

The Right Vaccine Refrigerator will Protect Vaccines during a Power Outage

Many vaccines are temperature-sensitive and need to be within a temperature range of 2-8°C to maintain their integrity. In order to ensure that vaccines aren't compromised, a cold chain record is kept and the temperature within vaccine fridges are monitored and recorded.

Your ability to protect vaccines during a blackout begins from the moment you purchase a vaccine refrigerator. This is because the length of time the vaccines remain within the critical 2-8°C temperature range during a power outage depends on the refrigerator's design.

Power outages have often resulted in costly losses of vaccines when the temperature within vaccine refrigerators has gone out of range and there is a cold chain failure. In addition, there are ongoing costs when staff must come in after hours to move vaccines to an alternative location when the power fails.

THE BFRV84 VACCINE REFRIGERATOR SETS A NEW STANDARD FOR VACCINE PROTECTION. This vaccine refrigerator uses sound design features and innovative technology to virtually eliminate the risk of a cold chain break through power outages by maintaining the temperature within the critical 2-8°C range for up to **4 days without power.**

Technology and Design of the BFRV84 Vaccine Refrigerator

The BFRV84 vaccine refrigerator was initially designed to be used in tropical temperatures with an ambient temperature around 40°C. Therefore it was designed to be extremely well insulated and energy efficient. Through extensive testing under these extreme conditions, this vaccine fridge was prequalified with the World Health Organization in September 2011 and has been in use in many regions worldwide. The development of this refrigerator line was also based on NASA Technology. In fact, the off grid version of the BFRV84 refrigerator was recently named NASA's Commercial Invention of the Year for 2011.

The BFRV84 refrigerator also uses a patented Thermal Phase Change Technology that is the foundation of how the fridge is able to maintain its temperature for such a long period of time through a power outage.

Design Features of the BFRV84 Vaccine Refrigerator:

Upright vs Chest Style Vaccine Refrigerator

The BFRV84 is a chest style refrigerator. This type of refrigerator is extremely effective in maintaining the internal temperature of the fridge, even if the refrigerator door is frequently opened. The reason for this is that the cold air in the fridge is heavier than the warmer air in the room and therefore doesn't readily disperse when the chest door is opened. In contrast, cold air escapes readily from upright refrigerators when they are opened.

Our customers tell us that they have never seen a vaccine refrigerator with temperature readings that remain so stable.

The chest style refrigerator also avoids another cause of cold chain break common in upright refrigerators: refrigerator doors which aren't closed properly. This often causes either the temperature within the fridge to increase above 8°C; or the fan & compressor to be overworked which can result in a temperature drop below freezing.

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Vaccine Refrigerator Insulation

Vaccine fridges on the market typically go outside the acceptable temperature range for vaccines within a couple of hours during a power outage. The reason for this is that most vaccine fridges are poorly insulated, often with glass doors, which allows the internal temperature of the fridge to rise towards room temperature relatively quickly when there is no power, even when the refrigerator door is not opened.

The BFRV84 refrigerator does not require backup power for periods up to 4 days, due in part to the fridge being well insulated.

Power Consumption of Vaccine Refrigerators

With the exception of the BFRV84 fridge, vaccine refrigerators require backup power to protect vaccines through power outages. The length of time that a fridge will run on a backup power system is dependant on how much power it requires to maintain its internal temperature. Unfortunately, due to the overall design of most vaccine fridges, the power consumption is extremely high. In fact, some vaccine refrigerators use up to 10 times the energy of a standard household refrigerator!

To put this into perspective, a battery backup power system that costs approximately the same as the BFRV84 vaccine refrigerator would keep most vaccine fridges operating for as little as 2 hours (large double glass door vaccine fridge) and up to approximately 16 hours (small, energy efficient models). The BFRV84 is so energy efficient in comparison that it would last over 100 hours on the same battery backup and, once that the battery backup was depleted, would still maintain its internal temperature for an additional 4 days without power.

Cost of the BFRV84 Vaccine Refrigerator

The BFRV84 refrigerator is more economical than most other vaccine refrigerators. In addition, since it does not require backup power, the total cost becomes substantially less than a vaccine refrigerator that requires a backup power system.

The vaccine fridge you choose will determine how successful you will be in protecting the vaccines during a power outage. With the BFRV84 vaccine refrigerator, staff and management can rest assured that there is no danger of a cold chain break through the night, weekend, or any other time for up to 4 days due to a disruption to power.

For further information or to purchase a BFRV84 Vaccine Refrigerator, please visit <http://www.backup-power.ca> email info@backup-power.ca or call us at 1 866 485-4199