

ELECMECH

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Elecmech specializes in Genset based Power house Automation with Auto synchronizing and auto load sharing systems with PC_PLC based MMI.

Our vast experience base of Switchgear Manufacturing now for more than 45 years combined with the Latest Microbased digital Genset Control enables us to offer a integrated and cost effective solution to DG based Power house automation needs.

We have recently completed a complete power house automation system for Moser Baer Ltd. This system was for Automation of 4 x 1750 kva gensets paralleled to deliver 4.2 Mw to the entire plant.

Completely automatic operation of the Power house was achieved with Woodward controllers and Siemens PLC Load Management System with PC-MMI based supplied by Elecmech.

Moser Baer Manufactures CDs on highly sophisticated automatic machines where in the power requirement was very stringent. The power supply to the plant was very critical as even a single interruption would lead to a 3 hours production wastage, the loads were highly Non Linear comprising of AC drives, UPS, SMPS, Thyristor Controllers with a lot of harmonics, the current was nowhere near a sinusoid. Stable power was extremely critical to the operation of the automated plant, and even slight disturbances were not acceptable even during synchronizing... Even under such stringent conditions, the Power system was stabilized in a record time.

Integrated Power, Protection and PLC based Sync panel.

The power system comprised of 2500 a incomer Pole breakers with a Neutral Contactor. All Genset protection relays were micro based and of communicable type.

6400 A Main horizontal interleaved Copper busbar design ensured small panel size and lesser heating compared to aluminum. Also special care was taken to prevent eddy current circulation and the resultant Panel heating.

Buscouplers between the gensets were rated for 6400 A 4 pole EDO ACB Outgoings were rated for 6400 A 4 pole EDO ACB refer to the Power System SLD.

Neutral Contactor logic

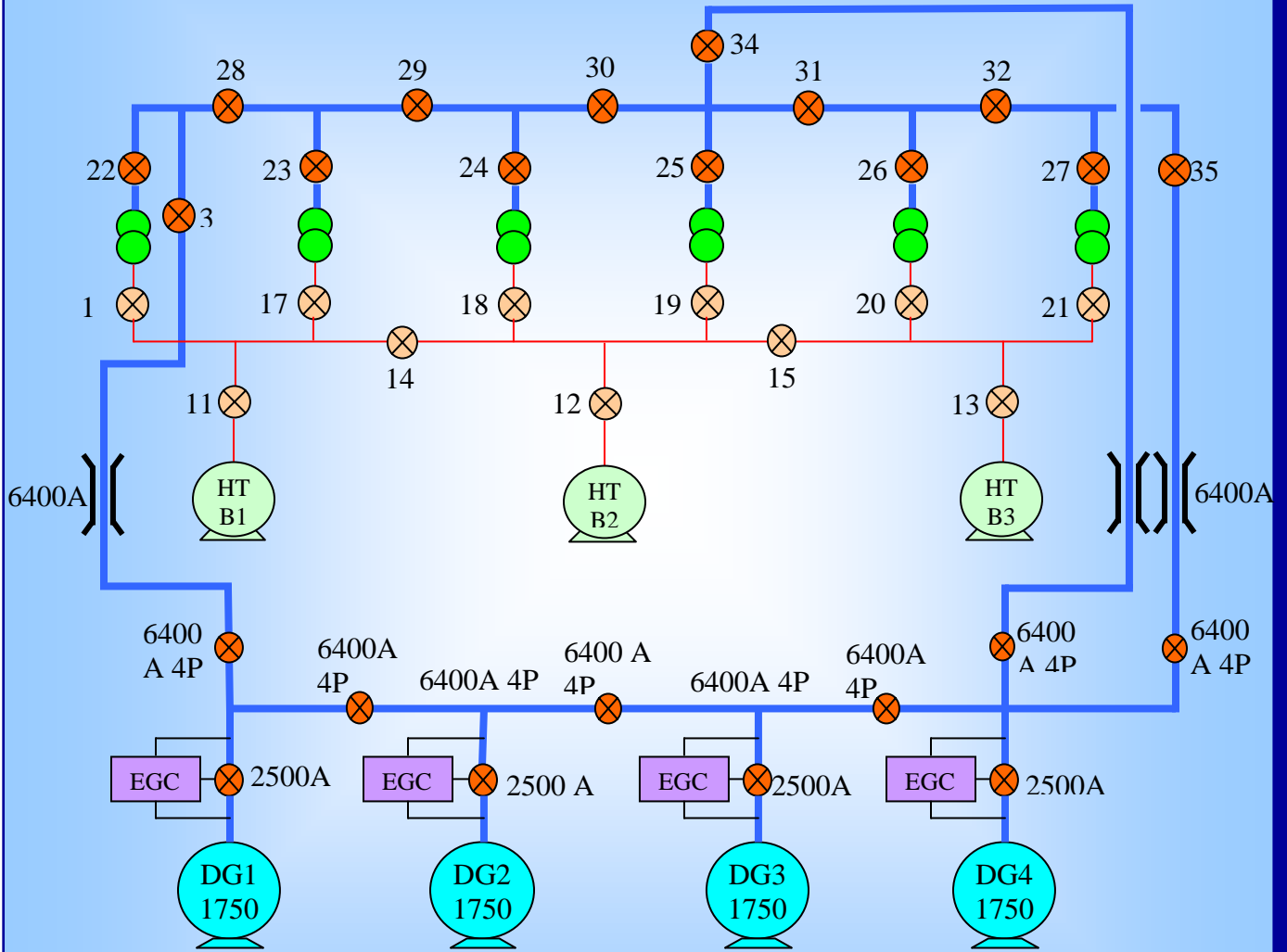
Neutral Contactor logic was PLC controlled for make before break operation so that at any given time only one neutral contactor is ON. If the Master DG trips the Neutral of the slave closes before the neutral of the master dg opens.

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Integrated DG Power House Automation System Elecmech



Moser Baer India Ltd
Elecmech Genset Automation Systems