

**Pylontech  
New Residential  
Solutions**

**Powered by the Force H1/H2**



## ***PYLONTECH FORCE-H1/H2***

The Force H1/H2 is the latest version of High voltage battery storage system provided by Pylontech. The newly designed system provides easy connector to save valuable time for installaters. The stacking system provides flexible configurations from 96V to 384V voltage and 7.1 kWh to 24.86 kWh capacity.

The white/black steel color reflects the strong capability of holding energy. The indoor/outdoor compatible feature provides more possibilities of installation. Ideal for large home and small commercial application.



7.10~24.86 kWh

Flexible Mounting

Plug&Play

90% DOD





# Technical Specification

Product Type	Force-H1				
Cell Technology	Li-iron (LFP)				
System Model Name	Force-H1-48/144V	Force-H1-48/192V	Force-H1-48/240V	Force-H1-48/288V	Force-H1-48/336V
Battery System Capacity(kWh)	10.65	14.20	17.76	21.31	24.86
Battery System Usable Capacity(kWh)	9.59	12.78	15.94	19.18	22.37
Battery System Voltage(Vdc)	144	192	240	288	336
Battery System Capacity(AH)	74Ah				
Battery Controller Name	FC0500-40S				
Battery Module Name	FH48074				
Battery Module Quantity(pcs)	3	4	5	6	7
Battery Module Capacity(kWh)	3.552				
Battery Module Voltage(Vdc)	48				
Battery Module Capacity(AH)	74				
Battery System Charge Upper-Voltage(Vdc)	162	216	270	324	378
Charge/Discharge Current(Amps, Standard)	14.8				
Charge/Discharge Current(Amps, Normal)	37				
Charge/Discharge Current(Amps, Max.@15s)	40				
Battery System Discharge lower-Voltage(Vdc)	130.5	174	217.5	261	304.5
Battery System DC Rate Power (kW)	5.33	7.10	8.88	10.66	12.43
Battery System DC Max.Power(kW.@15s)	5.76	7.68	9.60	11.52	13.44
Short circuit rating(Amps)	< 4000				
Efficiency(%)	96				
Depth of Discharge(%)	90				
Dimension(W*D*H,mm)	600*380*700	600*380*870	600*380*1040	600*380*1210	600*380*1380
Communication	CANBUS/Modbus RTU				
Protection Class	IP55				
Weight (kg)	122	158	194	230	266
Operation Life(Years)	15+				
Operation Temperature(°C)	0-50°C				
Storage Temperature(°C)	-20-60°C				
Humidity	5-95%				
Product Certificate	VDE2510-50, IEC62619, UL1973, IEC62477-1, IEC62040-1, CE, UN38.3				
Warranty	10 Years				
1) Battery Controller Dimensions(W*D*H)	600×380×150mm				
2) Battery Module Dimensions (W*D*H)	600×380×170mm				
3) Battery bottom base Dimensions (W*D*H)	600×380×40mm				

# ET Series

## Three Phase Hybrid Inverter (HV Battery)



Technical Data		GW5K-ET	GW8K-ET	GW10K-ET
<b>Battery Input Data</b>	Battery Type	Li-Ion		
	Battery Voltage Range (V)	180~600		
	Max. Charging Current (A)	25		
	Max. Discharging Current (A)	25		
	Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
<b>PV String Input Data</b>	Max. DC Input Power (W)	6500	9600	13000
	Max. DC Input Voltage (V)*	1000		
	MPPT Range (V)	200~850		
	Start-up Voltage (V)	180		
	Nominal DC Input Voltage (V)	620		
	Max. Input Current (A)	12.5/12.5		
	Max. Short Current (A)	15.2/15.2		
	No. of MPP Trackers	2		
	No. of Strings per MPP Tracker	1/1		
<b>AC Output Data (On-grid)</b>	Nominal Apparent Power Output to Utility Grid (VA)	5000	8000	10000
	Max. Apparent Power Output to Utility Grid (VA)**	5500	8800	11000
	Max. Apparent Power from Utility Grid (VA)	10000	15000	15000
	Nominal Output Voltage (V)	400/380, 3L/N/PE		
	Nominal Output Frequency (Hz)	50/60		
	Max. AC Current Output to Utility Grid (A)	8.5	13.5	16.5
	Max. AC Current from Utility Grid (A)	15.2	22.7	22.7
	Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
	Output THDi (@Nominal Output)	<3%		
<b>AC Output Data (Back-up)</b>	Max. Output Apparent Power (VA)	5000	8000	10000
	Peak Output Apparent Power (VA)***	10000, 60sec	16000, 60sec	16500, 60sec
	Max. Output Current (A)	8.5	13.5	16.5
	Nominal Output Voltage (V)	400/380		
	Nominal Output Frequency (Hz)	50/60		
	Output THDv (@Linear Load)	<3%		
<b>Efficiency</b>	Max. Efficiency	98.0%	98.2%	98.2%
	Max. Battery to Load Efficiency	97.5%		
	European Efficiency	97.2%	97.5%	97.5%
<b>Protection</b>	Anti-Islanding Protection	Integrated		
	PV String Input Reverse Polarity Protection	Integrated		
	Insulation Resistor Detection	Integrated		
	Residual Current Monitoring Unit	Integrated		
	Output Over Current Protection	Integrated		
	Output Short Protection	Integrated		
	Battery Input Reverse Polarity Protection	Integrated		
	Output Over Voltage Protection	Integrated		
<b>General Data</b>	Operating Temperature Range (°C)	-35~60		
	Relative Humidity	0~95%		
	Operating Altitude (m)	≤4000		
	Cooling	Nature Convection		
	Noise (dB)	<30		
	User Interface	LED & APP		
	Communication with BMS	CAN		
	Communication with Meter	RS485		
	Communication with EMS	RS485 (Insulated)		
	Communication with Portal	Wi-Fi		
	Weight (kg)	24		
	Size (Width*Height*Depth mm)	516*415*180		
	Mounting	Wall Bracket		
	Protection Degree	IP65		
Standby Self-Consumption (W)****	<15			
Topology	Transformerless			
<b>Standards</b>	Grid Regulation	CEI 0-21; VDE4105-AR-N; VDE0126-1-1; EN50438; G98; G99; G100		
	Safety Regulation	IEC62109-1&-2		
	EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29		

\*: Maximum operating voltage is 950V.

\*\*\*: According to local grid regulation.

\*\*\*: Can be reached only if PV and battery power are enough.

\*\*\*\*: No back-up output.

# Tiger 66TR

## 390-410 Watt

### MONO-FACIAL MODULE

#### P-Type

Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018

Occupational health and safety management systems



Tiling Ribbon (TR) Technology

## Key Features



#### TR technology + Half Cell

TR technology with Half cell aims to eliminate the cell gap to increase module efficiency (mono-facial up to 21.48%)



#### Best Warranty

12 year product warranty,  
25 year linear power warranty



#### 9BB instead of 5BB

9BB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.



#### Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



#### Higher lifetime Power Yield

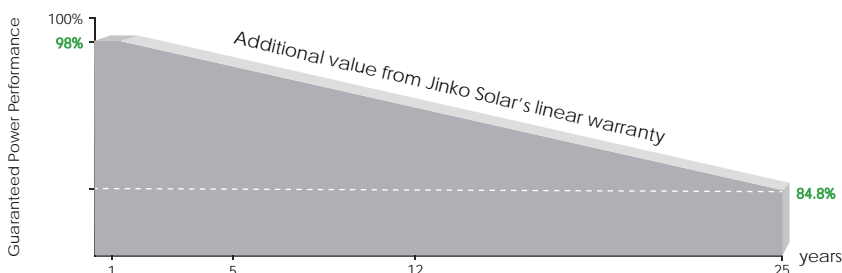
2% first year degradation,  
0.55% linear degradation



#### Avoid debris, cracks and broken gate risk effectively

9BB technology using circular ribbon that could avoid debris, cracks and broken gate risk effectively

## LINEAR PERFORMANCE WARRANTY

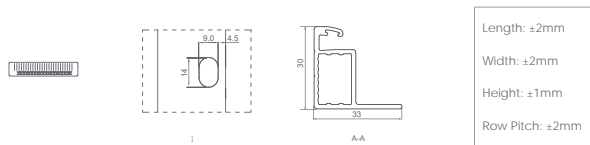
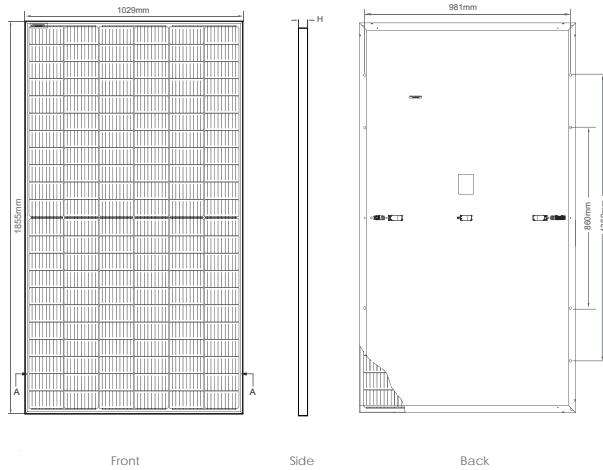


**12** Year Product Warranty

**25** Year Linear Power Warranty

**0.55%** Annual Degradation Over 25 years

## Engineering Drawings

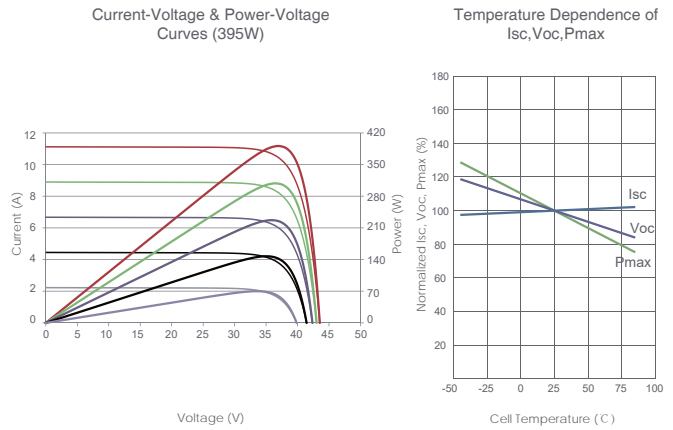


## Packaging Configuration

(Two pallets = One stack)

36pcs/pallets, 72pcs/stack, 864pcs/ 40'HQ Container

## Electrical Performance & Temperature Dependence



## Mechanical Characteristics

Cell Type	P type Mono-crystalline
No. of cells	132 (2×66)
Dimensions	1855×1029×30mm (73.03×40.51×1.18 inch)
Weight	20.8kg (45.86 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm <sup>2</sup> (+): 290mm, (-): 145mm or Customized Length

## SPECIFICATIONS

Module Type	JKM390M-6RL3		JKM395M-6RL3		JKM400M-6RL3		JKM405M-6RL3		JKM410M-6RL3	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	390Wp	290Wp	395Wp	294Wp	400Wp	298Wp	405Wp	301Wp	410Wp	305Wp
Maximum Power Voltage (Vmp)	36.49V	33.66V	36.58V	33.82V	36.67V	33.86V	36.76V	33.97V	36.84V	34.04V
Maximum Power Current (Imp)	10.69A	8.62A	10.80A	8.69A	10.91A	8.79A	11.02A	8.87A	11.13A	8.96A
Open-circuit Voltage (Voc)	43.75V	41.29V	43.93V	41.47V	44.12V	41.64V	44.20V	41.72V	44.29V	41.80V
Short-circuit Current (Isc)	11.39A	9.20A	11.48A	9.27A	11.57A	9.34A	11.68A	9.43A	11.79A	9.52A
Module Efficiency STC (%)	20.43%		20.69%		20.96%		21.22%		21.48%	
Operating Temperature(°C)	-40 C ~ +85 C									
Maximum System Voltage	1000/1500VDC (IEC)									
Maximum Series Fuse Rating	20A									
Power Tolerance	0~+3%									
Temperature Coefficients of Pmax	-0.35%/C									
Temperature Coefficients of Voc	-0.28%/C									
Temperature Coefficients of Isc	0.048%/C									
Nominal Operating Cell Temperature (NOCT)	45±2C									

\*STC: Irradiance 1000W/m<sup>2</sup> Cell Temperature 25°C AM=1.5  
 NOCT: Irradiance 800W/m<sup>2</sup> Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s