

## Re: Removing impedance protection from MOEPED #3

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"Dimitrios Tzortzakakis" <dimitzortihatespam@nospamotenet.gr> wrote in message news:cq6i46\$eo2\$1@usenet.otenet.gr...

- > *There are not too many turns in it, in reality (despite theory) an*
- > *asynchronous motor cannot be a generator. Sorry to be the messenger of bad*
- > *news, but that's it. That's a reason why (I think so) wind-generators*
- > *coupled*
- > *to the grid in fact work as motors, dissipating power than producing it as*
- > *generators. To produce ac, you need a \*synchronous generator\*, found*
- > *everywhere from small heads (650 W) to the largest one, 2000 MVA, operated*
- > *in a nuclear power station. Or, a dc \*generator\* (not motor). Either with*
- > *shunt, series or compound excitation. Usually it's shunt.*
- >

Sorry, but you are wrong. Asynchronous induction motors can be used as generators. They have to be driven at a speed higher than the synchronous speed. The winding must be excited from an external source of reactive current (the utility line or capacitor bank will do). They are much harder to regulate/control than synchronous when in an isolated 'island'. But when connected to a grid they can work quite well.

And a DC motor can often be used as a DC generator as well. In fact, many large un-interruptible power systems use DC machines that act as generators to charge/float station batteries normally, yet can instantly change roles to act as motors to drive the AC generator from the batter when the normal power is lost.

daestrom