



**SAMIL POWER**  
Expert for PV Grid-tied Inverters



# SolarTank

## Storage system

Singlephase/Threephase

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### **CARATTERISTICS**

Solar Tank is an intelligent electronic device which allows you to accumulate the energy in excess produced by a photovoltaic residential system and then deliver it when needed.

It consists of a double DC / DC converter comprising a charger section of photovoltaic modules with a fully programmable battery pack and of booster pack section grid tied inverter to battery.

Everything happens on the logic of information sent by a mains power sensor installed between the framework electric house and the exchange counter

### **FUNCTIONALITY**

Compatible with almost all the on-grid inverter with conventional MPPT and 48 V battery packs trade, allows for maximum flexibility in retrofit the components of an existing plant and the choice of new plants. Available in single-phase version and for three-phase systems up to 40 A per phase.

When  $P_{sun} > P_{load}$  (by day) the batteries are single loaded the excess energy, favoring always direct the power to the loads.

When  $P_{sun} < P_{load}$  (at night or cloudy) loads are powered by the energy stored in the battery to a maximum power of 1500 W: fully operational in DC.

Models	Solar Tank singlephase	Solar Tank threephase
<b>PV input DC</b>		
Input DC voltage (V)	150 ÷ 600	
Max input current (A)	16	
Max input power (W)	6000	
Number of input	1	
Input connection type	cable clamp screw terminal block + 1 pair MC4 connectors	
<b>Output to inverter</b>		
Output current (A)	10	
Output voltage (V)	150 ÷ 600	
Output voltage range (V)	150 ÷ 600	
Max output power (W)	1500 (C10 suggested)	1500 totali (C10 suggested)
Output connection type	cable clamp screw terminal block + 1 pair MC4 connectors	
Output protection	extrarapid fuse 6,3x32, 10 A FF	
<b>Input/output to battery</b>		
Loading voltage (V)	48	
Allowed capacity (Ah)	100 ÷ 450	
Charge cycle voltage range (V)	35 ÷ 62	
Max input current (A)	30	
Charge/discharge speed	C10 (depending battery producer specification)	
Protection to battery	n. 3 fuse 6.3X32 T10AH	
Connection to battery	cable clamp screw terminal block on the board	
<b>Operational performance</b>		
Max efficiency	99%	
Complete charge	Deep recharge to 100% within 18hours of continuous sun	
Stand-by self consumption	100 mA - 5 W	
<b>Environmental Performance</b>		
Temperature (°C)	-20 ÷ +50	
Umidity	0 ÷ 95%	
Max altitude without derating (mslm)	3000	
Derating temperature (°C)	70	
Noise (dB)	73	
Degree of protection	IP20	
<b>Physical characteristic</b>		
Dimension (H x L x P)	339 x 256 x 141	
Weight (kg)	6	
Body	coated aluminum powder	
Installing method	wall bracket	
Cooling	fan + heatsink	
<b>Sensors input</b>		
Grip power input	n. 1 analogic input 3 x 0,5	n. 3 analogic input 3 x 0,5
Load power input	n. 1 analogic input 3 x 0,5	
Type of sensors	TA/TV sampling every 20 ms. Mac power 8000 W	
Battery temperature sensor	n. 1 input	
<b>Communication</b>		
Configuration/installation interface	n. 1 RS485 port	
User monitoring interface	n. 1 LAN ETHERNET RJ45 port	
<b>Software and configuration</b>		
Rapid configuration	n. 4 dipswitch	
Advance configuration	installer SW 1Phase	installer SW 3Phase
Instant user monitoring	user monitoring SW	
<b>Certification</b>		
CE	yes	
CEI-021 Conformity	yes CEI 0-21 V1 2ed.	
EMC conformity	yes	
Category of storage system	Monodirectional production side	
<b>Warranty</b>		
Warranty	24 month	

All data are intended for information purposes only and are subject to change without verification

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