

DKE-SGP: The Pulse of the Next-Generation Grid

Optimizing grid stability and energy efficiency through high-precision, distributed Digital Kinetic Energyte Energía Cinética Digital de alta precisión y distribuida



Category: Digital Kinetic Energy - Smart Grid Power

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Distributed Energy — Clean and Portable

El pulso energético en las micróredes

Digital Kinetic Energy.



Energía de altísima calidad: 50 o 60 Hz
Trifásico de bajo o medio voltaje
AC o DC
Punto de despacho de amperaje

Analog or Digital Energy

Continuous, Uninterrupted
Energy Dispatch —
24/7/365

Direct-to-End-
Consumer

Without transmission
or distribution networks



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Autonomy, Start-Up, and Stability



LifePO4 Doble Rack (140 kW)

High-Efficiency
Motors: 1800 RPM

The Energy
Powertrain

*Cold-Start Capability: Core stability for cold starts.
Maintenance Holdover: Internal storage for approximately 40 hours of emergency power supply.
Temporary Buffer: Momentary power backup and multi-megawatt peak-load management.

Intelligent Processors —
2U Servers

Binary Storage Server
(Petabyte-Scale SSD Storage)
Temporary Buffer

Intelligent
Buffer

Miniordenador

The Cascaded Powertrain

Active Magnetic Bearings
Frictionless Levitation

95% Mechanical Efficiency

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Phase 1: The Kinetic Core (Analog Generation)

Analog generation assemblies: mechanical and electromagnetic

The Cascaded Power System

High-Efficiency
Rotors: 1800 RPM

Generation Set: Motor + Alternator
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Active Magnetic Bearings
(Frictionless Levitation)

95% Mechanical Efficiency

Phase 2: Digital Refinement

Analog
Input

Digital
Output

Output DC

Output AC

Flash Converter
(1 Million Samples per Second)

The digital processor interprets the incoming electrical signal as data, applying advanced control and filtering algorithms to generate a stabilized waveform with optimized Total Harmonic Distortion (THD). In this way, it delivers conditioned power in either direct current (DC) or alternating current (AC), with low electrical noise and maximum stability, effectively mitigating nonlinear loads and optimizing the performance of existing analog infrastructures.

Interpretación de Cargas no
lineales



Continuous Baseload Performance

Gross Power Generated: **1,440 kW**

Net Power Output: **1,100 kWh**
Guaranteed Dispatch



Self-Consumption (20%–25%): kinetic cycle, climate control, pressurization, CCTV, etc.

Daily Energy Supply: 26,400 kWh
Annual Energy Supply: ~9,636,000 kWh
Status: Permanent Baseload Plant



“Power Lift”: Transformerless Voltage Management



Legacy
Transformador



- Voltage Range: Low- or medium-voltage, up to 34–69 kV
- Frequency: Configurable, 50 Hz or 60 Hz
- Efficiency: “Fast amperage”
•(current delivery in milliseconds)

Direct voltage management through intelligent control software, eliminating bulky hardware.

“Energy Lego”:

Seamless scalability and direct interconnection — no distribution center required.

Direct Power Summation Link

Busbar Connection:
Direct Power Summation

Shared Redundancy

Result: Total Power Output = 4,400 kWh

1.100kWh
o 1.1MWh

1.100kWh

1.100kWh

1.100kWh

Distributed Architecture
(Hubless)

AUTONOMY AND ENERGY EFFICIENCY

The units are directly interconnected to increase output power. If an interconnection module fails, the system continues operating autonomously.



Spatial Configuration and Stacking

The standard 20-foot container format enables high-density deployment. The external steel framework ensures maintenance access at all levels.

Maximum Stacking:
4 Units

Spacing: 3
meters

Side
Clearance: 1
meter

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We do not sell technology — we sell clean energy as a service.

Comprehensive Clean Energy as a Service (EaaS). The client pays solely for the energy service delivered and consumed, measured in kWh. Manufacturing, transportation, installation, and maintenance are included.

Service metering in kWh and real-time predictive monitoring



We Minimize Risk: • If we do not generate energy, we do not charge. • Zero upfront investment for the end customer — we take care of everything.



Security and Contractual Guarantees

20 ~ 30 Annual Contract



4 years minimum
Term commitment
+ 1-year
termination notice

Full warranty:
Complete equipment
replacement and
upgrade

Backed by SLA:
Availability
guaranteed under
Service Level
Agreements

Financial protection:
Secured contracts
and trust-based
structures



Bit-Level Energy Management

From an unstable physical flow
to a managed digital asset.

Clean. Stable. Sustainable.

Generation at the Point of
Consumption