		HLR-118SF	HLR-310SF
Parameters			
Technical Data	Type	Under-Counter	Upright
	Climate Class	N, ST	N, ST
	Cooling Type	Forced Air Cooling	Forced Air Cooling
	Defrost Mode	Auto	Auto
	Refrigerant	R134a	R600a
	Noise((dB(A))	38	40
Performance	Temperature Range(°C)	3~16°C Adjustable	3~16°C Adjustable
	Ambient Temperature(°C)	16~38°C	16~38°C
Control	Controller	Microprocessor	Microprocessor
	Display	LED	LED
Electrical Data	Power Supply(V/HZ)	220/50	220/50
	Power(W)	140	210
	Electrical Current(A)	1.03	1.26
Dimension	Capacity(L/Cu.Ft)	118/4.2	310/10.9
	Net/Gross Weight(approx) (kg)	44/49	72/83
	(lbs)	97/108	158.7/183
	Interior Dimension(W*D*H) (mm)	515×415×630	560×500×1290
	(in)	20.3×16.3×24.8	22.0×19.7×50.8
	Exterior Dimension(W*D*H) (mm)	597×635×835	605×598×1840
	(in)	23.5×25×32.9	23.8×23.6×73.6
	Packing Dimension(W*D*H) (mm)	608×690×910	660×670×2020
	(in)	26.8×27.2×35.8	26×26.4×79.5
	Container Load(20'/40'/40'H)	48/102/102	27/57/57
Functions	High/Low Temperature	Y	Y
	Power Failure	Optional	Optional
	Sensor Error	Y	Y
	Door Ajar	Y	Y
	Remote Alarm	Optional	Optional
Accessories	Caster	2	4
	Foot	2	2
	Shelves/Baskets	2/1	4/0
	Water tray	1	1
	Padlock Adapter Kit/Quantity	/	1
	Built-in Key Door Lock/Quantity	2	2
Others	Certificate	CE ATEX	CE ATEX
Temperature Setting Mode		Password Protection	Password Protection
Temperature Sensor		1 Resistance Thermometer	1 Resistance Thermometer
Power Consumption (kWh/24h)		0.7	0.8
Material			
Exterior Material		Sprayed Cold Plate	Sprayed Cold Plate
Interior Material/Colour		PS Plate/White	PS Plate/White
Insulation		Cyclopentane/Isopentane	Cyclopentane/Isopentane
Outside Door/Quantity		Foaming Door/1	Foaming Door/1
Outside Door Sealing Structure		Sealing Strip	Sealing Strip
Shelves Material/Quantity		Tempered Glass/2	Tempered Glass/4
Adjustable Shelves		Y	Y
Function Parameters			
Alarm System		Y	Y
Boot Delay Protection		Y	Y
Display Screen Password Protection		Y	Y
Compressor			
Compressor Type		Fully Closed	Fully Closed
Brand		Secop	Donper
Compressor Power(W)		172	138
Compressor Quantity		1	1
Condenser			
Type(Forced Cooling)		Back Condenser	Wire and Tube Forced Condenser
Material(Forced Cooling)		Steel Tube	Steel Tube
Outside Fan		No	EBM
Internal Temperature Uniformity		±3	±3
Internal Temperature Accuracy		1	1