

THYCON

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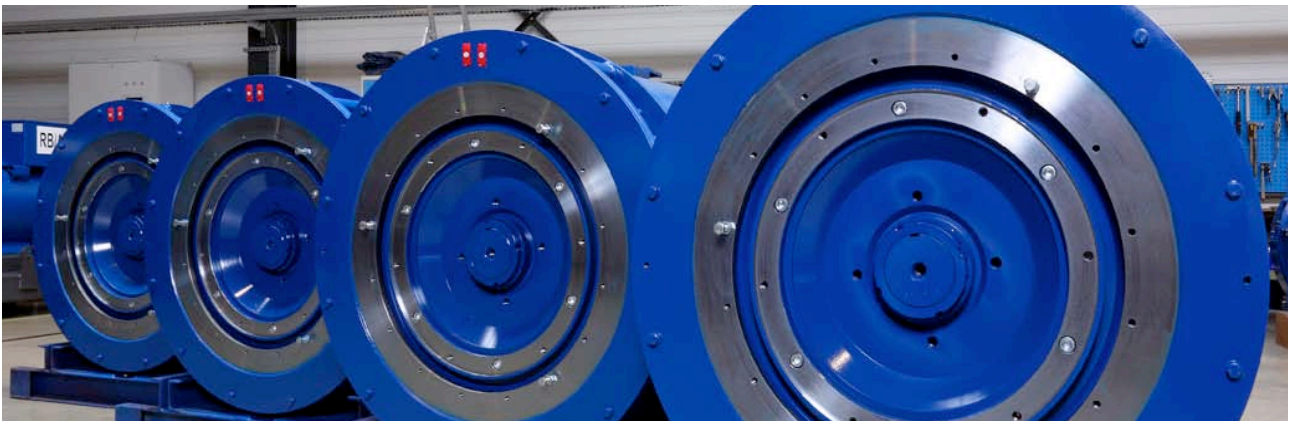


Diesel Rotary UPS – Type E-DRUPS®



Diesel Rotary UPS – Type E-DRUPS®
Simple • Robust • Reliable • Green • Low TCO
Prepared by Thycon Industrial Pty Ltd.





Rotabloc® 800-50

Thycon E-DRUPS®

The Unique Solution to ensure Power Quality and Reliability

Data Centres, Banks, Communication Services, Airports, Manufacturing Processes & Hospitals, in fact all mission critical installations, demand and expect a filtered, continuous and sustainable power supply solution.

The uninterruptible power solution is the true heart of any large organisation. Without such a system that protects against power failure, serious financial consequences can befall the user.

The E-DRUPS® is a Diesel Rotary Uninterruptible Power Supply (DRUPS) designed to protect critical users from disturbances such as total power failure, micro-cuts, voltage drops and surges, and slow voltage fluctuations. It also improves the power factor of the installation, rebalances phase currents and attenuates harmonic currents generated by non linear loads.

Due to the low internal reactance of the synchronous machine an excellent level of selectivity or discrimination can be achieved.

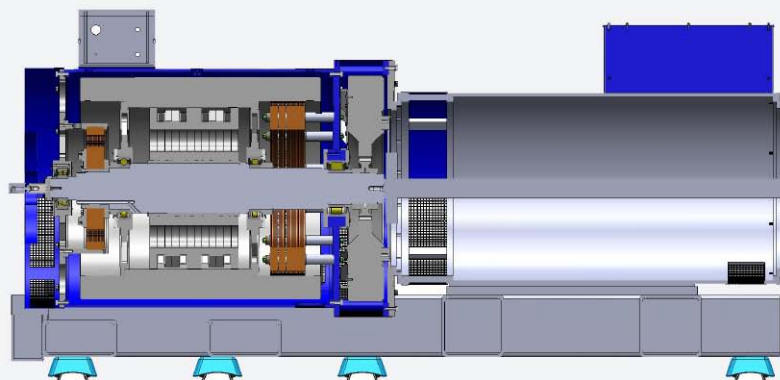
The E-DRUPS® comprises a diesel generator coupled via an “Electric Shaft” to one or more electrical machines called “Rotabloc®”, a power cabinet and a control cabinet with diagnostics.

The Electric Shaft eliminates the need for an electro-mechanical clutch allowing a “soft” start for the diesel engine plus a “soft” controlled transfer of load from the energy store to the 1500 rpm synchronous shaft. Features include the delay of diesel start for 1 second, separate room for genset, critical and non-critical load option and black start capability.

Mission critical power is guaranteed by the E-DRUPS® module either at low voltage or as a medium voltage solution.

The E-DRUPS® solution is a result of over 25 years experience in the design and manufacture of rotating machines specific for UPS systems. E-DRUPS® provides an exceptionally high level of reliability and efficiency ensuring the user’s total protection and satisfaction.

Our team of experienced engineers and technicians will be your partners from the identification of your needs to the final turnkey solution.



Rotabloc® cutaway view

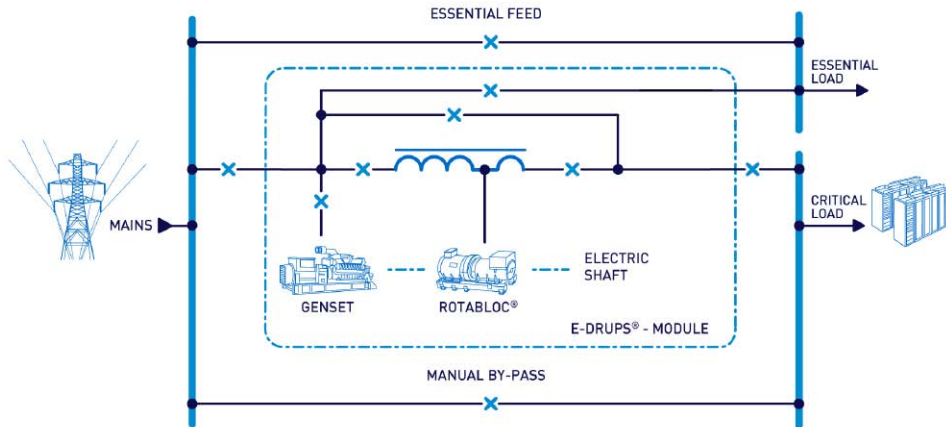
Feature	Benefit
True Diesel Rotary UPS	Sustainable continuous power supply
Fully integrated module	Easy paralleling & no change-over switch required
Electric Shaft	- No mechanical clutch between diesel and DRUPS - Soft load transfer to genset
Flexibility for genset selection	Possibility for critical and essential load from the same module
Either purpose built E-DRUPS® room or remote genset room	- Electrical connection only - Possible containerisation of genset - Possible location of RUPS close to servers
Soft genset start	Avoids mechanical stress when starting diesel
E-DRUPS® module software	Technical and contractual responsibility by Thycon
Low internal reactance (4.5%)	- Excellent downstream selectivity and discrimination for clearing faults - Excellent harmonic attenuation - Unaffected by phase imbalance
Improves power factor to near unity	Lower operating cost and separate PFC equipment unnecessary
Frequency stability ± 1 Hz	Suitable for computer grade power
Easy paralleling of modules	Simple method to achieve Tier classifications
Black start	Total independence from the mains
Simple interfacing	User friendly KST View allows powerful communication for supervision, monitoring and internet access

Delayed start of genset	Avoids nuisance frequent start-ups, reducing maintenance & fuel costs
Automatic speed control of rotating energy store	Optimum efficiency at all times, reducing energy costs

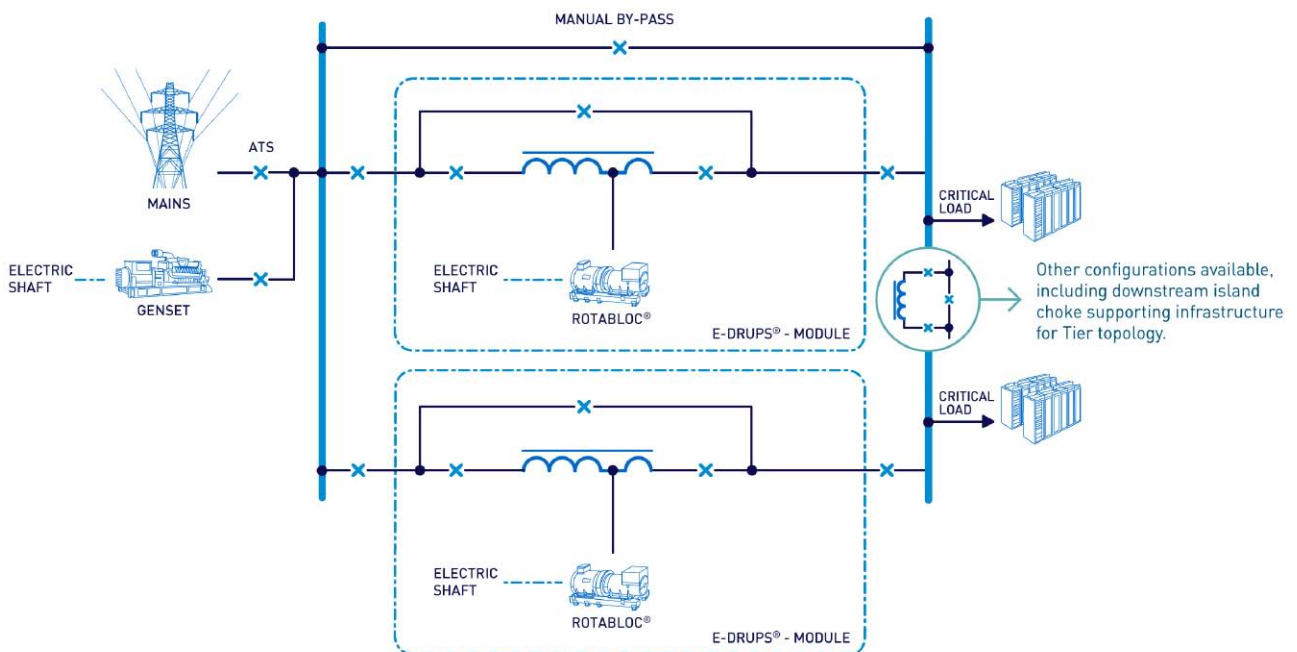


E-DRUPS® 500-50

Dual output - Critical & essential



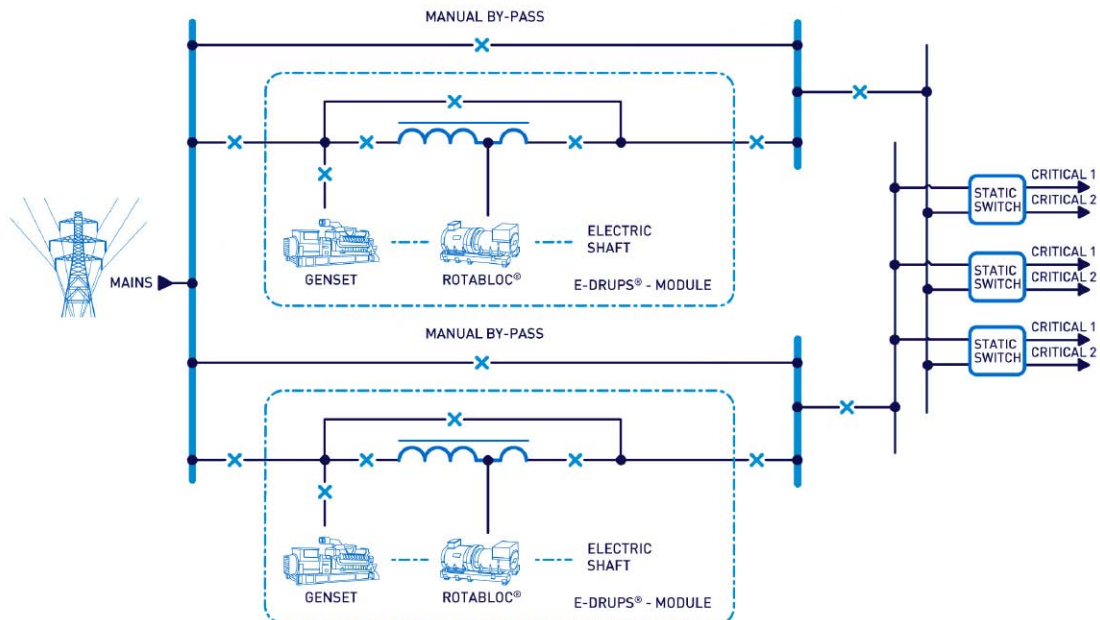
Parallel redundant

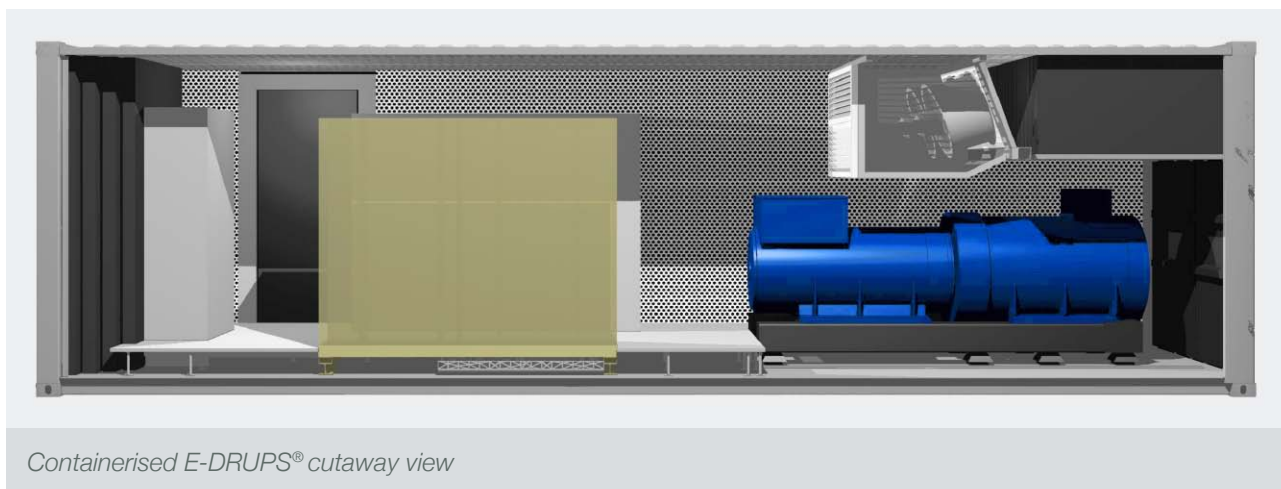




E-DRUPS® 500-50

Distributed redundant





Containerised E-DRUPS® cutaway view

Critical Load		E-DRUPS® module
kVA	kW	50Hz or 60Hz
500	400	E-DRUPS 500-50/60
500	500	E-DRUPS 500HP-50/60
630	500	E-DRUPS 630-50/60
800	640	E-DRUPS 800-50/60
1000	800	E-DRUPS 1000-50/60
1000	1000	E-DRUPS 1000HP-50/60
1250	1000	E-DRUPS 1250-50/60
1600	1280	E-DRUPS 1600-50/60
2000	1600	E-DRUPS 2000-50/60

**Specifications are subject to change.*

The range is further complemented by manufacturing modules from 630 kVA through to 2000 kVA in MEDIUM VOLTAGE including upstream and downstream switchgear.

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