



MANUFACTURER	
KW Apparecchi Scientifici S.r.l.	
Via della Resistenza 119 - 53035 Monteriggioni (SI) - Italy	
MODEL	
K54E HPL IN	
Chest Type Ultra-low Temperature Freezer	
TECHNICAL CHARACTERISTICS	
Storage Volume	334 lt
Boxes (h=2") Capacity	192 (with full load of 24 racks)
Temperature Range	-40°C / -86°C
Climate Class	N
Power Supply	220V-230V / 1 / 50-60Hz
Power Consumption	0,6 kW
Noise Level	< 52 dB


### STRUCTURE

Internal Surface	Stainless Steel AISI 304	Door Lock	Closing hooks with key lock
External Surface	White pre-painted steel sheet	Insulation	140 mm (High density PUR foam)
External Dimensions	150 W x 87 D x 127 H cm	Inner Doors	2
Internal Dimensions	124 W x 49 D x 55 H cm	Door Type	One wing, solid type
Weight	280 kg	Door Sealing	Heated triple silicone gasket
Shipping Size (with wooden crate)	200 W x 110 D x 170 H cm	Standard Equipment	4 pivoting wheels (front wheels w/brake)
	380 kg		Int/Ext pass-through hole
Int/Ext Edges	Rounded for easy cleaning		

### REFRIGERATION SYSTEM

Cooling System	Fully sealed circuit with n.2 hermetic compressors arranged in cascade		
Refrigerant Gases	1° Stage	R1270	2° Stage
Evaporating System	Copper tube coil thermally connected to the outer peripheral surface of the inner case		
Condensing System	Air-type high-surface condenser, for forced air circulation		
Defrost	Manual		

### DIGITAL CONTROL SYSTEM

<b>HPL (High Performance Line)</b>		
Display	Display touch-screen TFT 7" - Microprocessor ARM9 technology (n°2 independent motherboards)	
T Regulation Accuracy	± 0.1°C	
Thermal Probes	n.2 thermal probes RTD Pt100 class A (n.1 for thermoregulation - n.1 for T alarm)	
Available Languages	Italian / English / French / Spanish / German	
Data Recording Format	SQLite (Tracer® software included for data reading)	
Access Control	Access to controller functions via safety password	
Maintenance	Possibility to connect remotely via IP address	
Special Functions	Real-time temperature graph on display	
	Disaster recovery (the freezer continues to run even in the event of a CPU failure)	
	Safety control (the freezer continues to operate even if the control probe breaks)	
	Data logger function (Automatic recording of temperatures and alarms)	
	Key test (the user can simulate alarm conditions with a simple key pressure)	
Connectivity	USB port	Ethernet port
	SD Card port	Dry contacts for remote alarms
	High/Low temperature	Faulty probes
Alarms List (Audio/Visual)	Power failure alarm with back-up battery	Compressor timing failure
	Door open	High temperature condenser
	High condenser pressure	Dirty condenser
	Battery failure	Communication failure with motherboards
	Pressure switch intervention failure	Pressure transducer intervention failure

### OPTIONAL ACCESSORIES AVAILABLE ON REQUEST

24V CO2 backup system for mechanical failure	Additional RTD Pt 100 probe
24V LN2 backup system for mechanical failure	Additional RTD Pt 100 probe with 4-20mA converter
12V CO2 backup system for mechanical/electric failure	Weekly cycle chart disk recorder (n°52 spare disks included)
12V LN2 backup system for mechanical/electric failure	Strip-chart electronic recorder
Water condensing device with automatic barostatic valve	GSM Module and SIM Card port activation
4000VA power voltage stabilizer	Electric lock for door opening through PIN/Transponder/Finger print
Additional shelf in AISI 304 stainless steel	Wi-Fi router
Transparent panel for display cover	