



TGPRO **ECO**

BESS Commercial & Industrial Utility Scale Solutions

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3U High Voltage Rack Battery

CE MSDS



Product Highlights

Convenient

Quick installation, standard of 19-inch embedded designed module is comfortable for installation and maintenance.

Safe and Reliable

Cathode material is made from LiFePO₄ with safety performance and long cycle life. The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.

Intelligent BMS

It has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The system can automatically manage charge and discharge state and balance current and voltage of each cell.

Eco-Friendly

The whole module is non-toxic, non-polluting and environmentally friendly.

Flexible Configuration

Multiple battery modules can be in parallel for expanding capacity and power. Support USB upgrade, wifi upgrade (optional), remote upgrade (Compatible with Deye inverter).

Wide Temperature

Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

MODEL		TH-R-HV20	TH-R-HV25	TH-R-HV30	TH-R-HV35	TH-R-HV40	TH-R-HV46	TH-R-HV51
Cell chemistry		LiFePO4						
Module energy(kWh)		5.12						
Module nominal voltage(V)		51.2						
Module capacity(Ah)		100						
Cell model/ Configuration		3.2V100Ah /64S1P	3.2V100Ah /80S1P	3.2V100Ah /96S1P	3.2V100Ah /112S1P	3.2V100Ah /128S1P	3.2V100Ah /144S1P	3.2V100Ah /160S1P
System nominal voltage(V)		204.8	256	307.2	358.4	409.6	460.8	512
System operating voltage(V)		185.6~227.2	232~284	278.4~340.8	324.8~397.6	371.2~454.4	417.6~511.2	464~568
System energy(kWh)		20.48	25.6	30.72	35.84	40.96	46.08	51.2
Charge/ Discharge Current(A)	Recommend	50						
	Max	100						
Working temperature		Charge: 0°C ~ 50°C; DisCharge: -20°C ~ 55°C						
Communication port		CAN2.0/RS485/WIFI						
Humidity		5~85%RH Humidity						
Altitude		≤2000 m						
IP rating of enclosure		IP20						
Dimension W*D*H(mm)		538*492*791	538*492*941	538*492*1091	538*492*1241	538*492*1391	538*492*1541	538*492*1691
Weight approximate(kg)		195	240	285	330	375	420	465
Installation location Storage		Rack Mounting						
Storage temperature(°C)		0°C ~ 35°C						
Recommend depth of discharge		90%						
Cycle life		25±2°C, 0.5C/0.5C, EOL70%≥6000						
Certificates		UN38.3, MSDS, CE-EMC						





5U High Voltage Rack Battery



Product Highlights

Safe and Reliable

Cathode material is made from LiFePO₄ with safety performance and long cycle life, The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.

Intelligent BMS

It has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The system can automatically manage charge and discharge state and balance current and voltage of each cell.

Eco-Friendly

The whole module is non-toxic, non-polluting and environmentally friendly.

Flexible Configuration

Multiple battery modules can be in parallel for expanding capacity and power. Support USB upgrade, wifi upgrade (optional), remote upgrade (Compatible with Deye inverter).

Wide Temperature

Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

MODEL	TG-HVC384-107F	TG-HVC512-143F	TG-HVC640-179F	TG-HVC704-197F	TG-HVC768-215F
Nominal voltage	384	512	640	704	768
Cell model/ Configuration	3.2V280Ah(EVE) /120S1P	3.2V280Ah(EVE) /160S1P	3.2V280Ah(EVE) /200S1P	3.2V280Ah(EVE) /220S1P	3.2V280Ah(EVE) /240S1P
Capacity(Ah)	280				
Rated energy(kwh)	107.52	143.36	179.2	197.12	215.04
Weight(Approx)(kg)	820	1080	1350	1500	1650
Dimension W*D*H(mm)	1992*950*550	1475*950*1100	1732*950*1100	1732*950*1100	1992*950*1100
Voltage range(Vdc)	348~426	464~568	580~710	638~781	696~852
Max.charge/discharge current(A)	140				
Scalability	up to 10 parallel				
Communieation	RS485 (B) -BAT/RS485 (A) -PC/Canbus-Inverter				
Cycle life	25±2°C, 0.5C/0.5C, EOL70%≥6000				
Design life	≥15年(25°C)				
Protection	BMS,Breaker				
Operation temperature(°C)	Charge: -10°C~50°C; Discharge: -20°C~50°C				
Altitude(m)	≤2000				
Humidity	<95%(Non-condensing)				
Certificates	UN38.3, MSDS, CE-EMC				





107kWh TG-eBank System

CE MSDS  

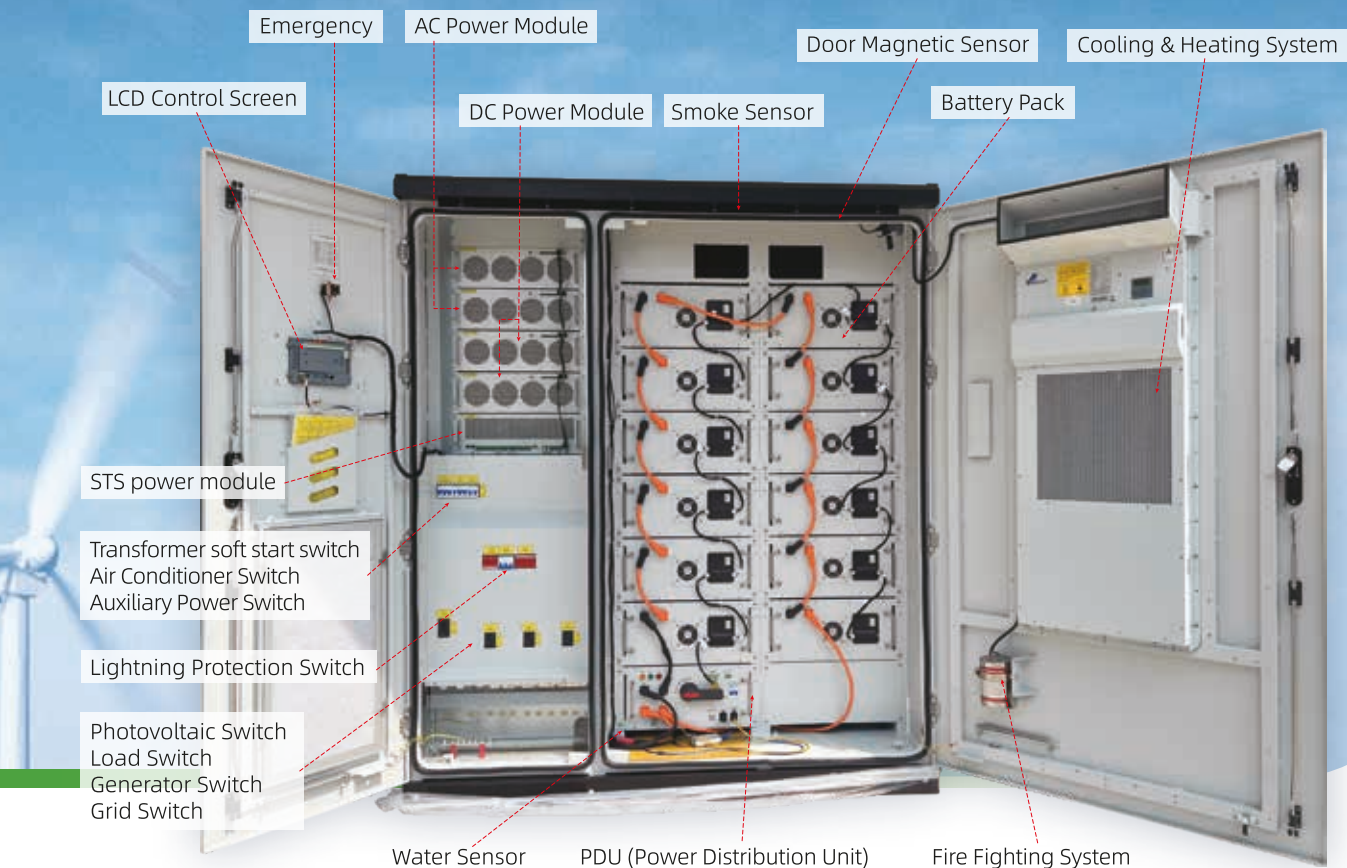


Product Highlights

- Easy to install and deploy with large space utilization.
- Unique modular design & flexible function configuration.
- With self-use, peak shifting, forced charging & discharging and other working modes.
- Strong scalability, simple & convenient expansion on both AC and DC sides.

MODEL	TG-eBank-107F2
Battery parameters	
Battery Type	LFP
Number of battery packs	6
Rated voltage	384V
Voltage range	300~438V
Rated energy	107.5kWh
Max. continuous charging and discharging current	120A
Discharge Depth	90%
Cycle life	6000 times
PV parameters (Option)	
Max.PV input power	38kW
Rated input voltage	620VDC
Max.input voltage	850VDC
MPPT voltage range	200~830VDC
PV input current	32A+32A
AC side parameters	
AC rated output power	50kW
AC Max. output power	50kVA
AC rated input/output current	76A
Isotransformer	Transformerless
Voltage	3L/N/PE; 230/400V
Frequency	50/60Hz
THDi	≤3%
Power Factor	0.8 leading to 0.8 lagging
System parameters	
Dimension (W*D*H)	W750*H2095*D1200mm
Weight	about 1150kg
Communication	CAN/RS485/WiFi/ETH
Design Life	10 years+
Expansion	Support in parallel
Enclosure protection rating	IP54
Cooling	Air cooling
Operation temperature	Charging:0~50°C/Discharge:-20~50°C
Humidity	10%~95%RH
Altitude	<2000m

*The pictures are for reference only. Please refer to the order for actual product images.



215Kwh BESS System

CE MSDS



Product Highlights

High Efficiency

- Transformer-less design, higher system efficiency.
- Wide AC Grid voltage range.
- Smart Air cooling, energy saving.
- Single battery string. No circular current. Saving battery capacity.

Flexible Application

- Modular Design, flexible configuration, small footprint.
- Power module supports "N+1" redundancy.
- All in One design. Easy Installation & maintenance.

Safety& Reliability

- Full function of heat management, fault detection and protection.
- Built-in BMS, PCS, MPPT and EMS. Multiple levels of software & Hardware protection.
- Two level fire extinguisher system.

Full Functional

- Fast reaction of Active/Reactive power adjustment.
- STS Inbuilt Supporting On grid/ off grid transfer without interrupted.
- Standard with EMS function. Peak saving, virtual enlargement, EPS, New Energy power absorpctor.

MODEL	TG-BESS-215FS2
Battery Specification	
Battery type	LFP
Cell capacity	3.2V/280Ah
PACK config	1P20S
PACK Qty	12
Rated capacity	215kWh
Rated voltage	768V
Voltage range	636 ~ 864Vdc
Charge/Discharge rate	0.5C Rated
DOD	95%
Cooling system	Air Cooling
Fire fighting system	Two Level Protection, Standard: Aerosol+HFC-227ea, Optional: PERFLUORO
AC Specifications	
Rated voltage	400Vac
Voltage range	230 / 400Vac
Frequency range	50/60±2.5Hz (50/60Hz self-adaption)
Grid system	3P+N+PE
Solation transformer	No
Rated power	100kW
Peak power	110kW
Rated current	144A
Over load capacity	≤110% Continues Running ≤120%1Min
Power factor	-0.99 ~ +0.99
On grid THDI/THDV(Off grid)	<3%, Full load
STS module power capacity	200kW
Transfer time(On-off Grid)	≤20ms
PV Specification	
Max. PV input voltage	1000V
Max. PV input power	110kW
No. of MPPT/String per MPPT	2/1
MPPT voltage range	350 ~ 1000V
MPPT current	200A (100A/100A)
MPPT efficiency	99%
System Specification	
Temperature range	-25°C ~ 65°C, >45°C power derating
Storage temperature	-40 ~ 75°C
Noise	<70 dB
Dimension W*D*H(mm)	1800*1250*2000
Weight(kg)	2600
IP class	IP54
Cooling type	Industry level Air Conditional
EMS	Manual Mode, Peak saving, virtual enlargement, New Energy power absorption, Anti-flow mode. Support remote management and control
Communication protocol	Modbus RTU, Modbus TCP, IEC104, MQTT, Etc.
Communication port	RS485/RJ45/4G/WIFI/DIDO
Certificates	
UN38.3, MSDS, CE-EMC, IEC62619	



Scalable TG-eBank System

CE MSDS



Product Highlights

- Easy to install and deploy with large space utilization.
- Unique modular design & flexible function configuration.
- With self-use, peak shifting, forced charging & discharging and other working modes.
- Strong scalability, simple & convenient expansion on both AC and DC sides.

MODEL	TG-eBank-100-430F
Battery parameters	
Number of battery Cabinet	2
Rated voltage	768V
Voltage range	600~876V
Rated energy	430kwh
Max. continuous charging and discharging current	280A
Discharge Depth	90%
Cycle life	6000 times
PV parameters (Option)	
Max.PV input power	120kW
Rated input voltage	700VDC
Max.input voltage	1000VDC
MPPT voltage range	300~1000VDC
PV input channel	90A*2
AC side parameters	
AC rated input/output power	100kW
AC Max. input/output power	110kVA
AC rated input/output current	145A
Overload ability	1.2Pn,1 minute
Voltage	3L/N/PE; 230/400V
Frequency	50/60Hz
THDi	≤3%
Power Factor	-1 leading to 1 lagging
System parameters	
Dimension (L*W*H)	L2936*W1300*D2060mm
Weight	about 5900kg
Communication	CAN/RS485/WiFi/ETH
Design Life	10 years+
BMS architecture	3 Level
Enclosure protection rating	IP54
Cooling	Smart Air cooling
Environment temperature	-20~50°C
Humidity	10%~95%RH
Altitude	<2000m

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Large Scale BESS





5 MWh - 20ft. TG-Energy Storage Container

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Product Highlights

- High efficiency (charge / discharge) with high energy density, 1500 VDC.
- Safe and reliable with Fire protection measures.
- Long-life
Efficient intelligent liquid cooling temperature control.
- Strong scalability, single 20ft container with 5MWh capacity, Modular design.

Model	5MWh
Cell Parameters	
Cell	314 Ah
Material	LFP (LiFePO ₄ - Lithium Iron Phosphate)
Battery Module	
Rated Energy	104.49 kWh (@25°C, 0.5C/0.5C)
Rated Voltage	332.8 V
Dimension(L*W*H)	2170*790*245 mm
Weight	~650 kg
Cell Configuration	1P104S
Battery Cluster	
Rated Energy	417.96 kWh (@25°C, 0.5C / 0.5C)
Rated Voltage	1331.2 V
Weight	~2600 kg
Dimension(L*W*H)	2270*890*1060 mm
Cell Configuration	1P416S
DC System Parameters	
Rated voltage	1331.2V (25°C±2°C)
Rated capacity	3768 Ah
Rated energy	5MWh
Battery cluster	12
C-Rate	0.5C
Maximum C rate	1C
Cooling	Liquid Cooling
Self-discharge Rate/month	≤3% / month
Communication	MODBUS TCP/IP
Colour	RAL 7035
IP Level	IP55
Weight	48T
Fire Supression	Perfluorohexane fire extinguishing, point type temperature and fire detectors, photoelectric smoke detectors, combustible gas detectors, and exhaust systems



3.44 MWh - 20ft. TG-Energy Storage Container

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Product Highlights

- High efficiency (charge / discharge) with high energy density, 1500 VDC.
- Safe and reliable with Fire protection measures.
- Long-life
Efficient intelligent liquid cooling temperature control.
- Strong scalability, single 20ft container with 3.44MWh capacity, Modular design.

Model	3.44MWh
Cell Parameters	
Cell	280 Ah
Material	LFP (LiFePO ₄ - Lithium Iron Phosphate)
Battery Module	
Rated Energy	43.00 kWh (@25°C, 0.5C / 0.5C)
Rated Voltage	153.2 V
Dimension(L*W*H)	1140*790*245 mm
Weight	~375 kg
Cell Configuration	1P48S
Battery Cluster	
Rated Energy	344 kWh (@25°C, 0.5C / 0.5C)
Rated Voltage	1228.8 V
Weight	~3100 kg
Dimension(L*W*H)	1300*950*2230 mm
Cell Configuration	1P384S
DC System Parameters	
Rated voltage	1228.8 V (25°C±2°C)
Rated capacity	2800 Ah
Rated energy	3.44 MWh
Battery cluster	10
C-Rate	0.5C
Maximum C-Rate	1C
Cooling	Liquid Cooling
Self-discharge Rate/month	≤3% / month
Communication	MODBUS TCP/IP
Colour	RAL 7035
IP Level	IP55
Weight	34T
Fire Suppression	Perfluorohexane fire extinguishing, point type temperature and fire detectors, photoelectric smoke detectors, combustible gas detectors, and exhaust systems



1750 kW PCS with 32kV Transformer Container

CE MSDS  

Product Highlights

- Pre-equipped with medium voltage transformer and switchgear.
- Modular design to prevent single point of failure.
- 7 sets of 250kW String PCS, 33kV Transformer.
- Rack-level management for batteries to address the issue of circulating current in parallel connections.

Model	1750 kW
DC Parameters	
DC Input Channels	7
Max. DC Current	281 A*7
DC Voltage Range	1000~1500V
AC Parameters	
Total Rated Power	1750 kW
Max. Output Power	1925 kW
Rated Voltage	690 VAC
Isolation Mode	Transformer Isolation
On-Grid Mode	
Rated Grid Voltage	6~35 kV (Customizable)
Rated Grid Freq.	50 Hz / 60 Hz
THDi	<3%
Power Factor	-1~1
Transformer Parameters	
Rated Capacity	1750 kVA
Transformer Type	Oil-immersed Transformer
LV/MV Voltage	0.69/(6~35)kV
System Parameters	
Dimensions(W×H×D)	6058×2896×2438 mm
Operating Temp.	-40~+60°C(Derating above 45°C)
Protection Degree	IP54(PCS IP66)
BMS Communication	RS485/CAN
Com. Protocol	Modbus RTU/Modbus TCP /IEC104 /IEC61850
Compliance	GB/T 34120,IEC62477,IEC61000,EN50549
Grid Support	H/LVRT,Frequency adjustment function,Voltage adjustment function,Inertia response,Etc.



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