

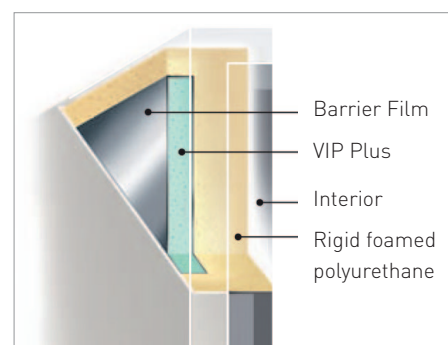


VIP ECO SMART

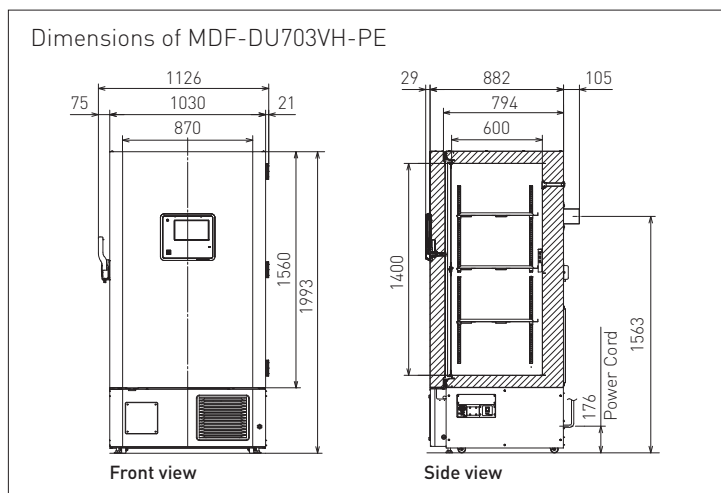
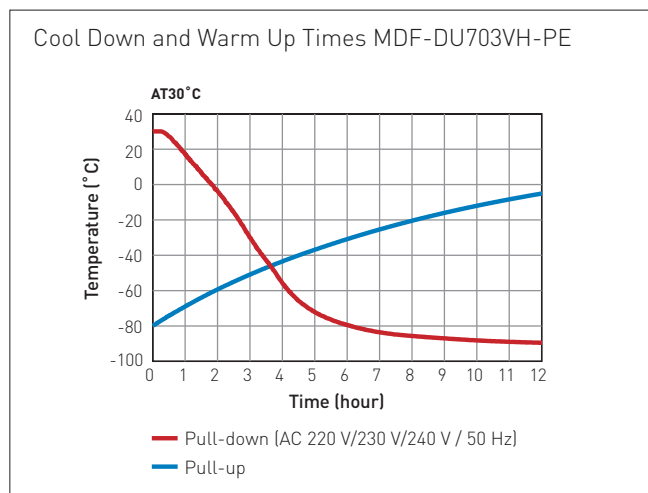
Model Number	MDF-DU703VH-PE	MDF-DU503VH-PE
Capacity	729 litres	528 litres
Racks per shelf ¹⁾	6	4
Racks per freezer ¹⁾	24	16
Boxes 2" (50 mm) per freezer ¹⁾	576	384
Factory certifications	ISO9001, ISO13485, ISO14001	
Product certifications	CE	
Disposal information	WEEE directive	

1) Multiple options are available for racking including side opening and front loading trays. The information provided is for the most common racks. We also offer double height racks and other configurations, as well as bespoke racking for cryoboxes and other containers. Please speak to your local representative for more information.

Temperature Setting Range	-40°C to -90°C
Compressors	2 x application specific hermetic compressors 750W (1HP)
Condenser	Air-cooled (hybrid option available)
Evaporator	Cold wall with strategically designed evaporator coil with double loop in the upper part <small>USP</small>
Refrigeration System	Inverter control that regulates the speed of the compressors in real time depending on ambient and load conditions <small>USP</small>
Defrost Method	Manual
Insulation	80mm VIP Plus. Vacuum Insulation panels of 15 mm. wide and 0.003 W/m · K <small>USP</small>
Refrigerants	H: 135g R-290 (propane, GWP 3), L: 85g (MDF-Du703VH) / 73g (MDF-DU503VH) R-170 (ethane, GWP 6)
Recyclable Content	90%
Outer door	Five gaskets with heated circuit. Gaskets removables without tools <small>USP</small>
Door Opening System	Easy and ergonomic door opening system with unique key lock and padlock <small>USP</small>
Vacuum Release System	1 automatic vacuum release port in the front outer
Inner doors	2 (4 or 5 doors optional), insulated, with eagle latch system
Display	Large 10" LCD Colour Touchscreen, controlled with gloves, with USB port
Electronic Security Control	• Facial Recognition • NFC Card Reader (optional) • Electronic Password <small>USP</small>
Access ports	3 locations (back x 1, bottom x 2), inner diameter: 17 mm.
Alarms	High Alarm, Low Alarm, Power failure alarm, Door alarm, Filter alarm
Remote Alarm Contact	Allowable contact capacity: DC 30 V, 2 A
Power	230V, 50Hz, single phase

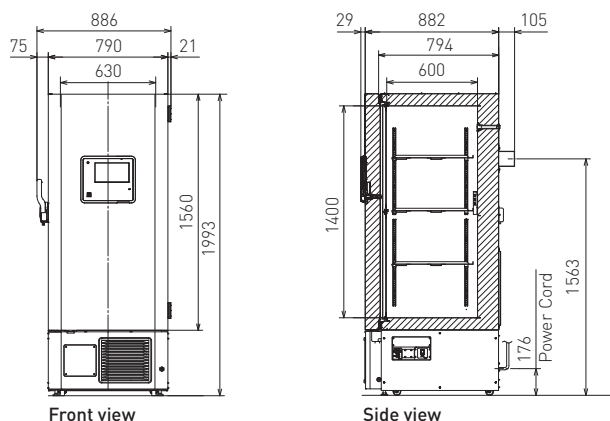


Installation Requirements	Indoor use, altitude up to 2000m, ambient temperature 5 to 40°C, maximum relative humidity of 80% up to 31°C, mains supply voltage fluctuations up to +/-10% of nominal voltage	
	MDF-DU703VH-PE	MDF-DU503VH-PE
External Dimensions (WxDxH)	1010 x 882 x 1993 mm	790 x 882 x 1993 mm
Footprint	0.91 m ²	0.69 m ²
Internal Dimensions (WxDxH)	870 x 600 x 1400 mm	630 x 600 x 1400
Net Weight	276 kg	241 kg

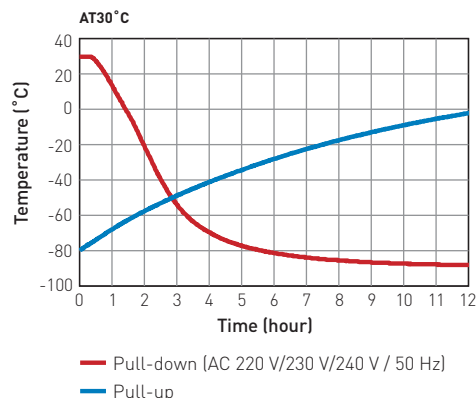


Typical Performance Characteristics MDF-DU703VH-PE (230V, 50Hz)				
Cool Down Time From AT30°C / Unloaded freezer	to -80°C 360 mins			
Warm Up Time @ AT30°C / Unloaded freezer	to -70°C 60 mins	to -50°C 180 mins	to -30°C 360 mins	to -20°C 480 mins
Power Consumption Set value -80°C / Unloaded freezer	@ AT23°C 5.4 kWh/day	@ AT30°C 6.3 kWh/day		
Power Consumption Set value -70°C / Unloaded freezer	@ AT23°C 4.4 kWh/day	@ AT30°C 5.1 kWh/day		
Heat Dissipation Set value -80°C / Unloaded freezer Pull down peak	@ AT30°C 2644 Btu/h 667 kcal/h			
Heat Dissipation Set value -80°C / Unloaded freezer Stable running after cool down	@ AT30°C 1211 Btu/h 305 kcal/h			
Average Cabinet Temperature	@ SV-80°C, AT23°C -79.5	@ SV-80°C, AT30°C -79.7	@ SV-70°C, AT23°C -69.2	@ SV-70°C, AT30°C -69.1
Noise Level	52 dB[A]			

Dimensions of MDF-DU503VH-PE



Cool Down and Warm Up Times MDF-DU503VH-PE



Typical Performance Characteristics MDF-DU503VH-PE (230V, 50Hz)

Cool Down Time From AT30°C / Unloaded freezer	<i>to -80°C</i> 330 mins			
Warm Up Time @ AT30°C / Unloaded freezer	<i>to -70°C</i> 60 mins	<i>to -50°C</i> 210 mins	<i>to -30°C</i> 420 mins	<i>to -20°C</i> 540 mins
Power Consumption Set value -80°C / Unloaded freezer	@ AT23°C 5.0 kWh/day	@ AT30°C 5.8 kWh/day		
Power Consumption Set value -70°C / Unloaded freezer	@ AT23°C 4.0 kWh/day	@ AT30°C 4.7 kWh/day		
Heat Dissipation Set value -80°C / Unloaded freezer Pull down peak	@ AT30°C 2286 Btu/h 576 kcal/h			
Heat Dissipation Set value -80°C / Unloaded freezer Stable running after cool down	@ AT30°C 1024 Btu/h 258 kcal/h			
Average Cabinet Temperature	@ SV-80°C, AT23°C -79.3	@ SV-80°C, AT30°C -79.8	@ SV-70°C, AT23°C -68.9	@ SV-70°C, AT30°C -69.0
Noise Level	52 dB[A]			