内部文件：密级 AA

产品规格书（SPECIFICATION）

客户名称（Customer）	/
产品名称（Product Name）	16kWh 光储一体机 16kWh All-In-One Energy Storage System
产品型号/版本 （Product Model/Version）	T1655H V1.0.00
产品规格 （Product Specifications）	16076Wh 5500W/8000VA
规格书版本（Version）	A1
发行日期（Date）	2025-6-20

惠州市智赋储能技术有限公司 HUIZHOU INTELLIGENT POWER CO., LTD.		
拟制（Prepared by）	审核（Checked by）	批准（Approved by）
LWL	ZHP	

客户签章（Customer Signature）		
确认（Verification）	审核（Checked by）	批准（Approved by）

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The technical specifications of this product are subject to change without prior notice.

版本修订记录(Version Revision Record)				
版本号 Version No.	日期 Date	修订内容说明 Revised Content Description	拟稿 Prepared by	审批 Approved by
A0	2025-5-14	初版发行(First issue)	LWL	ZHP
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目录(Table of contents)

1 引言 Introduction

1.1 关于本规格书 About This Specification

本产品规格书由公司产品部编制并发布，是对定型发布产品的规格说明，是公司开展本产品相关工作（包括生产、检验、测试、认证、营销等）的重要依据.

This product specification is compiled and published by the company's product department. It is a specification of the finalized and released product and an important basis for the company to carry out related work on this product (including production, inspection, testing, certification, marketing, etc.).

本产品规格书由公司产品部负责维护更新.

This product specification is maintained and updated by the Product Department.

2 产品概述 Product Overview

2.1 产品概述 Product Overview

T1655H 是一款额定交流输出电压为 230V,输出功率为 5500W/8000VA，电池容量为 16076.8Wh 的光储一体机系统,它采用了科学的内部结构设计，先进的电池生产工艺，并集成了 DC/AC 双向逆变器、MPPT 太阳能充电控制器、锂离子电池组和能量管理等功能，并提供 UPS 不间断电源，提供内容丰富的 LCD 触摸显示屏供用户设置部分参数及查看系统运行信息；配有 WiFi 无线连接功能，支持通过智能手机 App 或云端平台实现远程监控，用户可实时查看系统运行状态;产品具有智能化，可根据使用环境设置市电优先或逆变优先等模式。适用于普通家庭光伏发电储能、办公室不间断供电及能源短缺或电力不稳定地区，也适用于孤岛、边防哨所等无电地区供电或灾害应急.

T1655H is a photovoltaic storage system with a rated AC output voltage of 230V, an output power of 5500W/8000VA, and a battery capacity of 16076.8Wh. It adopts a scientific internal structure design, advanced battery production technology, and integrates DC/AC bidirectional inverter, MPPT solar charge controller, lithium-ion battery pack and energy management functions, and provides UPS uninterruptible power supply, and provides a rich LCD touch display for users to set some parameters and view system operation information; Equipped with WiFi wireless

connection function, supporting remote monitoring through the smart phone App or cloud platform. Users can view the system operation status in real time; the product is intelligent and can set the mains priority or inverter priority mode according to the use environment. It is suitable for ordinary household photovoltaic power generation and energy storage, uninterruptible power supply for offices, and areas with energy shortage or unstable power supply. It is also suitable for power supply or disaster emergency in isolated islands, border outposts and other areas without electricity.

该产品交流额定输出总功率为 5500W/8000VA，具有一路 230V 交流输出、一路 230V 交流输入及一路支持最大 6000W 的 PV 输入.

The product has a total rated AC output power of 5500W/8000VA, with one 230V AC output, one 230V AC input and one PV input supporting a maximum of 6000W.

2.2 产品特性 Product Characteristics

1）ALL IN ONE 设计，高度集成储能逆变器、光伏逆变器、储能电池及能量管理系统于一体.

2）采用工业级大容量长寿命磷酸铁锂电芯，电芯循环寿命可达到 11000 次以上.

3）长时超高性价比设计，充满电可持续供家庭用电 5 天以上（根据家庭不同用电情况会有变化）.

4）支持大功率光伏发电，可完全满足家庭自发自用的零碳绿电供应需求（光伏输入功率不同而有变化），不必再花费高额电费.适用多场景应用.

5）极简安装，无需复杂接线.

6）维护方便，操作简单.

1) ALL IN ONE design, highly integrated energy storage inverter, photovoltaic inverter, energy storage battery and energy management system.

2) Adopt industrial-grade large-capacity and long-life lithium iron phosphate battery cells, the battery cell cycle life can reach more than 11,000 times.

3) Long-term ultra-high cost-effective design, fully charged can continuously supply household electricity for more than 5 days (depending on the household's different electricity consumption).

4) Support high-power photovoltaic power generation, which can fully meet the household's

self-generated and self-used zero-carbon green electricity supply needs (varies with different photovoltaic input power), without having to spend high electricity bills.

5) Applicable to multiple scenarios.

6) Extremely simple installation, no complex wiring required.

7) Easy maintenance and simple operation.

2.3 产品应用架构 Product Application Architecture

图一 （Fig.1)

3 整机 Complete Machine

3.1 整机外观 Whole Profile

图二 （Fig.2)

3.2 整机部件指示图 Component Indication Drawing

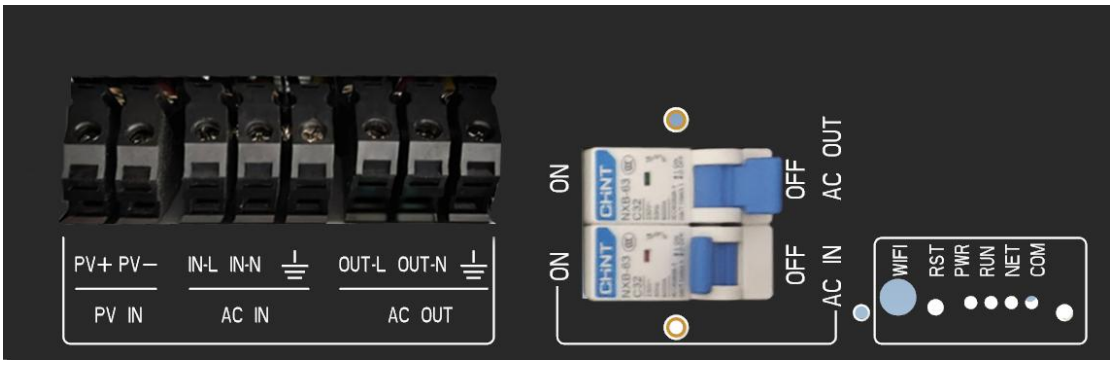
图三 （Fig.3)

3.3 开关、按键及接线排功能 Switches, Buttons and Terminal block functions

序号 No.	按键名称 Button Name	数量 quantity	功能说明 Functional Description
1	ON/OFF 按键 ON/OFF Button	1 个 1 pcs	整机总开关，按下开机，LCD 屏亮;再次按下，关机。The main switch of the whole machine, press it to turn on, the LCD screen lights up; press it again to turn off.
2	交流输入开关 Ac input switch	1 个 1 pcs	控制交流输入。Control AC input.
3	交流输出开关 Ac output switch	1 个 1 pcs	控制交流输出。Control AC output.
4	接线排 terminal block	1 个 1 pcs	交流输入、交流输出、PV 输入、地线接线排。AC input, AC output, PV input, ground wire terminal block.

表 1 （Table 1）

3.4 接线指引 Wiring Guide



图四 （Fig.4)

PV 输入		AC IN			AC OUT		
PV+	PV-	IN-L	IN-N	接地	OUT-L	OUT-N	接地
PV 正极 Connect to PV +	PV 负极 Connect to PV -	火线 Live wire	零线 Neutral line	地线 Ground wire	火线 Live wire	零线 Neutral line	地线 Ground wire

表 2 （Table 2）

3.5 LCD 显示屏 LCD Display

3.5.1 功能按键 Function Buttons

按键 button	功能说明 Functional Description
功能设置 Function setting	功能设置：在显示页面通过触摸显示屏上的图标以及“设置、信息、语言”选择要设置的界面；Function setting: On the display page, Select the interface to be set by touching the icons and 'Settings, Information, Language' on the display

表 3（Table 3）

3.5.2 LCD 触摸显示 LCD Touch Display

图五 （Fig.5)

3.5.3 蜂鸣器对应的工作状态表 Buzzer Corresponding Working Status Table

蜂鸣器告警 Buzzer alarm	描述 Description
长鸣，持续十秒后停止 Long beep, lasts for ten seconds then stops	故障模式 Failure Mode
长鸣三秒后停止 The beep stops after three seconds.	PV 电压/输入电压丢失或恢复 PV voltage/input voltage lost or restored
	开机主开关闭合或断开 The main switch is closed or open.
一秒一鸣，持续一分钟后停止 One beep per second, lasts for one minute and then stops	其他所有告警（电池低压告警只有在电池模式下才会鸣叫） All other alarms (low battery alarm will only sound in battery mode)

表 4（Table 4）

4 电池组特性 Battery Pack Characteristics

4.1 电池组特性 Battery Pack Characteristics

项目 item	最小 minimum	标准 standard	最大 maximum	说明 explanation
电压 Voltage	43.2V	51.2V	58.4V	
容量 capacity	307Ah 15718.4Wh	314Ah 16076.8Wh	321Ah 16435.2Wh	
电池组低电压保护 Battery pack low voltage protection	43.1V	43.2V	43.3V	电池组电压低于该值时，停止放电（通过 BMS 控制）When the battery pack voltage is lower than this value, discharge stops (controlled by BMS)
充电高温保护 Charging high temperature protection	58.0℃	60℃	62.0℃	电芯温度超过该值，停止充电（通过 BMS 控制） If the cell temperature exceeds this value, charging will be stopped (controlled by BMS)
充电高温保护后恢复 Recover after charging high temperature protection	48.0℃	50℃	52.0℃	高温保护中止充电后，回到该温度，自动恢复充电（通过 BMS 控制）After the high temperature protection stops charging, charging will automatically resume when the temperature returns to this level (controlled by BMS)
充电低温保护 Charging low temperature protection	-1℃	0℃	1℃	电芯温度低于该值，停止充电（通过 BMS 控制）When the cell temperature is lower than this value, charging stops (controlled by BMS)
充电低温保护后恢复 Recover after charging low temperature protection	4℃	5℃	6℃	低温保护中止充电后，回到该温度，自动恢复充电（通过 BMS 控制）After the low temperature protection stops charging, charging will automatically resume when the temperature returns to this level (controlled by BMS)
放电高温保护 Discharge high temperature protection	58.0℃	60℃	62.0℃	电芯温度超过该值，停止放电（通过 BMS 控制）When the cell temperature exceeds this value, discharge stops (controlled by BMS)
放电高温保护后恢复 Recover	48.0℃	50℃	52.0℃	高温保护中止放电后，回到该温度，可恢复放电（通过 BMS 控制）After

after high temperature protection				the high temperature protection stops the discharge, the discharge can be resumed when the temperature returns to this level (controlled by BMS)
放电低温保护 Discharge low temperature protection	-25℃	-20℃	-15℃	电芯温度低于该值，停止放电（通过 BMS 控制）When the cell temperature is lower than this value, discharge stops (controlled by BMS)
放电低温保护后恢复 Recover after discharge low temperature protection	-20℃	-15℃	-10℃	低温保护中止放电后，回到该温度，可恢复放电（通过 BMS 控制）After the low temperature protection stops the discharge, the discharge can be resumed when the temperature returns to this level (controlled by BMS)

表 5 （Table 5）

5 产品系统功能和性能 Product System Functions and Performance

5.1 AC 输入特性 AC Input Characteristic

项目 item	规格参数 Specifications	备注 Remark
输入模式 Input Mode	L+N+PE	1 个排线接口(1 cable interface)
额定电压 Rated voltage	230VAC	
输入电压范围 Input voltage range	90~280V	
频率 frequency	50Hz/60Hz	
频率范围 Frequency range	40-70HZ	
最大电流（RMS） Maximum current (RMS)	40A	

表 6 （Table 6）

5.2 PV 输入特性 PV Input Characteristics

项目 item	规格参数 Specifications	备注 Remark
PV 充电方式 PV charging method	MPPT	
PV 最大输入功率 PV max input power	6000W	
PV 最大输入电流 PV max input current	18A	
MPPT 追踪电压范围 MPPT tracking voltage range	120-430Vdc	
PV 最大充电电流（电池端） PV max charging current (battery port)	80A（默认 60A） 80A (default 60A)	
建议 PV 配置电压范围 Recommended PV configuration voltage range	MPPT 电压范围:300-400V 开路电压：370-430V MPPT voltage range: 300-400V Open circuit voltage: 370-430V	
PV 最高开路电压 PV max open circuit voltage	500VDC	

表 7 （Table 7）

5.3 AC 输出特性 AC Output Characteristics

项目 item	最小 minimum	标准 standard	最大 maximum	说明 explanation
AC 输出插座 AC output socket	1 pcs			接线排 Terminal Block
AC 输出功率 AC Output Power	5500W/8000VA			
输出峰值功率 Output peak power	5500W/8000VA			
AC 输出波形 AC output waveform	正弦波 Sine Wave			
AC 输出频率 AC output frequency	40HZ	50HZ	70HZ	
逆变效率 Inverter efficiency	≥94%			@48V

AC 输出短路保护 AC output short circuit protection	支持 support	电池模式切断输出； 市电模式由 breaker 进行切断保护 In battery mode, the output is cut off; in Line mode, the breaker is used for cut-off protection.
AC 过载保护 AC overload protection	支持 support	电池模式下切换到故障模式，等待负载<75%，自动切换回逆变模式工作； Switches to fault mode in battery mode, waits for the load to be less than 75%, and then automatically switches back to inverter mode;
电池模式过载能力 Battery mode overload capability	1min@102%~110% Load	1 分钟，然后报警并关闭输出 1 minute, then alarm and shut down output
	10s@110~130 Load	10 秒，然后报警并关闭输出 10 seconds, then alarm and turn off output
	3s@130~150% Load	3 秒，然后报警并关闭输出 3 seconds, then alarm and turn off output
	200ms@>150% Load	200 毫秒，然后报警并关闭输出 0.2 seconds, then alarm and turn off output

表 8 （Table 8）

6 工作环境 Working Environment

项目 item	最小 minimum	标准 standard	最大 maximum	说明 explanation
充电工作温度 Charging operating temperature	0℃	25℃	45℃	环境温度 environment temperature
放电工作温度 Discharge operating temperature	-20℃	25℃	50℃	环境温度 environment temperature
存储温度 Storage temperature	-20℃	25℃	45℃	
工作湿度 Operating humidity	20%	50%	90%	无凝露 No condensation

存储湿度 Storage humidity	30%	50%	70%	
海拔 altitude	0 M	1000 M	4000 M	海拔高度不应超过 1000m，2000m 以上降额，最高 4000m Altitude should not exceed 1000m, above 1000m, derate, maximum 4000m
测试环境温度 Test environment temperature	23℃	25℃	27℃	
产品存储超过三个月，需对产品进行一次充放电循环，并充电至 50% If the product is stored for more than three months, it is necessary to perform a charge and discharge cycle on the product and charge it to 50%.				

表 9 （Table 9）

7 产品物理参数 Product Physical Parameters

产品外形尺寸(Product dimensions)：(L880*W650*H240)±5mm

产品净重(Product Net Weight)：≈ 139.1KG

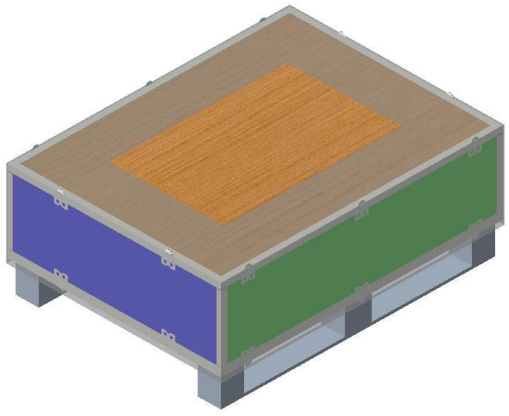
毛重(Gross Weight)：≈ 162.4KG

8 包装 Packaging

8.1 包装方式 Packaging Pethod

默认使用钢边木箱，产品六个面使用珍珠棉保护，木箱外形尺寸：946*716*391mm

Steel-edged wooden boxes are used by default, and the six sides of the product are protected by pearl cotton. The overall dimensions of the wooden box are:946*716*391mm



图六 （Fig.6)

8.2 装箱清单 Packing List

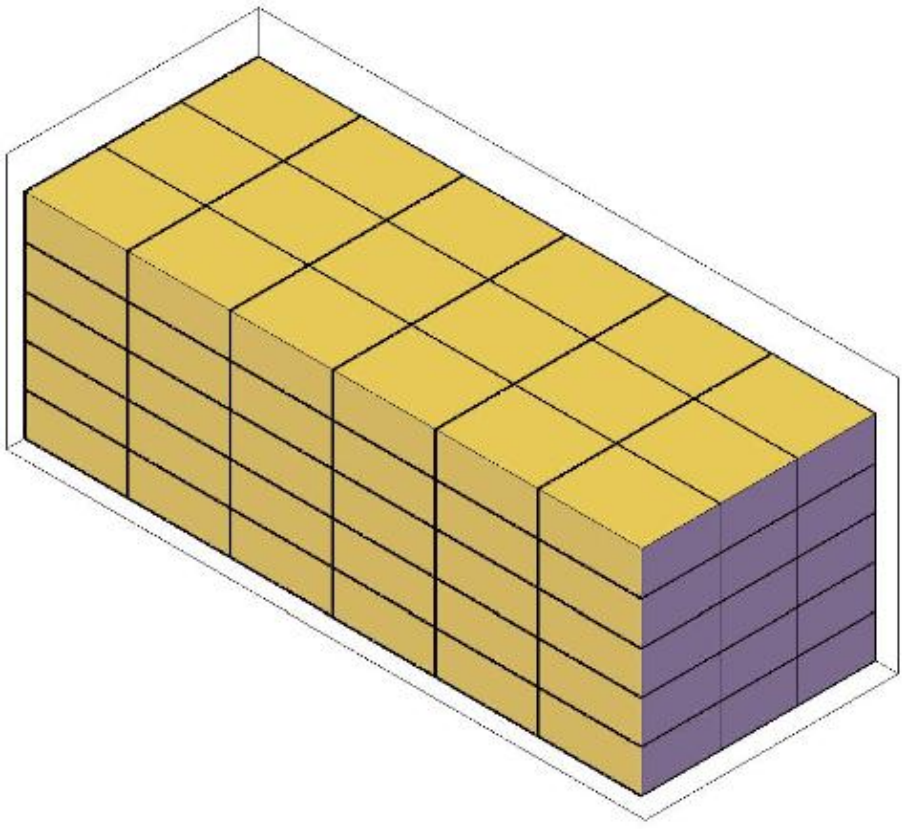
序号 No.	名称 part name	规格 specification	数量 quantity
1	T1655	16kWh 5500W/8000VA	1
2	用户手册 User Manual	T1655 用户使用手册(电子版） T1655 User Manual (E version)	1
3	产品合格证 Product Certificate	菱形英文产品合格证 Certificate hangtag	1

表 10 （Table 10）

8.3 装柜方式及数量（参考）Loading Method and Quantity (Reference)

装箱容器 Packing container	内部尺寸（cm)长-宽-高 Internal dimensions (cm) length-width-height	数量 quantity	毛重（kg) Gross weight (kg)
海运 20GP sea transportation 20GP	589-235-238	90	14616

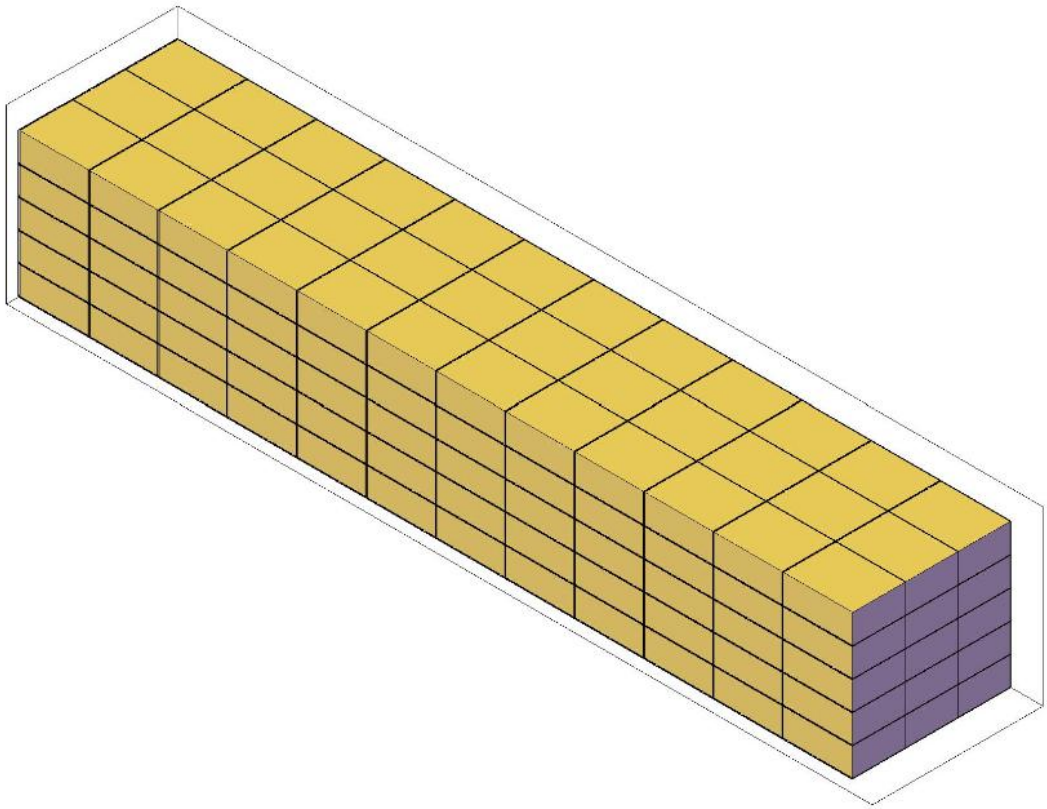
表 11 （Table 11）



图七 （Fig.7)

装箱容器 Packing container	内部尺寸（cm)长-宽-高 Internal dimensions (cm) L-W-H	数量 Quantity	毛重（kg) G.W.(kg)
海运 40GP Sea transportation 40GP	1200-235-238	180	29232

表 12 （Table 12）



图八 （Fig.8)

9 注意事项 Attention

1.请勿将产品放入水中或淋雨！
2.请勿将产品加热或靠近火源！
3.请勿重力敲击产品！
4.禁止在高温环境中使用或放置本产品.
5.禁止拆卸、改造产品.
6.禁止将产品进行短路.
1. Do not put the product in water or rain!
2. Do not heat the product or place it near a fire source!
3. Do not hit the product with force!
4. Do not use or place this product in a high temperature environment.
5. Do not disassemble or modify the product.
6. Do not short-circuit the product.