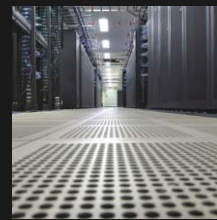
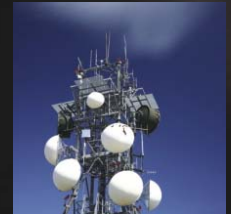


Power Quality - Power Generation Designed With You in Mind!



DYNAMICS

Bringing You Rotary UPS Manufactured By:



EURO-DIESEL

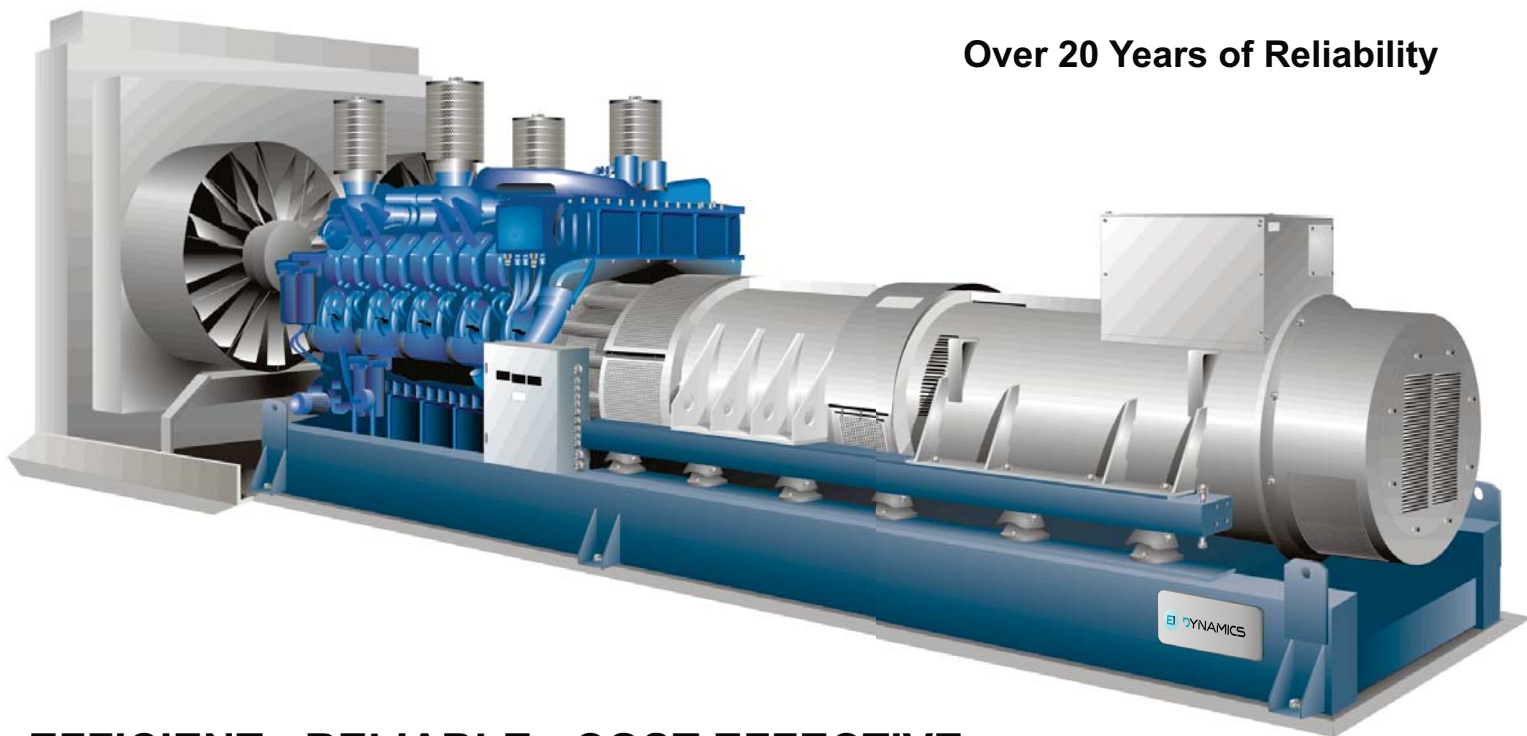


The No Break ®

General Weights and Dimensions					
kW	kVA	Length / FT	Width / FT	Height / FT	Weight / LB
400	500	16	5.6	6.6	22,500
720	900	19	5.6	6.6	32,500
920	1150	22	6.5	6.6	39,700
1200	1500	23	6.5	6.6	41,900
1300	1625	23	6.5	6.6	47,600
1600	2000	24	6.5	6.9	56,400
2000*	2500*	24	6.5	6.9	56,400

*Dual Output Arrangement - Total Capacity. UPS Available is 1600kW / 2000kVA
All values Approximate, excluding radiator.

Over 20 Years of Reliability

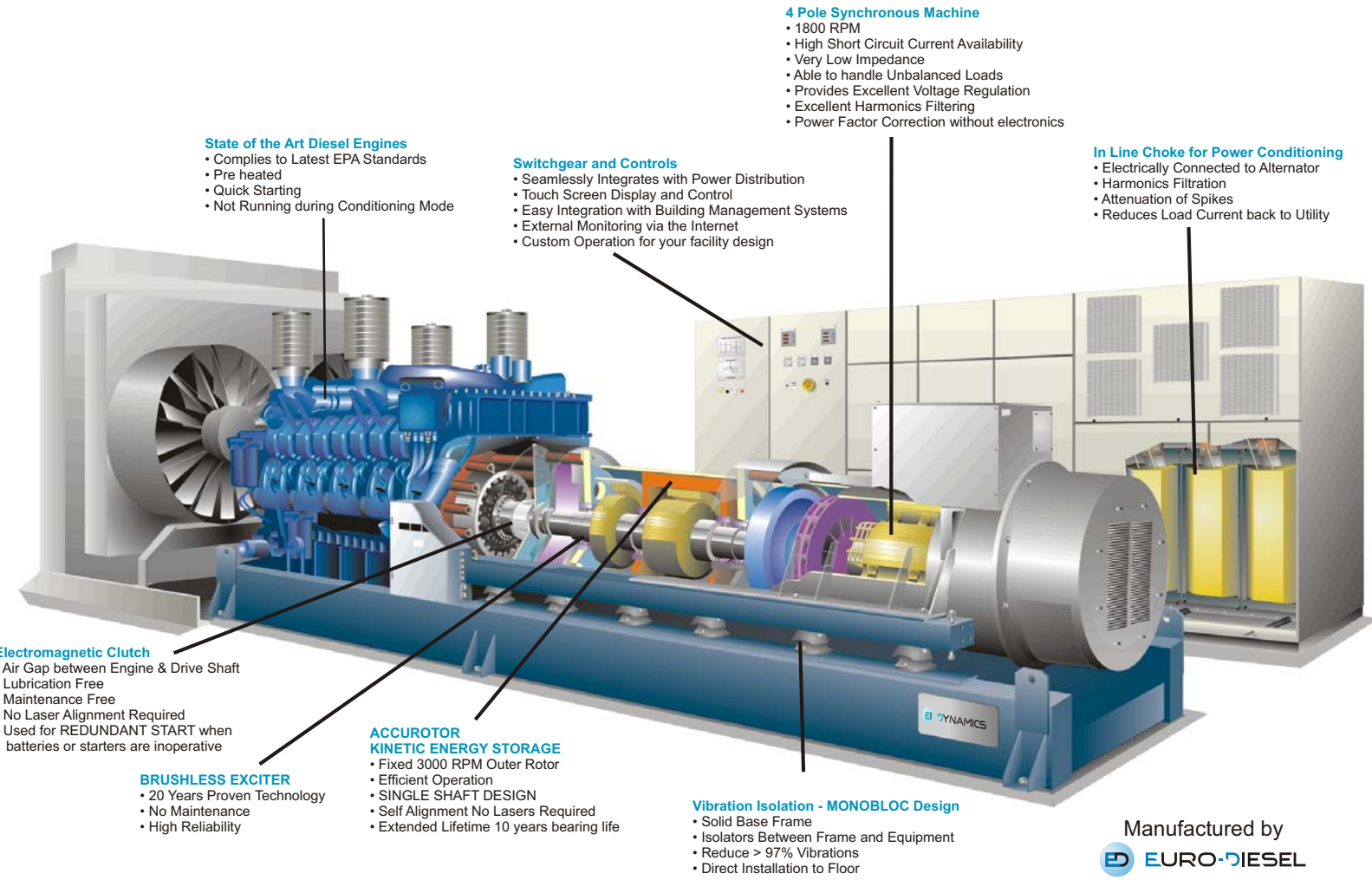


**EFFICIENT - RELIABLE - COST EFFECTIVE
DESIGNED WITH YOU IN MIND!**

Manufactured by
 **EURO-DIESEL**

SIMPLE DESIGN - SMART TECHNOLOGY

DESIGNED WITH YOU IN MIND!



State of the Art Diesel Engines

- Complies to Latest EPA Standards
- Pre heated
- Quick Starting
- Not Running during Conditioning Mode

Switchgear and Controls

- Seamlessly Integrates with Power Distribution
- Touch Screen Display and Control
- Easy Integration with Building Management Systems
- External Monitoring via the Internet
- Custom Operation for your facility design

4 Pole Synchronous Machine

- 1800 RPM
- High Short Circuit Current Availability
- Very Low Impedance
- Able to handle Unbalanced Loads
- Provides Excellent Voltage Regulation
- Excellent Harmonics Filtering
- Power Factor Correction without electronics

In Line Choke for Power Conditioning

- Electrically Connected to Alternator
- Harmonics Filtration
- Attenuation of Spikes
- Reduces Load Current back to Utility

Electromagnetic Clutch

- Air Gap between Engine & Drive Shaft
- Lubrication Free
- Maintenance Free
- No Laser Alignment Required
- Used for REDUNDANT START when batteries or starters are inoperative

BRUSHLESS EXCITER

- 20 Years Proven Technology
- No Maintenance
- High Reliability

ACCURATOR KINETIC ENERGY STORAGE

- Fixed 3000 RPM Outer Rotor
- Efficient Operation
- SINGLE SHAFT DESIGN
- Self Alignment No Lasers Required
- Extended Lifetime 10 years bearing life

Vibration Isolation - MONOBLOC Design

- Solid Base Frame
- Isolators Between Frame and Equipment
- Reduce > 97% Vibrations
- Direct Installation to Floor

Manufactured by
EURO-DIESEL

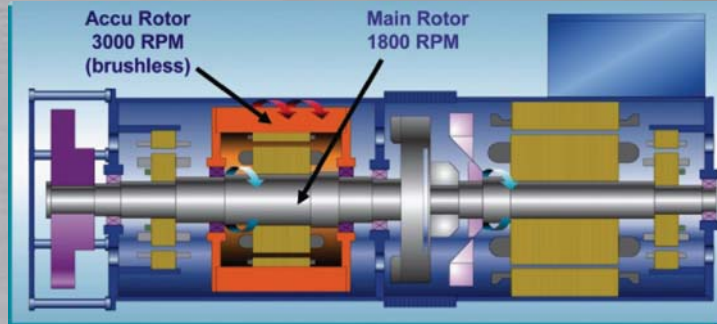
SYSTEM TOPOLOGY

Secure, Clean and Reliable Power

The NO-BREAK E1 is a Dynamic Uninterruptible Power Supply system used to secure and protect critical equipment from utility disturbances and outages. The Dynamic UPS is manufactured by Euro Diesel S.A. With over 20 years experience in this field. Euro Diesel and E1 Dynamics are teamed to provide you with the most efficient, and cost effective solution Designed with You In Mind!

The **Kinetic Energy Accumulator** consists of two rotating parts, the outer rotor, (orange colored picture) which rotates around the inner rotor.

The inner rotor, driven by the central shaft fed by utility, rotates at 1500 rpm (50 Hz) or 1800 rpm (60 Hz). It is provided with two sets of windings: an AC winding and a DC winding as part of the Brushless Exciter.

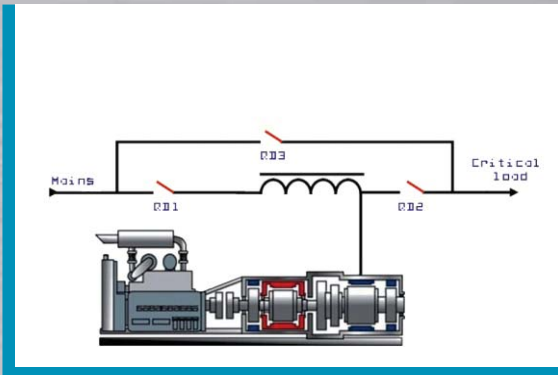


In **Conditioning Mode**, utility is present, the NO-BREAK E1 acts as a synchronous condenser (motor load) providing power conditioning by regulating the output voltage, power factor correction, harmonic distortion filtering and also protects against spikes and other **anomalies**. In this mode, the Outer Rotor is maintained at full speed 3000 rpm by control of the Brushless Exciter.

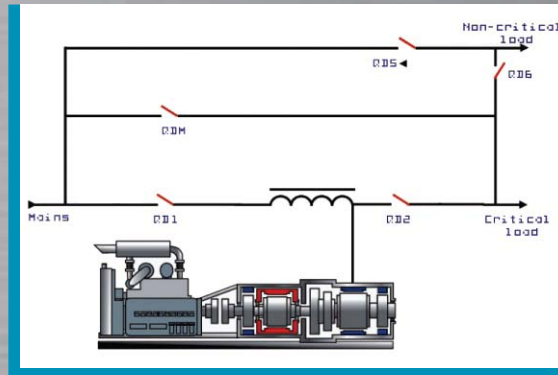
In **Emergency / Diesel Mode**, when a utility failure occurs, the stored kinetic energy from the outer rotor of the AccuRotor is retrieved by means of the Brushless Exciter, and transferred to the drive of the synchronous machine. At this point the machine is now acting like a generator. This occurs without an interruption to the user.

Shortly after the utility failure, the diesel engine is started and coupled to the drive of the synchronous machine by closing the electromagnetic clutch. At this point, the Engine continues to drive the generator providing complete uninterruptible power to the loads.

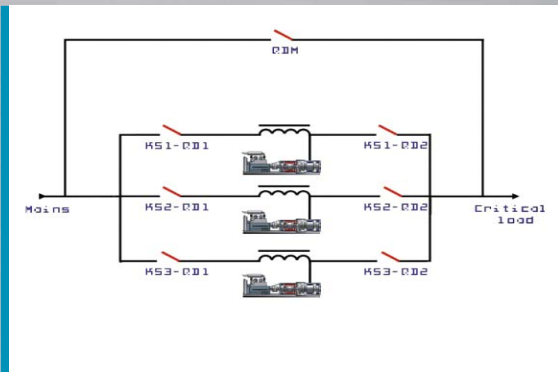
SYSTEM SINGLE LINES



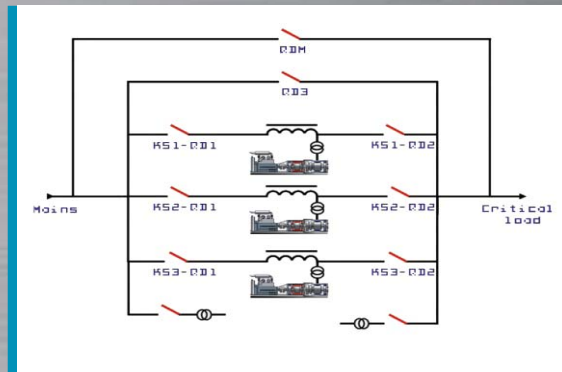
Single System Single Output



Single System DUAL Output



3x Parallel System



Medium Voltage Parallel System

POWER QUALITY - POWER GENERATION DESIGNED WITH YOU IN MIND

SYSTEM ADVANTAGES

1. **Reliability** - the lowest component count combined with brushless exciter, and low operational speed provide for a superior design with the highest reliability and MTBF.
2. **Efficiency** - The most efficient system on the market > 96%
3. **Brushless** - 20 Years of proven brushless design reduces downtime and avoids carbon dust inside of the electrical machines.
4. **MONOBLOC** - All machines are directly coupled with a solid drive shaft design, making the NO - BREAK E1 extremely robust. No required critical laser alignment / inspections in the factory nor at site.
5. **Durability** - The kinetic energy is stored in the outer rotor which is called the Accurotor, which rotates only at a relative speed of 1200 rpm, guaranteeing lower operating temperatures, higher efficiencies, and a very long bearing life.
6. **Redundant Starting** - The Electro - Magnetic Clutch provides redundant starting without relying on batteries or starter motors.
7. **Power Factor Improvement** - the input power factor remains almost unity, independent of load.
8. **Dynamic Filter** - filters harmonic distortion and voltage spikes.
9. **Voltage Regulation** - excellent voltage stabilization, even in brownouts and over-voltages.
10. **Small Footprint** - the NO-BREAK E1 can save up to 50% of floor space over static UPS designs.

SYSTEM SPECIFICATIONS

Rated Voltage	380, 400, 440, 480, and 4160 Volts Medium Voltage Up to 25kV
Rated Frequency	50 Hz or 60 Hz
Input Specifications	
Standard input voltage tolerance	± 10%
Standard input frequency tolerance	± 1%
Input power factor under nominal conditions	0.98
Harmonic filtering under nominal conditions	99%
Max. Reverse - current during up-stream short circuit	2 x In
Output Specifications	
Output voltage steady state conditions	± 1%
Output voltage during dynamic conditions, < 1 second (With maximum 50% load step)	± 5%
Output frequency steady state conditions	± 0.5%
Output frequency during dynamic conditions, < 1 second (With maximum 50% load step)	± 1%
Design output power factor	0.8
Max. Current during down-stream short circuit	20 x In
Harmonic distortion factor	1.5%. 2.5% (Ph-N)
Overload capacity in normal operation	10% for 1 hour
Load unbalanced capability	100%
Voltage system symmetry	2%
Radio interference level	K
Ambient Conditions	
Maximum ambient temperature (For higher ambient temperatures certain de-rating factors may need to be applied)	45° C (113 °F)
Humidity	90% non condensing
Maximum altitude (For higher altitudes certain de-rating factors may need to be applied)	500 meters (1640 ft)

POWER QUALITY - POWER GENERATION DESIGNED WITH YOU IN MIND



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DYNAMICS

PO Box 1427

Montgomery, TX 77356

Toll Free 877-898-6922

www.e1dynamics.com