

creative thinking : powerful solutions



The new True Energy Vaccine Refrigerator with Sure Chill™ technology



BLF 100 DC Sure Chill® Vaccine Refrigerator



PQS Code:

E003/019

Description:

Solar Direct Drive refrigerator

Manufacturer's Reference:

True Energy BLF 100 DC

Manufactured in:

UK

Manufacturer:

True Energy

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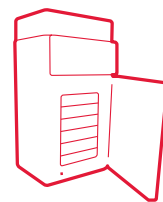
SPECIFICATIONS

Climate Zone	Hot (H 43°C)	Refrigerant	R600a (CFC and HFC free)
Min rated ambient temp	+5°C	Ext dimensions	H185 x W89 x D76cm
Fuel and Cycle type	Electric-compression		
Holdover time 43°C	170 hours	Holdover time 32°C	to be confirmed
Vaccine storage capacity:	99L	Gross capacity	124L
Waterpack storage capacity	124L		
Power requirements	Solar array 370W suitable for most geographical locations.		
Temperature control	Temperature accuracy is exceptionally high; temperature varies by less than 1°C throughout the refrigerated compartment during compressor cycling and holdover.		
Spares per 10 units	Compressor and controller, thermostat, condenser and fan.		
Accessories	2 padlocks, 3 shelves, phase change fluid	Optional Extras	Extra shelves, drawers, chilled water packs, plywood packaging.
Shipping Volume	1.5m ³	Shipping Weight	150Kg
Verification Report	A66541	Verification Laboratory	14 Intertek UK
Current PQS Status	PQS pre-qualified	Pre-qualification date	2 nd September 2011

***PROTECTS VACCINES
WITHOUT POWER FOR
OVER 10 DAYS AT 43°C***



A REVOLUTION IN VACCINE STORAGE



Storing vaccines safely in remote places and harsh climates is a major challenge. Lost vaccines mean lost money and, more importantly, lost lives. Now there is a revolutionary new cooling solution.

Vaccines are delicate. To protect them it's essential they are stored between 2°C and 8°C. This can be very difficult to achieve when temperatures are extreme, electricity supplies are poor and the power can be cut off for days at a time.

The True Energy Vaccine Refrigerator guarantees constant, reliable cooling in the toughest environments. It can operate safely even when power is lost for over 10 days at ambient temperatures as high as 43°C. Helping you save vaccines, money and lives.

Here's how.

Built around Sure Chill™ – the unique new cooling technology



The secret behind our revolutionary fridge is Sure Chill: a groundbreaking new cooling technology that can run on mains electricity, renewable solar power, other power sources – or even a combination of these. This flexibility allows the True Energy Vaccine Refrigerator to maximize whatever power is available at the time.

Sure Chill uses an innovative phase change material – rather than expensive batteries – to store energy until it's needed.

This means a True Energy Vaccine Fridge can operate on less than five hours mains supply input a day and, once charged, it maintains constant cooling below 10°C without any power at all. This power-free cooling phase can last over 247 hours at 43°C – and even longer at lower temperatures. That's eight times longer than its nearest competitor.

Breakthrough engineering

Sure Chill also uses an intelligent monitoring system to keep temperatures stable in every corner of the compartment. If it senses any hotspots within the fridge, its unique technology reacts immediately to extract heat, stabilise cooling and protect vaccine stock.

Conventional vaccine refrigerators must be turned off and defrosted regularly. A True Energy Vaccine Refrigerator preserves vaccines at a constant temperature in a frost-free environment, so it never needs defrosting and can be kept running at all times.

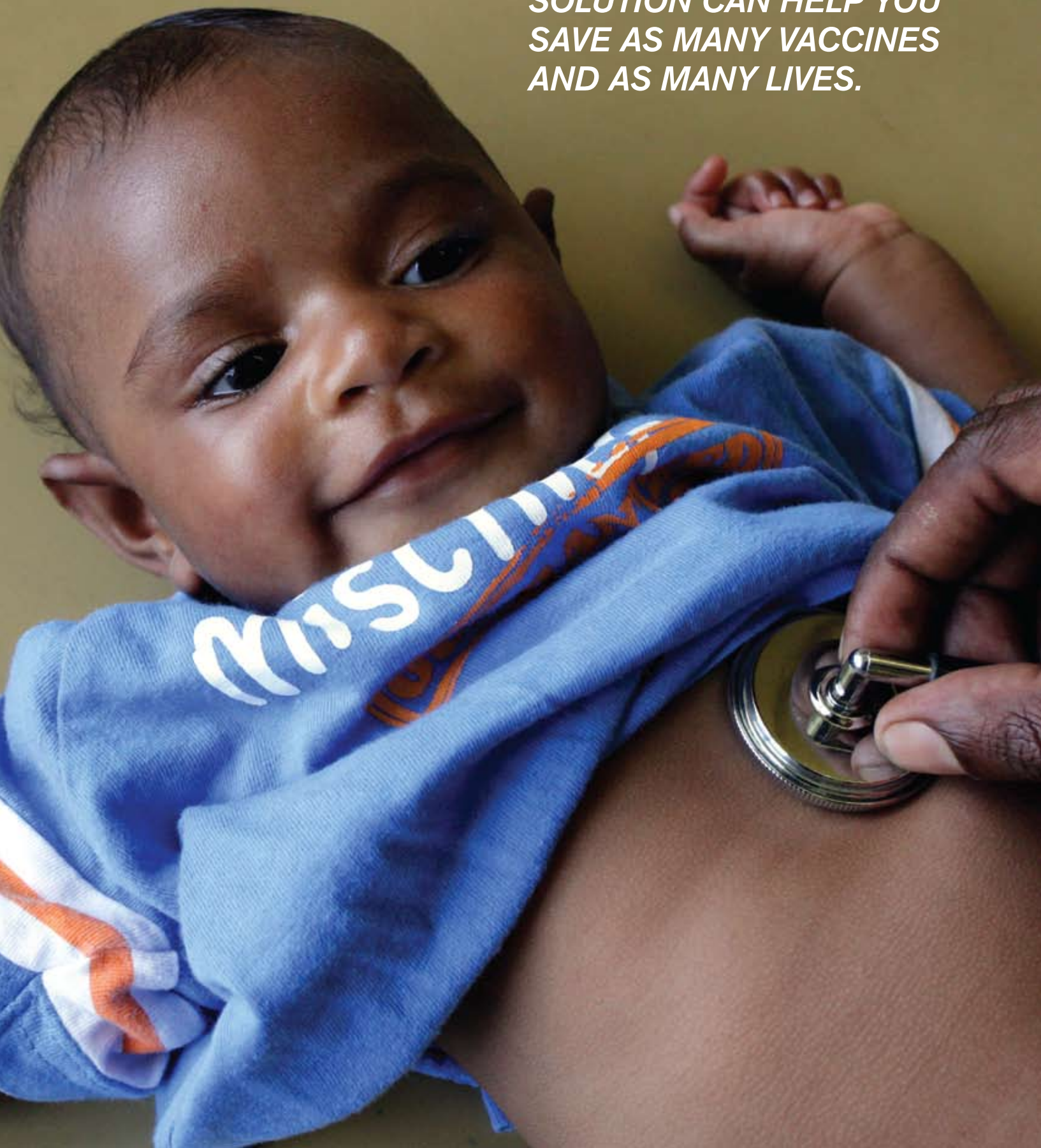
Designed by experts

Sure Chill technology has been developed by True Energy, the experts in sustainable energy solutions. With 25 years' experience of engineering and manufacturing for the developing world, we have a deep understanding of the challenges involved and put our engineering excellence and creative thinking to work to solve them.

We're very proud of the True Energy Vaccine Refrigerator and its ability to transform lives around the world.



***NO OTHER REFRIGERATION
SOLUTION CAN HELP YOU
SAVE AS MANY VACCINES
AND AS MANY LIVES.***



SAVING ENERGY, SAVING MONEY, SAVING LIVES



Nothing equals the True Energy Vaccine Refrigerator's storage performance in remote areas and challenging climates where power sources are unreliable and lives are at stake.

Traditional absorption, compression and solar fridges struggle to maintain constant temperatures and are prone to overheating or freezing which ruins around 10% of vaccines. A True Energy Vaccine Refrigerator is a much safer way of storing vaccines, chilled water packs and blood banks – and the only fridge that won't damage delicate products even if they touch the cold surfaces inside the cabinet.

This is no idle claim. In-house tests clearly show that True Energy Vaccine Refrigerators with Sure Chill technology significantly outperform any other vaccine fridge on the market. Now independent testing to WHO standards has confirmed these results.

Ready to meet the future

Our revolutionary refrigerator has arrived on the market at a critical time. PATH predicts that up to ten times more vaccine storage capacity will be needed in the developing world over the next 15 years. This will be triggered by the expected increase in funding for immunisation organisations, leading to a significant surge in vaccines. And the growing trend of storing vaccines ready for use in the field, such as in syringes, which takes up more refrigerator space.

That's why it's more critical than ever to have a refrigeration solution you can rely on and to be ready to meet increasing demand.

Protecting your investment

As well as saving lives, vaccines are a big investment for governments and organisations, especially as the cost of new vaccines rises. The revolutionary new True Energy Vaccine Refrigerator can store over \$30,000 worth of vaccines safely for over 10 days without power, at ambient temperatures of 43°C. Other ILR vaccine refrigerators can only maintain safe temperatures for a maximum of 31hrs without power at comparable temperatures.

Which means – when you choose a True Energy Vaccine Refrigerator – more of your money can be spent on saving lives, not replacing damaged goods.

True Energy refrigerators are also cheaper to run and maintain and are built from more robust, environmentally friendly materials. The internal cabinet and energy store are constructed from a single piece of composite material that will last much longer than traditionally constructed fridges.

An energy smart choice

Sure Chill technology uses energy more intelligently too. It can run on cheap or excess mains energy (or other power source) when it's available, or directly from solar energy. Or even a combination of power supplies. Which is better for your budget and for the environment.



THE TRUE ENERGY VACCINE REFRIGERATOR AT A GLANCE

Storing vaccines safely in remote places and harsh climates is a major challenge. Lost vaccines mean lost money and, more importantly, lost lives. Now there is a revolutionary new cooling solution.

Innovative

- The True Energy Vaccine Refrigerator is the only cooling solution that features our unique Sure Chill technology.
- Sure Chill can operate on intermittent or poor mains supply, battery-free solar power – or a combination of the two – to make sure vaccines are stored safely even in the harshest climates.

Reliable

- The True Energy Vaccine Refrigerator never freezes vaccines: Sure Chill's intelligent temperature management system keeps temperatures between +4°C and +6°C in every part of the cabinet.
- Optimum cooling is guaranteed for 10 days without power at ambient temperatures of 43°C – and even longer at lower temperatures.
- A solar powered digital LED display means you can check the temperature even when the mains power is down.
- Self-sealing twin door gaskets and high levels of insulation keep your products at the optimum temperature for long periods of time.

Secure

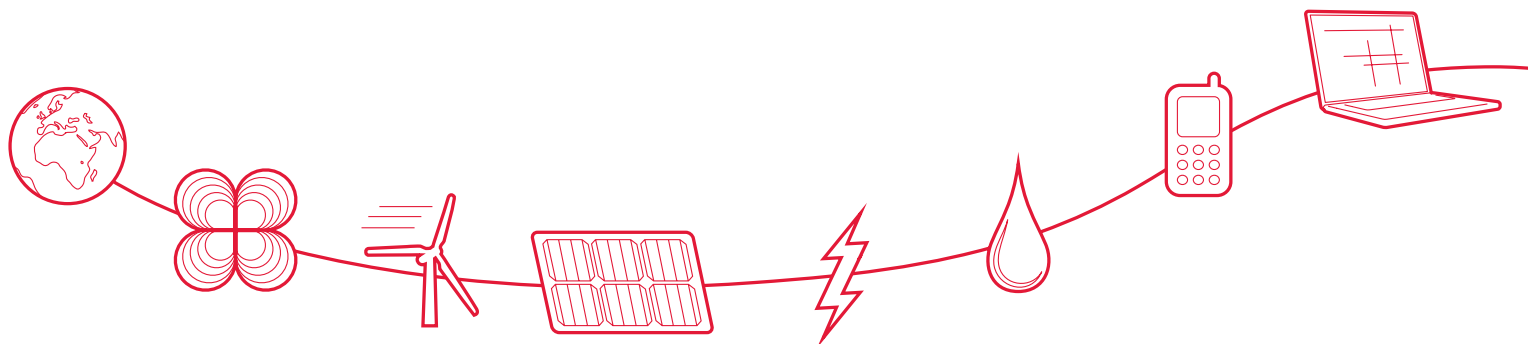
- The changeable, dual-locking door catches keep valuable products safe.

Convenient

- No defrosting saves you time and vaccines.
- The upright fridge design makes it easy to see, access and manage your stock.
- Small footprint ensures efficient use of floorspace for vaccine capacity.
- An integrated skid base makes the fridge easy to move.

Durable

- Both the exterior top and bottom are constructed from hard wearing white, galvanized steel.
- The fridge's interior liner is made from quality composite materials that are both durable and easy to clean.
- There are three white steel, adjustable shelves.
- A robust, galvanised skid base protects the fridge when you need to transport it.



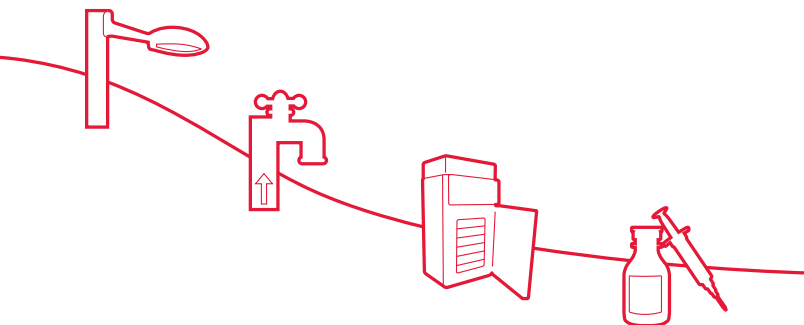
USES HALF AS MUCH POWER AS ITS COMPETITORS

Compliant

- Proven technology: seven years of testing in realistic conditions.
- Tested at the WHO-approved Intertek Centre.
- Test report; Intertek A66336 BLF100AC August 2010.

Environmentally friendly

- All the materials used to construct the True Energy Vaccine Refrigerator are reusable or recyclable.
- We use an HFC and CFC-free high density polyurethane foam to insulate the cabinet.
- The AC version uses a CFC-free refrigerant (R134A).
- The DC version uses a CFC and HFC-free hydrocarbon refrigerant (R600a).



***TO FIND OUT MORE ABOUT HOW THE
REVOLUTIONARY NEW TRUE ENERGY
VACCINE REFRIGERATOR CAN HELP
YOU PROTECT MORE VACCINES, SAVE
MORE LIVES AND IMPROVE YOUR COST
EFFECTIVENESS, PLEASE GET IN TOUCH***

True Energy Vaccine Refrigerator specifications

MODEL	BLF 100 AC	BLF 100 DC
Size (cm)	W: 89 D: 76 H: 185	W: 89 D: 76 H: 185
Gross storage capacity (litres)	125	125
Net storage capacity (litres)	103	103
Hold over with no power at 43°C	247hrs (10+days)	Awaiting test results
Voltage	220 – 240 V, 50-60 Hz	Solar Direct Drive
Optional voltage regulator	150 V to 280 V	N/A

Optional extras

- Extra shelves.
- 110V nominal power option.
- Voltage Regulator – 150V to 280V.
- Chilled water packs.
- Blood bag drawers.
- Blood bank chart recorder.



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Sure Chill™ is a registered trademark of True Energy
Sure Chill™ is a refrigeration apparatus technology, patent pending