The energy saving pump inverter

- **Cost effective**
  Pool pump variable speed technology makes sense but, until now, capital outlay has been expensive. Clever-Pool is priced to enable a payback period of less than 9 months.

- **Easy installation**
  Installation takes less than 30 minutes. Plug the Clever-Pool into a mains supply, connect the main circulation pump to the Clever-Pool, and set your required programme.

- **Energy efficient**
  Dramatically reduces pool running costs by up to 60% for single phase pumps up to 2hp.

- **User friendly**
  Simple to programme. Clever-Pool has 4 settings, allowing you to select the optimum pump output during a 24hr cycle. Full power for backwashing and vacuuming, reduced output for daily operation.

- **Improved water quality**
  Variable speed technology enables pool water to be circulated at reduced flow-rates at chosen times of the day resulting in improved efficiency of high rate sand or glass media filters.
Motor inverters using variable frequency technology have become widespread throughout industry over the past few years. Recent developments have resulted in inverters becoming increasingly popular in domestic swimming pools. Swimming pool pump energy conservation is evolving, it’s now possible to reduce the running costs of your pool pump by as much as 60% simply by linking your existing pool circulation pump to an Inverter.

The Clever-Pool Inverter is a low cost solution designed to greatly reduce the running costs of pool circulation pumps and improve the efficiency of swimming pool filtration. Clever-Pools’ low capital outlay ensures that the typical capital payback period is less than 2 years. Please take time to study the calculations at the bottom of this page.

Swimming pool pumps invariably run at higher flow rates than necessary. Clever-Pool Inverter technology enables you to control both pump flow-rates and pump run times. Clever-Pool transforms conventional pool circulation pumps into ‘variable speed’ pumps resulting in huge savings in energy costs.

Clever-Pool is CE approved, simply connect the Clever-Pool (via an RCD) to the mains supply in the plant-room and wire the circulation pump into the Clever-Pool. Installation typically takes less than 30 minutes. Clever-Pool has 4 timer programmes during a 24 hour cycle that can be set to suit your requirements.

- **Low** For pool water filtration
- **Medium** For use with automatic suction cleaners
- **High** For increased water flow for a limited period
- **Backwash** Maximum pump output for thorough cleaning of filter media.

An additional benefit of installing a Clever-Pool is improved pool water clarity. Recent studies have concluded that pushing excessive volumes of water through ‘high rate’ sand filters can result in ineffective filtration. Larger quantities of suspended particles can be captured by filter-media when pool water is percolated at a slower rate for a limited period each day.

It is impossible to give an exact calculation with regards to potential energy savings; each pool is different and a multitude of parameters need to be factored. For example, the cost per kilowatt of energy, the size of your pool circulation pump and the number of months per year that a pool pump is operated vary from pool to pool. The remarkable thing about inverter technology is energy savings reduce at an extraordinary rate as your pool water pump flow is reduced. For example, if you run your pool pump at 50% of its maximum output you will experience an energy reduction of 75%! It’s not difficult to see why the capital cost of a Clever-Pool can be recovered in such a short period. The illustration shown below is an example of the savings that can be made when a Clever-Pool is installed in your pool plant-room.

### Capital outlay payback in under 12 months

<table>
<thead>
<tr>
<th>Description</th>
<th>Energy Consumption</th>
<th>Price per kWh of Electricity</th>
<th>Monthly Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical cost of running a 1hp pool pump continually for 1 month (30 days)</td>
<td>732kWh</td>
<td>£0.14</td>
<td>£102.51</td>
</tr>
<tr>
<td>Energy consumption per month</td>
<td>281.03kWh</td>
<td>£0.14</td>
<td>£39.34</td>
</tr>
</tbody>
</table>

**Savings per month = £63.17**

Approximate capital outlay for Clever-Pool supplied and installed by a professional pool company £540.00

The calculations shown are based on the following assumptions:

- Pool pump is 1hp (0.746kW).
- Output - 1.02kW Input - 73%
- Illustrated calculation is based on Clever-Pool operating at the following parameters:
  - 19 hours per day at 1,200rpm pump speed 173.91kWh per month
  - 1 hour per day at 1,700rpm pool pump speed 17.63kWh per month
  - 4 hours per day at 2,100rpm pool pump speed 89.50kWh per month

*Figures may differ due to variable parameters, eg cost of kWh of energy, efficiency of pool circulation pump etc. Above figures based on a 30 day month.*

*All prices quoted include VAT*