APPARECCHI SCIENTIFICI

Technical Data Sheet

ULT Freezer -86°C

		N	IANUFACTURER
			parecchi Scientifici S.r.l.
		•	119 - 53035 Monteriggioni (SI) - Italy
			MODEL
			K52 HPL IN
		Chest Type Ultra-low Temperature Freezer	
		TECHNICAL CHARACTERISTICS	
		Storage Volume	110 lt
	1000 March 1000	Boxes (h=2") Capacity	56 (with full load of 7 racks)
1	AND A CONTRACTOR OF A CONTRACT	Temperature Range	-40°C / -86°C
		Climate Class	N
88		Power Supply	220V-230V / 1 / 50-60Hz
		Power Consumption	0,6 kW
		Noise Level	< 52 dB
	CTPI	JCTURE	
Internal Surface	Stainless Steel AISI 304	Door Lock	Closing hook with key lock
External Surface			
External Surface	White pre-painted steel sheet 90 W x 84 D x 127 H cm	Insulation Inner Doors	175 mm (High density PUR foam)
			-
Internal Dimensions	55 W x 40 D x 50 H cm	Door Type	One wing, solid type
Weight	130 kg	Door Sealing	Heated triple silicone gasket
Shipping Size	130 W x 110 D x 210 H cm	Standard	4 pivoting wheels (front wheels w/bral
(with wooden crate)	230 kg	Equipment	Int/Ext pass-through hole
Int/Ext Edges	Rounded for easy cleaning		Pressure compensation valve
		TION SYSTEM	
Cooling System		with n.2 hermetic compress	ors arranged in cascade
Refrigerant Gases			Stage R170
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 CO	NTROL SYSTEM	
HPL (High Performance Line)			
(High Performance Line) Display	Display touch-screen TFT 7" - Mi		ogy (n°2 indipendent motherboards)
(High Performance Line) Display T Regulation Accuracy		± 0.1°C	
(High Performance Line) Display T Regulation Accuracy Thermal Probes	n.2 thermal probes RTD	± 0.1°C Pt100 class A (n.1 for thermo	pregulation - n.1 for T alarm)
(High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages	n.2 thermal probes RTD Italiar	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish	pregulation - n.1 for T alarm) / German
(High Performance Line) Display T Regulation Accuracy Thermal Probes	n.2 thermal probes RTD Italiar SQLite (Tr	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for	oregulation - n.1 for T alarm) / German data reading)
(High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages	n.2 thermal probes RTD Italiar SQLite (Tr	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish	oregulation - n.1 for T alarm) / German data reading)
(High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format	n.2 thermal probes RTD Italian SQLite (Tr Access to	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for	pregulation - n.1 for T alarm) / German data reading) ety password
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe	pregulation - n.1 for T alarm) / German data reading) ety password IP address
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or	pregulation - n.1 for T alarm) / German data reading) ety password IP address
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or sezer continues to run even	pregulation - n.1 for T alarm) / German data reading) ety password IP address n display
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freeze	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or sezer continues to run even	oregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) n if the control probe breaks)
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance	n.2 thermal probes RTD Italian SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freez Data logger function	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or eezer continues to run even er continues to operate ever	oregulation - n.1 for T alarm) / German data reading) ety password IP address display in the event of a CPU failure) in the control probe breaks) mperatures and alarms)
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fr Safety control (the freez Data logger function Key test (the user can	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or sezer continues to run even er continues to operate ever n (Automatic recording of ten simulate alarm conditions w	oregulation - n.1 for T alarm) / German data reading) ety password IP address display in the event of a CPU failure) in the control probe breaks) mperatures and alarms)
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fr Safety control (the freez Data logger function Key test (the user can	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or sezer continues to run even er continues to operate ever n (Automatic recording of ten simulate alarm conditions w	oregulation - n.1 for T alarm) / German data reading) ety password IP address o display in the event of a CPU failure) o if the control probe breaks) mperatures and alarms) ith a simple key pressure)
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freez Data logger function Key test (the user can Info test (The functional te	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or sezer continues to run even er continues to operate ever n (Automatic recording of ten simulate alarm conditions w	oregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) n if the control probe breaks) mperatures and alarms) rith a simple key pressure) can be repeated by the user)
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or rezer continues to run even er continues to operate ever n (Automatic recording of ten simulate alarm conditions w est performed in the factory	oregulation - n.1 for T alarm) / German data reading) ety password IP address a display in the event of a CPU failure) n if the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or reezer continues to run even er continues to operate ever n (Automatic recording of ter simulate alarm conditions w est performed in the factory	oregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) in the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the free Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or reezer continues to run even er continues to operate ever n (Automatic recording of ter simulate alarm conditions w est performed in the factory	oregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) in the control probe breaks) mperatures and alarms) rith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for o controller functions via safe ility to connect remotely via I-time temperature graph or sezer continues to run even er continues to operate ever n (Automatic recording of ten simulate alarm conditions we set performed in the factory b battery	oregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) in the event of a CPU failure) in the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via I-time temperature graph or recontinues to run even er continues to operate ever n (Automatic recording of tel simulate alarm conditions w est performed in the factory b battery b	bregulation - n.1 for T alarm) / German data reading) ety password IP address a display in the event of a CPU failure) in the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fre Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via I-time temperature graph or ezer continues to operate ever n (Automatic recording of tell simulate alarm conditions w est performed in the factory battery contact and the factory contact	bregulation - n.1 for T alarm) / German data reading) ety password IP address a display in the event of a CPU failure) in the event of a CPU failure) in the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fr Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via I-time temperature graph or recer continues to operate ever n (Automatic recording of ter simulate alarm conditions w est performed in the factory battery battery continues context and the factory context and t	oregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) n if the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser Dirty condenser munication failure with motherboards ssure transducer intervention failure
High Performance Line) Display T Regulation Accuracy T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List (Audio/Visual)	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the free Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via I-time temperature graph or recortinues to operate ever n (Automatic recording of ten simulate alarm conditions w rest performed in the factory battery battery commission battery commission battery batt	oregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) in the event of a CPU failure) in the event of a CPU failure) in the control probe breaks) mperatures and alarms) rith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser munication failure with motherboards ssure transducer intervention failure EST
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List (Audio/Visual) 24V CO2 backup	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the free Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure Pressure switch intervention f OPTIONAL ACCESSORIE system for mechanical failure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via l-time temperature graph or recontinues to run even er continues to operate ever n (Automatic recording of ter simulate alarm conditions w est performed in the factory battery battery commission battery battery commission battery batt	bregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) n if the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser munication failure with motherboards ssure transducer intervention failure EST tional RTD Pt 100 probe
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List (Audio/Visual) 24V CO2 backup 24V LN2 backup	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fr Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure Pressure switch intervention f OPTIONAL ACCESSORIE system for mechanical failure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish acer® software included for controller functions via safe ility to connect remotely via l-time temperature graph or cezer continues to run even er continues to operate ever n (Automatic recording of ten simulate alarm conditions w est performed in the factory battery battery Comm failure Pre: S AVAILABLE ON REQU Additional RTD P	bregulation - n.1 for T alarm) / German data reading) ety password IP address a display in the event of a CPU failure) in the event of a CPU failure) in the event of a CPU failure) in the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser munication failure with motherboards ssure transducer intervention failure EST Ethon I TD Pt 100 probe t 100 probe with 4-20mA converter
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List (Audio/Visual) 24V CO2 backup 24V LN2 backup 12V CO2 backup syst	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fr Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure Pressure switch intervention f OPTIONAL ACCESSORIE system for mechanical failure tem for mechanical failure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via l-time temperature graph or recontinues to operate ever n (Automatic recording of tel simulate alarm conditions w est performed in the factory battery battery controller S AVAILABLE ON REQU Additional RTD P Weekly cycle chart d	bregulation - n.1 for T alarm) / German data reading) ety password IP address a display in the event of a CPU failure) in the event of a CPU failure) in the event of a CPU failure) in the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser munication failure with motherboards soure transducer intervention failure EST Ethon RTD Pt 100 probe t 100 probe with 4-20mA converter isk recorder (n°52 spare disks included)
High Performance Line) Display T Regulation Accuracy T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List (Audio/Visual) 24V CO2 backup 24V LN2 backup 12V CO2 backup syst 12V LN2 backup syst	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fr Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure Pressure switch intervention f OPTIONAL ACCESSORIE system for mechanical failure tem for mechanical failure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via I-time temperature graph or recortinues to operate ever n (Automatic recording of tell simulate alarm conditions w est performed in the factory battery battery control salure Comm alure SAVAILABLE ON REQU Additional RTD P Weekly cycle chart d Strip-o	bregulation - n.1 for T alarm) / German data reading) ety password IP address a display in the event of a CPU failure) in fthe control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser munication failure with motherboards sure transducer intervention failure EST Etional RTD Pt 100 probe t 100 probe with 4-20mA converter isk recorder (n°52 spare disks included) chart electronic recorder
High Performance Line) Display T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List (Audio/Visual) 24V CO2 backup 24V LN2 backup syst 12V LN2 backup syst Water condensing device	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the freez Data logger function Key test (the user can Info test (The functional to USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure Pressure switch intervention f OPTIONAL ACCESSORIE system for mechanical failure tem for mechanical/electric failure tice with automatic barostatic valve	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via I-time temperature graph or recortinues to operate ever n (Automatic recording of ter simulate alarm conditions w est performed in the factory battery battery SAVAILABLE ON REQU Additional RTD P Weekly cycle chart d GSM Modul	bregulation - n.1 for T alarm) / German data reading) ety password IP address n display in the event of a CPU failure) in the event of a CPU failure) in the event of a CPU failure) in the control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser Dirty condenser Dirty condenser EST Cional RTD Pt 100 probe t 100 probe with 4-20mA converter isk recorder (n°52 spare disks included) chart electronic recorder e and SIM Card port activation
High Performance Line) Display T Regulation Accuracy T Regulation Accuracy Thermal Probes Available Languages Data Recording Format Access Control Maintenance Special Functions Connectivity Alarms List (Audio/Visual) 24V CO2 backup 24V LN2 backup 12V CO2 backup syst 12V LN2 backup syst Water condensing dev 4000VA p	n.2 thermal probes RTD Italiar SQLite (Tr Access to Possib Rea Disaster recovery (the fr Safety control (the freez Data logger function Key test (the user can Info test (The functional te USB port SD Card port High/Low temperature Power failure alarm with back-up Door open High condenser pressure Battery failure Pressure switch intervention f OPTIONAL ACCESSORIE system for mechanical failure tem for mechanical failure	± 0.1°C Pt100 class A (n.1 for thermo / English / French / Spanish racer® software included for controller functions via safe ility to connect remotely via I-time temperature graph or recortinues to operate ever n (Automatic recording of ter simulate alarm conditions w est performed in the factory battery battery SAVAILABLE ON REQU Additional RTD P Weekly cycle chart d GSM Modul	bregulation - n.1 for T alarm) / German data reading) ety password IP address a display in the event of a CPU failure) in fthe control probe breaks) mperatures and alarms) ith a simple key pressure) can be repeated by the user) Ethernet port Dry contacts for remote alarms Faulty probes Compressor timing failure High temperature condenser Dirty condenser munication failure with motherboards sure transducer intervention failure EST Etional RTD Pt 100 probe t 100 probe with 4-20mA converter isk recorder (n°52 spare disks included) chart electronic recorder