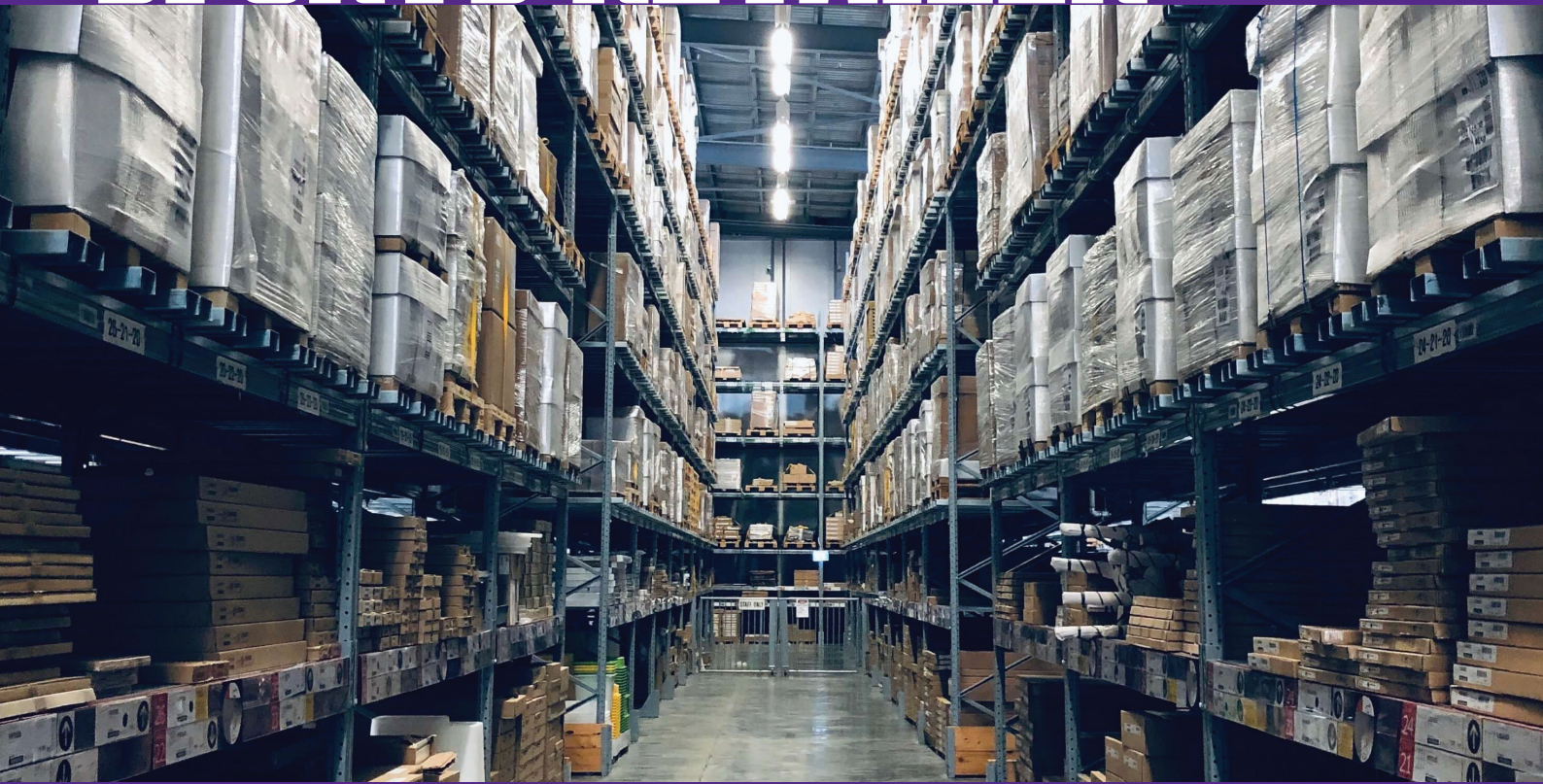


GENERATOR POWER PACKAGE FOR UK SPORTS RETAILER



CLIENT: FAMILY RUN ELECTRICAL ENGINEERING COMPANY
END CLIENT: UK'S LARGEST SPORTS GOODS RETAILER
LOCATION: WEST MIDLANDS
PROJECT: GENERATOR POWER PACKAGE FOR NEW WAREHOUSE FACILITY

Project Brief

Supply, installation and commissioning of 1 off 1675kVA prime rated generator set with associated fuel system and sound attenuation & 2 off 1400kVA sets with associated fuel system and sound attenuation for UK's largest sports-goods retailer operating 670+ stores worldwide.

Unit 12 Stirling Park,
Laker Road, Rochester, Kent
ME1 3QR

t 01634 668090
e sales@tgc.uk.com
www.tgc.uk.com



CASE STUDY

Due to a successful long standing relationship with the customer, we were asked to put together a bespoke design and quotation for a new back-up generator power package to support critical services for the new 800,000 sq.ft. headquarters and warehouse distribution building for a UK sports goods retailer being built in the Midlands area.

We were clearly delighted to be considered for this project and following numerous site visits and planning meetings with the customer our sales manager promptly put together a design package as per the customer design brief.

Works to be undertaken as part of the project brief included:

- Design bespoke back-up generator power package to support critical services
- Control System modifications to ComAp Controller to suit site application
- Factory Acceptance Test at Dover depot, Kent
- Temporary generator needed to back up the UPS server room
- Deliver, offload, position and install three new generator sets in rooms 1, 2 & 3
- Supply one off 13,500 litre and two off 10,000 litre single skinned bunded bulk fuel storage tanks
- Supply and install fuel system in in rooms 1, 2 & 3
- Supply and install exhaust system in rooms 1, 2 & 3
- Supply and install plant room air inlet and outlet attenuation in rooms 1, 2 & 3 designed to achieve a noise level of 75dBA
- Carry out pre-commissioning checks following installation by The Generator Company and electrical installation by others using own resistive loadbank. Carry out functional checks and a further witness test
- Carry out site training
- Carry our Site Acceptance Test

Once the client agreed the principle of the new system design and we were instructed to proceed, as with all our projects a dedicated technical Project Manager was assigned to run our package of works from initial design, provide as built CAD and GA drawings, attend site meetings as appropriate, the provision of Operation & Maintenance manuals and ensuring the successful implementation and co-ordination of the scope of works.

Our Project Manager proceeded to order the new generators from our suppliers both in the UK and Italy as per the agreed design. After manufacture they were delivered to our Dover depot for control systems modification to ComAp Controller to suit site application.

A temporary generator, provided by our rental division Powerhire, was shipped to the build site prior to any works being carried out, to support the UPS server room whilst final infrastructure was completed on the building.

With the assistance of Powerhire, our commissioning engineers utilised their 800KW & 2.5MW resistive loadbanks for a three hour factory acceptance witness test at our Dover test site, with the customer in

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CASE STUDY

attendance, to prove reliability of the generators.

Following a successful witness test with the customer satisfied that the equipment would meet their specification and performance expectations, the generators were dismantled, loaded, by a 100 ton mobile crane, and delivered direct to site by our own Hiab lorries.

Once on site they were offloaded adjacent to the generator room, again by the 100 ton mobile crane, at ground level and skated onto a prepared plinth into the generator rooms, followed by the bulk fuel tanks.

After the generators were positioned in the rooms our engineers could get to work with the mechanical installation of the generators, fuel tanks, exhaust systems and air attenuation which were installed within the scheduled six-week time frame.

On completion of the electrical installation, by the electrical contractors, our engineers returned to site to carry out all pre-commissioning checks.

Further tests, including G59 testing, were carried out on all generators by our commissioning engineers, utilising Powerhire's loadbanks, for 3 hour duration and in the presence of the customer and end-client to verify that all systems performed as they should.

Again, all tests were successful with the customer and end-client assured of functionality.

On completion of the successful installation and integration of the new generator system to provide full power to the building, and with a very happy end client, the rental generator was removed from site and our project manager and commissioning engineer spent a day training the client's supervisors and other staff on how to use the systems as well as leaving them with system operating manuals and generator technical manuals.



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