

Combining AC coupled storage solutions with standard APsystems Microinverter series

Storage systems are more and more popular worldwide. This paper provides generic guidance on how standard APsystems microinverters can interface with most of AC coupled storage systems.

Specific requirements :

- Standard APsystems microinverter (YC500, YC600 & YC1000) in single or three phase grid tied systems.
- Storage system AC coupled only.
- Storage system has received all required certifications for the country of installation.
- Storage system and APsystems microinverters operate without any interaction (installed independently, no power control from storage system to inverter, no frequency shift function needed, no specific communication between storage system and APsystems microinverters).
- If the storage system has total back-up function, microinverters must be turned off during grid shortage or installed separately from other back up circuits that include anti-islanding relays.

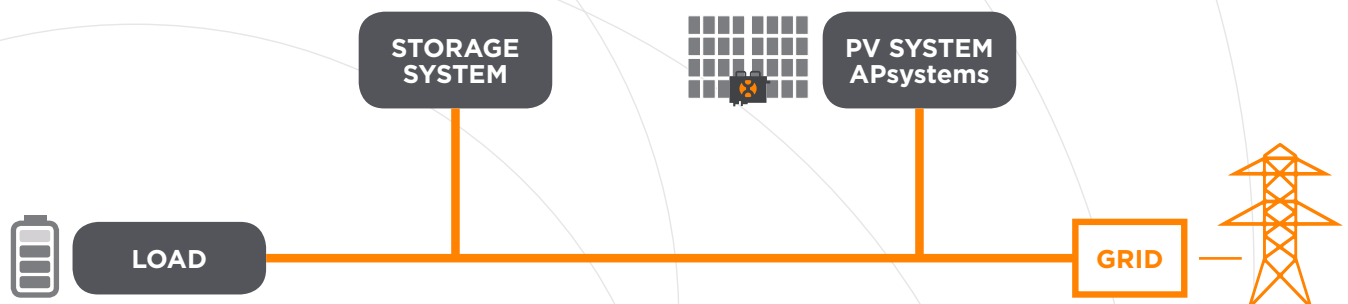
Some examples of compatible systems :

- All in-one box storage system (DC/AC converter + battery)
- SonnenBatterie ECO 8.2
- Tesla Powerwall 2 AC
- Battery charger (external battery needed)
- SolaxPower AC Hybrid X1 & X3 series
- Victron Multiplus charger

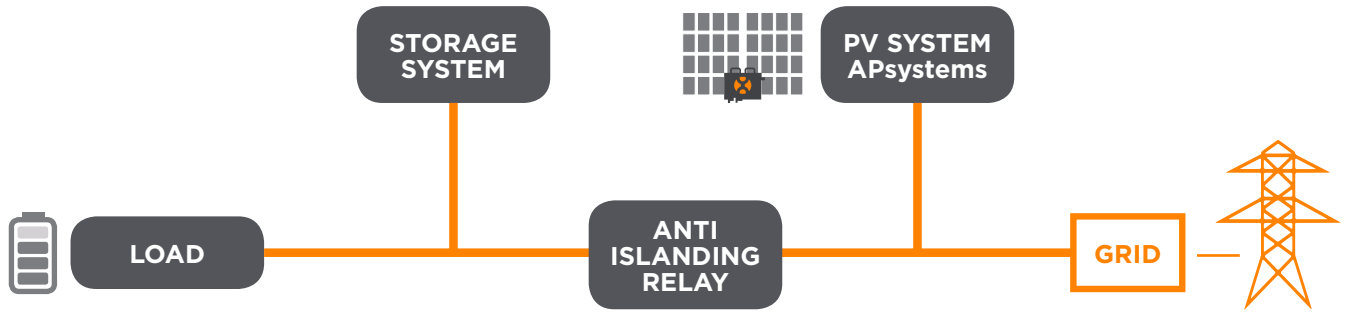
Please contact us for any other questions concerning compatibility .

Schematic diagrams

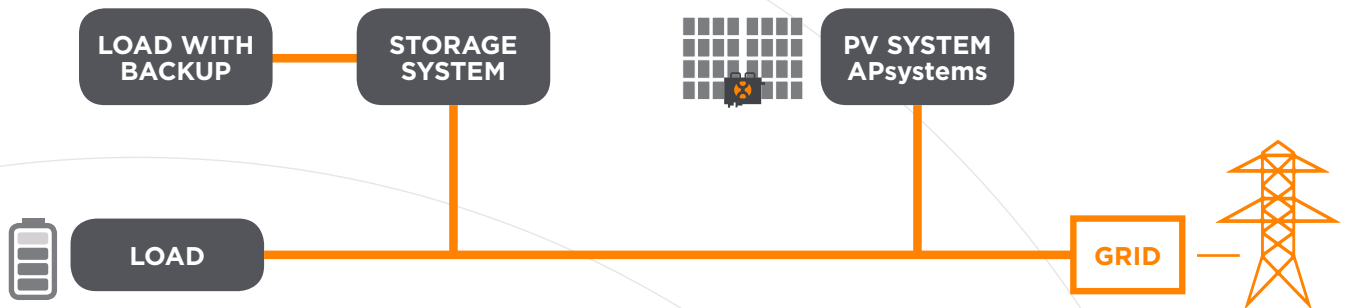
Storage system without back-up :



Storage system with total back-up :



Storage system with partial back-up



In order to manage storage / production, the storage system may get current transformers (CT) on PV production and consumption (load) :

