

H.STORE



Data Sheet

Rev. 1.02

Data	Revisione	Note	Firma
14/02/2022	1.00	First version	I.B.
27/09/2022	1.01	Added 4.8 kWh batteries	I.B.
01/03/2023	1.02	Noise modification	I.B.

Inverter Technical Data

Model	ATH-3K-TL	ATH-4K-TL	ATH-5K-TL	ATH-6K-TL
DC PV Input				
Max. DC input power [W]	4.500	5.400	7.500	9.000
No. Of independent string	2			
Max. DC input voltage [V]	600			
MPP range [V]	90-520			
Startup Voltage [V]	120			
Max. DC input current [A]	11/11			
Max. DC short circuit current [A]	17,2/17,2			
Maximum power for MPPT [W]	5.000			
AC Output Grid Line				
Type of power supply	Sinusoidal single phase			
Max. output power to utility grid [W]	3.000	3.600	5.000	6.000
Max. output apparent power to utility grid [VA]	3.300	4.000	5.500	6.000
Nominal output voltage [V]	220/230			
Nominal output frequency [Hz]	50/60			
Max. output current to utility grid [A]	15,7	17,3	23,9	26,1
Output THDi (at Nominal output power)	<2%			
Output power factor	0,8 leading 0,8 lagging			
AC Output EPS Line				
Type of power supply	Sinusoidal single phase			
Maximum output power [W]	3.000			5.000
Max. output apparent power [VA]	4.000			6.000
Peak output apparent power (10sec) [VA]*	220/230			
Nominal output voltage [V]	50/60			
Nominal output frequency [Hz]	13			22
Nominal output current [A]	<2%			
Output THDi (at Linear Load)	Opzional			
Battery				
Type	LiFePO4 / Pb			
Nominal voltage [V]	48			
Max. charging current [A]	62,5			100
Max. discharging current [A]	62,5			100
Min. number of battery modules	0			
Max. number of battery modules	15 with BST Batteries			

	16 with Pylontech Batteries
	72 with BST
Maximum permissible energy at maximum capacity [kWh]	76,8 with Pylontech
Efficiency	
Max. efficiency	> 97,5%
Max. battery to load efficiency	> 94,5%
Europe efficiency	> 96,8%
Protection	
Anti-islanding	Yes
PV string input reverse polarity protection	Yes
Insulation resistor detection	Yes
Residual current monitorin unit	Yes
Output overcurrent protection	Yes
Output shortcircuit protection	Yes
Output overvoltage protection	No
Overtemperature protection	Yes
AC lines protection	No
Battery protection	Magneto-thermal breaker
General Data	
Working temperature range for normal functioning [°C]	from -25 to +60
Inverter type	HF insulated
Relative humidity	0 % ÷ 95 %
Maximum altitude [m]	< 2.000
Cooling	Natural convection
Noise [dBA]	20
Weight [Kg]	17
Dimension inverter section (Width x Depth x Height) [mm]	335x145x440
Mounting	Wall bracket
Protection degree	IP20
Pollution degree	3
Installation	Indoor
Overvoltage category AC sides	III
Overvoltage category DC side	II
Tightening torque for electrical clamps [Nm]	1,2
Use with amorphous solar panel	Forbidden
External protections required on the PV generator side (DC side)	SPD

Min. insulation resistance to ground of the string (Test voltage: 1000 Vdc) [MΩ]	20
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Certifications & Standards

Certifications	CE, CEI 0-21, EN50438, G83/2, G98, G99, G59/3, AS4777.2:2015, VDE0126-1-1, IEC61727, VDE N4105
Safety regulation and EMC	IEC62040-1, IEC62109-1/-2, AS3100, NB/T 32004, EN61000-6-1, EN61000-6-3

Battery Technical Data – 2,4 kWh Batteries

Model	SBATLIT94A-48V	MD48-50-2U
Battery		
Battery type	LiFePO4	
Made by	Pylontech	BST
Model	US2000	MD48-50-2U
Nominal voltage [V]	48	
Max. permissible energy [kWh]	2,4	
Max. charge current [A]	25*	
Max. discharge current [A]	25*	
DoD [%]	80%	
Minimum number of working cycles @ 25°C, DoD 80%	4000	
General Data		
Working temperature range in charge [°C]	from 0 to +50	
Working temperature range in discharge [°C]	from -10 to +50	
Relative humidity	0 % ÷ 95 %	
Maximum altitude [m]	< 4000	
Cooling	Natural convection (Fanless)	
Noise [dB]	< 25	
Weight [Kg]	24	
Dimension (Width x Height x Depth) [mm]	483x435x89	
Mounting	Rack 19"	
Protection degree	IP20	
Pollution degree	3	
Installation	Indoor	
Certifications		
Certifications	CE	
Transport regulation	UN38.3	

(*) Can be limited by the inverter and/or the BMS

Model of casing	WALL-BOX-C
Max. Number of batteries	3
Dimension (Width x Depth x Height) [mm]	525x320x530
Weight without batteries [Kg]	13

Battery Technical Data – 4,8 kWh Batteries

Model	SBATLIT100A-48V	MD48-50-2U
Battery		
Battery type	LiFePO4	
Made by	Pylontech	BST
Model	US5000	MD48-100-3U
Nominal voltage [V]	48	
Max. permissible energy [kWh]	4,8	
Max. charge current [A]	50*	
Max. discharge current [A]	50*	
DoD [%]	80%	
Minimum number of working cycles @ 25°C, DoD 80%	4000	
General Data		
Working temperature range in charge [°C]	from 0 to +50	from 0 to +55
Working temperature range in discharge [°C]	from -10 to +50	from -20 to +55
Relative humidity	0 % ÷ 95 %	20 % ÷ 90 %
Maximum altitude [m]	< 4000	
Cooling	Natural convection (Fanless)	
Noise [dB]	< 25	
Weight [Kg]	39,7	42
Dimension (Width x Height x Depth) [mm]	442x420x161	440x420x133
Mounting	Rack 19"	
Protection degree	IP20	
Pollution degree	3	
Installation	Indoor	
Certifications		
Certifications	CE/IEC62619	
Transport regulation	UN38.3	

(*) Can be limited by the inverter and/or the BMS

Model of casing	WALL-BOX-C		WALL-BOX-D
Max. Number of batteries	1 x US5000	2 x MD48-100-3U	2
Dimension (Width x Depth x Height) [mm]	525x320x530		513x405x522
Weight without batteries [Kg]	13		14

Control Technical Data

Model	ATH-BOX
Operator interface	
Internal display (only for the installer)	Graphic 128x64 retroill.
Keyboard (only for the installer)	4 key
On board signal Led [nr.]	3
Communication interface	
WiFi (standard)	2.4 GHz IEEE Std. 802.11 b/g
GPRS (opzional)	2G Dual band
LAN (opzional)	10/100 Mbps
Local / remote communication to network operators, distributors, aggregators, etc... (opzional)	Yes
Communication in agreement with EN61850 (predisposition)	Yes
General Data	
Operate temperature range [°C]	From -25 to +60
Relative humidity	0 % ÷ 95 %
Maximum altitude [m]	< 2.000
Cooling	Natural convection (Fanless)
Noise [dB]	< 25
Weight [Kg]	5,5
Dimension (Width x Depth x Height) [mm]	335x145x275
Mounting	Fixed to inverter
Dimension with inverter (Width x Depth x Height) [mm]	335x215x720
Weight with inverter [Kg]	22,5
Protection degree	IP20
Pollution degree	3
Installation	Indoor
Certification	
Certifications	CE