



Expert Electrical Supplies Ltd
The solution to all your electrical needs

The Benefits of Power Factor Correction

Most industrial operations use electric motors and additional plant such as welding equipment, arc furnaces and fluorescent lighting etc, all introduce varying measures of inefficiencies in the form of additional currents drawn as “inductive reactive currents”

The inductive reactive currents serve no useful purpose and place additional burden on the electrical supply by reducing the efficiency, reducing the utilisation of switchgear, transformers and increasing monthly utility bills.

Power factor in simple terms is a measure of electrical efficiency, a typical un-corrected power factor in most industrial & commercial organisations is around 0.8pf which in real terms means a 1000Kva transformer can only supply an 800Kw load, a reduction in utilisation by 20% which is also be applied to the switchgear and cables.

An efficient electrical system operating on a good power factor with a 1000Kva transformer could supply 1000Kw

An inefficient 100Kw load @ 0.8pf would draw approx 175A

An efficient 100Kw load @ 0.99pf would draw approx 140A
a saving of 35A per 100Kw of load or 350A per 1000Kw of load, in simple terms, 350A of additional load may be added to an otherwise inefficient, overloaded 1000Kva transformer

Typical charges for operating an inefficient electrical system are displayed as a “Reactive Power charge”, or a “Kvar charge” and are reflected in higher “Maximum Demand” or Availability” charges.

The addition of Capacitors to improve the efficiency or correct the load is known as Power Factor Correction which, if sized correctly introduces equal and opposite “Capacitive Reactive Currents” to the undesirable “Inductive Reactive Currents”

Power factor Correction can offer substantial savings on monthly utility bills and reduce circuit currents to enable additional loads to be fitted to an otherwise inefficient electrical system.

Expert Electrical Supplies offer a FREE service to check your electricity bill for penalties and hidden expenses, simply fax the last two or three bills on 01706 860011, we will do the rest. There is no charge for this service and no obligations whatsoever
Your organisation could make substantial savings.

Additional services include FREE power factor surveys and advice.

Unit 6 The Landing Ind Est,
Oldham Rd Rochdale
Lancs, OL16 5QY
Tel: 01706 860011
Fax: 01706 860044



Expert Electrical Supplies Ltd
The solution to all your electrical needs

Specialist Electrical Services & Spares

Capacitor spares

Capacitor control relays with power factor display

Single phase capacitors

Three phase capacitors

Contactors & control gear

Fuse bases

Fuse links

Current transformers

Tri-rated cable & flex

Many spares ex stock at competitive rates



Service & Maintenance
Capacitor Banks
Harmonic Filters
Switchgear & Transformers
UPS Systems

Manufacture

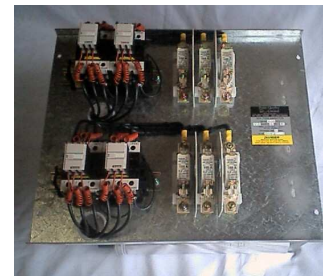
Capacitor Banks

Harmonic Filters

Switchboards

Control panels

Surge Suppression Units



The Benefits of Expert Electrical Supplies Ltd

- Excellent first-rate service and advice complimented with fast deliveries of bespoke equipment
- Fast response times for service & maintenance
- Our independence allows assemblies to be manufactured using only quality components procured from quality assured sources at competitive rates
- Easy installation of bespoke capacitor function plates into system builders panel
- Should there be a drive schedule available, Expert Electrical Supplies will advise on the type of capacitors required.
- Assemblies to match your exact requirements with stocks of bare plates held for fast repeat orders of sub assemblies
- Options available for equipment installation in free issue section of proposed panel.
- Free surveys
- Free advice
- 24hour 7 day contact telephone response.

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Capacitor Service, Maintenance & Spares

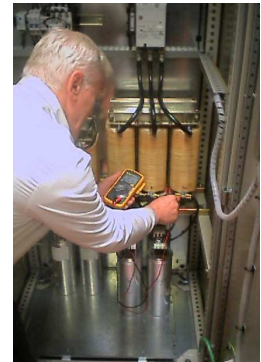
Expert Electrical Supplies service & maintain power quality products (capacitor banks) and switchgear, these products are somewhat specialised, general maintenance staff and contractors may not be fully conversant with their operation and as a consequence, a capacitor bank may not be operating correctly thus removing monthly savings from your utility bill and possibly incurring financial penalties as a consequence.

Power Factor Correction & Harmonic Filter equipment is sometimes vital to a customers operation, we will ensure their correct operation and reliability through a cost effective preventative maintenance scheme that covers all manufacturers' equipment.

The Benefits of Using Expert Electrical Supplies Maintenance Services

Service & Maintenance

- Protection of monthly utility bill savings
- Removal of any penalties
- Specialist equipment serviced by specialist engineers at competitive rates
- Full UK coverage complimented with fast response times
- Many spares ex stock at competitive rates
- Protection of your investment.
- Enhanced utilisation and electrical efficiency
- Friendly efficient service tailored to our customers exact needs
- Planned annual maintenance scheme or Service visits



Capacitor spares are somewhat specialist, correctly rated capacitor spares are sometimes difficult to locate, Expert Electrical Supplies recognise this and hold a large stock of capacitor spares, many available on a next day delivery.

Capacitor Spares

- Capacitor control relays with power factor display
- Single phase capacitors 230V – 550V
- Three phase capacitors 230V – 690V
- Capacitor Switching Contactors
- Fuse bases
- HRC fuse links
- BS88 fuse links
- Tri-rated cable 0.75mm – 400mm



Should you require further details of our maintenance services, simply complete the details below and return via post, fax on 01706 860044 or E:mail Sales@expert-electrical.co.uk

Contact Name:..... Company:.....

Tel No:..... Address:.....

Fax No:.....