

## Protection & Control Panels

Acrastyle specialises in providing power system protection and control panels/cubicles for all levels of electrical power transmission, distribution and generation, whether to electrical utilities, renewable installations, industrial sites or the transport sector.

We can design and manufacture protection and control panels for a large range of applications including:

- Generator, transformer, feeder, busbar and mesh corner protection
- Transformer Automatic Voltage Control (AVC) systems
- Digital control systems
- Substation automation equipment
- Substation control panels and mimic control boards
- Metering & fault recording

Acrastyle can provide standard 19" rack type panels or custom-sized panels tailored to suit specific demands. Panels can be rear access or front access swing frame style where substation space is limited. All panels can be provided with or without glazed front doors depending upon the required ingress protection rating (IP rating).

## Replacement Front Sheets

Replacement front sheet protection panels are provided with fully wired inter-device wiring and flying leads wired to a terminal rail enabling easy external connection between old and new systems. Replacement front sheets are custom made to provide a direct replacement to any existing protection and control panel front sheet.

## Automatic Voltage Controllers (AVCs)

### Transformer Tap-change Control Schemes

Acrastyle has several standard designs for single and dual Automatic Voltage Controllers (AVCs), which incorporate the industry standard tap-change controllers such as 'Super-Tapp'.

Power transformers are sometimes fitted with adjustable output windings. This can be used to vary the output voltage to keep the supply at a constant voltage level, despite the input voltage varying considerably. The selection of the appropriate winding is performed by a device which monitors the output voltage and the transformer winding currently in use. If a transformer winding change is required to return the output to the required level, this is done in the AVC scheme provided by Acrastyle.

Where transformers are connected in parallel, the control of these winding selection schemes is more complex and Acrastyle can provide several options for a standard 'dual AVC' scheme. Otherwise we can provide a customised design to meet the most demanding of needs.

AVCs can be provided in all styles of enclosure including rear access cubicles, front access swing-frame cubicles, wall mounted boxes and bespoke enclosures.



## Substation Wall Boxes

### Indoor & outdoor custom built substation wall boxes

Many substations have extremely limited space. Often the solution for smaller schemes and panels is to use the available wall-space by mounting a 'wall box' that contains the required equipment with indication and control switches mounted on the door of the box for ease of use.



These wall boxes are all custom-designed to meet individual requirements. Acrastyle's mechanical engineers ensure that the equipment can be contained in the box while maintaining the required clearances. They also ensure that the mechanical strength of the box, its structure and the wall fixings meet the correct design criteria.



*“Minimised outage time  
and site-work cost”*

## Key Features

Acrastyle protection/control panels allow the customer to quickly and easily install new or replace existing protection and control equipment with the following benefits:

- 19" rack panels and cubicles
- Solid front panels and cubicles
- Swing frame front access cubicles
- Fully equipped and wired replacement front sheets
- Wall mounted protection/control boxes
- Fully factory tested
- Plug-and-Play commissioning
- Minimised outage time and site-work cost
- Reduced disturbance to adjacent cubicles
- Bespoke solutions available
- Modifications and additions to existing on-site system

