COMMODORE
OFF GRID & SOLAR PUMPING SPECIALISTS

GLOSSARY OF TERMS

Term	Definition
Kilowatt (kW) + Watt	The standard unit of power by which energy is dissipated A kilowatt is the measure of 1000W (1kW = 1000W).
Kilowatt Hour (kWh)	The unit of energy equal to one kilowatt of power for an hour.
Ampere (A)	The measure of electrical current. Ampere's can be converted to kW by multiplying Ampere's (A) by Volt's (V). For example, a 3A fridge, running at 240V (standard household appliances run at 240V) would equal 720W. 3A x 240V = 720W.
Volt (V)	The measure of potential difference in an electrical circuit. A Commodore Pumping System will either be 24V, 48V, 72V, 240V or 415V (3 Phase).
Kilovolt Ampere (kVA)	In basic terms, is the measure of apparent power without considering the power factor/efficiency of an an object.
Friction Loss	Refers to the pressure lost by water flowing in a pipe or channel which restricts it's movement. Friction loss is calculated by considering flow rate, pipe diameter, elevation and your total pumping distance.
Head Height	Refers to the total elevation of a Pumping System adjusted to friction loss.
Elevation	Refers to the height above a given level and is used to determine the difference between where you are pumping from, to where you are pumping to. For example, if your tank is 35m above where your pump will sit, your elevation is 35m. You can download phone apps to help determine your elevation above sea level.
Standing Water Level	Refers to the distance from the ground surface to the water surface. For example, if you have a bore and the water is 25m from the top of the bore, your standing water level is 25m.
Flow Rate	Refers to the quantity of water (in litres) you want to transfer from your pump. Is commonly measured per hour or in litres per day.
Pipe Diameter	Refers to the internal diameter (not external) of the pipe you either have installed, or are looking to install in your Solar Pumping System.

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Impeller	Refers to the rotating component in a pump which transfers energy from a pump's motor to the fluid it has been deployed to transfer.
Centrifigual Multi-Stage Pump	Style of pump which uses multiple stages of impellers rotating to move water. Suitable for higher flow and head applications
Screw Pump	Positive Displacement Style of pump which integrates a single Metal Rotor spinning inside a rubber coupling (Stator) to move water. Most effective for low to medium water flow with good pressure (up to 70m)
Railing and Connectors	Refers to the rail and connectors optionally included with Commodore Pumps to mount the solar panels to either your roof or ground-mounted stand. If you are not mounting the solar panels to your roof, you must either purchase a solar panel stand/frame or build your own.
Solar Panel Stand	Is a stainless steel frame which is an integral part of a solar pumping system if you cannot mount your solar panels on your roof.
Pressure Switch Kit	Refers to a siwtch that signals to the controller, which accordingly signals to the pump to either start or stop pumping depending on the pressure in the water system. Pressure switches do not require cable like traditional high/low water sensors.