

Q in the Field – Alternative Power Sources

The portability and robustness of Q is a huge advantage for anyone needing to do qPCR in the field. We have compiled some information on alternative power sources for getting the best performance from your instrument.

Running from batteries or solar power

Q has proven to run reliably off batteries (car, truck or solar powered) using an inverter to supply between 100V and 240V AC.

When purchasing an inverter look for the following:

1. The output must be a Pure Sinewave. Square wave inverters **DO NOT** work.
2. Minimum continuous output power of 360W.
3. You may need to turn off the slow start up function. There is often a switch on the inverter.



Example Pure Sinewave Inverter

Running from an unreliable power source

If you have a power source that intermittently stops or changes such as a generator, you can run Q from an uninterruptible power supply (UPS) to provide clean and stable power.

When purchasing a UPS look for the following:

1. Minimum 360W output power
2. Pure Sinewave Online' is the preferred type. These are more expensive than 'Line Interactive Square Wave' but provide much cleaner power and will run Q for longer with the same battery capacity.
3. Consider the battery capacity to give the run time you require.

Some example UPS's tested are shown on the following page.

Pure sinewave online



Rating: 1000VA/700W
Battery Capacity: 3x 12V 7Ah SLA
Typical Run Time*: 1x Q – 82 minutes
2x Q – 38 minutes

Line interactive square wave



Rating: 850VA/500W
Battery Capacity: 1x 12V 9Ah SLA
Typical Run Time*: 1x Q – 11 minutes

*Total supply power loss