



Marine Services



marine electrical, electronic & mechanical solutions

www.etech-group.co.uk

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The range of services provided through the E-Tech Group include:

E-Tech Group Ltd

Complete turnkey electrical engineering services through regional locations

E-Tech Group (Switchgear Division)

Control panels & switchgear

E-Tech Group (Design Division)

CAD design & engineering

E-Tech Group (HVAC)

HVAC & building services

E-Tech Group (Specialist Services)

Condition monitoring

BCD Cables

Supply of electrical cables

Global ES

Supply of electrical equipment

Locations:

Head Office Gt. Yarmouth,
Tyneside, Teesside, Southampton, Plymouth,
Thetford, Harwich, Dubai, France,
Spain, Ghana, Malaysia



our services

- electrical installations
- innovative solutions
- individual service
- bespoke designs
- emergency repairs
- new builds & refits
- quality marine cable supply
- electrical equipment
- control panels & switchboards
- CAD design

Collaboration with designers, shipyards & our clients provides innovation & functionality to facilitate a totally integrated ships electrical system.

Established over 12 years ago by a team of electrical engineers trained and experienced in the Commercial Marine, Maritime Defence and the Superyacht Industry, E-Tech Groups marine division is actively involved with new build, refit projects and conversions for clients around the World.

From our headquarters and locations throughout the UK, Europe and the Middle East we provide the highest quality service and tailor made solutions utilising the latest materials and innovations available to satisfy the requirements of class and safety regulations.

Our strength is due to the complete and seamless integration of specialist companies who between them provide all of the services required to complete any electrical project.

This extends from conceptual design through to complete installation and material supply. Having control of all aspects of the electrical project ensures cost effectiveness and the achievement of critical milestones and budgets.



quality & commitment

Quality within our industries is paramount and at E-Tech Group Ltd we have, since our conception, ensured that this is never compromised.

We are committed to BS EN ISO 9001 throughout the group and through our customer feedback system we are undergoing a programme of continuous improvement to ensure our clients are provided with the very best service we can offer.

This level of quality is maintained through, with the close involvement of our clients and suppliers in the supply chain.



our commitment

quality

fully accredited quality system to ISO 9001

experience

engineers & technicians with individual experience going back 30 years

health & safety

we operate an approved safety management system and are active members of the British Safety Council

training

commitment to continuous improvement through training along with an annual intake of young apprentices who undergo a full marine electrical training programme

our environment

working in accordance with the principles of ISO 14001 we have a documented policy to ensure the activities we carry out have the least impact on our environment.

Integrated engineering and power management.

Purpose built to stringent classification and flag state rules and standards.



throughout the vessel

- ◆ engine room
- ◆ machinery control room
- ◆ generator & machinery spaces
- ◆ emergency generator
- ◆ living quarters
- ◆ galley areas
- ◆ crew accommodation
- ◆ bridge, radar and satellite systems
- ◆ communication & control centers
- ◆ deck equipment

Throughout any vessel there is an array of systems and electrical equipment designed to provide a seamless and integrated operational platform for the smooth operation of the vessel and the safety of crew and passengers.

Our experience extends to all areas within the vessel ensuring the same high quality, innovative and individual level of fit out and co-ordination during refits, upgrades, repairs or new build projects to guarantee the completed work fully meets the requirements and specifications of clients, architects, shipyards and class societies.



electrical installations

We are acutely aware that the electrical system of today's sophisticated vessels is the nucleus that integrates all other equipment and systems installed. For this reason, we aim to form an unparalleled channel of communication with the owner/client to ensure their expectations are met and exceeded..

This extends from conceptual design through to the complete installation and material supply. Having control of all aspects of the electrical project ensures cost effectiveness and the achievement of critical milestones and budgets.



bespoke engineering

- **installations**
 - technologically advanced electrical systems are designed to suit the vessels operating environment
 - experience of the sometimes unique installation requirements of class and vessel type
- **project management**
 - awareness of the importance of managing all projects with timely precision.
 - daily documentation of labour, hours, tasks performed and materials purchased
 - project documentation available to the client and the yard for job costings and progress management
- **experience**
 - our personnel are highly trained in marine electrical engineering with operating experience of marine electrical systems and are able to provide an independent unbiased opinion with regards to system design, operation and application.
- **services**
 - full compliment of sail-away personnel & worldwide response at short notice
 - supply of trained personnel from electrician to technician, supervisor to project leader
 - single vessel and charter fleet maintenance programmes
 - technical assistance

control panels & switchgear

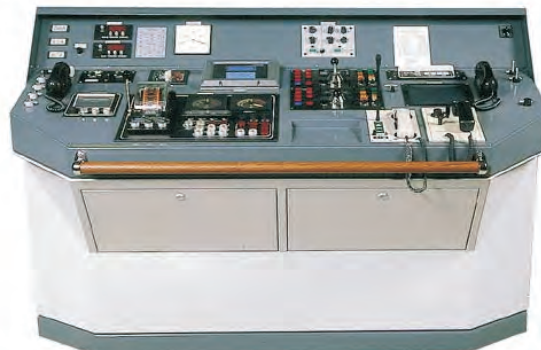
E-Tech Group's switchgear division possess over 25 years experience in the design and building of quality switchgear & control equipment and this ensures that we are amongst the leading companies in this field of electrical engineering.

Unique and innovative designs ensure complete customer satisfaction both aesthetically and technically using the latest state of the art components and materials from leading manufacturers and designers.

Our finished product will ensure the smooth operation of new construction and refit vessels.

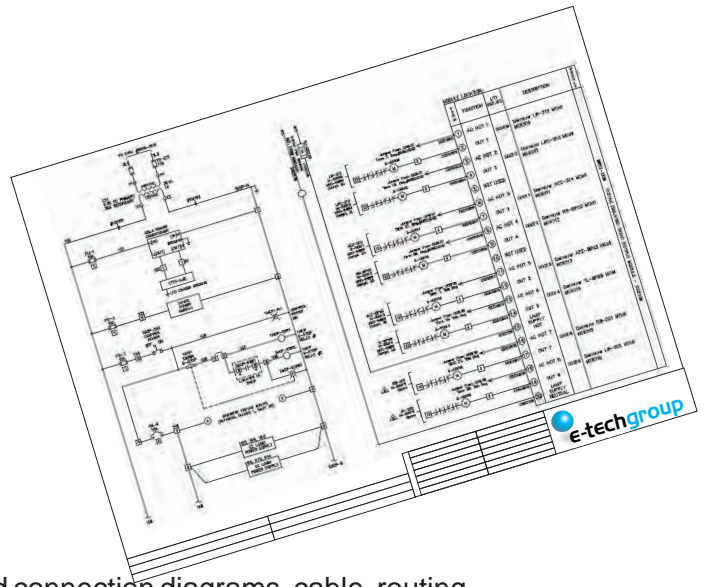


- ◆ full range of LV marine switchgear
- ◆ class approvals & submissions
- ◆ technical advice and specification
- ◆ procurement of complete electrical systems
- ◆ survey, testing and commissioning (on site)
- ◆ consoles, control desks & distribution panels
- ◆ wheelhouse and engine control room consoles
- ◆ PLC, SCADA, and full vessel management systems
- ◆ complete generator control & switching equipment
- ◆ incorporating latest PLC technology
- ◆ group starter panels & MCC's
- ◆ generator power management systems
- ◆ distribution equipment, navigation lighting panels



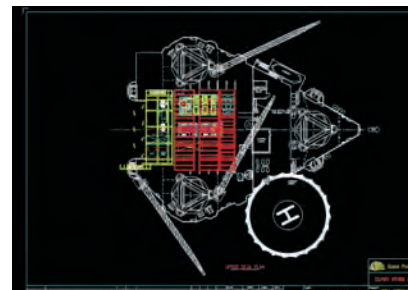
CAD design

E-Tech Group (Design Division): Est. in 1968 as Orwell Designs specialising in commercial marine control systems, has developed into one of the industries leading engineering design specialists with experience covering many of the unique facets of the marine market



some of the services provided

- full colour engineering drawings
- schematic diagrams, block diagrams, and connection diagrams. cable routing, cable schedules, equipment location and lighting diagrams.
- technical reports & manuals
- lists, specifications and technical documentation.
- complete electrical equipment construction packages as required
- conceptual engineering & design
- system concepts & design, generator sizing, system design, equipment specifications, and specification writing.
- electrical survey's to confirm safe operation of the vessels electrical systems, damage survey's, insurance companies or boatyards, SOLAS/MCA survey's.
- electrical load analysis & short-circuit current analysis .
- propulsion system evaluations and system design comparisons.
- motor starting studies, protection system studies, and harmonic evaluation
- client & contractor interface
- technical assistance and support for sub-contractor management.
- equipment evaluation, vendor monitoring and control.
- equipment integration and procurement.
- supervisory control for work scheduling and status reporting.



cable range & services

power, control, telephone & instrumentation cables

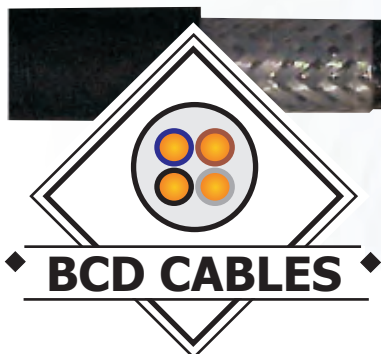
lightweight halogen free cables 600/1000v to IEC 60332-3
less than 0.5% halogen gas emissions in the event of a fire
upto 30% lighter than traditional cables
tinned copper conductors, flexible or stranded
1 core - 37 core, 1 pair - 2 pair
tinned copper braid or aluminium tape screens
approved by all major class societies

coaxial, data & fibre optic cables

halogen free, marine grade
cat 5e LAN data cables (screened or unscreened pairs)
coaxial 50 Ω & 75 Ω RG & URM (gswb on request)
single & multi mode fibre optic cable

extensive stock range

extensive range of marine cables available from our stock
same day despatch, no minimum quantities or values
UK covered next day, Europe generally 4/5 days
marine cable technical staff available to advise



www.bcdcables.com

cable supply

First hand knowledge of the requirements of our clients has enabled us to create a stock range and service designed to meet the exacting needs of today's marine industry. This coupled with close working relationships with some of Europe's largest cable manufacturers ensures we can supply the right cable for the job.

Utilising the latest in lightweight materials and enhanced safety performance can save up to 30% of the cable weight when compared with other elastomeric types whilst greatly reducing the effects of smoke damage and toxic gas emissions in the event of a fire due to its zero halogen properties.

Extensive stocks with a rapid worldwide export service with no minimum order or quantity allows us to deal efficiently and competitively with clients cable requirements large or small.



marine electrical equipment

Global ES provide a specialist electrical supply service to our marine clients on both an international and domestic basis from our office and warehouse facilities in Great Yarmouth, supported by branches and agents throughout the UK, Middle East, Asia, Europe and the USA.

Our personnel offer extensive experience specific to the requirements of the marine industry with hands on knowledge gained though aiding clients with equipment specification and sourcing.

Our dedicated export team handles the valued enquiries from our overseas clients and are all experienced in sourcing even the most elusive of parts and the organising of freight consignments and the necessary export documentation.

cable glands
 control gear
 hazardous area
 lighting
 cable ladder
 heating
 plugs & sockets
 alarm systems
 navigation equipment
 cable tray
 GRP enclosures
 hand tools
 power tools
 trace heating
 crimp terminations
 junction box's
 Exe & Eexd equipment
 weatherproof equipment
 inverters
 batteries
 temporary lighting
 voltage convertors
 UPS
 cable cleats
 motors
 entertainment systems
 pumps
 bespoke lighting fixtiures
 LED panels
 security cameras



globales
SPECIALIST ELECTRICAL DISTRIBUTORS

www.global-es.co.uk

E-Tech Group - Marine Division
Total Electrical Solutions - Worldwide
www.etch-group.co.uk

preventive maintenance

condition monitoring & special services

thermal imaging

used for the inspection of electrical equipment to identify hot spots as a result of loose connections or faulty parts.

laser alignment

the latest in laser technology is used to ensure the accurate alignment of rotating machinery

vibration analysis

sophisticated FFT vibration analysis instruments allow us to easily carry out noise and vibration tests on all kinds of rotating equipment to aid harmonics, noise reduction and predict component failure.

current injection

powerful, modern and portable test equipment upto 13000 amps allows us to perform both primary and secondary current injection tests essential to a regular safety maintenance programme.

emergency repairs

a 24 hour - worldwide electrical repair service is provided to assist with anything from minor electrical breakdowns to the complete failure of the electrical system.

motor rewinds

established to provide a fast turnaround service to marine clients anywhere in the UK with emphasis on quality and competitiveness.

Other industries that rely upon the continuous smooth operation of essential machinery have benefited from our combined preventative maintenance or condition monitoring service.

With our specialised thermal image camera's we are able to verify the condition of electrical connections in equipment and spot potential problems before they fail causing more damage. In addition to this we can check rotating machinery for correct alignment and bearing wear using high tech laser alignment and vibration analysis equipment. Verifying the safe operation of the protective electrical circuit breakers is also be carried out to class requirements using our very portable current injection sets.

This relatively inexpensive service can be carried out as part of a regular maintenance programme and does not require systems to shut down. We can provide this service to individual vessels or maintain and run a continuous service for charter fleets ensuring this service is carried out in alignment with charter commitments. Our specialists are highly trained marine electrical engineers and can often remedy minor faults during the survey or quote costs to carry out repairs.

Failure of electrical equipment at sea can be costly in lost revenue and time in dock rectifying the damage caused by an electrical fire.





e-techgroup
total engineering solutions worldwide

locations & details of worldwide divisions

**E-Tech Group Ltd
Group Headquarters**

The E-Tech Centre
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E mail: etech@etechcentre.com

Engineering Divisions

E-Tech Group (Eastern Division)

electrical engineers (formerly Peto Services)

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E mail: etech.tyne@etechcentre.com

E-Tech Group (Switchgear Division)

switchgear & control panels (formerly Eastern Switchgear)

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E-Tech Group (Southern Division)

electrical engineers (formerly Peto EMR)

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E mail: etech.south@etechcentre.com

E-Tech Group (Teesside Division)

electrical engineers (formerly Peto Netlift)

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E-Tech Group (Design Division)

CAD engineering (formerly Orwell Designs)

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E-Tech Group (South East Division)

electrical engineers

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Kent

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E-Tech Group (HVAC Division)

building services (formerly Barrett & Wright)

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Supply Divisions

BCD Cables

specialist cable supplier

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E mail: bcdcables@etechcentre.com

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specialist electrical distributor

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Global ES

North East Base

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Fax: +44 (0)191 489 3049 3055
E mail: sales.ne@global-es.co.uk

Global ES

Thetford Base

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Fax 01842 820673
email: sales.thetford@global-es.co.uk

E-Tech Group International

E-Tech Yachting

superyacht services (Génie Electrique à Fournisseur de Matériaux)

**E-Tech Méditerranée
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E-Tech Group (Gulf)

supply & engineering services

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