

Info Sheet

HVAC Control Systems

Precision climate control for industrial, commercial, and medical environments.

1. Overview

IPU SA's **HVAC Control Systems** are engineered to automate and regulate heating, ventilation, and air conditioning across high-performance buildings and infrastructure. Built to ensure energy efficiency, user comfort, and operational safety, our panels are tailored to project-specific HVAC load profiles and system configurations. From hospitals and data centers to factories and public infrastructure, our HVAC panels integrate seamlessly with building automation systems and third-party equipment.

2. Key Features

- Custom-built HVAC control panels based on equipment type and load
- Support for Direct-On-Line (DOL), Star Delta(Y/D), Soft Starters (SS) and Variable Frequency Drives (VFDs) to meet client's PID and sequence of operation
- Local or remote control via PLC/SCADA or BMS
- Real-time fault indication, alarms, and trip functions
- Integration-ready I/O mapping and safety interlocks
- Interface support for sensors, actuators, dampers, and flow meters

3. Applications

- Hospitals and healthcare facilities
- Commercial buildings and complexes
- Airports and transportation hubs
- Food and beverage processing
- Industrial HVAC systems and cleanrooms
- Government and educational campuses

4. Integration Capabilities

- SCADA, PLC, and Building Management System (BMS) compatibility
- Supports communication protocols like Modbus RTU/TCP, BACnet, and analog/digital signals
- Remote monitoring and control via IPU SA's automation ecosystem
- Designed for plug-and-play deployment in multi-zone systems

5. Certifications & Standards

- Panels designed and manufactured in accordance with IEC 61439
- OEM component integration (Schneider, Siemens, ABB, etc.)
- Compliance with Saudi healthcare and infrastructure project specifications