E-SAVE ENERGY SAVING SYSTEM
AFE & DC BUS

We consider a complete BDF system equipped with servo plunger, servo shears, servo gob, servo pusher, servo invert and servo take-out mechanisms.

Considering the system from a mechanical point of view, there is a continuous energetic inertial changing due to the continuously mechanisms acceleration and deceleration.

We may say that for every movement the energy needs for the acceleration is balanced with the energy needs for the deceleration, more the energy to compensate the mechanical and electronic losses. These losses are functions of the machine speed. As the servomechanisms movements are not in the same time, the excesed energy is recovered on the CC BUS.
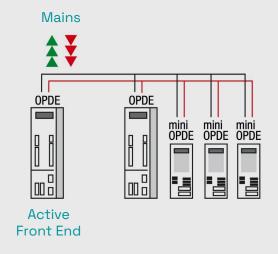
The system takes from the main line only the energy to compensate all the losses (passive energy) that are not compensate from the recovered energy.
The system transfer from the main line to the BUS full power (without cutting) with $\cos\phi=1$.

The sinusoidal current is without low harmonic (is remaking signal), and the only harmonic signal present is very low and with high frequency, because depend from the modulation frequency (PWM signal). The converter system on the BDF control cabinet is reversible and recover the mini mini mini OPDE OPDE OPDE Hydro Power AFE Regenerated Power (kW) Inverter energy on the BUS line.

- Sinusoidal line current with reduction of the harmonic current distorsion THDi
- Compensation of line voltage variations
- Energy saving
- DC BUS Control also with power line voltage fluctuations
- Regenerative capability thus to make power flow in both directions.

Mains

OPDE   OPDE   mini OPDE   mini OPDE   mini OPDE

Active Front End