

OVERVIEW

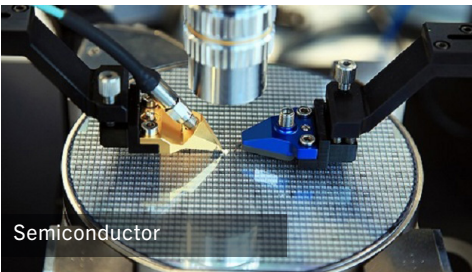
Sensitive industrial processes necessitate not only an uninterrupted power supply, but also a high level of power quality. Even minor voltage fluctuations or micro-cuts can have significant technical and economic consequences for users in industries such as food and beverage, pharmaceutical, semi-conductor, and heavy manufacturing.



Food and Beverage



Pharmaceutical



Semiconductor

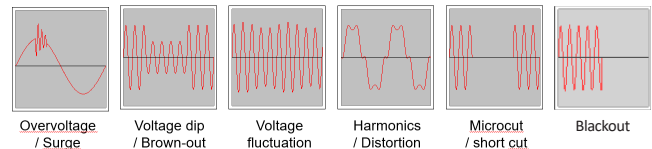


Processing Facilities

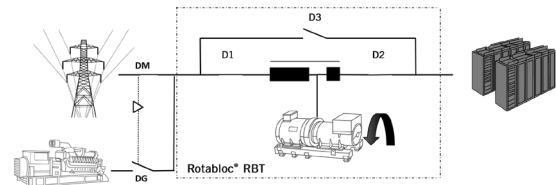
TOTAL POWER PROTECTION

IEM Power Systems has created ideal solutions to protect sensitive loads from electrical disturbances such as power failures, micro-cuts, voltage transients and fluctuations, flickers, harmonics, and other disruptions.

The Rotabloc RBT employs simple, efficient, conventional electrical and mechanical components, resulting in a machine that is highly robust and reliable. The system consists of a standard synchronous generator coupled to a low-speed steel flywheel in the air. Its design results in a longer life expectancy (> 25 years) and very low maintenance costs.



To cover long power failures (>10s), the RBT can be connected to a diesel power generator (genset) via an automatic transfer switch (ATS).



NORMAL OPERATION

The Rotabloc RBT continuously protects facilities from the most common disturbances, such as voltage dips and spikes, slow voltage variations, harmonics, and flickers. By filtering out these disturbances, the Rotabloc RBT:

- Prevents wear and damage on facility infrastructures.
- Eliminates maintenance downtime necessary to repair and restart production lines.
- Avoids loss of high value manufactured products.

MAINS FAILURE

During a power outage, the Rotabloc RBT protects the load and keeps the power supply at the correct voltage and frequency. This is accomplished through a direct mechanical transfer of the energy stored in the kinetic accumulator into the alternator, which eliminates the need for any electronic power conversion or other complex technology.

- After a 1-second delay, the Rotabloc RBT transmits signals for the genset to start and for the automatic transfer switch to open DM and close DG. The absence of the mains triggers the genset to supply the load.
- When a stable mains supply is restored and the accumulator is recharged, the Rotabloc RBT allows the ATS to be switched back to the mains.

PRODUCT RANGE (50HZ - 400V)

Product	Power (kVA)	Power (kW)
RBT-400-50	400	320
RBT-500-50	500	400
RBT-630-50	630	504
RBT-800-50	800	640
RBT-1000-50	1000	800
RBT-1100-50	1100	880
RBT-1250D-50	1250	1000
RBT-1600D-50	1600	1280
RBT-1750D-50	1750	1400
RBT-2000D-50	2000	1600
RBT-2200D-50	2200	1760

For greater power, multiple modules can be easily connected in parallel, providing scalable and flexible solutions in both low and medium voltage.

SAFETY AND RELIABILITY

- Purely electromagnetic system without batteries or capacitors: no risk of fire, explosion or release of hazardous gases.
- Work at ambient temperature (up to 55°C): no need for air conditioning.
- Operation and maintenance accessible to standard technicians.
- Full automatic lubrication. No stopping required.

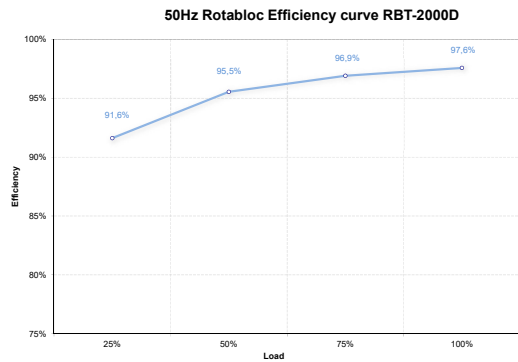
BENEFITS: UPS + GENSET VS. TRADITIONAL DRUPS

- Maintenance of genset and UPS can be completed separately and safely.
- Compatible with most gensets, including existing ones.
- Full flexibility of genset power sizing (No-Break/Short-Break loads).

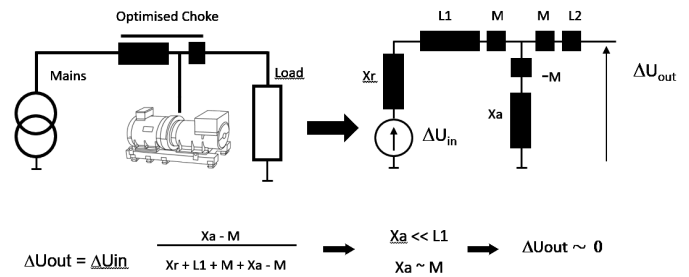
- Ride-through protection avoids 95% engine starts (improved engine life-time, reduced environmental impact and fuel consumption).
- Independent Redundancy of RBT and genset.
- Genset can be used for continuous power source, peak shaving, cogeneration, etc.
- Genset can be tested on load without risk.

ELECTRICAL FEATURES

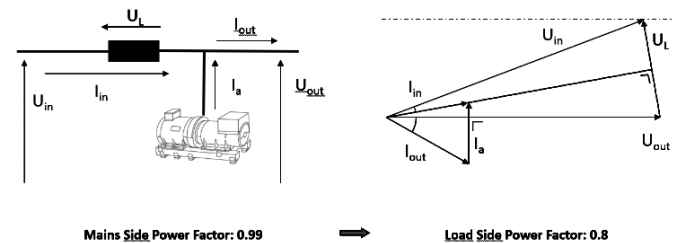
- High efficiency at full and partial load



- Voltage sag correction



- High short-circuit power: 15 to 20x In
- Harmonic Currents Filtering: >= 95%
- Power Factor Compensation



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