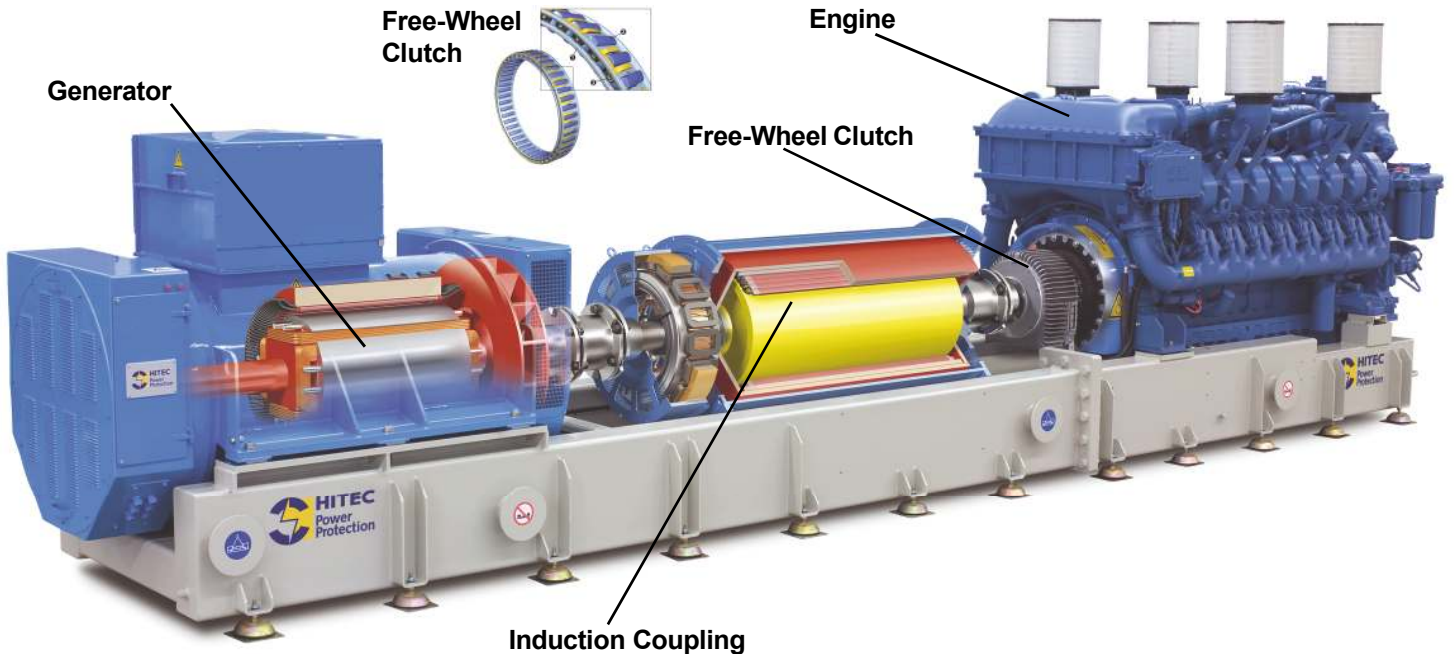


8 - UPS - Dual Output Diesel

HITEC

Hitec Diesel Rotary UPS = UPS + Standby Generator The First, the Best

Hitec Power Protection celebrates 50 years of rotary power protection systems with our rotating filter concept (the combination of a synchronous alternator and reactor). This is at the heart of every Hitec DRUPS. Today we manufacture single module systems rated up to 2,800 kVA, which can be configured to a variety of DR-UPS systems.



Assured Quality

Our complete business process, from engineering and manufacturing to commissioning and customer support, follows strict quality requirements and is ISO 9001 certified. Our DRUPS systems comply with guidelines as set forth in IEC (BS, VDE, EN, etc), ANSI, UL or equivalent. Additionally, we test each CPS system prior to shipping. With the completion of our new Final Assembly & Test facilities in early 2001, we now possess the largest test facilities for DR-UPS systems in the world, with a total capacity of 34 MVA!

System Description

Hitec Power Protection's Diesel Rotary UPS is synonymous with quality and reliability. It filters the incoming utility power and protects against power interruptions in a simple and effective manner. The unique concept and design of the Hitec Power Protection DR-UPS maximises reliability and provides the customer with the highest possible availability. Depending on the size of the fuel reserve, the DR-UPS can provide power for an indefinite period of time.

Induction Coupling = No Batteries

The INDUCTION COUPLING is Hitec Power Protection's distinctive concept and is the heart of the diesel rotary UPS. The outer rotor (red) contains a two-pole three-phase winding that accelerates the free-spinning inner rotor (yellow) during utility mode. When utility fails, the DR-UPS retrieves power from the kinetic energy of the inner rotor by energizing the DC winding of the outer rotor. The amount of energy available from the inner rotor is more than adequate to bridge the time required for the diesel engine to start and ramp up to full speed and power.

Alternator & Choke = Active Filter

The careful matching of the alternator and the choke provides a system that acts as a continuous filter which allows the DR-UPS to maintain the output voltage within the strictest tolerances. When mains power is available the ALTERNATOR supplies reactive power to the load so that the utility sees a near unity power factor. In the event of a utility power failure, the alternator is firstly driven by the induction coupling, then by the diesel engine, to supply long term power to the critical load.

Why you should use Hitec Diesel Rotary UPS

There are a number of key benefits from incorporating this tried and tested technology within a facility, in summary these are:

High Longevity - Hitec has systems operational in the UK for more than 25 years.

Higher Reliability - The lower number of main components gives an inherently more reliable design.

More Space Efficient - Space savings of 50% can be achieved over traditional arrangements.

Higher Efficiency - Measured efficiencies of 97% translate into major reduction in running costs.

Harmonic Filtering Capability - Hitec invented the rotating filter to protect the load from mains borne harmonics and to stop load-harmonics from returning to the supply.

Power Factor Correction - Corrects power factor to near unity at the incoming supply; reduces electricity distribution charges.

Loads with Leading Power Factor Capability - Supplies loads with leading power factors without derating its kW output.

High Crest Factor Capability - Supplies high crest factor loads without derating its output.

Downstream Fault Clearing Capability - Excellent downstream fault clearing capacity, allows selectivity of protection devices.

Environmental Considerations - Kinetic energy store so no battery disposal issues.