Thaismart TSPT-PCS20-30 Series

More Info:

e-mail : info@solaress.biz

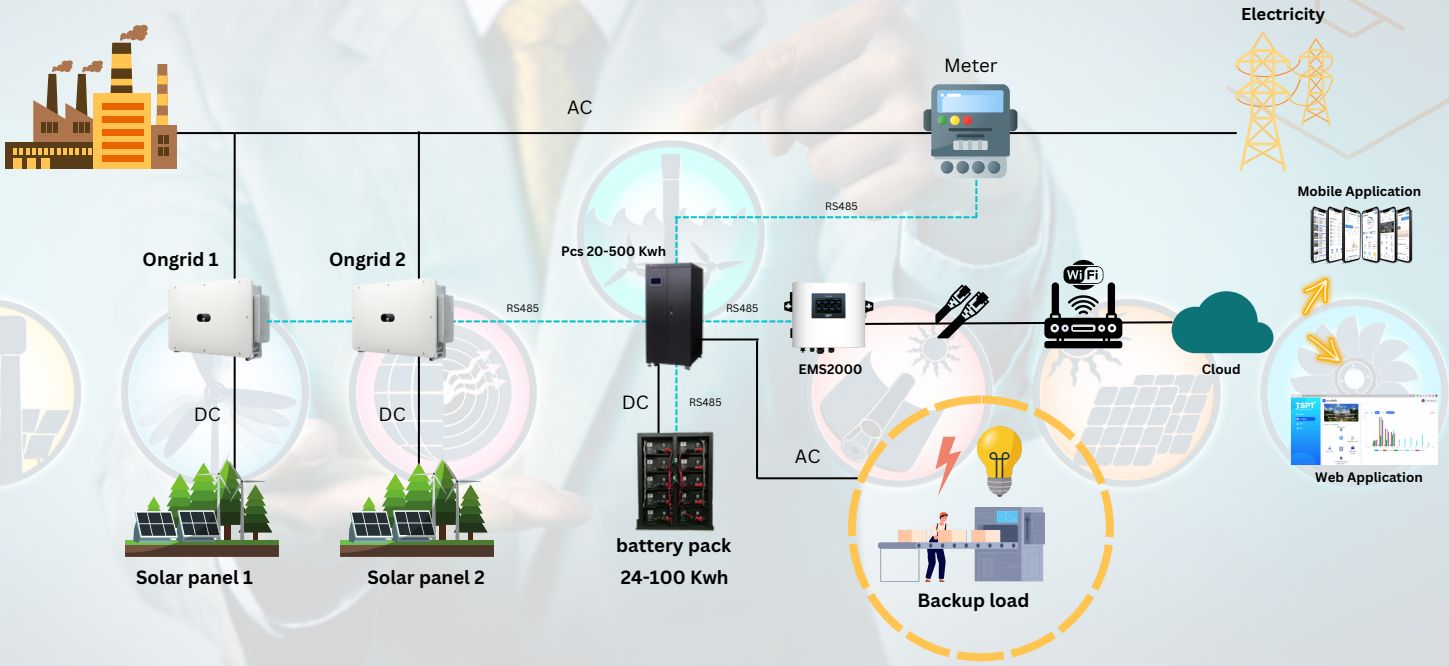
Model	TS-PCS20K-M	TS-PCS30K-M	TS-PCS20K-H	TS-PCS30K-H
Battery Input Data				
Battery Type	Lea Acid or Li-Ion Phosphate(LFP)			
Battery voltage range(V)	290-364V		352-464V	
Max. Discharge current(A)	65A	100A	56A	85A
Charging curve	2stages / Fast charge (MPPT with BUCK topology), Boost charge, Float charge			
PV String Input Data				
Max. DC input power(W)	24kW	34kW	24kW	34kW
PV input voltage(V)	550V		780V	
MPPT range(V)	290V-500V(Recommend 400VDC)		457V-780V(Recommend 600VDC)	
Startup voltage(V)	350V		500V	
PV input current Imp/ Isc(A)	60A/75A	75A/90A	50A/65A	60A/75A
No. of MPPT tracker	1			
AC Input Grid Data				
Input voltage and frequency	220/380, /230/400Vac(342- 440V), 50/60Hz (45-65Hz) Three phase 3wire +N+ PE			
Power factor	>0.99			
Input rated current(A)	45A(380V)/42A(400V)	68A(380V)/65A(400V)	45A(380V)/42A(400V)	68A(380V)/65A(400V)
AC Charging current battery(ADC)	45A	68A	28A	42A
AC Output Grid Data(Backup)				
Rated AC output (kW) PF= 1	20kW	30kW	20kW	30kW
Output rated current(A)	30A(380V)/28A(400V)	45A(380V)/43A(400V)	30A(380V)/28A(400V)	45A(380V)/43A(400V)
Output voltage and frequency	220/380, 230/400Vac(342- 440V), 50/60Hz (45-65Hz) Three phase 3wire +N+ PE			
Voltage regulation	+/-5% Steady state load, <4% at 100% step load within 0.1 second			
Current harmonic distortion	THD<3% (Linear load <3%)			
Overload capability	>125% load for 10mins, < 150% load for 1min.. >150% load with in 0.5Sec. then Transfer to bypass			
Efficiency				
Max. efficiency	95%			
MPPT efficiency	>99.00%			
Protection system	Over current, Over charge, Overload, Over temperature, Short circuit, Over voltage, Under voltage, Low battery disconnect voltage, and Over battery voltage			
7 inch LCD Display	Input/Output, Voltage, Current, Frequency, Inverter, overload, Output power, AC Energy Hour, Today, Month, Year, AC Energy Acc., Batt. voltage, Load, DC current, inverter status &Fault			
Certifications and Standard				
Standard	IEC62116and IEC61272 IEC62040-02(C3), IEC61000-4-2/-4/-5 level4, IEC61000-4-3 level3, GB4943-2001/IEC62040-1			
General Data				
Operate temperature(C)/ Humidity	0 to45 °C, >45 °C Derating/ 0-95% Non-condensing			
Cooling/ Protection degree	Smart Fancooling, Automatic control temperature and load/ IP20			
Noise(dB)	≤ 50 dB(A)			
Communication with BMS	RS485 or RS232			
Dimension(mm)	(W)600x(D)850x(H)1200			
Weight(kg)	250	270	250	270

*Product specification are subject to change without further notice.

Model	TSPT-PCS40KT	TSPT-PCS50KT	TSPT-PCS75KT	TSPT-PCS100KT
Battery Input Data				
Battery Type	AGM, OPzV, LFP Lithium			
Battery voltage range(V)	360V/384V(310-480V) Battery type AGM, OPzV, LFP Lithium)			
Max. Discharge current(A)	100A	140A	200A	280A
Charging curve	2stages / Fastcharge(MPPT with BUCK topology), Boost charge, Float charge			
AC Input Grid Data				
Input voltage and frequency	220V/230V/240V L-N, 380V/400V415V L-L +/-10%, 50Hz+/- 3% 3Phase4Wire + PE			
Power factor	>0.99			
Input rated current(A)	60 A(380V)/58 A(400V)	76 A(380V)/372 A(400V)	113A(380V)/108 A(400V	151 A(380V)/144 A(400V)
AC Charging current battery(ADC)	50 A	28 A	42 A	28 A
AC Output Grid Data(Backup)				
Rated AC output (kW) PF= 1	40kVA/40kW	50kVA/50kW	75kVA/75kW	100kVA/100kW
Output rated current(A)	60 A(380V)/58 A(400V)	76 A(380V)/372 A(400V)	113A(380V)/108 A(400V)	151 A(380V)/144A(400V)
Output voltage and frequency	220V/230V/240V L-N, 380V/400V415V L-L +/-2%, 50Hz+/-0.1% 3Phase4Wire + PE			
Voltage regulation	+/-5% Steady state load, <4% at 100% step load within 0.1 second			
Current harmonic distortion	THD<3% Linear load, Non Linear load <5% at 0.8 Lagging power factor			
Overload capability	>125% load for 10mins, < 150% loadfor 1min.. >150% load with in 0.5Sec. then Transfer to bypass			
Output voltage Wave Form	Pure Sine Wave			
Efficiency				
Max. efficiency	95.6%			
MPPT efficiency	95.0%			
Protection system	Over current, Over charge, Overload, Over temperature, Short circuit, Over voltage, Under voltage, Low battery Dis. voltage, Highbattery Chg. voltagePV Open circuit/Short circiutand Over battery voltage			
7 inch LCD Display	Input/Output,PV, Battery Voltage, Current, Frequency, Inverter, overload, Output power, AC Energy Hour, Today, Battery level, Month, Year, AC Energy Acc., Batt. voltage, Load, DC current, Status, Alarm & Fault			
Certifications and Standard				
Standard	IEC62116, IEC61272, IEC62040-02(C3), IEC61000-4-2/-4-5 , IEC61000-4-3,GB4943 2001/IEC62040-1			
General Data				
Operate temperature(C)/ Humidity	0 to45 °C, >45 °C Derating/ 0-95% Non-condensing			
Cooling/ Protection degree	Smart automatic coolingfan, Automatic control temperature and load/ IP20			
Noise(dB)	≤ 50 dB(A)			
Communication with BMS	RS485 or RS232			
Dimension(mm)	(W)890x(D)1000x(H)1800			
Weight(kg)	300	450	600	750

*Product specification are subject to change without further notice.

High Voltage Energy Storage System ESS



PEA PROVINCIAL ELECTRICITY AUTHORITY · การไฟฟ้านครหลวง Metropolitan Electricity Authority · IEC IE 62619 · UL IUL 1964 · ISO 9001 · 14001 ISO CERTIFIED · 5 YEAR WARRANTY · QUALITY GUARANTEED

Thaismart TSPT-PCS20-30 Series

Three phase ESS & Power Conversion System Bi-Directional On-Off grid Inverter

Feature:

- 100% unbalance output, each phase; Max. output up 120% rate power.
- DC couple and AC couple to retrofit existing solar system.
- Max.4pcs parallel for on-grid and off-grid(Optional)
- Built in Output isolate transformer, High efficiency >95%.
- Built in MPPT Solar controller, Charging current of 60-90A.
- Double built in2static transfer switch inverter and bypass.
- Zero transfer time <10ms.
- On grid Enable/Disable HMI set &Communication eternal controller.
- Compatible with lead acid or lithium Ion battery
- Fan cooling & low noise. IP20, Tower designed and strong.
- Support strong energy from diesel generator.
- Support energy management system Building, Hospital, University, etc.
- Power dispatching and demand side response management.
- Distributed virtual power station management.
- Certificated IEC62116, IEC61272, ISO9001, ISO14001
- PEA standard B.E. code 2559

TSPT POWER NEXT GENERATION

High cycle life

4000 cycles @80% DoD for effectively lower total of ownership cost.

Longer service life

Low maintenance batteries with stable chemistry

Built in circuit protection

Battery Management System (BMS) is incorporated against abuse

Better storage

up to 6 months thanks to its extremely low self discharge (LSD) rate and no risk of sulphation

Quickly recharge

Save time and increase productivity with less down time thanks to superior charge/discharge efficiency

Extreme heat tolerance

Suitable for use in a wider range of applications where ambient temperature is unusually high: up to +60°C

Lightweight

Lithium batteries provide more Wh/Kg while also being up to 1/3 the weight of its SLA equivalent

APPLICATIONS

Lithium Iron Phosphate can be used in most applications that use Lead Acid, GEL or AGM type batteries.Suitable applications include:

- Solar Storage
- Switching applications and more
- Base transceiver station
- Communication equipments
- Central office
- Telecommunication systems
- Electronic cash registers
- Microprocessor based office machine
- UPS

CAUTIONS

- Do NOT short circuit, reverse polarity, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 30~50% SOC. Recharging every 3 months is recommended. The storage area should be clean, cool , dry and ventilated

Performance may vary depending on application. All specifications are subject to change without prior notice to the user . This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact us.

LITHIUM ION BATTERY TSPTLi-100A-LCD

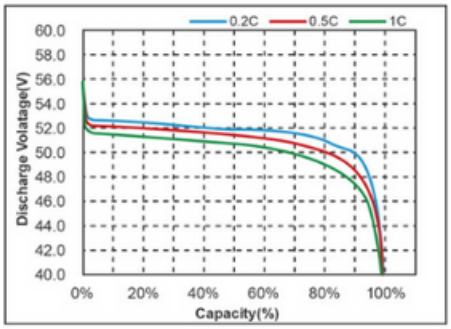
SPECIFICATION

Model/Parameters	TSPTLi-48100A-LCD	TSPTLi-51100A-LCD
Rated Voltage	48V	51.2V
Rated Capacity (0.2C， @25℃)	100Ah	
Rated Energy	4800Wh	5120Wh
Cell & Pack	LiFePO4, Prismatic, Aluminum shell	
Output voltage range	43.2V~58.4V	
Charging voltage	58.4V, CC-CV	
	43.2V	
Max. Constant Charging current	100 A	
Recommended charging current	<50A, best @ 20A	
Recommended charging type	CC-CV until current <0.02C	
Max.Constant Discharging current	≤100A	
Efficiency	≥98%	
Built-in BMS		
Over-charge protection	Module>58.4V or Cell>3.65V	
Over-discharge protection	Module<43.2V or cell<2.7V	
Over-current protection Short circuit protection	Charging: >105A,delay 5S; >110A delay 3S; Discharging: >105A,delay 5S; >110A delay 3S; Short circuit: >350A	
Cell balance	Passive, 100mA	
Over temperature protection	Charging: <-5℃ or >65℃ Discharging: <-20℃ or >65℃	
Case material	ABS	
Dimension L*W*H（mm） & Terminal	45.0±0.5	
Environment		
Humidity	5%~95% relative humidity	
Charging temperature	0℃~+45℃	
Discharging temperature	-20℃~+65℃	
Storage temperature	-20℃~45℃	
Cycle life	50%DOD>6000 times，@0.2C，25℃ 80%DOD>3500 times， @0.2C， 25℃	
Design life	12 Year	

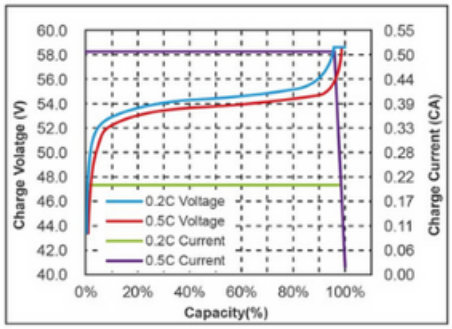
LITHIUM ION BATTERY TSPTLi-48100A-LCD

ELECTRONIC PERFORMANCE DIAGRAM

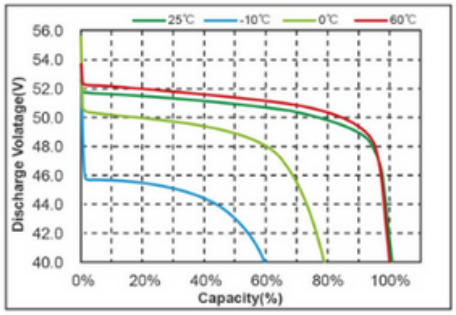
Different Rate Discharge Curve @25℃



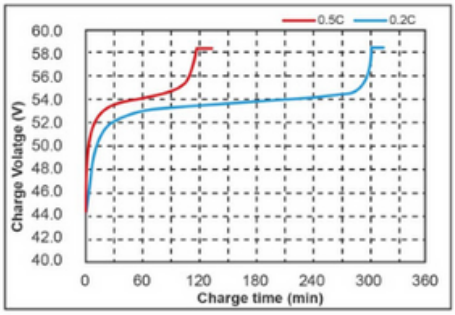
Different Rate Charge Curve @25℃



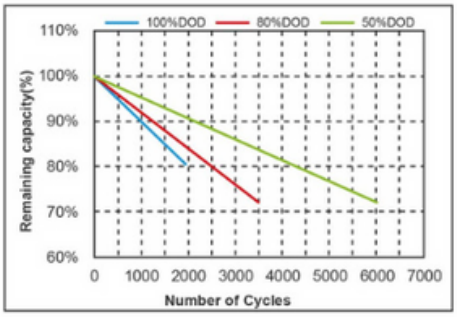
Different Temperature Discharge Curve @0.5C,25℃



Charge Characteristics of time-voltage @0.2C,0.5C,25℃



Different DOD Discharge Cycle Life Curve @0.2C,25℃



Open circuit voltage VS SOC @25℃