PULL DOWN, WARM UP; TIME - TEMPERATURE MAP

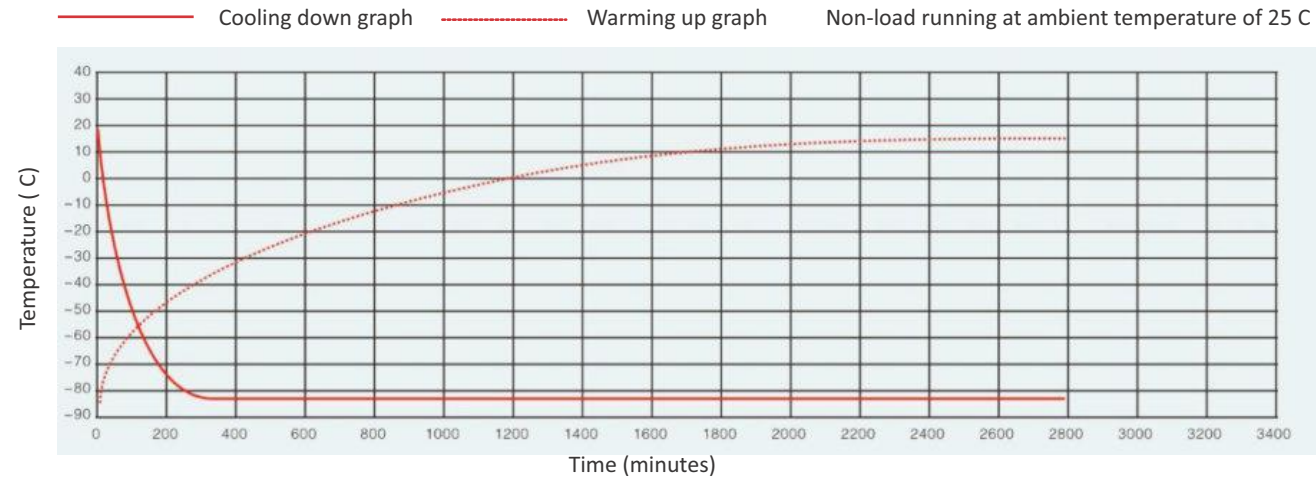— Cooling down graph   ---- Warming up graph   Non-load running at ambient temperature of 25 C

Time (minutes) / Temperature (C)

URC-V-380-4

DATA TABLE (-40°C to -86°C)

Model	Inner Volume (L)	External Dimension (mm) W x D x H	Internal Dimension (mm) W x D x H	Power Consumption (KWh/Day)	Weight (N.t / G.t)	Cryo Racks	Cryo Boxes	2"size Vials
URC-V-380-4	400	785 x 1041 x 1947	450 x 700 x 1270	10	300/320 KG	12	300	24300
URC-V-500-4	520	930 x 1041 x 1947	585 x 700 x 1270	11	320/340 KG	16	400	32400
*URC-V-650-4	670	1070 x 994 x 1947	755 x 700 x 1270	12	340/360 KG	20	500	50000
*URC-V-700-4	770	1208 x 994 x 1947	870 x 700 x 1270	12	350/370 KG	24	600	60000
*URC-V-850-4	850	1200 x 997 x 1998	880 x 700 x 1380	13	440/460 KG	24	600	69000
*URC-V-1000-4	1000	1345 x 997 x 1998	1035 x 700 x 1380	13	480/500 KG	28	700	80500

* Two compressor system ensures that In the event of one compressor fails, then other compressor acts as backup and maintains temperature between -50°C to -60°C

Cryo scientific
systems (pvt) limited
cryo scientific
just freeze it

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systems (pvt) limited

newGEN-86°C
Ultra low temp freezer

CE

Cutting Edge Technology

A **reliable** equipment suitable for biosciences research laboratories, blood banks, clinical and clinical research labs, pharma labs, cryo preservation labs and universities.

38% STORAGE CAPACITY

40% POWER CONSUMPTION

57% USAGE COST

NEW TECHNOLOGY
The new unique design of mixed refrigerant sub-cooling cascade system has Low noise, Low Power Consumption, Low Maintenance and hence low usage cost.

ENERGY EFFICIENCY & ENVIRONMENTAL PROTECTION
Imported highly effective compressor + Separate evaporator + compound heat exchanger + optimized segregation system + VIP Plus insulation reduces total power consumption by 40%.

SILENT OPERATION
Energy Efficient Refrigeration design with reduced noise level + Floating frame + Sound absorption features translate into low noise performance of < 56 decibels.
* For URC-V-380-4, Noise Level is <46 decibels.

LARGER STORAGE
The unique design permits larger storage space. Can load upto 30000 no.s of 1.5ml standard tubes, 24300 no.s of 2ml tubes (for model URC-V-380-4).

MULTI DIMENSIONAL THERMAL INSULATION
Superior patent Dual insulation of Ultra Thin Vacuum Insulation Panel (VIP) + Eco-Friendly, CFC free, HCFC free PUF insulation of 140mm thickness with Patent technology. Provided on all the six sides of body including main door

ECO FRIENDLY REFRIGERATION SYSTEM

Energy Efficient Refrigeration system with unique technology for rapid cooling & Ultra fast pull down.

Cascade sub-cooling refrigeration system with air cooled condenser system. Ideal compressor running time is 40%

Hermetically sealed compressors with start-up delay

High level of Temperature Stability & Uniformity.

Solid Main door & Inner sub-doors (2 to 5Nos) of Double foaming insulation, with durable hinges

Triple circuits of silicon prevents air seepage and ensure excellent sealing.

Access ports (25mm) for Calibration & CO2/LN2 Backup.

CFC & HCFC free, Non-Flammable, Eco-friendly refrigerant mixture

TOUCH SCREEN PANEL

Microprocessor control system (±1ºC accuracy) with Non-volatile memory & Inbuilt self diagnosis.

Eye level 7 inch LED touchscreen display with graphical representation for easy operation with 0.1ºC graduation.

4-PIN Password protected configuration to prevent unauthorized access

SAFETY SYSTEM

Strategically positioned PT 100 Temperature sensor probe for fast response.

Multiple failure alarms & power spike protection functions ensure safety of the system & stored sample.

Safe stop & time delay restart provides additional safety. Battery Backup for alarm functions and digital display of temperature & other parameters.

HUMANIZED DESIGN

Onboard diagnostics to identify malfunctions
Narrow size design - easy mobility.

Heavy duty Caster wheels with lock + Level adjusting feet for easy moving and lockable.

Special file box on the front door - convenient for end users to record data on a daily basis.

Patented door with key lock & Assisted CAM lock handle design enables single hand operation.

Inbuilt Data logger with USB Interface Port for storing data upto 8 years in 16GB USB memory

Vacuum Release through heated air vent for easy door opening.

Outer cabinet of Heavy Gauge, Non-rust epoxy painted Galvanized Steel sheet and attractive finish.

Hot condenser line around the mouth of the cabinet prevents moisture condensation.

Stainless steel SS304 inner cabinet having 3 to 5Nos of compartments with easy to clean rounded corners.

Supplied with suitable automatic voltage stabilizer of Low voltage surge protection

High strength & High bearing capacity adjustable shelves made of Stainless Steel SS304

Compressor Operating Voltage Range is 170-290V. Power source 220-240V volt / 50 Hz , Single phase.

Air dust filter easy to access at the front bottom panel, removable and washable.

ISO standards, European CE Certified under multiple Electrical & Medical Safety Standards of IEC & EN.

ALARM SYSTEM

Audio-visual alarms for High/Low temperature deviation, Door Ajar, Power failure, Fan Lock alarm, Refrigeration Circuit abnormal alarm such as High Ambient / Clogged Filter alarm, Sensor failure/Malfunction, System Failure and Low battery
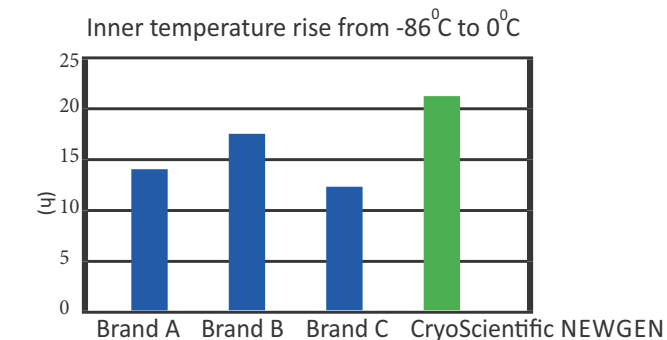
FUNCTIONAL DATA

Power Consumption
Ambient temperature at 25^0C, empty loading, set at -86^0C, testing for 24 hours.
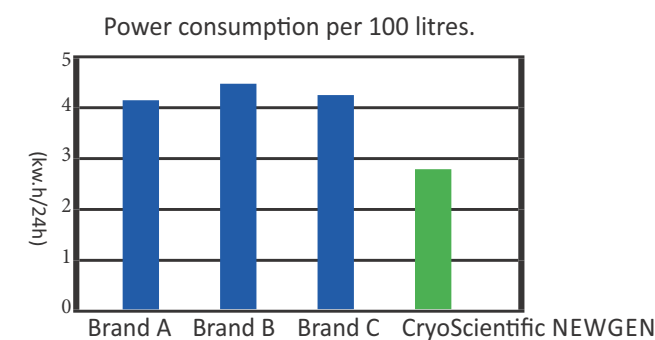
The effect of Insulation
Ambient temperature at 25^0C, after temperature stabilises at -86^0C, stop the compressor & turn off freezer. Test the time for temperature rise.
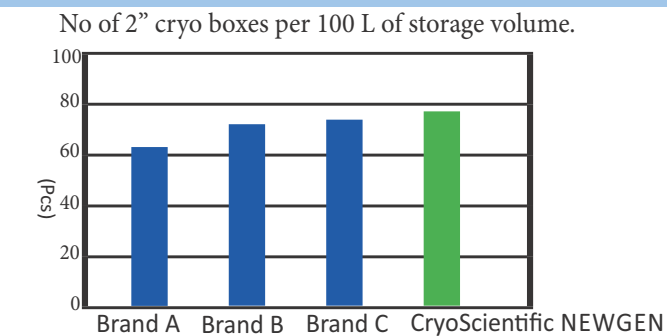
Power consumption per 100 litres.

Inner temperature rise from -86^0C to 0^0C

Cooling down time
Ambient temp at 25^0C. Start the system and let the compressor cool down to -86^0C.
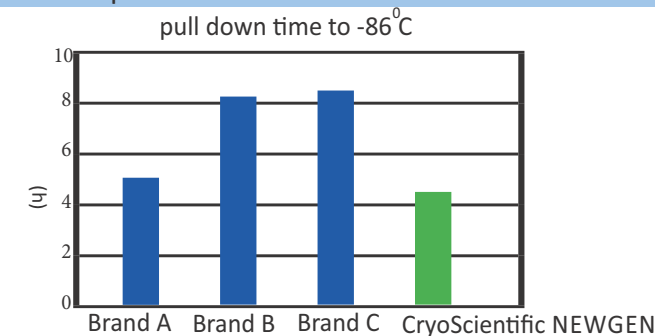
Storage Capacity
Fit maximum possible number of 2" cryo boxes in each freezer.

pull down time to -86^0C

No of 2" cryo boxes per 100 L of storage volume.

OPTIONAL ACCESSORIES
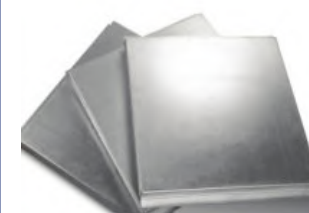
Cryo coolant cassettes   Cryo Boxes/Racks   Line Voltage Corrector/ Servo Stabilizer   Data Logger (with/without WiFi Connection) Wlink & GSM Alert

CO_2 Backup System   Remote Alarm with GSM Alert   Cryo Gloves   Battery Backup for Display & Alarms