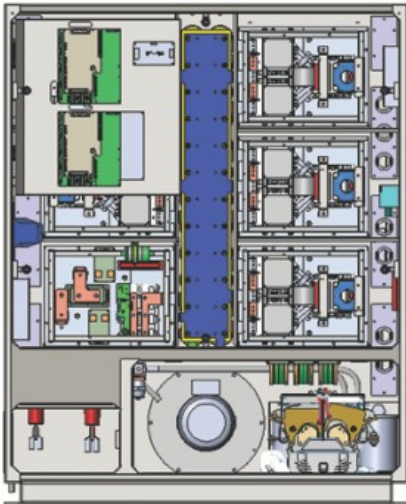
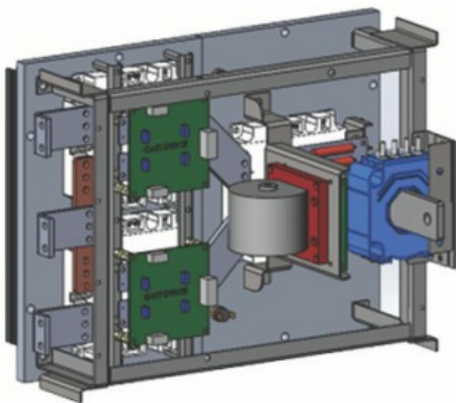




### 3-level inverter configuration for Hotel Load Converter



2 X 500 kVA Hotel Load Converter , view from front with door opened



Power Module of 2 X 500 kVA Hotel Load Converter

An innovative 3-level configuration has been adopted by HIRECT for its indigenously developed Hotel Load Converter used in electric locomotives by Indian Railways. Key achievement of this design is the use of 1,200 V IGBTs in place of 3,300 V IGBTs used in 2-level inverters. This has resulted in 2% higher power efficiency and smaller magnetic components due to higher switching frequency (1,200~1,400 V IGBTs can switch at 5 kHz instead of 750 HZ incase of HV IGBTs). This unique and first of its kind design for Indian Railways has been patented by Hind Rectifiers Limited. The prototype has successfully cleared all the full load tests. The unit is undergoing various type tests for railways application as stipulated by Indian Railways.

**Hind Rectifiers Limited**

Subject to further change



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