

# Power Capacitors Limited

Power Capacitors Ltd has been a leading specialist in the design, application, manufacture and supply of Power Capacitors since 1973. Power Capacitors Ltd supplies capacitors for Power Factor Correction, Harmonic Filters, and Power Electronics applications to Industrialists, Equipment Manufacturers, Electricity Supply Companies and Contractors alike. Comprehensive stocks of capacitors and associated equipment enable quality products to be produced at competitive prices and within short delivery periods.

## Quality

Working within the policies of BS EN ISO9001:2008 approval, all equipment is manufactured and tested to all appropriate standards.

## Power Factor Correction

Power Factor Correction, when correctly specified, completely removes the compulsory charges levied on consumers with a poor power factor. The savings achieved can amount to many thousands of pounds a year, depending on consumption. The reduction in loading on electrical distribution equipment increases supply capability, reduces losses and also reduces CO<sub>2</sub> emissions, which are all important in today's commercially and environmentally aware society.

## Capacitor Products

The extensive range of capacitor products available enables almost every requirement for power factor correction to be satisfied by a standard product. Where a solution does not already exist, our specialist engineers are able to offer a custom solution, designed specially around a particular set of requirements. Whilst standard designs are rated at 415V 3 phase 50Hz, other voltages and frequencies are readily accommodated.

## Capacitor Elements - The PowerCan

In cylindrical aluminium casings, from 0.25kVAr to 25kVAr, these are ideally suited to the individual correction of motors in a motor control centre. Their compact dimensions and minimum IP2X rating make them ideal for this application. Furthermore, their optimum temperature rating results in increased reliability and greater lifetime than other, less well specified types.

## Capacitor Chassis - The Formula Ranges

The Formula 50 and Formula 150 both comprise capacitors, contactors, main and control fusegear on a backplate mounting assembly, intended for use as the building blocks of an automatic system, housed within a switchboard or MCC. The Formula 50 range has a maximum rating of 50kVAr, the Formula 150 range can be fitted with up to 150kVAr. Both types are available for standard or de-tuned systems, according to the particular requirements of a system. Bespoke designs offer market leading solutions for utilisation of available space.

## Auto Cubicles - PowerCab & PowerCabPlus

Power Capacitors Ltd is able to design and manufacture capacitor systems to suit any application. Standard designs range from 50kVAr to 450kVAr with both standard and de-tuned systems incorporating a range of dimensions, incoming cable arrangements and stage sizes. The PowerCab range is suitable for use on standard systems, the PowerCabPlus range includes detuning reactors for use on systems prone to harmonic distortion. Custom designs to suit almost every requirement are available on request. Unlike most manufacturers, including smaller stage ratings enables the target power factor to be followed very closely, maximising savings where excess reactive power charges are important.

## Real-Time Switching - PowerCabFast

By using semiconductor switches and the latest in microprocessor based controllers, almost instantaneous switching can be achieved. All PowerCabFast systems are detuned, and include the optimised smaller stages of the PowerCabPlus range.

## Capacitor Maintenance & Servicing

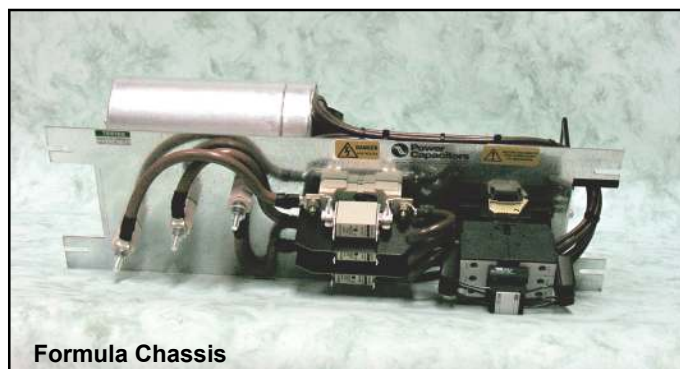
Power Factor Correction equipment is a piece of capital equipment, and regular maintenance is essential. Regular servicing ensures that the rated output is maintained, maximising the financial and technical benefits. Power Capacitors Ltd is able to service and repair every LV capacitor installation regardless of manufacturer.



PowerCab



PowerCan



Formula Chassis

## Medium Voltage PFC

Power Capacitors Ltd is able to supply self healing PFC equipment to over 13kV rated system voltage. This enables many of the costly protection measures required for non-self-healing banks to be omitted.

## Site Services & Technical Support

The services performed by the company's specialist engineers includes:

- Power Factor Surveys, performed free of charge on the UK mainland
- Load Profiling, with report & recommendations
- Harmonic Surveys, with report & recommendations
- Mathematical Modelling of load & supply systems, predicting levels of Power Factor & Harmonic Distortion
- Installation of Capacitor Equipment
- Specialist Product Design Service