

The Easy Way of Storing Energy

TESS

TEKSAN ENERGY STORAGE SYSTEMS





WHENEVER YOU NEED POWER,
WE ARE ALWAYS WITH YOU...
SINCE 1994!



Since 1994, Teksan has been delivering high quality tailormade solutions that are designed accordingly to your requirements with strong after-sales technical support and maintenance services anytime and anywhere you need uninterrupted power supply. When your company is moving further ahead rapidly on the road to success, you always feel our continuous support as your reliable power solutions partner.

Because Teksan is a member of your family...



2 factories

60.000 sqm+
TOTAL PRODUCTION AREA



15.000
gensets

ANNUAL PRODUCTION CAPACITY



800+
employees

THE STRUCTURE OF A POWERFUL FUTURE

With our vision of being a global brand that makes a difference in the energy sector and our mission of being a reliable and innovative solution partner for a sustainable life, we keep producing power solutions for different sectors in more than 140 countries of the world and shape the future with our corporate values that at all times carry us forward!

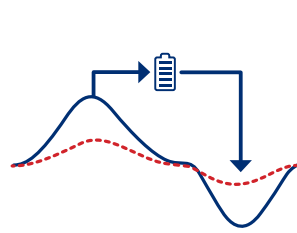




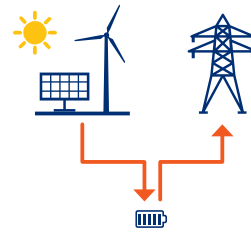
WHAT ARE THE ENERGY STORAGE SYSTEMS?

Energy exists in a variety of forms, including radiation, chemical, gravitational potential, electricity, high temperature, latent heat, and kinetic energy. There are various methods and technologies for storing different forms of energy. Energy Storage Systems are the methods and Technologies used to store energy. For example, many renewable energy sources (such as wind, solar energy or tides) are not able to provide constant energy continuously and may provide intermittent energy. When the energy is intermittent, we need storage for more stable use of energy. Battery energy storage system is a type of energy storage that stores electrical energy by converting it to electrochemical energy. The choice of Energy Storage Technology is usually determined by the application, economy, integration within the system and availability of resources. Energy Storage Systems play an important role in transforming energy storage into more convenient and economical forms. In addition, Energy Storage Systems, a part from renewable energy sources, make storage during night hours when the energy price is the most appropriate, and help to provide serious savings by feeding the system when the energy is the most expensive.

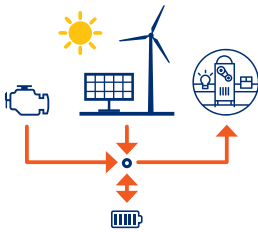
APPLICATION AREAS



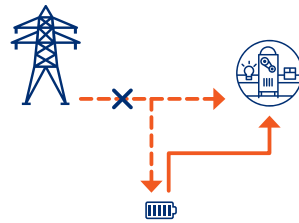
Demand Charge Management



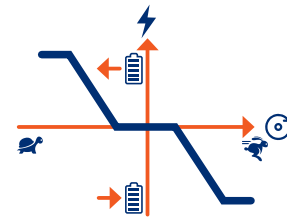
Energy Supply & Demand Management



Off-Grid Systems

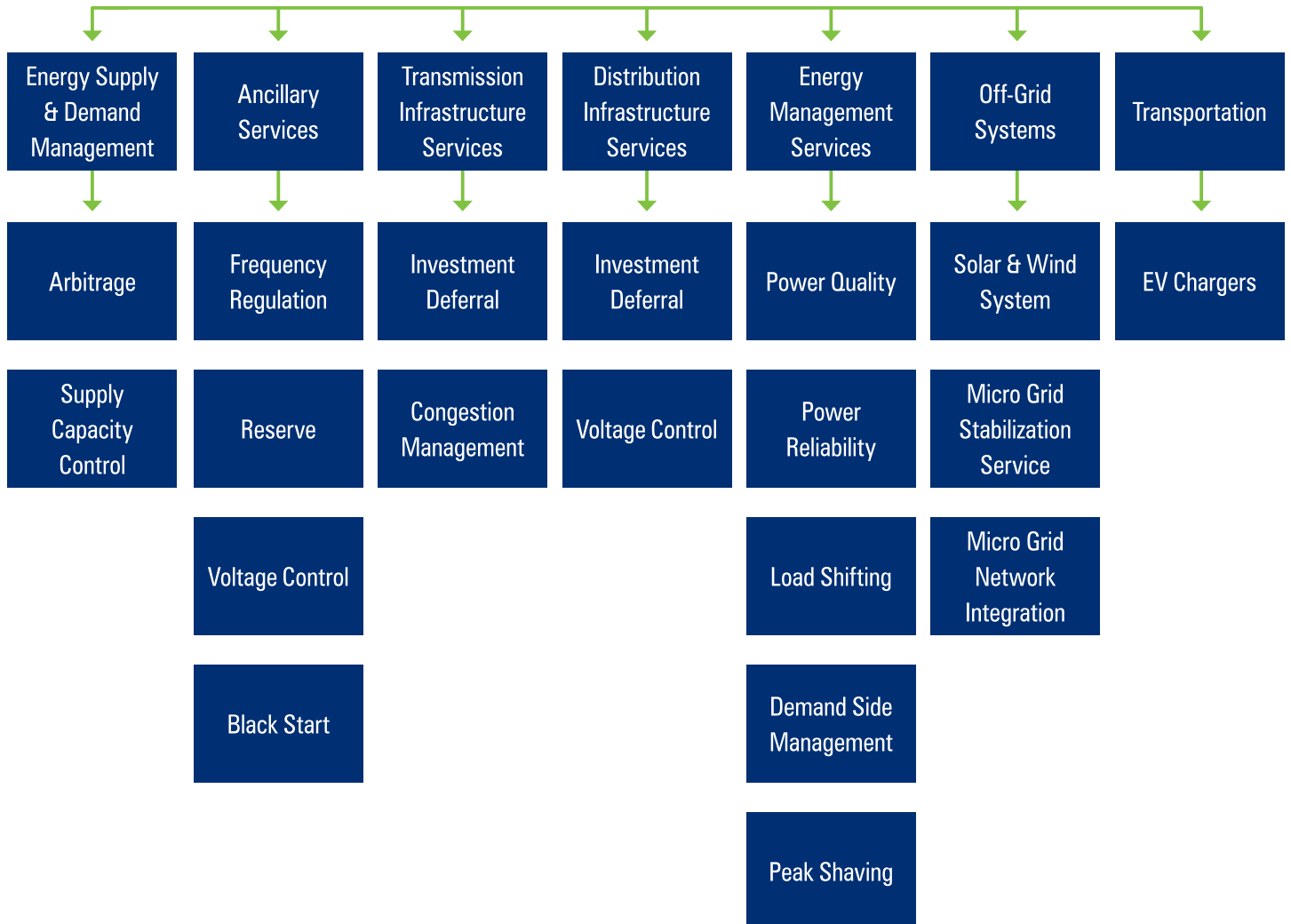


Backup Power



Ancillary Services

ESS APPLICATION AREAS



ADVANTAGES



LOW COSTS

- Easy transportation and integration
- Complete system within 10ft/20ft/40ft HC container



EFFICIENCY & FLEXIBILITY

- Grid-tied and off-grid applications
- Expandable battery capacity thanks to modular design
- High efficiency and long battery cycle life
- Maximized system integration ability
- Highest power density
- Power and capacity can be widely adjusted according to customer and project needs.



SAFE

- Surge arrester for lightning protection
- Fire protection system
- Factory tested plug-and-play design



SMART

- Grid-following (P/Q), and grid-forming (V/f) mode
- Voltage Drop (power-frequency, and reactive power voltage)
- Grid-supporting & grid-forming mode
- Uninterrupted switching between modes



LONG LIFE CYCLE

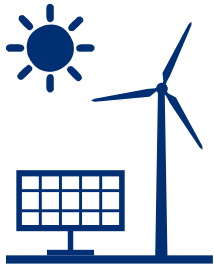
- Better battery life with unique air cooling design

EMS (ENERGY MANAGEMENT SYSTEM)

EMS is a control device that provides the necessary power management by communicating with the Power Converter and battery system in the Storage system, instant data flow, alarm and data can be monitored live.



PV & WIND CONTROLLER



- PV and wind integration
- Self-consumption & IPP applications
- PV/Wind-Genset-mains-ESS (Energy Storage System) applications
- Minimum genset load requirement
- Spinning reserve generation
- Green & brown field applications
- Power meter interfacing
- SunSpec support
- Forecast system interfacing
- Meteorological data representation
- Scalable & flexible

BATTERY CONTROLLER



- Electrical storage integration
- Grid-tied and off-grid applications
- Micro-grid applications
- Grid-following (P/Q), and grid-forming (V/f) mode
- Voltage Drop (power-frequency, and reactive power-voltage)
- AC- and DC-charged systems
- Configurable charge scheme
- Spinning reserve provider
- BCU, BMS and/or PCS interfacing
- Scalable & flexible
- Frequency response

GENERATOR CONTROLLER



Standard plant modes;

- Island mode
- Automatic Mains Failure
- Fixed power
- Peak shaving
- Load take-over
- Mains power export

MAINS CONTROLLER



- Synchronising
- Mains current (3 x True RMS)
- Mains/busbar voltage (3-phase/4-wire)
- Phase angle compensation generator/busbar/mains synchronizing over a transformer
- ATS control
- Load management
- Plant PF control
- Mains feeder control, feeders paralleled
- Main feeders control, main-tie-main for critical power

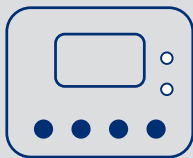
ADVANCED GRAPHICAL INTERFACE

- Power management system integration
- Monitor energy production and consumption
- Manage active alarms and view alarm history
- View trends from measured values
- Manual control via touch screen
- Ability to change system parameters and settings on the screen





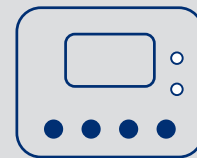
Utility



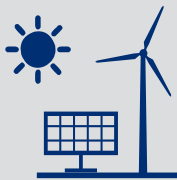
EMS Mains



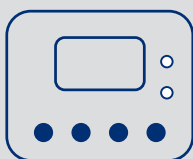
Genset



EMS Genset



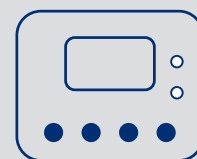
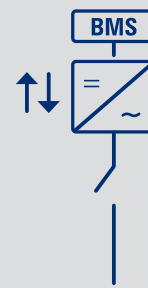
Renewables



EMS Renewables



Energy Storage



EMS Battery

ENERGY TYPE SOLUTIONS

MODEL	TESS 400E	TESS 1200E	TESS 1600E	TESS 3220E
DC SIDE				
Cell Chemistry	LFP	LFP	LFP	LFP
Battery Capacity (kWh)	403	1210	1613	3226
Battery Voltage Range (VDC)	630 - 810V	630 - 810V	630 - 810V	630 - 810V
AC SIDE				
AC Voltage (VAC)	380/400	380/400	380/400	380/400
AC Frequency (Hz)	50/60	50/60	50/60	50/60
Power Output (kW)	200	500	800	1600
C Rate	0,5	0,5	0,5	0,5
AC Total Current (A)	215	720	1300	2530
Distribution Network Type	3 Phase-3 Wire / 3 Phase-4 Wire	3 Phase-3 Wire / 3 Phase-4 Wire	3 Phase-3 Wire / 3 Phase-4 Wire	3 Phase-3 Wire / 3 Phase-4 Wire
Harmonic Distortion (THDu) ≤%	3	3	3	3
PCS Location	Indoor	Indoor	Outdoor	Outdoor
GENERAL DATA				
Dimensions of BESS (W×D×H) mm	2438 x 3058 x 2896	2438 x 6058 x 2896	2438 x 6058 x 2896	2440 x 12191 x 2896
Operating Temperature Range	-20 °C~ +45°C (+55°C Option)			
Relative Humidity	5%~100%			
Max. Working Altitude	<1000m			
Cooling Concept	Air Cooling			
Fire Suppression System	Fire Extinguishing System			
Communication Interfaces	RS485, Ethernet			
Communication Protocols	Ethernet&Modbus TCP/IP&Modbus RTU			
OTHER EQUIPMENTS	Air-Conditioning System / Lighting System / Ventilation System AC Distribution and DC Junction Board / Transformer / Static Transfer Switch (STS)			

POWER TYPE SOLUTIONS

MODEL	TESS 255P	TESS 770P	TESS 1030P	TESS 2320P
DC SIDE				
Cell Chemistry	LFP	LFP	LFP	LFP
Battery Capacity(kWh)	258	774	1032	2322
Battery Voltage Range (VDC)	627 - 818V	627 - 818V	627 - 818V	627 - 818V
AC SIDE				
AC Voltage (VAC)	380/400	380/400	380/400	380/400
AC Frequency (Hz)	50/60	50/60	50/60	50/60
Power Output (kW)	250	750	1000	2000
C Rate	1	1	1	1
AC Total Current (A)	360	540	1587	3174
Distribution Network Type	3 Phase-3 Wire / 3 Phase-4 Wire	3 Phase-3 Wire / 3 Phase-4 Wire	3 Phase-3 Wire / 3 Phase-4 Wire	3 Phase-3 Wire / 3 Phase-4 Wire
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**WE ARE YOUR
EVERLASTING
COMPANY**



**IN
140+
COUNTRIES**



+90 444 8576 | www.teksan.com
info@teksan.com

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