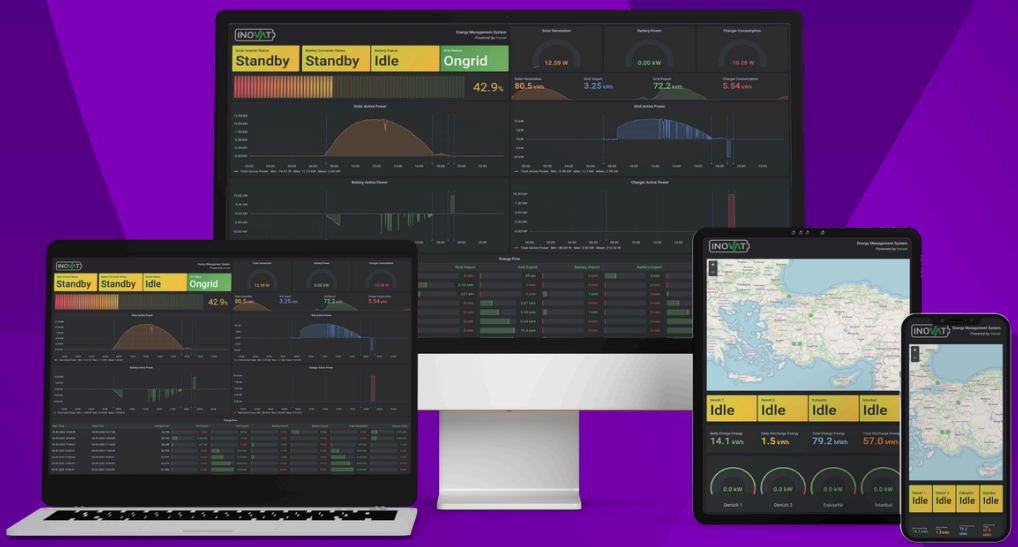
PowerKonnekt

Microgrid



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Microgrid

Microgrid" refers to a localized energy ecosystem that coordinates distributed energy resources, storage, and loads to operate efficiently, reliably, and with or without the main grid.

Energy Resource Coordination
PowerKonnekt manages solar, storage, and other distributed resources for balanced and efficient energy flow.

Islanding & Resilience
Enables seamless transition between grid-connected and islanded modes for uninterrupted operation.

Load & Grid Management
Optimizes load distribution, critical demand prioritization, and stable interaction with the main grid.

PowerKonnekt Offers

Microgrid

1. **Intelligent Energy Orchestration:** Manages distributed energy resources within the microgrid through one coordinated control structure.
2. **Renewable Source Optimization:** Maximizes the use of solar, wind, and other local energy sources based on real-time availability.
3. **Battery Storage Coordination:** Controls charge and discharge cycles to improve stability, flexibility, and energy efficiency.
4. **Island Mode Operation:** Enables smooth transition between grid-connected and islanded operation for uninterrupted supply.
5. **Load Balancing & Prioritization:** Distributes energy intelligently and prioritizes critical loads during constrained conditions.
6. **Grid Synchronization & Control:** Maintains stable operation during grid interaction, reconnection, and power flow coordination.
7. **Real-Time Monitoring & Control:** Provides live system visibility, performance tracking, alarms, and remote control capabilities.
8. **Analytics & Performance Optimization:** Delivers actionable insights to improve microgrid efficiency, resilience, and operational strategy.

Hardware Precision, Software Intelligence...

CASE STUDY

Project: Volvo C&I
Size: Total 990 kWh
Location: Multiple Locations, Türkiye

Key Capabilities Demonstrated

- C&I Microgrid Control at Site Level
- Coordinated Operation of BESS and Facility Loads
- Real-Time Power Flow Monitoring and Dispatch
- Centralized Visibility Across Multiple Locations
- Turnkey Integration with Reliable System Coordination

Outcome

PowerKonnekt enables:

- Smarter microgrid operation for C&I facilities
- Better coordination between storage, loads, and grid interaction
- Faster response to changing site energy conditions
- Improved operational visibility across distributed locations
- A scalable basis for future multi-site microgrid

CASE STUDY

Project: Deutsch Embassy C&I
Size: Total 379kWh
Location: Ankara, Türkiye

Key Capabilities Demonstrated

- Real-Time Control of a C&I Microgrid Environment
- Integrated Management of BESS, Generator, and Facility Demand
- Renewable Energy and Self-Consumption Optimization
- Site-Level Dispatch for Stable and Efficient Operation
- Turnkey Integration with Microgrid-Ready EMS Architecture

Outcome

PowerKonnekt enables:

- Higher operational resilience for mission-critical sites
- Better synchronization of generation, storage, and demand
- More efficient use of renewable energy within the facility
- Reduced reliance on external grid supply

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