



PQIS Ltd.

Power Quality Improvement Services Ltd.

Reduce business costs with electrical efficiency solutions

Product Brochure 2020



Power Quality Improvement Services Ltd.

Cost effective electrical engineering solutions for business which improve electrical efficiency and reduce energy costs.

PQIS are manufacturers and service providers of power factor correction units and are based in Greater Manchester in the United Kingdom.

We conduct power surveys of business electricity supplies to identify efficiency improvement.

We are qualified, professional and experienced electrical engineers with extensive experience in power quality projects who will provide free quotations for equipment and services.

This brochure gives a summary of the electrical engineering services and products we supply internationally. Discover more about PQIS Ltd. Online at www.pqis.co.uk.

Contents

2. Introduction
3. Power Quality Survey
4. Power Factor Correction Equipment
5. Power Factor Equipment Manufacture
6. Power Quality Equipment Maintenance
7. Power Quality Monitoring Devices
- 8-12. PQIS Ltd. Products and Services List
13. Contact

Power Quality Survey

Is the power factor of your business below 0.95? Conduct a power quality survey to find cost effective electrical efficiency solutions.

With this service, our engineers connect a power quality analyser to the supply for a week. A report will then be produced to specify solutions.

The report of the monitoring data includes a summary of the electrical supply, graphs illustrating power, efficiency and harmonic values.

The aim of the survey is to identify cost effective solutions which can be implemented into the system to reduce energy costs, production downtime and increase efficiency.

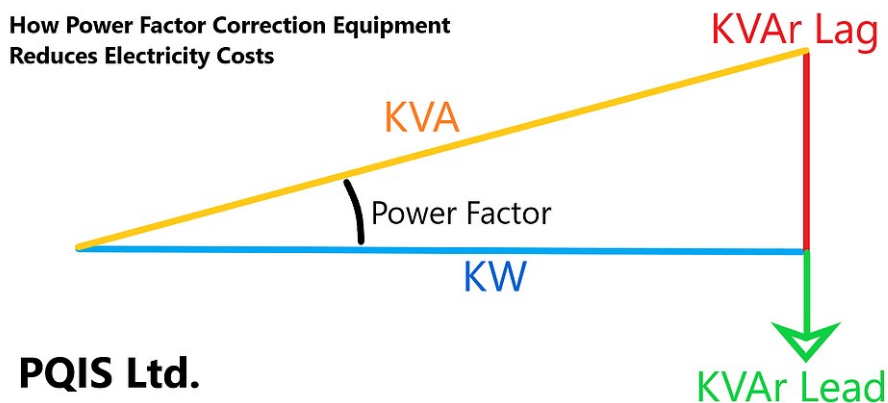
Supply Information	Measured	Power factor target information	Calculated	Improvements achieved with target PF	Calculated
Volatage (V)	401.20				
THD A (%)	8.70				
THD V (%)	1.10				
Power Factor (degrees)	0.82	Target Power Factor (Degrees)	0.99		
L1 (A)	1074.30	L1 Target PF (A)	889.82	Current reduction per phase (A)	184.48
L2 (A)	1025.60				
L3 (A)	1182.60				
Power (Kw)	612.15				
Apparent Power (KVA)	746.53	Apparent Power Target PF (KVA)	618.33	Apparent power reduction (KVA)	128.20
Reactive Power (KVAR)	339.00	Reactive Power Target PF (KVAR)	87.23	Reactive power reduction (KVAR)	251.77
Capacitance in circuit (KVAR)	0.00	Required Capacitance Target PF (KVAR)	374.06		
		Total required capacitance (KVAR)	400.00		
		Detuned Required	No		
Supply billing information		Target PF improvements		Savings and costs	
Price per KVA unit	£ 0.75				
Reactive charges	£ 100.00	Reactive charges Target PF	£ -	Reactive charge cost reduction	£ 100.00
Available capacity (KVA)	1000.00	Available capacity Target PF (KVA)	750.00		
Available capacity cost	£ 750.00	Available capacity cost Target PF	£ 562.50	Available capacity cost reduction	£ 187.50
		Correction equipment required	3400.00	Required correction equipment cost	£ 3,400.00
				Total estimated savings	£ 287.50
				Return of investment of equipment	12 Months

Power Factor Correction Equipment

Power factor correction equipment is used to counter inductive loads generated by electrical equipment used in industrial and manufacturing processes. The inductive nature of motors, presses, and many other types of equipment generate the reactive power (KVA_r) measured at the PCC of an electricity supply.

With power factor correction equipment, the agreed availability, reactive power, conductor and transformer losses are reduced.

Reactive charges applied to the electricity bill are eliminated.



A power factor above 0.98 will achieve significant electricity costs.

A good, consistent power factor also reduces conductor currents to not only reduce system losses but to promote electrical equipment and component life.

PQIS specialise in the manufacture, installation and maintenance of power factor correction equipment.

Power Factor Correction Manufacture

PQIS have extensive experience in the manufacture of power factor correction equipment. We select components of the highest quality and site durability. Our designs have been implemented on many industrial, manufacturing and commercial sites and are under constant development. Our equipment delivers high quality solutions to power factor at a price which consistently meets our target payback time of two years.



Power Quality Improvement Services Ltd. equipment is manufactured and delivered to meet the criteria of the:

- The Low Voltage and Electromagnetic Compatibility Directives
- The Electricity Safety, Quality and Continuity Regulations 2002
- The Health and Safety (Safety Signs and Signals) Regulations 1996
- BS EN 61439-2 – Low-voltage switchgear and controlgear assemblies. Power switchgear and controlgear assemblies
- BS EN 60529 – Specification for Degrees of protection Provided by Enclosures
- BS EN 60947 (Parts Relevant) – Specification for Low Voltage Switchgear and Controlgear

Power Factor Correction Maintenance

Power factor correction equipment is usually installed with a low voltage power supply and switchgear.

The annual maintenance of this equipment is recommended due to the natural deterioration of capacitor output.

It is important to ensure correct operation and output of power factor correction equipment and repair any control, power or output faults at the earliest opportunity.

To ensure the correct operation and output of power factor correction equipment for your business e-mail enquiries@pqis.co.uk or call +441257 434218.

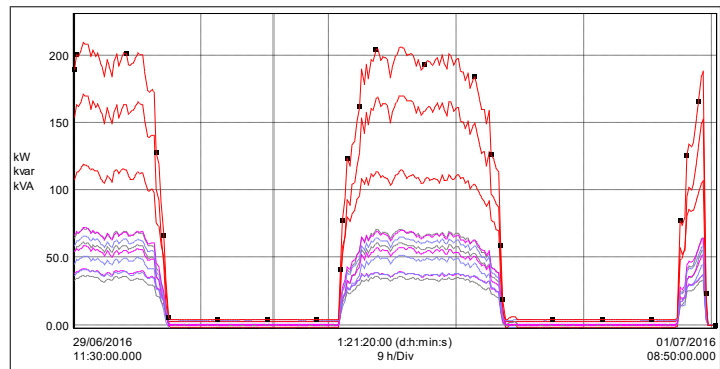
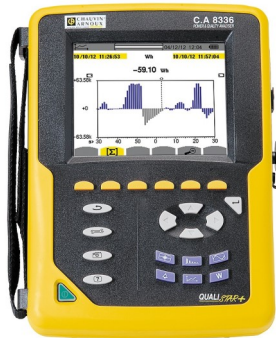


Power Quality Monitoring Equipment

PQIS supply fixed and portable monitoring equipment for low voltage switchgear installations to display values of power quality.

Low voltage monitoring equipment, from fixed switchgear mounted ammeters to durable portable power quality analysers, which can give detailed harmonic load profiling.

We also stock a range of other portable test equipment manufactured by Chauvin Arnoux which we use in our power quality projects.



Used with data analysis software, power quality analysers can record accurate electrical measurements. These measurements can be used with proactive electrical maintenance programmes to maintain the highest level of efficiency for an electricity supply.

These devices are also used to fault find, provide harmonic solutions, detect transients and provide solutions to low voltage power system issues.

Power Quality Products and Services

Power Quality Surveys

A power quality survey report advises on electrical efficiency improvements. If the power factor recorded on your business electricity bill is below 0.95, this service can be used to identify solutions to reduce energy costs.

Description

Low voltage (400V) Power Quality Survey: 1 Site supply for 1 week
 Low voltage (400V) Power Quality Survey: 2+Site supply for 1 week

Item

PQA1W
PQA2W



Power Factor Correction Equipment Maintenance

This service includes the maintenance, repair and report of power factor correction equipment. Ensure power quality equipment is operating correctly and providing rated output.

Description

PFC and Harmonic filter equipment maintenance: 1 Supply
 PFC and Harmonic filter equipment maintenance: 2-4 Supplies
 PFC and Harmonic filter equipment maintenance: 4-8 Supplies
 PFC and Harmonic filter equipment maintenance: More than one site

Item

PFCMT1
PFCMT2
PFCMT3
PFCMT4



Power Factor Correction Equipment

PQIS manufacture and supply automatic power factor correction equipment. All equipment comes with local isolation. Our de-tuned units are complete with fans and overtemperature reset circuits for electrical systems which generate high harmonic distortion.

Equipment Description	Item No.
75KVAr Automatic Power Factor Correction Unit	PF1032
100KVAr Automatic Power Factor Correction Unit	PF1033
125KVAr Automatic Power Factor Correction Unit	PF1034
150KVAr Automatic Power Factor Correction Unit	PF1035
200KVAr Automatic Power Factor Correction Unit	PF1036
250KVAr Automatic Power Factor Correction Unit	PF1037
300KVAr Automatic Power Factor Correction Unit	PF1038
350KVAr Automatic Power Factor Correction Unit	PF1039
400KVAr Automatic Power Factor Correction Unit	PF1040
500KVAr Automatic Power Factor Correction Unit	PF1041
600KVAr Automatic Power Factor Correction Unit	PF1042
800KVAr Automatic Power Factor Correction Unit	PF1043
1000KVAr Automatic Power Factor Correction Unit	PF1044
100KVAr De-Tuned Automatic Power Factor Correction Unit	PF1045
125KVAr De-Tuned Automatic Power Factor Correction Unit	PF1046
150KVAr De-Tuned Automatic Power Factor Correction Unit	PF1047
200KVAr De-Tuned Automatic Power Factor Correction Unit	PF1048
250KVAr De-Tuned Automatic Power Factor Correction Unit	PF1049
300KVAr De-Tuned Automatic Power Factor Correction Unit	PF1050
350KVAr De-Tuned Automatic Power Factor Correction Unit	PF1051
400KVAr De-Tuned Automatic Power Factor Correction Unit	PF1052
500KVAr De-Tuned Automatic Power Factor Correction Unit	PF1053
600KVAr De-Tuned Automatic Power Factor Correction Unit	PF1054
800KVAr De-Tuned Automatic Power Factor Correction Unit	PF1055
1000KVAr De-Tuned Automatic Power Factor Correction Unit	PF1056

Power Factor Correction Components

PQIS select components based on research and experience which are of the highest quality.

All the products are now listed and directly available to buy online at <https://www.pqis.co.uk>

Capacitors	Item
25 KVAR/ 440V Capacitor	CA1001
12.5 KVAR/ 440V Capacitor	CA1002
25 KVAR/ 525V Capacitor	CA1003
12.5 KVAR/ 525V Capacitor	CA1004



De-Tuning Reactors	Item
100KVAR Inductor	RC1017
50KVAR Inductor	RC1018
25KVAR Inductor	RC1019
12.5KVAR Inductor	RC1020



Contactors	Item
100KVAR/ 415V Contactor	CN1005
50 KVAR/ 415V Contactor	CN1006
25KVAR/ 415V Contactor	CN1007
12.5KVAR/ 415V Contactor	CN1008
100KVAR/ 240V Contactor	CN1009
50 KVAR/ 240V Contactor	CN1010
25KVAR/ 240V Contactor	CN1011
12.5KVAR/ 240V Contactor	CN1012
100KVAR/ 110V Contactor	CN1013
50 KVAR/ 110V Contactor	CN1014
25KVAR/ 110V Contactor	CN1015
12.5KVAR/ 110V Contactor	CN1016



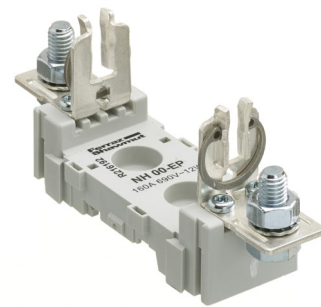
PFC Controller

6 Stage PFC Relay (110-400v)	PC1030
12 Stage PFC Relay (110-400V)	PC1031



Power Fuse Bases

Power Fuse Bases	Item
Size 00 Fuse Base	FB1021
Size 01 Fuse Base	FB1022
25A Fuses Size 00	FB1023
50A Fuses Size 00	FB1024
100A Fuses Size 00	FB1025
125A Fuses Size 00	FB1026
160A Fuses Size 00	FB1027
200A Fuses Size 01	FB1028



Power Fuses

Power Fuses	Item
Size 00 50A	FB1021
Size 00 63A	FB1022
Size 00 100A	FB1023
Size 00 160A	FB1024
Size 01 200A	FB1025



A range fans, louvre filters, control relays, panel push buttons, lights, thermostats, MCCBs, MCB's, isolators, conductors and many other low voltage switchgear panel products can be found online or by contacting PQIS..

Power Quality Monitoring Devices

The listed power quality analyser monitors all electrical values and provides information for power specifications and fault finding.

PQIS use the analyser below for power quality analysis when specifying power factor correction equipment.

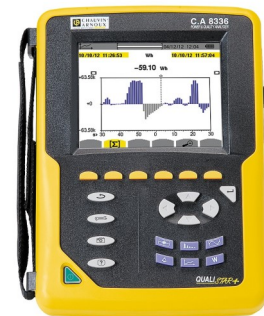
The analyser has the storage to facilitate long detailed recording and can be used to evaluate all power aspects of low voltage electricity supply. From load profiling and consumption monitoring to power factor and harmonic distortion analysis.

Power Quality Analyser

CA8333 - Complete Package
 CA8333 - Analyser Only
 CA8333 - Flexible CT
 Dataview Software

Item

PQCA8333A
 PQCA8333B
 PQCAFL01
 PQCADT01



We supply a range of fixed monitoring devices for low voltage switchgear. These devices provide all electrical and power values which can be monitored remotely.

Contact us detailing your monitoring requirements for information and a free quotation.



Contact Power Quality Improvement Services Ltd.

PQIS Ltd. are able to assist with all enquires regarding business power efficiency and deliver the highest quality of products at a price which is cost effective and competitive.

We have a track record of meeting safety, electrical and business standards.

For free information or a quotation from professional and experienced electrical engineers, use the contact details below.

Email: enquiries@pqis.co.uk

Website: www.pqis.co.uk

Twitter: <https://twitter.com/pfcservices>

Facebook: <https://www.facebook.com/pfcservices/>

Phone: +44 1257 434 218

Address: Power Quality Improvement Services Ltd.

6-8 School Lane,

Standish,

Wigan

Greater Manchester

England

United Kingdom



Power Quality Improvement Services Ltd.

Reduce business costs with electrical efficiency solutions

[6-8 School Lane, Standish, Wigan, Manchester, England, United Kingdom](#)