

ALL IN ONE

SOLAR ENERGY STORAGE SYSTEM



INTRODUCTION

ALL-IN-ONE is a lithium iron phosphate (LFP) battery for use with an inverter. With its control and communication port, the ALL-IN-ONE is capable of scaling to meet the different project requirements. Start with ALL-IN-ONE and extend anytime to 80kWh or 160kWh using parallel interconnection of up to 16 batteries. There are 5kWh, 10kWh, 15kWh, 20kWh and other energy capacity options.

APPLICATION



Solar Energy



Residential Area



Industrial Area



New Energy Vehicle



ALL IN ONE

VALUE



More Usable Energy

90% Depth of Discharge
Pack Level Energy Optimization



Easy Installation

Standard design with helpful
pulling ear quick stacking



Smart BMS system

Each module is equipped
with an independent BMS system



Longer Lifetime

6000 cycles, 10 years design life



Safe & Reliable

Safe lithium iron phosphate cell



Modular design

Compact size and light weight

BATTERY SPECIFICATION

Project	Description			
Model	TL-Box10	TL-Box20	TL-Box30	TL-Box40
Battery Type	LiFePO4(Iron Phosphate Battery)			
Module Quantity	1	2	3	4
Module Connection	Series			
Nominal Capacity	200Ah	400Ah	600Ah	800Ah
Nominal Voltage	51.2 V DC			
Energy Capacity	10.24kWh	20.48kWh	30.72kWh	40.96kWh
Usable Energy	9.22kWh	18.44kWh	27.66kWh	36.88kWh
Charging/Discharging Current	100A			
Calendar Life(cycles)	6000@25°C, 90%DOD			
Battery Pack Round-Trip Efficiency	>95%(under specific condition)			

INVERTER SPECIFICATION

Project	Description
Rated Output Power(VA)	5000
Rated Output Power(W)	5000
Rated Input Voltage	220/230Vac
Frequency	50Hz±0.3Hz/60Hz±0.3Hz
Maximum AC Charging Current	60A
Charge Current Error	±3Adc
Charge Voltage Range	40-58Vdc
Short Circuit Protection	Circuit Breaker and Blown Fuse
Circuit Breaker Specification	40A
Overcharge Protection	Alarm and Turn Off Charging After 1 Minute
Power Factor	1
Output Voltage Waveform	Pure Sine Wave
Conversion Time	10ms(typical)
Maximum Efficiency	>92%

OPERATING CONDITION

Project		Description
Environment	Installation Location	Indoor / Outdoor (Wall-mounted / Floor Standing)
	Operating Temperature	-10 to 50°C
	Operating Temperature(Recommended)	15 to 30°C
	Storage Temperature	-30 to 60°C : acceptable for 7 days in total -20 to 45°C : acceptable for the first 6 months -20 to 30°C : acceptable for 7th ~12th month
	Humidity	5% to 95%
	Altitude	Max.2,000 m
	Cooling Strategy	Natural Convection
	Alarms	Overcharge, Over-discharge, Over-current, Over-temperature, Short Circuit
	Protection Level	IP30

CERTIFICATION

Project		Description
Guarantee	Safety	Cell UL1642
		Battery Pack IEC62619 /IEC60950(LVD) / CE
	Emissions	IEC61000-6-1, IEC61000-6-3
	Hazardous Materials	Classification Class 9
	Transportation	UN38.3

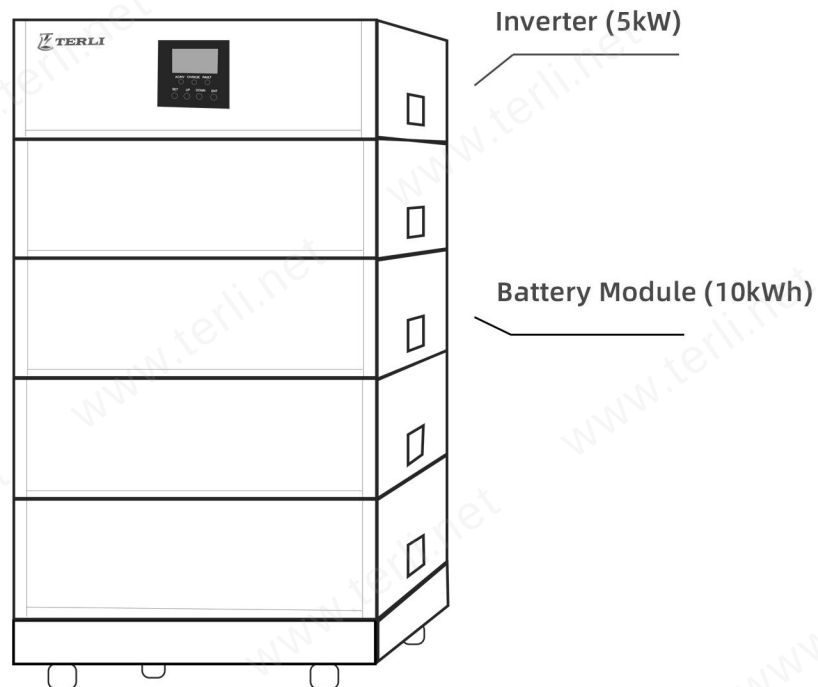
- ※ Test Conditions - Temperature 25°C, at the beginning of life
- ※ Total Energy is measured under specific condition from LC (0.3CCCV/0.3CC)

OPTIONAL CAPACITY



MECHANICAL CHARACTERISTICS

		Single Battery Module	Whole Stack
Dimensions	Length	665mm	665mm
	Width	400mm	400mm
	Height	220mm	1220mm
Weight		89.4kg	393.2kg
Color	White (Battery Module) +Silver Grey (Inverter)		



COMPATIBLE STORAGE INVERTERS WITH ALL IN ONE

GROWATT

SRNE 碩日

Deye 德業

MEGAREVO

victron energy
BLUE POWER

SERMATEC

LU X POWER TEK



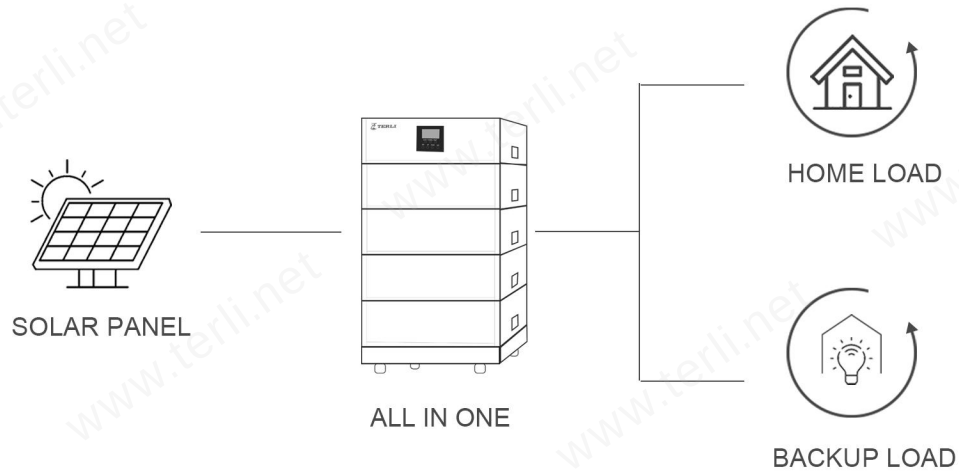
GSSTES 精石科技

SMA

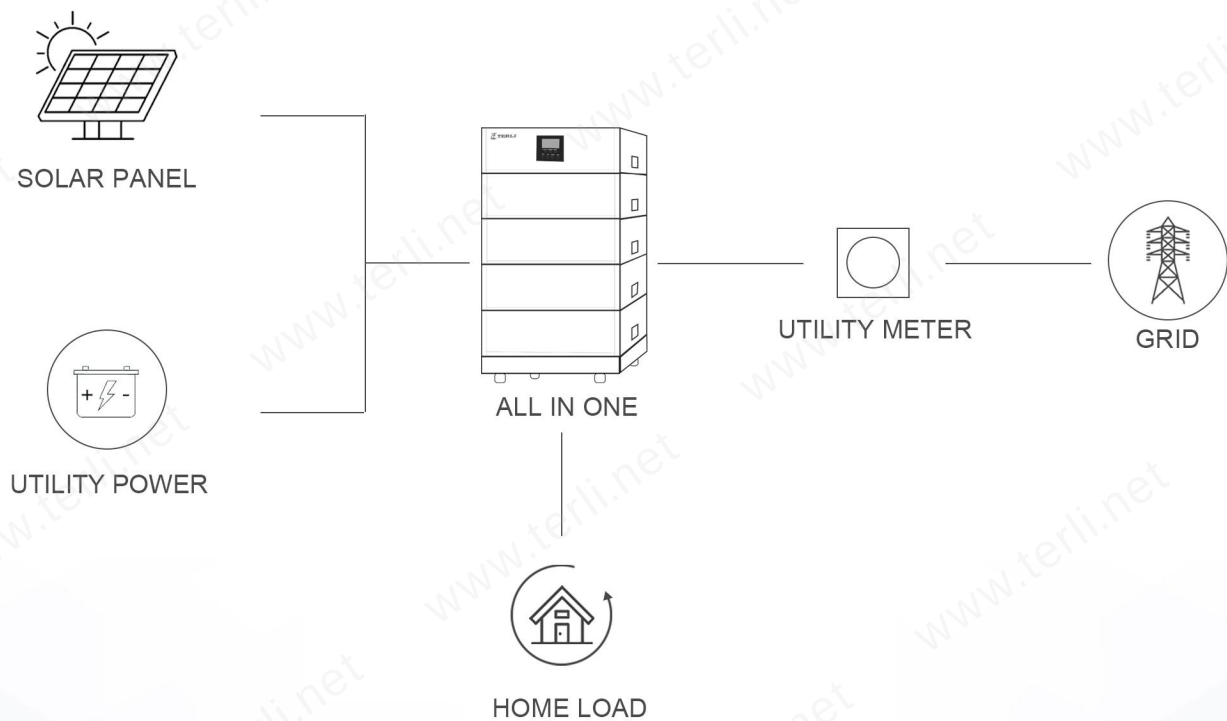
GOODWE

SOROTEC
Power Solutions Expert

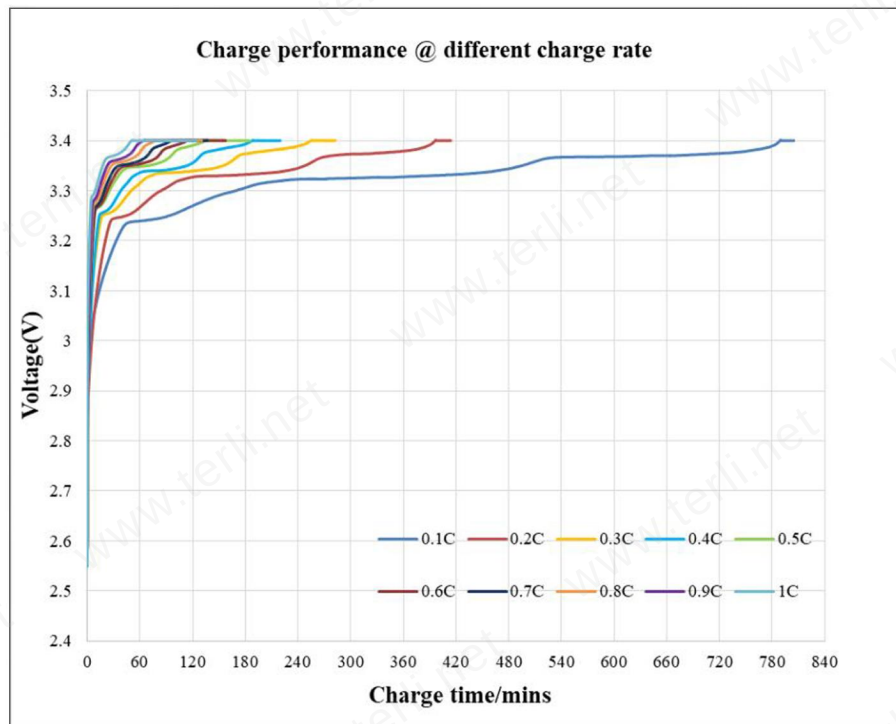
ON-GRID SYSTEM



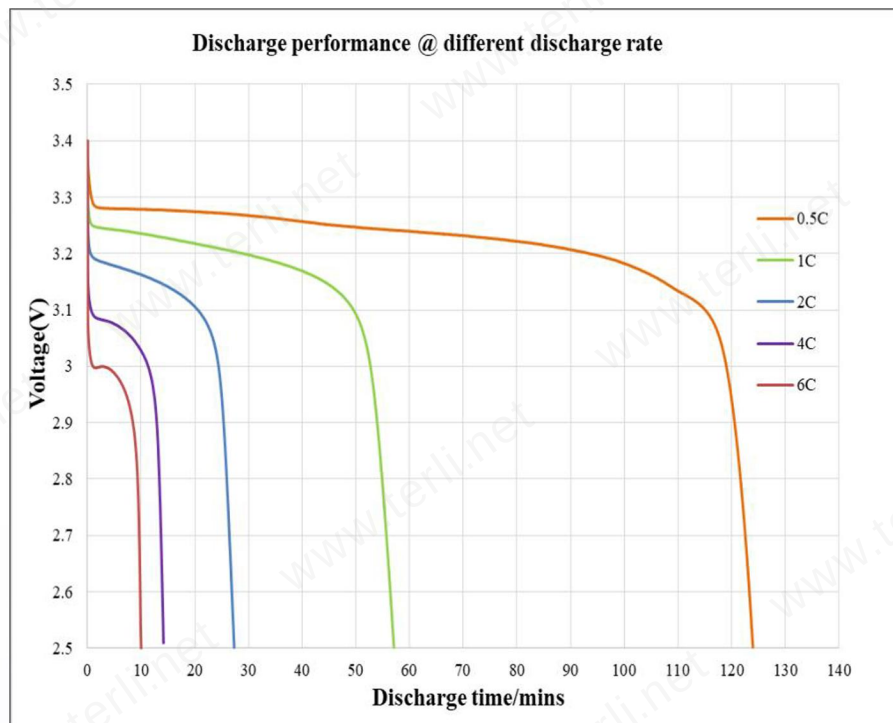
HYBRID SYSTEM



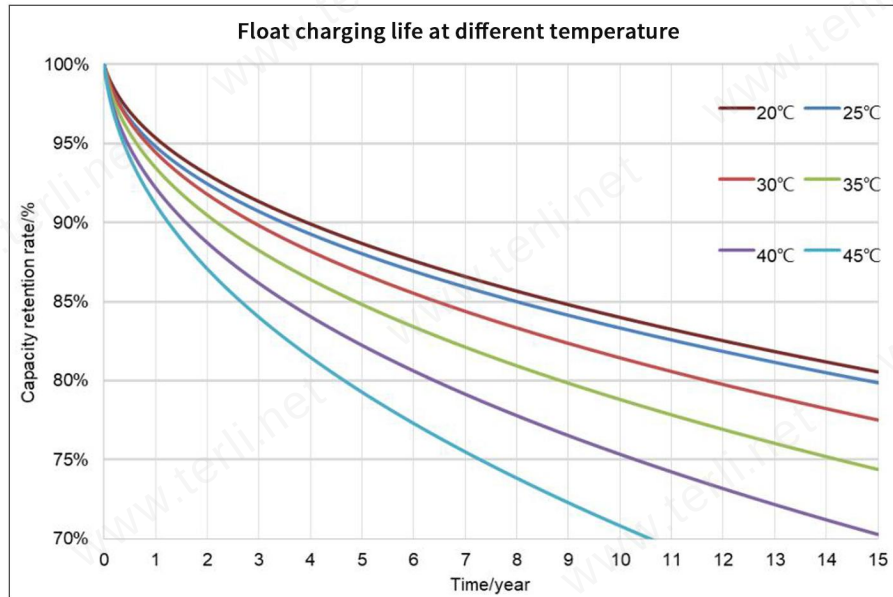
CHARGING CURVES UNDER DIFFERENT CHARGING RATES



DISCHARGE CURVE UNDER DIFFERENT DISCHARGE RATES



FLOATING CHARGING LIFE CURVES AT DIFFERENT TEMPERATURES



CYCLE LIFE CURVES AT DIFFERENT TEMPERATURES AND DOD CONDITIONS

