Thyristor Control Module, TCM-2

- Operating temperature -25°C to +70°C
- Adaptive cut-in
- CAN bus interface
Thyristor Control Module, TCM-2
– built to last!

Built to last
The TCM-2 is designed to operate in harsh environments. Similar to other DEIF products designed for offshore and marine applications, the TCM-2 can withstand strong vibrations and operate under temperatures far beyond the typical industrial ranges. This makes it ideal for offshore and onshore wind turbine installations.

Stand-alone or slave – the choice is yours
The TCM-2 can be applied either as a stand-alone unit or as a slave. When operating as an intelligent stand-alone unit, the TCM-2 requires only a few standard industrial interface signals to carry out a variety of thyristor regulation strategies in real-time. Alternatively, it can operate as a slave unit under the direct real-time control of a superior process controller connected via CAN bus.

Drive train loads reduced during cut-in
When applied as a stand-alone cut-in controller, the TCM-2 follows a highly innovative and adaptive cut-in strategy. Comparative measurements with similar products on today’s market show a significant reduction of electrical and mechanical drive train loads during cut-in (as indicated in the below diagram).

Typical applications
- Cut-in controller for wind turbines with induction generators
- Soft starter for asynchronous motors and generators

Typical cut-in applications

- PMin 305.4kW (duration 2 seconds)
- Pmax +610.6kW
- dt 0.56s
- dE 443.5kJ

A standard cut-in initiates generator magnetization undersynchronously, thus operating the generator as a motor.

A TCM-2 avoids motor operation during cut-in because it magnetizes the generator exactly when the speed is correct.

- PMin 11.4kW
- Pmax +393.6kW
- dt 0.78s
- dE 136.6kJ

DEIF’s TCM-2