

Application Note

WOODLANDS SECONDARY SCHOOL, SINGAPORE



Project Scope :

Design, supply, testing, commissioning and maintenance of Air-Conditioning, Mechanical and Ventilation (ACMV) Starter Panels, PLC-Based Status Indicating Panel. Commissioned in 2004.

Number of Starter Panels :

- FCU for Server Room, LAN Rooms : 6
- Air Handling Unit : 2
- MV Fans : 7
- HR, Flush and Domestic Pumpsets : 3

Number of Networks :

- 1 x RS485 Network

Description Of System Architecture

The Building Automation System of the School consists of the Status Indicating Panel (SIP) with Omron CJ1W Master PLC and one network of IP3 Starter Panels for ACMV equipment (FCU, AHU, MV and Pump Sets).

The Monitoring and Control of the ACMV system is from the Status Indicating Panel.

The IP3 Starter Panels are programmed with Weekly 7-Day timer for automatic control of the equipment start and stop times following the school schedule.

Computer Rooms

Each Server and LAN Rooms are equipped with 2 x FCU. Each controlled by an IP3 Starter Panel, configured each for 12 hours operating time.

The IP3 Starter Panel is intelligent to detect adverse change in room temperature (Trip in Duty FCU and High Temp Status) and automatically operates the standby FCU.

This is to maintain optimum room temperature for proper operations of the data centre.

