

Vortex Gramateller ATM - solar powered for maximum availability

Our ATM has been developed keeping in mind the unique requirements of the rural and semi-urban markets in developing countries. Vortex ATMs incorporate many innovative and patented techniques that enable it to offer a low-cost, rugged and reliable, low-power product.

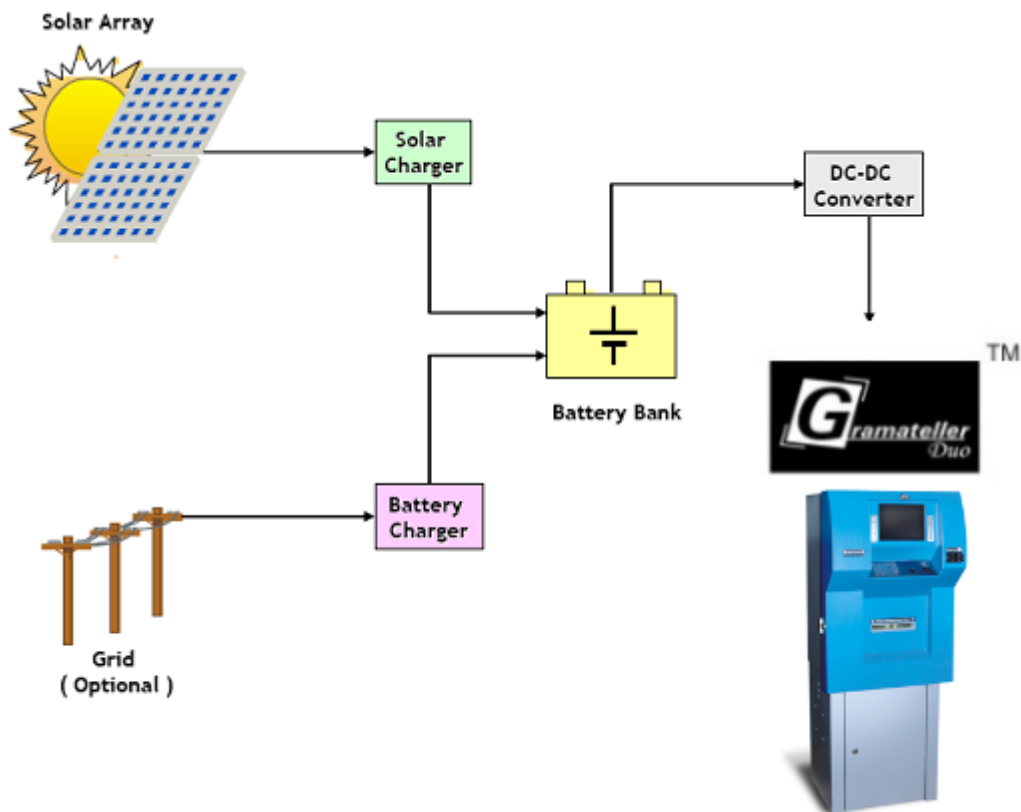
Vortex Gramateller ATM is most suited for providing a cost-effective banking channel in the semi-urban and rural areas. It consumes very little power and has a built-in battery backup. Small external UPS can be added to increase the back-up time even further.

However in some areas power may not be available sufficiently to charge batteries fully. This results in the UPS not being very effective. One option is to use generators; however the running cost of a generator is high and availability of diesel/ kerosene to run generators may not be easy.

Solar power is one option. Even though the initial cost is high, it has almost zero running cost. Also it offers green and non-polluting energy.

Vortex Gramateller can be run on solar power very effectively since it consumes very little power.

Here is the block diagram explaining the typical solar power system supplying Vortex ATM.



SITE REQUIREMENT & ASSUMPTIONS:-

- ATM is located on the ground floor, in a room of say 8' X 8' size.
- Open, shadow free space of about 40 (8 hour backup) to 60 Sq (12 hour backup). It is made available on the roof top of ATM room OR on the Bank building, to mount Solar Modules.
- Inside the ATM room, about 2' X 2' (OR 1' X 4') space (can be to a corner, adjacent to the walls) is made available to place the Batteries.
- Distance between the Solar Modules on roof top & battery in the ATM room is about 8 to 10 mtrs
- Land lord OR bank permission to dig a Earth pit close to the Solar module area for earthing / Equipment safety.

SCOPE OF SUPPLY FOR SOLAR POWER SYSTEM:-

- Solar Power Pack with Solar Photo Voltaic Modules
- Galvanised Module Mounting Structures
- Solar Charge Regulator (rating varies depending on back-up) & required DC-DC converter for Vortex ATM
- Tubular Lead-Acid Battery / SMF Battery with required accessories.
- Installation hardware kit and Super Earthing Kit.

SOLAR POWER PACK INSTALLATION & MAINTENANCE:-

Installation can be undertaken by Vortex for a complete solution to customer.

SYSTEM OPERATION:-

- During day time, Solar PV Modules directly convert Sunlight into electricity and charge the battery.
- Solar Charge Controller regulates the Voltage, protect the battery against over charge / deep discharge and also ensure solar energy is optimally utilized and stored in the battery.
- In case of optional Hybrid Operation where Solar partially powers the ATM, a Battery charger shall in parallel charge the battery from the grid power.

WARRANTY:-

Solar system supplied is warranted against manufacturing defect for 13 months from the date of supply OR 12 months from the date of Installation, whichever is earlier.

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