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TSW INVERTER / CHARGER – 3 PHASE SYSTEM FROM APOLLO SOLAR

Apollo's partner in Australia tests the TSW4048 at 60kW in a 3 phase cluster.

The popular TSW (True Sine Wave) Inverter / Charger from Apollo Solar has a number of unique advantages, and perhaps the most advanced is its 3 phase capability. The TSW4048 can be stacked up to 5 banks of 3 phase sets which produces 60kW of AC. The AC output can be set for 120/208VAC which is the standard in North America, or 230/400VAC or 240/415VAC which are standard in the rest of the World. The test wall in the photo below is at SI Clean Energy in Coff's Harbour, New South Wales, Australia.



One would think that a single large inverter would be preferable to such a massive cluster of 4kW sized inverters, but for Off-Grid reliability, installers and users prefer the smaller inverters. Our customers tell us that they much prefer to use multiple 4kW TSWs because they are easy for one person to carry and install, the footprint is smaller, the system can start small and grow, and most importantly, they are n+x redundant. If any inverter ever has a problem, even the Master, it can be swapped out without even turning the system off. The larger inverters could be down for months before replacement parts arrived and then repairing them in remote locations was never easy.

Peter Bulyani at SI Clean Energy told Apollo: "The flexibility of the TSW allows us to stock just one product and serve our installations from 4kW to 60kW in single phase or 3 phase at virtually any consumer AC voltage. The size allows us to mount it horizontally along a wall, vertically in a stack, or on a free standing rack. Since the charger and transfer switch are internal, the entire installation is easy to install and maintain."

Many installations couple the TSW with the Inverter Switchgear Module which has all the DC and AC circuit breakers in a pre-wired module for each Inverter. That way there is no wasted space and the switchgear can grow if more inverters are added.