

ENERGY STORAGE MODULE

REDAVIA FAST TRACK ENERGY STORAGE 100 POWER / ENERGY (FTES-100P / FTES-100E)

At REDAVIA, we are committed to delivering cost-effective, reliable and clean energy. The REDAVIA FTES-100 Power and FTES-100 Energy units are pre-configured, modular electricity storage modules that enable high-quality, cost-effective and flexible energy supply systems. Together with REDAVIA's line of solar energy generation modules (FTS-80GM, FTS-60RM, and FTS-40CP ground-, roof-, and carport-mounted solar power plants), the FTES-100P/E products build best-in-class energy systems, which are uniquely well-suited to provide the technical and commercial flexibility that commercial and industrial electricity users require.

The FTES-100P/E is a complete electricity storage solution, consisting of a power conversion module (FTES-100P), and an energy storage module (FTES-100E). These modules are completely pre-assembled by REDAVIA with all components when delivered to site. The FTES-100P and FTES-100E are then installed at the client's premises by REDAVIA's trained installation team and connected to the client's power system for immediate operation.

UNIT STRUCTURE

System power range

Minimum: 100kW x 101kWh
Maximum: 600kW x 808kWh

Additional components included

- Battery Management System
- Cabinet internal cooling
- Connection wiring between power and energy units
- Grounding and lightning protection
- Power and energy array combiner cabinets
- Data collection and monitoring
- Energy management system (EMS)



RELIABLE, CLEAN, AND AFFORDABLE ELECTRICITY 24/7

In combination with REDAVIA's energy generation modules, the FTES-100P/E forms a 24/7 reliable electricity supply system, delivering clean and highly affordable electricity anywhere. Specifically, the FTES-100P/E:

- Provides power supply reliability during grid outage by replacing diesel generators with clean solar power
- Reduces the maximum demand charges on client's utility bills by shaving off power consumption peaks
- Maximizes the use of on-site solar power systems by storing surplus solar energy for later consumption.

The FTES-100P/E forms a versatile system backbone, supporting REDAVIA's entire suite of solar power products.

SYSTEM DETAILS

FTES-100 Power	
AC max power	110kVA
AC/DC inverter	1 x 100kWnom, 3 phase
Dimensions (W x D x H)	1.3m x 1.4m x 2.2m
Min no. of FTES-100P	1 / 100kW
Max no. of FTES-100P	6 / 600kW
Monitoring	24/7 GSM connection
FTES-100 Energy	
Nominal capacity	101kWh
Dimensions (W x D x H)	1.4m x 1.2m x 2.2m
Min no. of FTES-100E	1 / 101kWh
Max no. of FTES-100E	8 / 808kWh

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HIGH QUALITY SOLUTION AND SUPPORT STANDARD.

Manufacturing

Every FTES-100P/E module uses top-quality materials and components that are assembled and packed in factory conditions, and then inspected by an independent agency and certified prior to shipping. All items are entered into our component tracking system.

Installation

REDAVIA's system is designed for a simple and standardized installation, commissioning, and decommissioning process. On site, the power and energy modules are installed by a REDAVIA-trained installation team. The inverters and communications systems are already integrated in the power module and factory-prepared cabling installed in each battery module for easier connectivity during commissioning. Built-in safeguards are designed to prevent fire, overvoltage, lightning and grounding hazard and act accordingly in case of an unexpected event. Data monitoring equipment is also included in each power and energy module. Array cabinets and cabling connect multiple power and energy units to suit each customer's individual needs.

Quality assured, customized to your needs

As a fully standardized, manufactured and third-party-certified energy storage product, REDAVIA's FTES-100P/E reaches consistent quality standards unmatched by "one-off" energy storage systems, yet, its modularity allows the system to be custom-fit to - and grow with - clients' energy storage needs. REDAVIA's FTES-100P/E uniquely provides certified, standardized, controlled quality, which is highly customized to individual client needs.

Operation & Maintenance

If desired, REDAVIA works closely with clients to ensure operational reliability during the operating period. We can provide regular maintenance and emergency support. Our technology ensures balanced temperature inside the units, monitors weather conditions, and controls energy output levels for 24/7 optimization. If desired, clients obtain access to REDAVIA's online operational monitoring portal, where clients can follow key operational metrics, such as state-of-charge and available energy in real-time.

COMPONENT DETAILS

FTES-100 Power	
Power Conversion System (PCS)	(Megarevo or similar)
Maximum AC power	110 kVA
Maximum DC power	100 kW
Rated voltage	415 V
Max output current	160 A
Grid frequency	50 Hz
Ingress Protection (IP)	54
PCS certifications	IEC 62109, IEC 62477

FTES-100 Energy	
Battery Cabinet	(Megarevo or similar)
Number of battery packs	11
Energy capacity	101 kWh
Voltage range	492 V - 624 V
Ingress Protection (IP)	54
Battery Pack	Cubenergy S138-XXP9
Pack rated capacity	180 Ah
Nominal voltage	51.2 V
Number of cells	32
Pack cycle life	>6000 cycles @ 1C
Certifications	IEC 62619, UL 1973, UN38.3, CE
Battery Cell	EVE Energy LF90
Chemistry	Lithium iron phosphate - LiFePO4
Format	Prismatic
Capacity	90 Ah
Rated voltage	3.2 V
Maximum discharge rate	1C
Certifications	IEC 62133, UL 1642