

## Three phase half controlled three pulse thyristor based battery charger



**Figure 1: Three Pulse thyristor battery charger with remote Monitoring**

The all new Waves **three phase half controlled battery charger** uses Dual microcontroller for switching and control of Thyristor for achieving desired DC output.

Three phase half controlled converter has several other advantages over a three phase fully controlled converter.

From the point of view of construction and circuit complexity the half controlled converter is simpler and cost effective compared to the fully controlled converter.

For the same firing angle it has lower input side displacement factor compared to a fully controlled converter.

It also extends the range of continuous conduction of the converter.

For the same output load current and firing angle the three phase half controlled converter has better displacement factor but poorer distortion factor compared to a fully controlled converter.

The charger output voltage, output current, and battery current are controlled by the microcontrollers. The charger output parameters can be set or adjust through keypad-display provided on the front panel. It has RS 485 communication port for local monitoring using a PC and also remote monitoring of measurements and events as well as event history.