# ARCTIK® ULUF P820GG



#### **ULTRA LOW TEMPERATURE I** HIGHLY RELIABLE ULT FREEZER

WITH NATURAL REFRIGERANT

The freezer comes with the extremely powerful independent TRUE DUAL™ technology that keeps the samples protected at -70 °C if an unexpected failure occurred keeping you worry-free and the samples secured and safely guarded.

# **EXTREMELY POWERFUL AND EFFICIENT COOLING**

This model is characterized by the short pull down time of approx. 3 hours indicating an exceptionally solid cooling system with robust insulation, due to the effective mixture of polyurethane and vacuum insulated panels.

Even with continuous door openings, it rapidly restores temperature uniformity creating a highly reliable environment that's not being affected by ambient temperature. Therefore, it is essentially defined by amazing temperature recovery properties.

<sup>1</sup> See below graph under "Improved recovery time" Ambient temperature 32°C Freezer with no-load.

## **ENVIRONMENTALLY FRIENDLY**

Our natural refrigerants include extremely low ODP1 and GWP<sup>2</sup> values of less than 4. Our tried and tested environmentally friendly CFC/HCFC free refrigerants guarantee potent and powerful system securing your valuable samples, but without compromising our Earth's safety in the process.

Even though they are environmentally friendly, they consume significantly less energy without compromising the cooling system, and making it cost effective as well.

Our environmentally-safe refrigerants share strong thermodynamic properties creating high performance along the way.

- <sup>1</sup> Zero Ozone Depletion Potential <sup>2</sup> Global Warming Potential

### **ULTIMATE SAMPLE PROTECTION**

This model is developed with our advanced and innovative technologies, including the very best components to secure first-rate performance.

Do not risk the safety of your samples due to the potential breakdown of your freezer. Having our TRUE DUAL™ technology, you will avoid all the problems caused by an unexpected malfunction of the compressors. In the event of any failure on one of the cooling systems, the other system will still maintain the temperature of -70°C, meaning your valuable samples are stored with superior security all day and all night.

Don't ignore the huge risk of losing many years of your valuable research because of poor-quality laboratory







Extra insulated and durable inner doors. The inner doors will provide ultimate protection and more effective insulation when the doors open.

They are all effortlessly detachable to ease and speed up the cleaning process. They are opened independently to minimize sample exposure.







DIRECT COOLING



VACUUM INSULATED PANELS





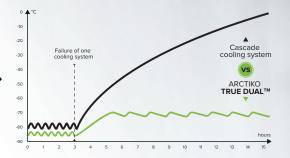
REDUCTION TECHNOLOGY

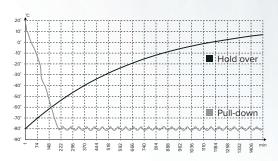


The modernized shelves in the new Integraline are perforated and easily adjustable, offering the best flexibility for your storage needs. Extra durable shelves with up to 50 kg.



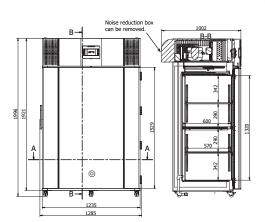
true cooling specialists

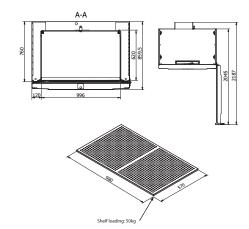




#### **▲ IMPROVED RECOVERY TIMES**

Pull-down times measures the time taken for temperature to rise, the faster the better. Hold over indication the freezers ability to keep the samples safe.













# CASCADE VS ARCTIKO TRUE DUAL™ System

With a Cascade system (marked black●) the temperature will rise gradually and the samples will be destroyed.

ARCTIKO's **TRUE DUAL™** cooling system (marked green) will serve as a backup and the inside temperature will stay in the low temperatures





	MODEL	LILLIE BOSSOG
	MODEL	ULUF P820GG
	Item code	DAI 1850
	Temperature range (°C)	-40 / -86 32
SUS	Max. ambient temperature (°C)	-
Main specifications	Capacity (L)	819
ecifi	Exterior dimensions WxDxH (mm)	1285x859,5/1002*x1999
lu sb	Interior dimensions WxDxH (mm)	996x620x1320
Σ	Weight (KG)	307
	Insulation (mm)	120
	Cooling technology	dual system / static
	Controller model / probe type	V700 / PT100
Power	Power supply (V)	230
	Frequency (Hz)	50/60
	Power consumption (kWh/24h)	17,3
	AMP (A)	10,3
	Power (Watt)	1550
	Horse power (HP)	2 x 3/4
Alarmfunctions	Alarm display as text - not codes	yes
	Visual / acoustic alarm	yes / yes
	Power failure alarm	yes
	Adjustable high / low temperature alarm	yes / yes
	Open door alarm	yes
	Probe failure alarm	yes
	Low battery alarm	yes
	Compressor failure alarm	yes
	Battery backup for alarms (approx. hrs.)	72
Data logging & external connection	Voltage free contact for remote alarm (e.g. GSM alarm module)	yes
	Electronic data logger	yes
	RS 485 port	optional
	USB port for software update & data download	yes
	Temperature chart recorder	optional
	Display type	7" touch screen
ay es	Display type  Number of optional reference probes	7" touch screen  Off reference probe included as standard)
) isplay eatures	Number of optional reference probes	0 (1 reference probe included as standard)
Display features	Number of optional reference probes  Password protection for turning unit on / off	0 (1 reference probe included as standard) yes
Display features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display	0 (t reference probe included as standard) yes yes
Display features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost	0 (t reference probe included as standard) yes yes no
Display features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port	0 (t reference probe included as standard) yes yes no
Display features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)	O (t reference probe included as standard) yes yes no yes 12
Display features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light	O (I reference probe included as standard) yes yes no yes 12 yes
Display features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key	O (I reference probe included as standard) yes yes no yes 12 yes yes
	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)	O (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2
	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)	O (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no
	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)	O (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no
	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)	O (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 4 no
Other features features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)	O (I reference probe included as standard) yes yes no yes 12 yes yes 5/2 no 4 no
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	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)	O (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 4 no
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	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)	0 (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 4 no 1 / 2 5 / 5 50 616
	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 75 mm boxes 9x9 didviders (pcs)	0 (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 4 no 1 / 2 5 / 5 50 616 392
Otherfeatures	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 95 mm boxes 9x9 didviders (pcs)	0 (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 4 no 1 / 2 5 / 5 50 616 392 280
Otherfeatures	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 75 mm boxes 9x9 didviders (pcs)  Total capacity of 96 mm boxes 9x9 didviders (pcs)  Max. capacity of 56 mm boxes 9x9 didviders (pcs)	0 (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 1 / 2 5 / 5 5 0 616 392 280 61.600
Otherfeatures	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 75 mm boxes 9x9 didviders (pcs)  Total capacity of 96 mm boxes 9x9 didviders (pcs)  Max. capacity of samples in Arctiko 10x10 boxes (pcs)  Number of compressors	0 (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 4 no 11/2 5 / 5 50 616 392 280 61.600
Otherfeatures	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 96 mm boxes 9x9 didviders (pcs)  Max. capacity of 96 mm boxes 9x9 didviders (pcs)  Max. capacity of samples in Arctiko 10x10 boxes (pcs)  Number of compressors  Refrigerant	0 (I reference probe included as standard) yes yes no yes 12 yes 5/2 no 4 no 1/2 5/5 50 616 392 280 61.600 2 GG20
Otherfeatures	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 75 mm boxes 9x9 didviders (pcs)  Total capacity of 96 mm boxes 9x9 didviders (pcs)  Max. capacity of samples in Arctiko 10x10 boxes (pcs)  Number of compressors  Refrigerant  Interior cabinet material	0 (I reference probe included as standard) yes yes no yes 12 yes 5/2 no 4 no 1/2 5/5 50 616 392 280 61.600 2 GG20 stainless steel
	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 96 mm boxes 9x9 didviders (pcs)  Max. capacity of samples in Arctiko 10x10 boxes (pcs)  Number of compressors  Refrigerant  Interior cabinet material  Exterior cabinet material	0 (I reference probe included as standard) yes yes no yes 12 yes 5/2 no 4 no 1/2 5/5 50 616 392 280 61.600 2 GG20 stainless steel painted steel
Otherfeatures	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 96 mm boxes 9x9 didviders (pcs)  Max. capacity of samples in Arctiko 10x10 boxes (pcs)  Number of compressors  Refrigerant  Interior cabinet material  Exterior cabinet material  Colour (exterior cabinet)	0 (I reference probe included as standard) yes yes no yes 12 yes yes 5 / 2 no 4 no 1 / 2 5 / 5 50 616 392 280 61.600 2 GG20 stainless steel painted steel white
Refrigeration & cabinet Other features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / levelling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 75 mm boxes 9x9 didviders (pcs)  Max. capacity of 56 mm boxes 9x9 didviders (pcs)  Number of compressors  Refrigerant  Interior cabinet material  Exterior cabinet material  Colour (exterior cabinet)  Foam type	0 (I reference probe included as standard) yes yes no yes 12 yes 5/2 no 4 no 1/2 5/5 50 616 392 280 61.600 2 GG20 stainless steel painted steel white polyurethane
Refrigeration & cabinet Other features	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / leveiling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 75 mm boxes 9x9 didviders (pcs)  Max. capacity of 96 mm boxes 9x9 didviders (pcs)  Number of compressors  Refrigerant  Interior cabinet material  Exterior cabinet material  Colour (exterior cabinet)  Foam type  VIP vacuum insulated panels	0 (I reference probe included as standard) yes yes no yes 12 yes 5/2 no 4 no 1/2 5/5 50 616 392 280 61.600 2 GG20 stainless steel painted steel white polyurethane yes
Otherfeatures	Number of optional reference probes  Password protection for turning unit on / off  Temperature graph on display  Automatic defrost  Vacuum release port  Access port for external probe etc. (int. diameter mm)  Light  Lock with key  Castors (total pcs) / castors with brake (pcs)  Fixed feet (pcs) / leveilling feet (pcs)  Sub lids / inner doors (pcs)  Reversible door(s)  Fixed shelves (pcs) / adjustable shelves (pcs)  Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs)  Max. load per shelf (kg)  Total capacity of 50 mm boxes 9x9 didviders (pcs)  Total capacity of 75 mm boxes 9x9 didviders (pcs)  Max. capacity of 56 mm boxes 9x9 didviders (pcs)  Number of compressors  Refrigerant  Interior cabinet material  Exterior cabinet material  Colour (exterior cabinet)  Foam type  VIP vacuum insulated panels  Shipping weight (KG)	0 (I reference probe included as standard) yes yes no yes 12 yes 12 yes 5 / 2 no 4 no 1 / 2 5 / 5 50 616 392 280 61.600 2 GG20 stainless steel painted steel white polyurethane yes 459