



Life Sciences

Medical & Scientific Refrigeration Range

**Powering global health
for over 40 years**





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The Dulas group

Clean energy. Healthy lives.

Dulas' forty-year history has seen the company pioneer innovative uses of solar, hydro and wind renewable energy in the UK and across the globe. Operating in two distinctive fields; Life Sciences and Renewables, Dulas continues its growth championing its core values: People, Purpose and Planet.



Temperature Controlled Equipment for Life Sciences

For decades, Dulas has led UK manufacturing in delivering essential off-grid vaccine storage to support global immunisation efforts. Our WHO PQS-accredited solutions are engineered to perform reliably in even the most remote environments.



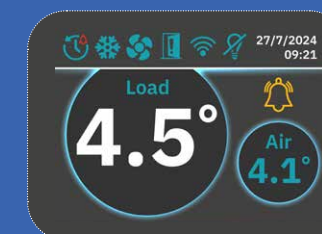
Medical and Scientific Refrigeration

Harnessing on our expertise in medical cold chain with advanced pharmacy and laboratory refrigeration, and cooled incubation. We are turning our combined expertise and years of experience to this sector, bringing products with a focus on trust, sustainability, reliability and quality, straight from the manufacturer and made in the UK.

Dulas Connected

Our intuitive range of Pharmacy and Laboratory refrigerators feature built-in wireless monitoring software, enabling you to access the refrigerator's performance remotely, via our portal. We understand that the contents of your refrigerator are valuable and that it's imperative they are kept within temperature.

Should your temperature drift or should the unit go into alarm state, our proactive Dulas Connected Range will alert you so immediate action can be taken.



In 2022 almost **£2.9m** worth of vaccines were lost due to cold chain issues¹

Connected Communication

With proactive alerts, you can relax, focus on your work and be safe in the knowledge that should anything occur with your valuable temperature-controlled contents, you will be notified wherever you may be.



Reliable monitoring: Refrigerator temperature is recorded at regular intervals allowing you to view an up-to-date status overview in just a few moments.



Immediate alarms: In the event of an alarm status, you will be notified to ensure action can be taken to preserve your contents.



Accurate history: You can view the performance history and add comments for any actions taken, ensuring a seamless, recorded data trail.



Ease of recording: Temperature data is downloadable in CSV format for your records.

Connected Portal

Never miss an alarm again - and keep your refrigerator contents safe. Our Connected Portal is easy to use, with the ability to view your temperature at a glance and manage alarm statuses from any location.

Place your trust in our Dulas Connected Range.



1. <https://www.gov.uk/government/publications/vaccine-update-issue-338-may-2023/vaccine-update-issue-338-may-2023>



Connected Pharmacy Refrigeration



Key features



Advanced Controller

Easy to use touch screen controller, with no awkward buttons to press



Dual Temperature Probe

Air and load probe fitted for a true temperature measurement



Connected

Wireless temperature monitoring plus a built-in SD card should wireless connectivity not be possible



Battery Back Up

Ensures your controller continues to function, even in a power outage



Min/Max Temperature

View your daily minimum and maximum temperatures in one touch



Wire Shelving

For optimum airflow



Reliable Alarm System

A/V alarms should your temperature stray, power fail or the door be left open



Secure Bespoke Doors

Solid and glass doors available



Antimicrobial Protection

Biocote® handle helping protect from microbes such as E. coli, Campylobacter, Salmonella and MRSA



Plastic Interior

Wipeable, hygienic interior



Self-Closing Doors

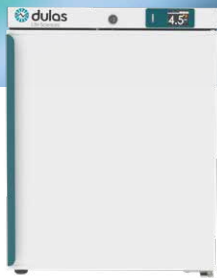
Fitted with self-closing hinges to help avoid any temperature loss



Forced Air Cooling (ATEX)

Will pause automatically when the door is open to minimise energy wastage

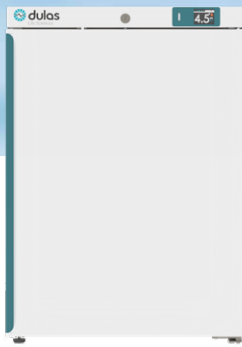
Pharmacy Range



DLS95PS
Counter Top



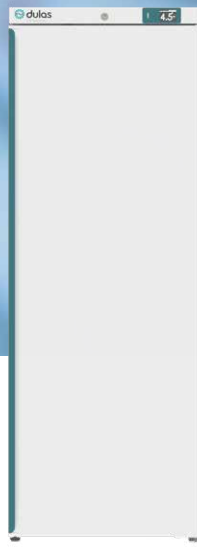
DLS95PG
Counter Top



DLS145PS
Under Counter



DLS145PG
Under Counter



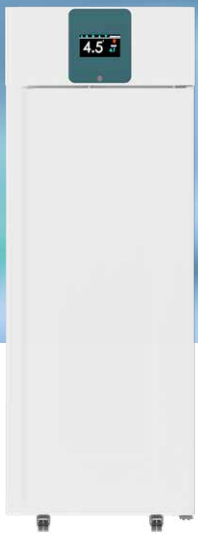
DLS340PS
Free Standing



DLS340PG
Free Standing

	DLS95PS Counter Top	DLS95PG Counter Top	DLS145PS Under Counter	DLS145PG Under Counter	DLS340PS Free Standing	DLS340PG Free Standing
Gross Capacity (Litres)	95	95	145	145	340	340
Net Capacity (Litres)	83	83	136	136	316	316
Unit External Width (mm)	520	520	600	600	600	600
Unit External Depth (mm)	665	665	665	665	665	665
Unit External Height (mm)	695	695	860	860	1680	1680
Door Style	Solid / Self Closing	Glass / Self Closing	Solid / Self Closing	Glass / Self Closing	Solid / Self Closing	Glass / Self Closing
Anti-Microbial Handle	Yes / BioCote	Yes / BioCote	Yes / BioCote	Yes / BioCote	Yes / BioCote	Yes / BioCote

Pharmacy Range



DLS700PS
Free Standing



DLS700PG
Free Standing



DLS1400PS
Free Standing



DLS1400PG
Free Standing

Gross Capacity (Litres)	700	700	1400	1400
Net Capacity (Litres)	482	482	964	964
Unit External Width (mm)	720	720	1440	1440
Unit External Depth (mm)	800	800	800	800
Unit External Height (mm)	2040	2040	2040	2040
Door Style	Solid / Self Closing	Glass / Self Closing	Solid / Self Closing	Glass / Self Closing
Anti-Microbial Handle	No	Yes / BioCote	No	Yes / BioCote

Pharmacy Fridge Best Practice Guide

Maximise Your Pharmacy Refrigerator's Performance

Several factors can affect how well your refrigerator operates. To ensure it performs at its best, follow these handy guidelines.



Optimal Placement for Your Refrigerator

The location of your refrigerator is important for its effective operation and longevity. To prevent unnecessary stress that could shorten its lifespan, **follow these tips** to ensure your vaccine fridge is positioned correctly:

Things To Consider



Keep Your Fridge Cool

Always place your refrigerator away from heat sources like direct sunlight or radiators. This helps ensure it operates efficiently and **extends its lifespan**.



Ensure Proper Air Circulation

Always maintain a **10cm gap** around and above your refrigerator to ensure good air circulation. This helps the fridge operate efficiently and prevents overheating.



Prepare and Position Your Fridge Properly

Allow your refrigerator to stand for **24 hours** before switching it on. Additionally, always place it on a level surface to ensure optimal performance.



Stocking Your Fridge

Vaccines are valuable, so it's crucial to store them correctly in your refrigerator to prevent costly wastage. **Here are some tips to help you do this effectively:**



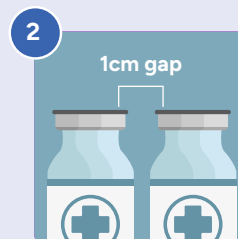
Follow Capacity Guidelines

The MHRA recommends stocking your refrigerator to no more than **75% capacity** to ensure optimal performance.



Obstructing the Fan

Please refrain from stacking vaccines above the fan, as this **may obstruct** or limit the airflow around the unit.



Ensure Air Circulation

Always leave a **1cm gap** between your contents wherever possible to ensure optimum air circulation.



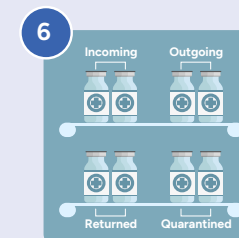
Replenishing Stock

Be aware that **when the refrigerator door is open, warm air will enter the unit**. Ensure that restocking is performed as efficiently as possible. Once the door is closed, the temperature will quickly return to its normal operating range.



Product Positioning

Never allow vaccines to come into contact with the back or sides of the unit, as this **could cause freezing and render the vaccines useless**.



Stock Rotation

When using small refrigerators, it's essential to implement **effective storage practices**. This includes segregating stock **based on their status**, such as: incoming stock, quarantine stock, returned stock, outgoing stock.

Good Practice



Regular Cleaning

Clean the interior and door seals with a mild disinfectant regularly to help prevent contamination. Ensure all vents are **clear of dust and debris**.



No Food Storage

Do not store food in the pharmacy refrigerator. Food requires a more stringent temperature range than 2 to 8°C.



Annual Servicing

As recommended by The Green Book, have a maintenance contract that includes yearly servicing, calibration of temperature and performance checks verifying the refrigerator's **components are functioning properly**.



Connected Laboratory Refrigeration



Key features



Advanced Controller
Easy to use touch screen controller, with no awkward buttons to press



Dual Temperature Probe
Air and load probe fitted for a true temperature measurement



Connected
Wireless temperature monitoring plus a built-in SD card should wireless connectivity not be possible



Battery Back Up
Ensures your controller continues to function, even in a power outage



Min/Max Temperature
View your daily minimum and maximum temperatures in one touch



Wire Shelving
For optimum airflow



Reliable Alarm System
A/V alarms should your temperature stray, power fail or the door be left open



Plastic Interior
Wipeable, hygienic interior



Antimicrobial Protection
Biocote® handle helping protect from microbes such as E. coli, Campylobacter, Salmonella and MRSA



Forced Air Cooling (ATEX)
Will pause automatically when the door is open to minimise energy wastage



Self-Closing Doors
Fitted with self-closing hinges to help avoid any temperature loss



Spark Free
Fitted with an ATEX-certified fan to ensure a spark-free environment, while preserving consistent temperature distribution

Laboratory Range



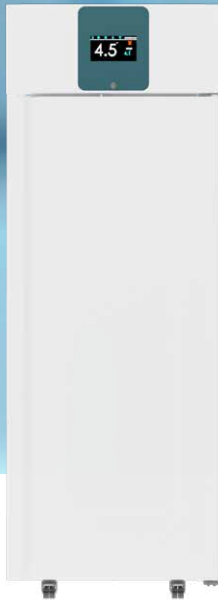
DLS95LS
Counter Top



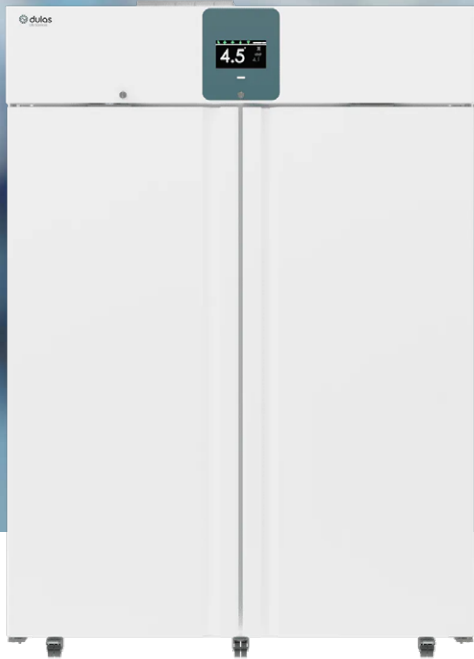
DLS145LS
Under Counter



DLS340LS
Free Standing



DLS700LS
Free Standing



DLS1400LS
Free Standing

Gross Capacity (Litres)	95	145	340	700	1400
Net Capacity (Litres)	83	136	316	482	964
Unit External Width (mm)	520	600	600	720	1440
Unit External Depth (mm)	665	665	665	800 (excl. handle)	800
Unit External Height (mm)	695	860	1680	2040	2040
Spark Free	Yes	Yes	Yes	No	No
Door Style	Solid / Self Closing	Solid / Self Closing	Solid / Self Closing	Solid / Self Closing	Solid / Self Closing
Anti-Microbial Handle	Yes / BioCote	Yes / BioCote	Yes / BioCote	No	No



Cooled Incubators



Key features



Flexible Temperature Control Parameters

Parameters set to your specification if needed



Defrost

Automatic, with a manual override option built in



Door Lock

Preventing unauthorised access



Self-Evaporating Condensate Drip-Tray

Eliminating the pooling of moisture



Fan Assisted Air Circulation

Keeping temperatures consistent



Wire Shelving

For optimum airflow



Range of Interiors and Exteriors

Plastic for ease of clean, aluminium or white coated to reflect light



RJ 45 Interface for Remote Access (Wired)

User friendly control enables performance visibility and parameter changes



Hermetically Sealed Refrigeration System

Air-tight to avoid controlled temperature loss



Access Porthole

For additional temperature probes



Electronics RF and TV Suppressed

Safeguarding from over heating



Flexible Temperature

-10°C to 50°C as standard, 0°C to 60°C on request (glass door 0-40°C)



Fruit Fly Modification

Prevents corrosion caused by fruit fly

Incubator Range



Series 1A 80
Cooled Incubator

Series 1A 120
Cooled Incubator

Series 1A 201
Cooled Incubator

Series 1A 280
Cooled Incubator

Series 2 210
Cooled Incubator

Series 2 230
Cooled Incubator

Gross Capacity (Litres)	76	120	201	272	135	290
Unit External Width (mm)	520	520	520	520	600	600
Unit External Depth (mm)	680	680	680	680	660	650
Unit External Height (mm)	780	1080	1430	1750	945	1800
Temperature Range	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
External Material	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel
Internal Material	Pre-coated Aluminum	Pre-coated Aluminum	Pre-coated Aluminum	Pre-coated Aluminum	ABS Plastic	ABS Plastic

Incubator Range



Series 3 100
Cooled Incubator



Series 3 400
Cooled Incubator



Series 4 600
Cooled Incubator



Series 4 1200
Cooled Incubator



XAL 410XAL
Cooled Incubator

Gross Capacity (Litres)	100	450	600	1200	450
Unit External Width (mm)	610	690	800	1500	690
Unit External Depth (mm)	630	920	900	900	920
Unit External Height (mm)	800	1810	2080	2080	1810
Temperature Range	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
External Material	Powder Coated Mild Steel	Powder Coated Mild Steel	Stainless Steel	Stainless Steel	Powder Coated Mild Steel
Internal Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Pre-oated Aluminum

Specifications

Pharmacy Range

					
	Counter Top	Under Counter	Free Standing		
Model	DLS95PS / DLS95PG	DLS145PS / DLS145PG	DLS340PS / DLS340PG	DLS700PS / DLS700PG	DLS1400PS / DLS1400PG
Gross Capacity (Litres)	95	145	340	700	1400
Unit External Width (mm)	520	600	600	720	1440
Unit External Depth (mm)	665	665	665	800 (excl handle)	800 (excl handle)
Unit External Height (mm)	695	860	1680	2040	2040
Temperature Range	+2C to +8C	+2C to +8C	+2C to +8C	+2C to +8C	+2C to +8C
Spark Free	No	No	No	No	No
Door Type	Solid / Glass	Solid / Glass	Solid / Glass	Solid / Glass	Solid / Glass
Door Style	Self Closing	Self Closing	Self Closing	Self Closing	Self Closing
Replaceable Door Seal	Yes	Yes	Yes	Yes	Yes
Lock	Yes / Mechanical	Yes / Mechanical	Yes / Mechanical	Yes / Mechanical	Yes / Mechanical
Adjustable Feet	1	1	1	Castors x4	Castors x6
Porthole	Yes	Yes	Yes	Yes	Yes
Temperature Display On Panel	LED / Touchscreen	LED / Touchscreen	LED / Touchscreen	LED / Touchscreen	LED / Touchscreen
Number Of Shelves	2	3	6	5	10
Number Of Shelf Positions	3	6	20	20	20
Number Of Baskets	1	1	1	0	0
Interior Light	Yes / LED	Yes / LED	Yes / LED	Yes / LED	Yes / LED
Light Activation	Door Switch / Controller	Door Switch / Controller	Door Switch / Controller	Door Switch / Controller	Door Switch / Controller
Battery Back Up	Yes	Yes	Yes	Yes	Yes
Controller Connectivity	Wireless / SD Download	Wireless / SD Download	Wireless / SD Download	Wireless / SD Download	Wireless / SD Download
Number Of Probes	2: Air / Load	2: Air / Load	2: Air / Load	2: Air / Load	2: Air / Load
Refrigerant Type	R600a	R600a	R600a	R290	R290
Anti Microbial Handle	Yes / BioCote	Yes / BioCote	Yes / BioCote	BioCote (Glass door only)	BioCote (Glass door only)

Specifications

Laboratory Range

					
	Counter Top	Under Counter	Free Standing		
Model	DLS95LS	DLS145LS	DLS340LS	DLS700LS	DLS1400LS
Gross Capacity (Litres)	95	145	340	700	1400
Unit External Width (mm)	520	600	600	720	1440
Unit External Depth (mm)	665	665	665	800 (excl handle)	800 (excl handle)
Unit External Height (mm)	695	860	1680	2040	2040
Temperature Range	+2C to +8C	+2C to +8C	+2C to +8C	+2C to +8C	+2C to +8C
Spark Free	Yes	Yes	Yes	No	No
Door Type	Solid	Solid	Solid	Solid	Solid
Door Style	Self Closing	Self Closing	Self Closing	Self Closing	Self Closing
Replaceable Door Seal	Yes	Yes	Yes	Yes	Yes
Lock	Yes / Mechanical	Yes / Mechanical	Yes / Mechanical	Yes / Mechanical	Yes / Mechanical
Adjustable Feet	1	1	1	Castors x4	Castors x6
Porthole	Yes	Yes	Yes	Yes	Yes
Temperature Display On Panel	LED / Touchscreen	LED / Touchscreen	LED / Touchscreen	LED / Touchscreen	LED / Touchscreen
Number Of Shelves	2	3	6	5	10
Number Of Shelf Positions	3	6	20	20	20
Number Of Baskets	1	1	1	0	0
Interior Light	No	No	Yes / LED	Yes / LED	Yes / LED
Light Activation	N/A	N/A	Door Switch / Controller	Door Switch / Controller	Door Switch / Controller
Battery Back Up	Yes	Yes	No	Yes	Yes
Controller Connectivity	Wireless / SD Download	Wireless / SD Download	Wireless / SD Download	Wireless / SD Download	Wireless / SD Download
Number Of Probes	2: Air / Load	2: Air / Load	2: Air / Load	2: Air / Load	2: Air / Load
Refrigerant Type	R600a	R600a	R600a	R290	R290
Anti Microbial Handle	Yes / BioCote	Yes / BioCote	Yes / BioCote	No	No

Specifications

Incubator Range



Series 1A				
Model	80	120	201	280
Capacity (Litres)	76	120	201	272
Material	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel
Chamber Material	Pre-coated Aluminium	Pre-coated Aluminium	Pre-coated Aluminium	Pre-coated Aluminium
Temperature Range	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
Accuracy	±0.5°C	±0.5°C	±0.5°C	±0.5°C
Height Exterior (mm)	780	1080	1430	1750
Width Exterior (mm)	520	520	520	520
Depth Exterior (mm)	680	680	680	680
Shelf Size (mm)	420x386	420x386	420x386	420x386
Weight (kg)	40	55	65	75
Number of Shelves	2	3	4	5
Optional Extras				
Programmable Controller	Yes	Yes	Yes	Yes
Dual Temperature Control	Yes	Yes	Yes	Yes
Double Glazed Door	No	No	No	No
Inner Perspex Door	Yes	Yes	Yes	Yes
Extra Shelves	Yes	Yes	Yes	Yes
Fully Programmable Interior Illumination	Yes	Yes	Yes	Yes
Independent 24 Hour / 7 Day Timer	Yes	Yes	Yes	Yes
High / Low A/V Alarm	Yes (audible only)	Yes (audible only)	Yes (audible only)	Yes (audible only)
Integral Chart Recorder	Yes	Yes	Yes	Yes
Internal 13A Socket (EU/UK)	Yes	Yes	Yes	Yes
Drying Mode	Yes	Yes	Yes	Yes
Door Vents	Yes	Yes	Yes	Yes
LED Shelf Lighting	No	No	No	No
Corrosive Conditions Evaporator	Yes	Yes	Yes	Yes
Options for Models with Fully-Programmable Contoller				
Pre Programming Service	Yes	Yes	Yes	Yes



	Series 2		Series 3	
Model	210	230	100	400
Capacity (Litres)	135	290	100	450
Material	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel	Powder Coated Mild Steel
Chamber Material	ABS Plastic	ABS Plastic	Stainless Steel	Stainless Steel
Temperature Range	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
Accuracy	±0.5°C	±0.5°C	±0.5°C	±0.5°C
Height Exterior (mm)	945	1800	800	1810
Width Exterior (mm)	600	600	610	690
Depth Exterior (mm)	660	650	630	920
Shelf Size (mm)	545x418	495x435	530x400	510x600
Weight (kg)	45	76	50	140
Number of Shelves	3	4	2	4
Optional Extras				
Programmable Controller	Yes	Yes	Yes	Yes
Dual Temperature Control	Yes	Yes	Yes	Yes
Double Glazed Door	Yes	Yes	No	No
Inner Perspex Door	Yes	Yes	Yes	Yes
Extra Shelves	Yes	Yes	Yes	Yes
Fully Programmable Interior Illumination	Yes	Yes	Yes	Yes
Independent 24 Hour / 7 Day Timer	Yes	Yes	Yes	Yes
High / Low A/V Alarm	Yes (audible only)	Yes (audible only)	Yes (audible only)	Yes (audible only)
Integral Chart Recorder	Yes	Yes	Yes	Yes
Internal 13A Socket (EU/UK)	No	No	Yes	Yes
Drying Mode	No	No	Yes	Yes
Door Vents	Yes	Yes	Yes	Yes
LED Shelf Lighting	No	No	No	No
Corrosive Conditions Evaporator	Yes	Yes	Yes	Yes
Options for Models with Fully-Programmable Contoller				
Pre Programming Service	Yes	Yes	Yes	Yes

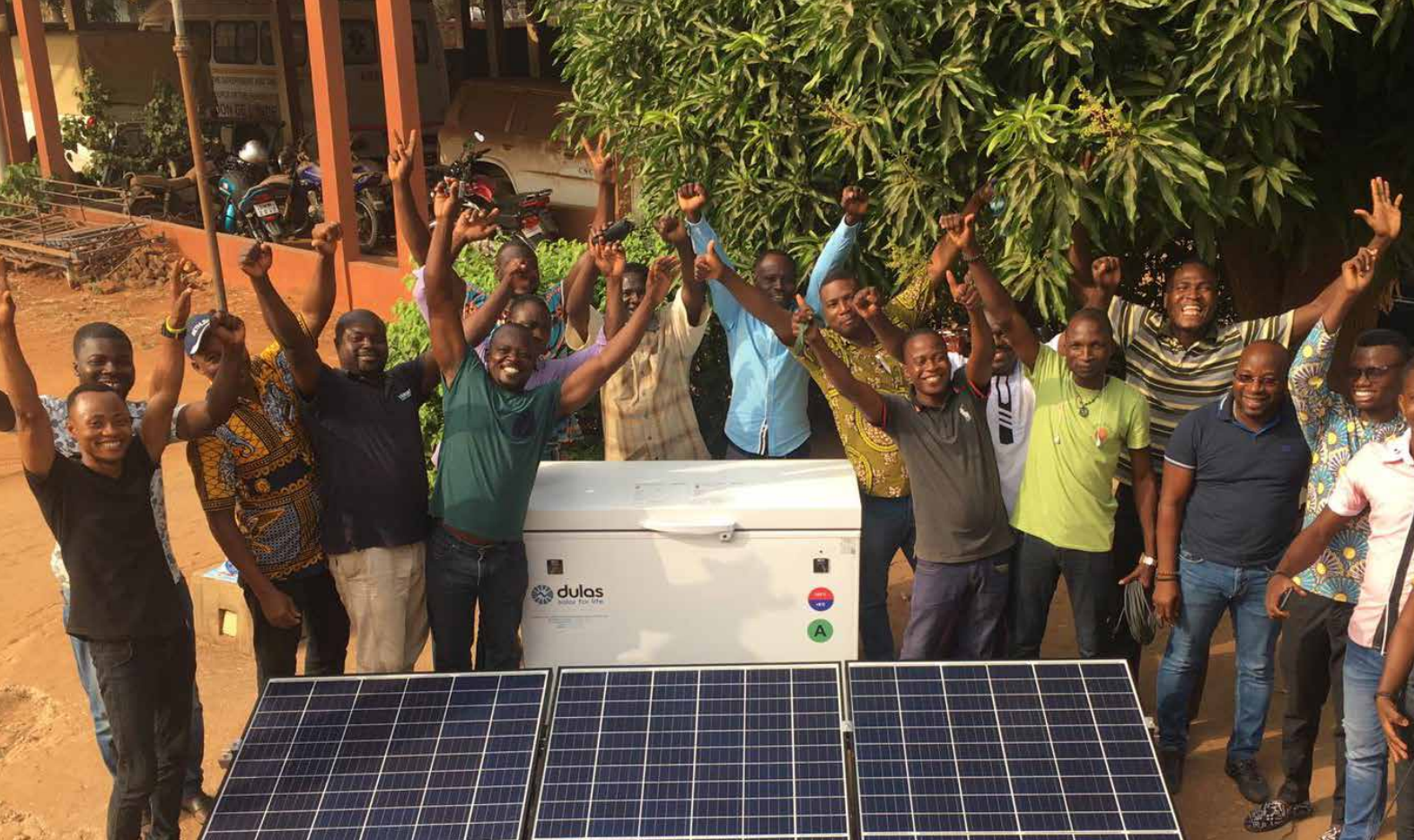
Specifications

Incubator Range



	Series 4		XAL
Model	600	1200	410XAL
Capacity (Litres)	600	1200	450
Material	Stainless Steel	Stainless Steel	Stove Enamelled Mild Steel
Chamber Material	Stainless Steel	Stainless Steel	Pre-coated Aluminium
Temperature Range	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
Accuracy	±0.5°C	±0.5°C	±0.5°C
Height Exterior (mm)	2080	2080	1880
Width Exterior (mm)	800	1500	690
Depth Exterior (mm)	900	900	920
Shelf Size (mm)	530x550	530x550	530x600
Weight (kg)	160	235	140
Number of Shelves	5	10	4
Optional Extras			
Programmable Controller	Yes	Yes	Yes
Dual Temperature Control	Yes	Yes	Yes (as standard)
Double Glazed Door	Yes	Yes	No
Inner Perspex Door	Yes	Yes	Yes
Extra Shelves	Yes	Yes	Yes
Fully Programmable Interior Illumination	Yes	Yes	Yes
Independent 24 Hour / 7 Day Timer	Yes	Yes	Yes
High / Low A/V Alarm	Yes (audible only)	Yes (audible only)	Yes (as standard)
Integral Chart Recorder	Yes	Yes	Yes
Internal 13A Socket (EU/UK)	Yes	Yes	Yes
Drying Mode	Yes	Yes	Yes
Door Vents	Yes	Yes	Yes (as standard)
LED Shelf Lighting	No	No	Yes (as standard)
Corrosive Conditions Evaporator	Yes	Yes	Yes
Options for Models with Fully-Programmable Contoller			
Pre Programming Service	Yes	Yes	Yes



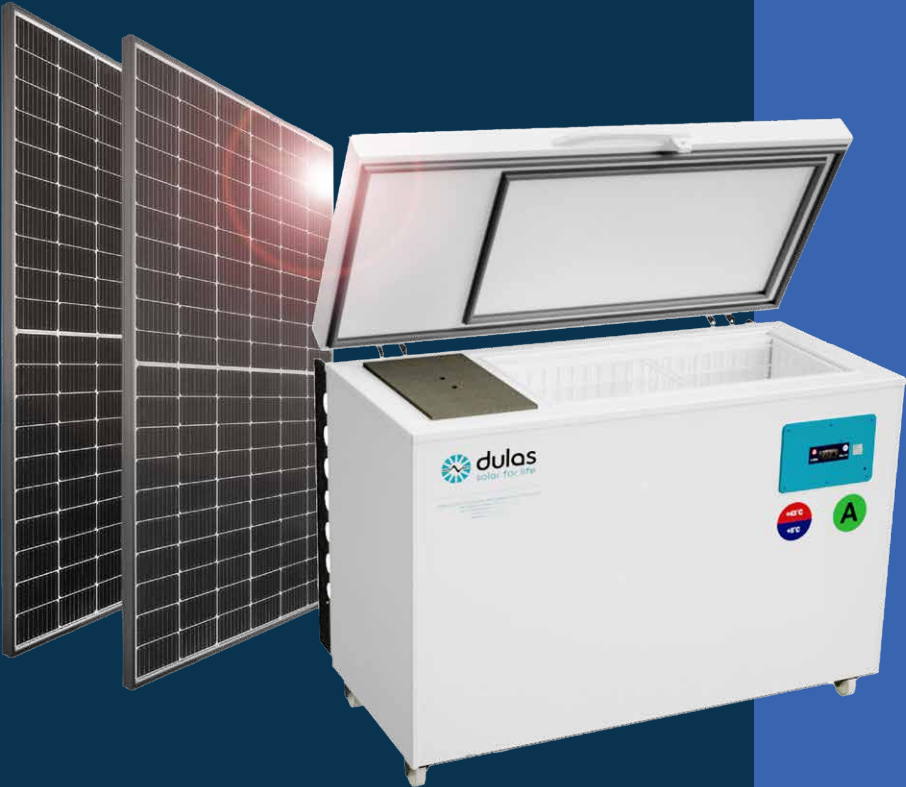


Vaccine Solutions for Global Health

WHO PQS accredited equipment

Drawing on over four decades of experience in the solar refrigeration industry, our WHO PQS accredited range of Solar Direct Drive (SDD) refrigerators and freezers are considered amongst the most reliable vaccine storage solutions available.

Providing 365 days of cold, they operate with stable temperatures between +2 °C to +8 °C and are designed to deliver perfect vaccine storage conditions every day, every year, whatever the weather.



Key features



WHO PQS Accredited

Dulas SDD vaccine refrigerators exceed the stringent World Health Organisation PQS standards



British Made

Manufactured in our factory in West Sussex, we supply the only British made WHO accredited refrigerators available



Grade A, Freeze Free

Dulas products have Grade A User-independent Freeze Protection (UIFP)



PCM Energy Store

Dulas refrigerators use an advanced non-corrosive phase change material (PCM) which thaws at exactly +5°C



Hot Zone Rated

Dulas Refrigerators will operate at a stable +2°C to +8°C in an extended ambient operating range of +5°C to +43°C



Long Autonomy

With long lasting autonomy on all refrigerators, you can rely on Dulas products to keep your vaccines safe



Temperature Monitoring

All Dulas refrigerators have integrated remote temperature monitoring as standard



R600a Refrigerant

Climate friendly and CFC free



Plug and Play

Power system for easy installation



Solar Panel Kit

Includes a solar array and mounting system



Wire Baskets

For optimum airflow



Heavy Duty Castors

For easy handling



In-built Handle with Lock

To keep vaccines safe



Long Life Products

Built to perform effectively in challenging environments over long periods of time



For more information on this range, scan the QR code

Contact us



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