



Trust

-86°C Freezer / 690L



Ultra-efficient, for long-term storage.

The Trust range has been designed and optimized for long-term storage of samples. Priority has been given to excellent temperature homogeneity and a clear interface which allows freezer status to be understood at a glance.

The Trust range consist of 3 volumes: 640L, 515L, and 690L with a minimum footprint for when space is limited. Our freezers are all designed and manufactured in Europe.

PERFORMANCE

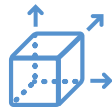
Temperature range	-60°C to -86°C
Pull down from ambient to -86°C	~ 4 hours

WARRANTY

Parts	2 years
Fan, compressors and condenser	5 years
VIP insulation	10 years



Minimum temperature of -86°C



Available in 3 volumes

Technical Specifications

TRUST -86°C FREEZERS	
MODEL	BMTRU69086G
GENERAL SPECIFICATIONS	
Storage Capacity (2mL Cryotubes)	48 000 cryotubes 2mL
Raw Volumes / compartments	690 liters / 24.3 cu.ft. - 4 compartments
Ext Dimension (W x D x H)	875 x 970 x 1990 mm / 38.2 x 34.5 x 78.4 in
Int Dimension (W x D x H)	630 x 752 x 1436 mm / 29.6 x 24.8 x 56.6 in
Ext Construction	Electrogalvanised steel with epoxy paint
Int Construction	Stainless steel inner tank with rounded corners
Net Weight	330 kg / 728 lb
Standard Construction	4 swivel casters 2 levelling feet Key lock (2 keys supplied) Cable port on the back of the device 1 power cord, 3m long with IEC19 detachable connectors
No. of Internal Shelves (Max Weight: 75kg)	3 shelves
Ambient temperature	From +18°C (65°F) to +32°C (89°F)
Insulation	6 faces Vacuum Insulation Panel (VIP) and high density polyurethane foam. Thermal conductivity < 0.005 W/m.K.
Noise level	56 dB
Environment	Not designed for use in explosive atmospheres (ATEX)
Warranty	2 years : 5 years : fan, compressors, condenser. 10 years : VIP insulation
REFRIGERATION SYSTEM	
Cooling Engine	2 stage compressors cascade system with intermediate plate heat exchanger. Cold production by 5 internal walls.
Expansion Device	Capillary tube
Defrosting Method	Manual with heated door-seal and heated valve pit
Refrigerant Load Natural Gas Refrigerant Load	1st stage : R290 2nd stage : R170
ELECTRIC AND ELECTRONIC DATA	
Controller type	Fuji regulator and Schneider industrial automaton
Temperature probe	1 x Pt100 3 wires probe
List of alarms	Configurable high and low temperature alarm Open door alarm, triggered after 2 minutes opening Alimentation 230 VAC, overpressure CP1, battery charge failure, engine failure, CO2 / LN2 injection in progress
Type of alarm	Visual (OK et pictograms) and acoustic with automatic reactivation after predefined delay
Energy consumption	13.9kWh/ day*
Remote alarm contact	NO - NC dry contact (optional)
Power	1500 W
Types of power supply	Voltage 230V ~ +/-10%, 50 Hz, fuse protection «aM 12A» Voltage 110V ~ +/-10%, 50/60Hz, fuse protection «aM 20A» Voltage 208V ~ +/-10%, 60Hz, fuse protection «aM 12A»
PERFORMANCES (AMBIENT TEMPERATURE +22 °C)	
Temperature range	From -60°C to -86°C, 1/10th degree display
Pull down from ambient to -86°C	~ 4 hours
Homogeneity at -80°C	+/-5°C
OPTIONS & CONFORMITIES	
Options	Cryo-accumulators (from 6h to 8h additional autonomy) CO2 / LN2 backup system (150 bar max electrical valve) Additional Pt 100 ohms 3 wires Thermocouple K probe Circular chart recorder 4-20mA output COFRAC 9 points temperature mapping IQ / OQ documentation BoSS system NO - NC dry contact Padlock closure
Supplied with	User manual Detachable washable filter Scraper
Certification / Conformities	EN61010-1 – Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements 2014/35/UE – Low voltage directive 2014/30/UE – EMC directive, Class A device 2014/68/UE – Under pressure devices
Shipping weight	350 kg / 772 lb
Shipping dimensions (W x D x H)	940 x 1170 x 2150 mm / 37 x 46.1 x 84.7 in

*according to energy star calculation, with an ambient room temperature of 20°C (+/-0.5oC), door closed.