Synchronisation of 3 Cummins DG Sets with AGC 242

Project : Reliance , Delhi
Customer : R&D Industries , Mumbai (Panel Builder)

There are three Cummins DG Sets of 750 KVA each

Cummins DG Set 1 &2 fitted with PCC 2100 control
Cummins DG Set 3 fitted with ECP / EFC (Cummins Electronic governor control)

AGC242 is used to interface with Cummins PCC2100 & Cummins ECP /EFC
AGC 242 is used for remote starting the DG Sets , speed and voltage regulation using IOM200, synchronising , load sharing and power-management

For DG Sets – 1 & 2 with PCC 2100 , there is requirement of AUX101 card to be fitted in PCC 2100 for speed and voltage regulation
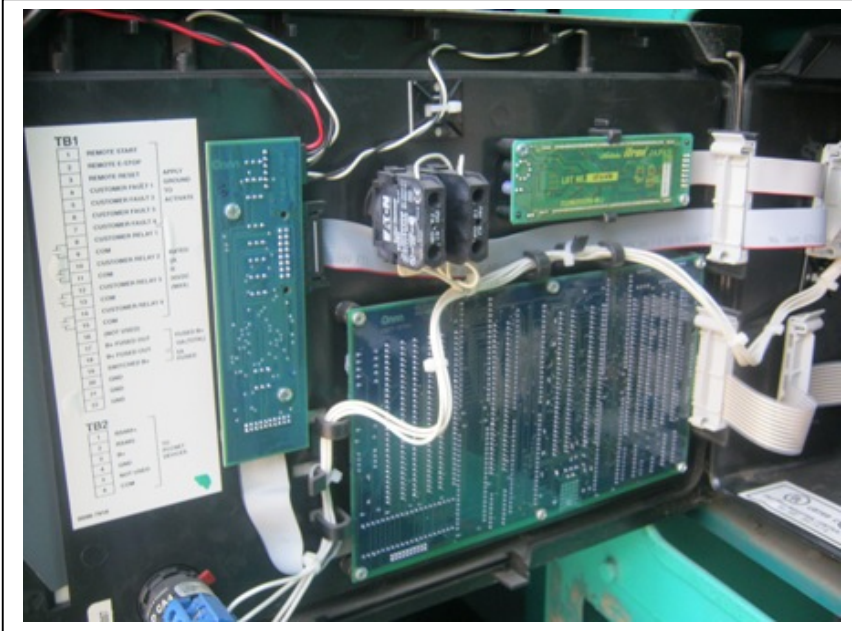

AUX 101
card

J11- Terminals 1 &2 on Aux 101 is for AVR regulation
J11 - Terminals 3& 4 on Aux 101 is for Governor regulation
For Governor regulation the output from IOM 200 to be set to 0 to 5 V DC
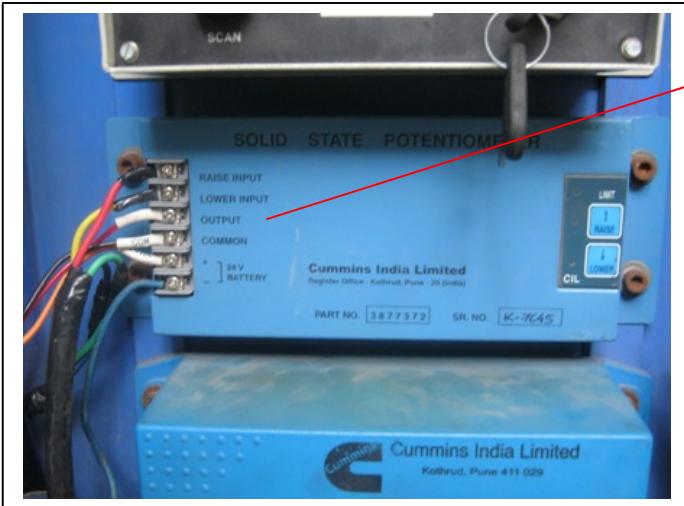For AVR regulation the output from IOM 200 to be set to +/- 3V DC

Terminals for remote start / stop on PCC2100

Cummins DG Set – 3 with ECP / EFC configuration

Cummins Electronic Governor Controller

Relay outputs from AGC242 is connected to SSP of Cummins governor for speed regulation

MX 321 AVR is used on this DG Set . The IOM 200 is set to +/- 5V DC for voltage regulation