

PISEN®品胜

智慧储能解决方案

工商业储能一体柜

Intelligent Energy Storage Solution
PISEN CUBE



企业简介

品胜：致力于用科技构建全场景美好智能生活

Enterprise Profile

PISEN: Committed to building a beautiful and intelligent life in all scenarios with science and technology

广东品胜电子股份有限公司，2003年创立于深圳，是集研发、设计、生产、销售于一体的国家级高新技术企业。作为最早研发出充电宝并实现商用的企业之一，品胜致力于用科技构建全场景美好智能生活，始终坚持打造“品质取胜”且有温度的科技美学产品，产品主要围绕智能产品电能支持、新能源储能产品、音频设备、数码配件、智能小家电、车载用品等领域。

二十年品质信赖，买品胜，更放心！“品胜（PISEN）”已成长为销往全球六大洲、在海内外颇具知名度的国际消费电子品牌。未来，品胜将坚持以技术创新和客户服务为核心竞争力，持续打造独具特色的产品与生态服务，与世界分享科技创新带来的无界美好生活。

Guangdong PISEN Electronics Co., Ltd., founded in Shenzhen in 2003, is a national high-tech enterprise integrating R&D, design, production and sales. As one of the earliest enterprises to develop and commercialize power bank, PISEN is committed to building a beautiful and intelligent life in all scenarios with science and technology, and always insists on creating a scientific and technological aesthetic product with "good quality" and affinity. The products mainly focus on smart product electric energy support, new energy storage products, audio equipment, digital accessories, smart small household appliances, vehicle-mounted supplies and other fields. With twenty years of quality trust, PISEN products are more reassuring. "PISEN" has grown into an international consumer electronics brand which is sold on six continents and is well-known at home and abroad. In the future, PISEN will adhere to the core competitiveness of technological innovation and customer service, continue to create unique products and ecological services, and share the unbounded beautiful life brought by technological innovation with the world.

销量名列前茅

3C智能移动周边产品二十年持续畅销

销往全球六大洲

海内外颇具知名度的国际消费电子品牌

Sales among the best

3C smart mobile peripheral products have been selling well for 20 years

Sold to six continents around the world

Well-known international consumer electronics brand at home and abroad



品胜新能源

多项发明专利 革新新能源赛道

PISEN New Energy

A number of invention patents to innovate the new energy field

2020年，品胜进军新能源赛道，成立新能源事业部。依托于在3C智能移动周边产品市场的龙头地位，及研发、生产制造、全渠道营销、数字化与品牌完整供应链的优势，成为新能源汽车充电枪和储能电源市场的新锐企业，拥有多项发明专利。

品胜新能源以充电宝、外接电池户外电源（放电宝）、电动汽车充放电一体化系统、便携储能、家庭储能、工商业储能、储能充电桩一体化系统、绿色能源投资开发运营（新能源开发、投资、设计、安装、运维）等领域为发展核心，致力于为全球储能电池及户外电源等领域客户提供专业的定制化解决方案。

In 2020, PISEN entered the new energy field and established the New Energy Business Division. Relying on its leading position in the market of 3C smart mobile peripheral products, and the advantages of R&D, manufacturing, omni-channel marketing, digitalization and brand integrity supply chain, PISEN has become a cutting-edge enterprise in the market of charging guns and energy storage power supply for new energy vehicles, with a number of invention patents.

PISEN New Energy focuses on the development of inverter, external battery outdoor power supply (inverter), electric vehicle charging and discharging integrated system, portable energy storage, household energy storage, industrial and commercial energy storage, energy storage and charging pile integrated system, green energy investment development and operation (new energy development, investment, design, installation, operation and maintenance) and other fields, and is committed to providing professional customized solutions for customers in the fields of global energy storage battery and outdoor power supply.





产品介绍

Product Introduction

产品简介

Product Introduction

品胜工商业储能一体柜，采用磷酸铁锂电芯，集成了PCS、电池BMS、EMS、热管理、配电和消防等模块，采用单簇充放管理，可实现满充满放。

产品以“峰谷套利”、“应急备电”、“台区扩容”、“需量管理”等应用模式为主，集成谐波治理、无功补偿、三相不平衡治理、调峰调频等功能。多机柜之间还可按需并联，实现储能系统扩容。

省心安装、便捷运维、即插即用，可广泛应用于用户侧和新能源侧等各种应用场景。

PISEN CUBE is provided with lithium iron phosphate cell, integrates PCS, BMS, EMS, thermal management, power distribution and fire protection modules, and adopts single cluster charging and discharging management to realize full charging and discharging.

The products are mainly based on the application modes of "peak-valley arbitrage", "emergency standby power", "power area expansion" and "demand management", and integrate the functions of harmonic control, reactive power compensation, three-phase imbalance control, peak regulation and frequency modulation. Multiple cabinets can also be connected in parallel as needed to realize the expansion of energy storage system.

With worry-free installation, convenient operation and maintenance, and plug and play, products can be widely used in various application scenarios such as user side and new energy side.

此图片仅供参考，以实物为准



系统/模块集成 智慧高效 安全可靠

System/module integration
Smart, efficient, safe and reliable

- 01 高效液冷PCS
液冷PCS来自汇川技术，三电平拓扑，效率可达98.5%
- 02 EMS云平台
远程可视可控，全天便捷运维；停电后可自动进入离网模式，保障应急供电。
- 03 主动安全系统
分区安全隔离，多级主动安全确保消防可控
- 04 长寿命电芯
集成高品质高循环次数LFP电芯，循环次数>7000
- 05 智慧均衡BMS
采用智慧均衡技术，延长电池使用寿命
- 06 All-in-one一体化设计
高度集成易安装，灵活布置不占地

High-efficiency liquid cooling PCS
Liquid cooling PCS comes from INOVANCE with three-level topology, and its efficiency can reach 98.5%.

EMS cloud platform
Remote visual and controlled, convenient operation and maintenance all day; automatically enter off-grid mode after power failure to ensure emergency power supply

Active safety system
Partition safety isolation, multi-level active safety to ensure fire control

Long-life cell
Integrated high-quality LFP cells with high cycle times > 7000

BMS with intelligent equalization
Extend the battery life with intelligent equalization technology

All-in-one design
Highly integrated and easy to install, flexible deployment does not occupy space



应用模式 保障生产运营 促进降本增效

Application mode
Ensuring production operation and promoting cost reduction and efficiency improvement



峰谷套利
Peak-valley arbitrage



电网需求侧响应
Demand side response of power grid



应急备电
Emergency standby power



AGC调频
油机微网供电
Micro-grid power supply of AGC FM diesel generator



台区扩容
Power area expansion



需量管理
Demand management

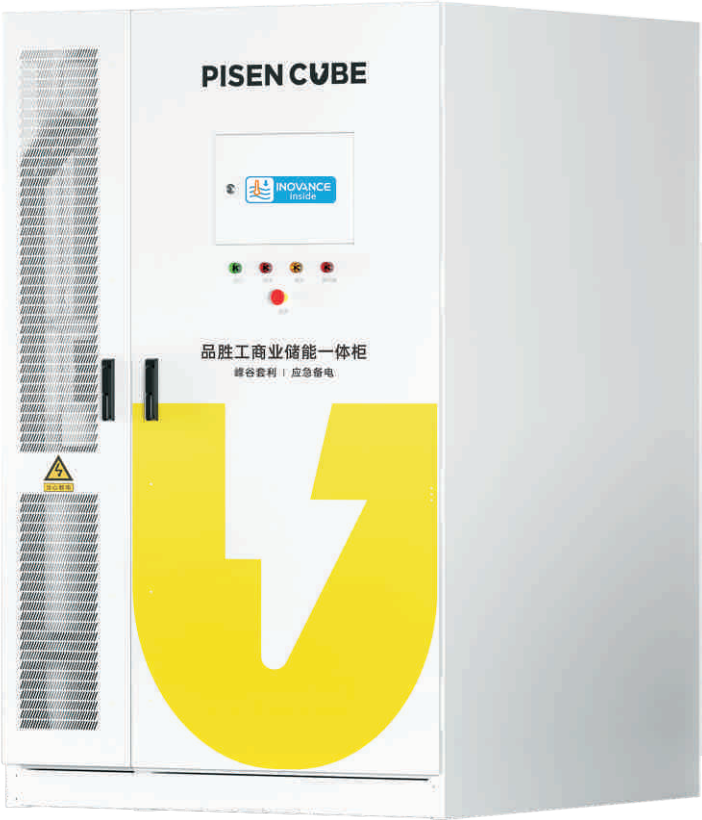


品胜工商业储能一体柜232kWh

产品参数

232kWh PISEN CUBE

Parameters

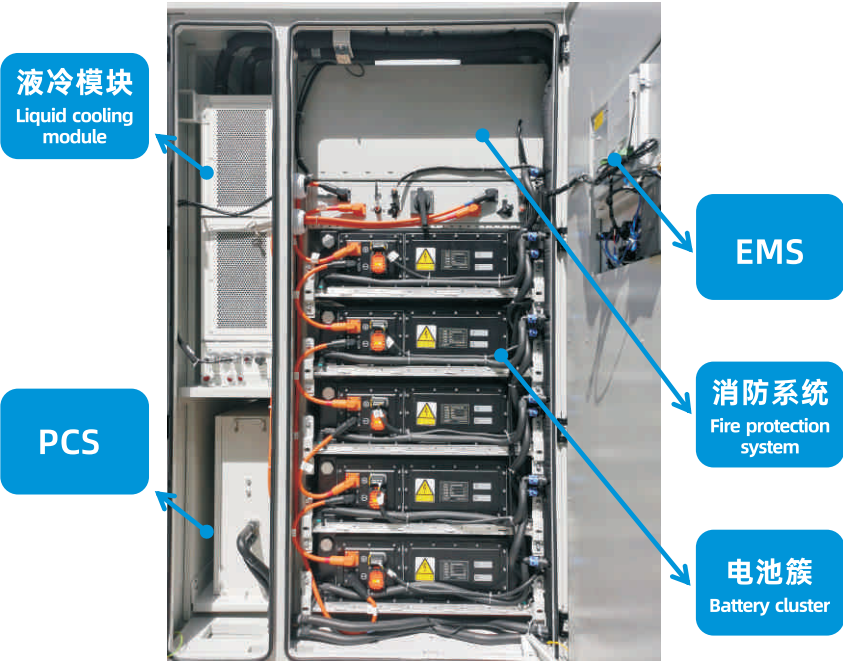


参数表 /parameter table		TS-IN0004/100-232W	
直流电池参数			
电芯类型	DC battery parameters Cell type	LFP3.2V/280Ah	
电池 Pack 配置	Battery pack configuration	1P52S/46kWh	
电池系统配置	Battery system configuration	1P260S	
电池电压范围	Battery voltage range	728V-936V	
电池系统容量	Battery system capacity	232kWh	
温度检测	Temperature detection	电芯+铜排	Battery core + copper bar
交流参数 (并网)			
AC parameters (grid connection)			
额定功率	Rated power	100kW	
最大输出功率	Maximum output power	110kW	
额定电网电压	Rated power grid voltage	380V	
允许电网电压	Allowable grid voltage	-15%-10%	
额定电网频率	Rated grid frequency	50Hz/60Hz	
允许电网频率波动	Allow power grid frequency fluctuation	±5Hz	
功率因数	Power factor	-1(超前)~1(滞后)	-1 (lead) - 1 (lag)
交流电流谐波(THDI)	AC harmonics (THDI)	<3%(额定输出功率)	<3% (rated output power)
接入方式	Access mode	三相三线 / 三相四线	Three-phase three-wire/three-phase four-wire
满功率充放电转换时间	Full-power charge-discharge conversion time	<25ms	
系统参数			
System parameters			
变流器最高效率	Maximum efficiency of converter	98.5%	
充放电倍率	Charge-discharge rate	≤0.5C	
保护			
Protection			
直流输入	DC input	负荷开关+熔断器	Load switch + fuse
过压保护	Overvoltage protection	DC Type II/ACType II	
消防系统	Fire-fighting system	全氟己酮	Perfluorohexanone
常规参数			
General parameters			
尺寸(宽x深x高)	Dimensions (W x D x H)	1300*1350*2200(宽深高 (W x D x H))	
进线方式	Mode of incoming lines	交流底部进线	AC incoming at bottom
允许环境温度	Allowable ambient temperature	-30℃~-60℃(>50℃降额/derating)	
允许相对湿度	Allowable relative temperature	0-100%	
最大工作海拔	Maximum operating altitude	4000m(>2000m降额/derating)	
质量	Mass	2500kg	
防护等级	Degree of protection	Ip54	
冷却方式	Cooling mode	水冷	Water cooling
通讯			
Communication			
通信接口	Communication interface	RS485/Ethernet	
通信規約	Communication protocol	IEC61850/MODBUS-RTU/MODBUS-TCP	

品胜工商业储能一体柜232kWh

内部结构及设备清单

232kWh PISEN CUBE
List of internal structure and equipment



品胜100kWh/232kWh工商业储能一体柜 x 1台
100kWh/232kWh PISEN CUBE x 1

品胜工商业储能一体柜232kWh内部部件清单 List of internal components of 232kWh PISEN CUBE

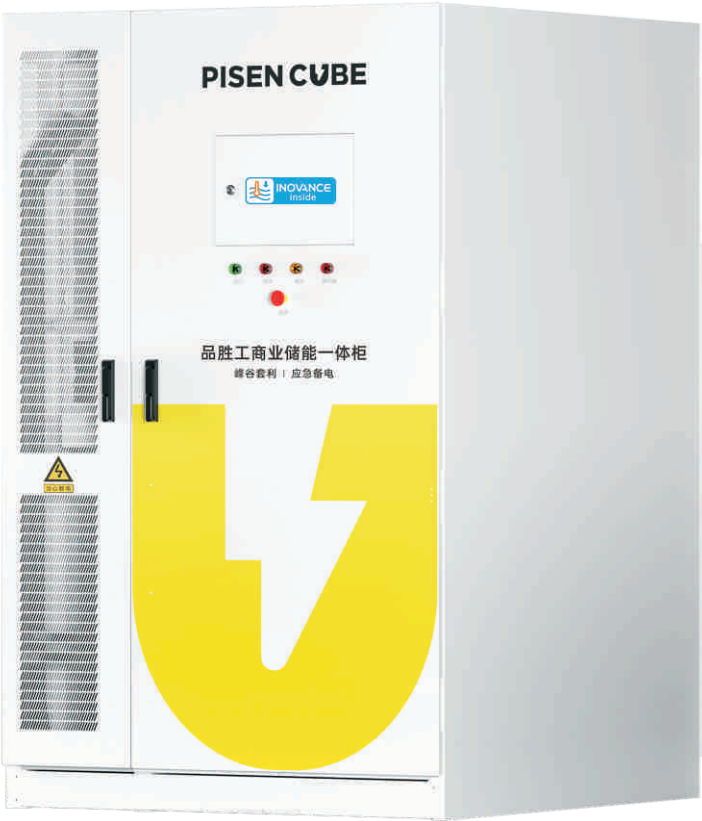
序号 No.	部件名称 Component name	数量 Quantity	说明 Remarks
1	消防系统 Fire protection system	1套 1 set	包含铝瓶、压力表、感温探测器、安全阀、多路电磁阀、瓶头阀、感烟探测器、火警复位按钮、雾化喷头、灭火控制器等 Including an aluminum cylinder, a pressure gauge, a temperature detector, a safety valve, a multi-way solenoid valve, a head valve, a smoke detector, a fire alarm reset button, an atomizing nozzle, and a fire extinguisher
2	BMS电池管理系统 BMS (battery management system)	1套 1 set	负责电池组的管理、保护及监控 Responsible for the management, protection and monitoring of battery packs
3	锂电池PACK Lithium battery PACK	5个 5 pcs	每个PACK由52个280Ah电芯串联，共260个电芯 Each PACK consists of 52 280Ah cells connected in series, with a total of 260 cells
4	高压控制箱 HV control box	1个 1 pcs	高压控制箱是连接电池簇和PCS的高压回路管理模块，具有电池簇电压电流采集、接触器控制和保护等功能 The HV control box is a HV loop management module connecting the battery cluster and PCS, and has the functions of battery cluster voltage and current acquisition, and contactor control and protection
5	液冷机组 Liquid cooling unit	1套 1 set	包含压缩机、冷凝器、节流元件、蒸发器、水泵、膨胀罐、PTC液体加热器及必要的控制部件构成 Composed of a compressor, a condenser, a throttling element, an evaporator, a water pump, an expansion tank, a PTC liquid heater and necessary control components
6	PCS储能变流器 PCS (Power Conversion System)	1台 1 set	100kW储能变流器，负责电池组和电网之间的能量交换 100kW PCS, responsible for energy exchange between battery pack and power grid
7	触摸屏 Touch screen	1个 1 pcs	智慧储能终端系统显示与操作界面 Display and operation interface of intelligent energy storage terminal system
8	指示灯和蜂鸣器 Indicator and buzzer	1套 1 set	电源指示灯、运行指示灯、故障指示灯、蜂鸣器 Power indicator, operation indicator, fault indicator, buzzer
9	急停开关 Emergency stop switch	1个 1 pcs	设备异常状态时，按下按钮，停止系统运行 When the equipment is in abnormal state, press the button to stop the system operation
10	水浸传感器 Water sensor	1个 1 pcs	智慧终端内部进水告警 Intelligent terminal internal water inflow alarm
11	EMS能量管理系统 EMS (energy management system)	1套 1 set	能量管理系统，负责智慧储能终端系统的能量调度和监控 Energy management system, responsible for the energy scheduling and monitoring of the intelligent energy storage terminal system
12	温湿度传感变换器 Temperature and humidity sensor converter	1套 1 set	检测智慧储能终端内部温度、湿度，并传递信号 Detecting the internal temperature and humidity of the intelligent energy storage terminal and transmitting signals
13	断路器 Circuit breaker	1组 1 set	断路器组 Circuit breaker group
14	浪涌保护器 Surge protector	1个 1 pcs	浪涌保护器/防雷器 Surge protector/lightning arrester
15	水浸传感信号接口 Water sensor signal interface	1个 1 pcs	水浸传感信号接口 Water sensor signal interface

品胜液冷能量柜372kWh

支持更多应用模式

PISEN 372kWh liquid cooling energy cabinet

Support more application modes



1、新能源设施支持

应对风光电厂的弃光弃风，提供电力波动平滑功能及辅助服务。

2、备用应急电源

适用于医院、工厂、酒店等重要场所的备电需求，确保关键设施在断电情况下的持续运行。

3、微电网系统

针对无电地区的园区内微网系统，提供风、光和油机等多元化能源的供电解决方案。

1. Support for new energy facilities

To deal with the abandonment of light and wind in wind farms and PV plants, provide power fluctuation smoothing function and auxiliary services.

2. Standby emergency power supply

It is suitable for the power supply needs of hospitals, factories, hotels and other important places to ensure the continuous operation of key facilities in the case of power failure.

3. Micro-grid system

Provide power supply solutions for diversified energy sources such as wind, light and diesel generator for the micro-grid system in the park without electricity.

品胜液冷能量柜372kWh

产品参数及设备清单

PISEN 372kWh liquid cooling energy cabinet

Parameters and equipment list

参数表/parameter table		TS-IN0007/200-372W	
直流电池参数	DC battery parameters		
电芯类型	Cell type	LFP 3.2V280Ah	
电池PACK配置	Battery pack configuration	1P52S	
电池系统配置	Battery system configuration	1P416S	
电池电压范围	Battery voltage range	1164.8-1497.6V	
电池系统容量	Battery system capacity	372kWh	
温度检测	Temperature detection	电芯+铜排	Battery core + copper bar
并网参数	AC parameters (grid connection)		
额定功率	Rated power	200kW	
额定电网电压	Rated power grid voltage	380V	
允许电网电压	Allowable grid voltage	-15%~10%	
额定电网频率	Rated grid frequency	50/60Hz	
允许电网频率波动	Allow power grid frequency fluctuation	±5Hz	
功率因数	Power factor	-1（超前）~1（滞后）	-1（lead）- 1（lag）
交流电流谐波（THDi）	AC harmonics（THDi）	<3%（额定输出功率）<3%（rated output power）	
接入方式	Access mode	三相三线/三相四线	Three-phase three-wire/three-phase four-wire
满功率充放电转换时间	Full-power charge-discharge conversion time	25ms	
系统参数	System parameters		
充放电倍率	Charge-discharge rate	≤0.5C	
保护	Protection		
直流输入	DC input	负荷开关+熔断器	Load switch + fuse
过压保护	Overvoltage protection	DC Type-II/AC Type-II	
消防系统	Fire-fighting system	全氟己酮	Perfluorohexanone
常规参数	General parameters		
允许环境温度	Allowable ambient temperature	-30~60℃	
允许相对湿度	Allowable relative temperature	0%~100%	
最大工作海拔	Maximum operating altitude	4000m（>2000m降额/derating）	
质量	Mass	约/About 4000kg	
防护等级	Degree of protection	IP54	
冷却方式	Cooling mode	水冷	Water cooling
通讯	Communication		
通讯接口	Communication interface	RS485/Ethernet	
通信规约	Communication protocol	IEC61850/MODBUS-RTU/MODBUS-TCP	

品胜工商业储能一体柜272kWh内部部件清单 List of internal components of 272kWh PISEN CUBE			
序号 No.	部件名称 Component name	数量 Quantity	说明 Remarks
1	消防系统 Fire protection system	1套 1 set	包含铝瓶、压力表、 感温探测器、安全阀、多路电磁阀、瓶头阀、感烟探测器、火警复位按钮、雾化喷头、灭火控制器等 Including an aluminum cylinder, a pressure gauge, a temperature detector, a safety valve, a multi-way solenoid valve, a head valve, a smoke detector, a fire alarm reset button, an atomizing nozzle, and a fire extinguisher
2	BMS电池管理系统 BMS (battery management system)	1套 1 set	负责电池组的管理、保护及监控 Responsible for the management, protection and monitoring of battery packs
3	锂电池PACK Lithium battery PACK	8个 8 pcs	每个PACK由52个280Ah电芯串联，共416个电芯 Each PACK consists of 52 280Ah cells connected in series, with a total of 416 cells
4	高压控制箱 HV control box	1个 1 pcs	高压控制箱是连接电池簇和PCS的高压回路管理模块,具有电池簇电压电流采集、接触器控制和保护等功能 The HV control box is a HV loop management module connecting the battery cluster and PCS, and has the functions of battery cluster voltage and current acquisition, and contactor control and protection
5	液冷机组 Liquid cooling unit	1套 1 set	包含压缩机、冷凝器、节流元件、蒸发器、水泵、膨胀罐、PTC液体加热器及必要的控制部件构成 Composed of a compressor, a condenser, a throttling element, an evaporator, a water pump, an expansion tank, a PTC liquid heater and necessary control components
6	触摸屏 Touch screen	1个 1 pcs	智慧储能终端系统显示与操作界面 Display and operation interface of intelligent energy storage terminal system
7	指示灯和蜂鸣器 Indicator and buzzer	1套 1 set	电源指示灯、运行指示灯、故障指示灯、蜂鸣器 Power indicator, operation indicator, fault indicator, buzzer
8	急停开关 Emergency stop switch	1个 1 pcs	设备异常状态时，按下按钮，停止系统运行 When the equipment is in abnormal state, press the button to stop the system operation
9	水浸传感器 Water sensor	1个 1 pcs	智慧终端内部进水告警 Intelligent terminal internal water inflow alarm
10	EMS能量管理系统 EMS (energy management system)	1套 1 set	能量管理系统，负责智慧储能终端系统的能量调度和监控 Energy management system, responsible for the energy scheduling and monitoring of the intelligent energy storage terminal system
11	温湿度传感变送器 Temperature and humidity sensor converter	1套 1 set	检测智慧储能终端内部温度、湿度，并传递信号 Detecting the internal temperature and humidity of the intelligent energy storage terminal and transmitting signals
12	断路器 Circuit breaker	1组 1 set	断路器组 Circuit breaker group
13	浪涌保护器 Surge protector	1个 1 pcs	浪涌保护器/防雷器 Surge protector/lightning arrester
14	水浸传感信号接口 Water sensor signal interface	1个 1 pcs	水浸传感信号接口 Water sensor signal interface

配套附件 Supporting accessories



液晶显示器
LCD



电线/电缆
Wire/cable



安全防护栏
Safety fence



基座基础浇筑材料
Pouring material for base foundation

配套服务 Supporting services



办理项目备案与并网手续
Handling the project filing and
grid connection procedures



设备运输至安装基础位
Transporting the equipment to
the installation base



设备运营调试
Equipment operation and
commissioning



PISEN CUBE 云平台管理系统
PISEN CUBE cloud platform
management system

运输与安装

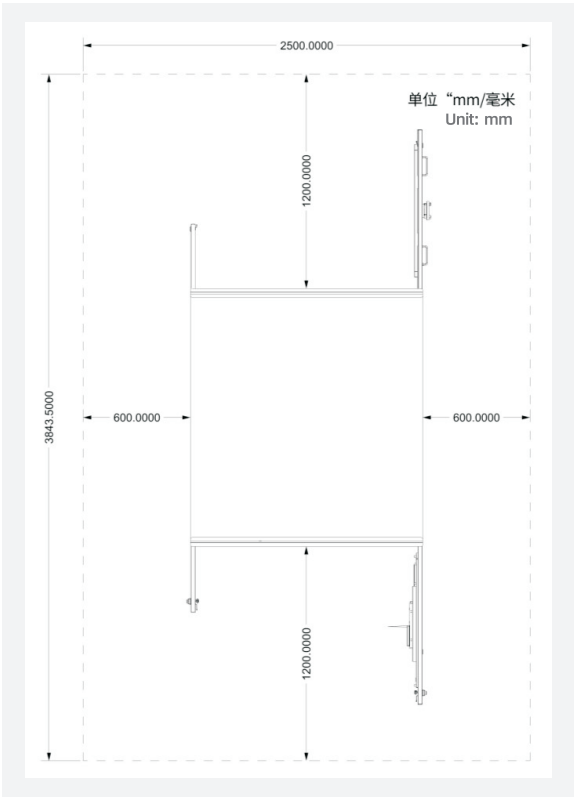
品胜工商业储能,专业配套、无缝服务,保障客户全程安心、省心、放心!

Transportation and installation

PISEN CUBE professional supporting and seamless services ensure customers reassured

- 1.品胜工商业储能一体柜的建设，从装载、运输到安装均由品胜公司全线负责。
- 2.品胜免费为客户提供设备运营备案与并网申请，助力项目快速启动。
- 3.品胜为工商业储能产品提供专业调试,保障运行，同时免费提供展示削峰填谷收益数据的云系统。
- 4.品胜工商业储能运营后，将为客户提供持久稳定的后台“云维护”。

- 1. The whole line of PISEN CUBE from construction, loading and transportation to installation is completed by PISEN.
- 2. PISEN provides customers with equipment operation filing and grid connection application for free, thus helping the project to start quickly.
- 3. PISEN provides professional debugging for industrial and commercial energy storage products to ensure operation, and also provides a cloud system that displays the income data of peak cut free of charge.
- 4. After operation, PISEN CUBE will provide customers with lasting and stable background "cloud maintenance".



推荐安装空间
Recommended installation space



该产品仅限室外或一楼安装
This product is only installed outdoors or on the first floor

主要应用模式

Main Application Modes

1.峰谷套利

什么是峰谷电价？

1. Peak-valley arbitrage

What is the peak-valley tariff?

峰谷电价也称“分时电价”，是按高峰用电和低谷用电分别计算电费的一种电价制度。高峰用电，一般指供电紧张时的用电（如白天），此时收费标准较高;低谷用电，一般指供电较充足时的用电（如夜间），此时收费标准较低。实行峰谷电价机制有利于促使用电单位错开用电时间，充分利用设备和能源。

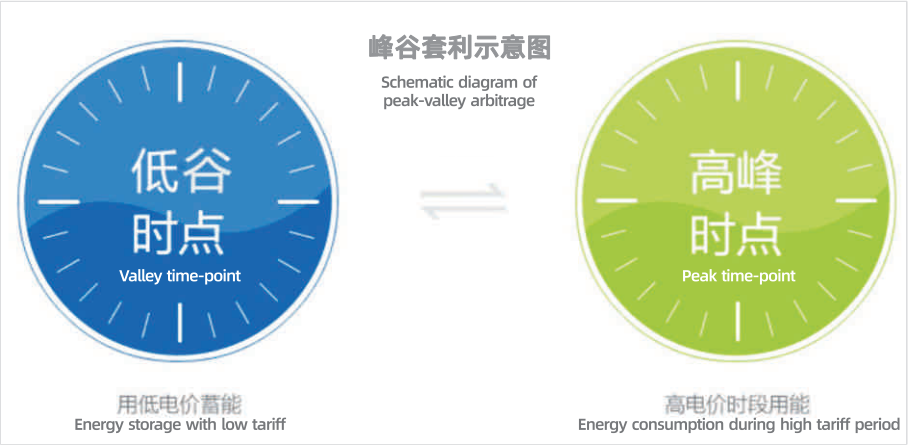
自2021年国家发改委发布《关于进一步完善分时电价机制的通知》，要求峰谷电价价差原则上不低于4:1后，全国均开始完善峰谷电价政策。到今年7月，已经有22个省份的峰谷电价价差超过0.6元/度，其中上海甚至达到了1.89元/度的价差，这意味着，如果晚上储蓄100度电，白天再放电使用，就能节省189元的用电成本。

当下，峰谷套利方案已经具备了成熟的可实施性。

Peak-valley tariff, also known as "time-of-use price", is a kind of tariff system that calculates electricity charges separately according to peak electricity consumption and valley electricity consumption. Peak electricity consumption generally refers to electricity consumption when power supply is tight (such as during the day), and the charging standard is higher; valley electricity consumption generally refers to electricity consumption when the power supply is sufficient (such as at night), and the charging standard is low. The implementation of the peak-valley tariff mechanism is conducive to prompting users to stagger the electricity consumption time and make full use of equipment and energy.

Since the National Development and Reform Commission issued the Notice on Further Improving the Time-of-use Price Mechanism in 2021, requiring that the peak-valley tariff difference should not be less than 4:1 in principle, the peak-valley tariff policy has been improved around China. By July 2023, the peak-valley tariff difference in 22 provinces has exceeded RMB 0.6/kWh, and even reached RMB 1.89/kWh in Shanghai, which means that if you save 100 kWh at night and discharge it for use during the day, you can save RMB 189 in electricity cost.

At present, the peak-valley arbitrage scheme has been mature and feasible.



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国家发展改革委关于进一步完善分时电价机制的通知
发改价格〔2021〕1093号

1.峰谷套利

如何靠峰谷电差价获取收益

1. Peak-valley arbitrage

How to gain income by the peak-valley tariff difference?

以能够满足两充两放的珠三角五市（广州、东莞、佛山、中山、珠海）的电价为例(右图所示)。

在夜间电费最低时，为工商业储能一体柜充入200度电，所需电费约60元，在白天10点至12点的高/尖峰电价时段再放电使用。而如果按该高/尖峰时段的正常电价计费，用电200度需花费约282.6元，这意味着，峰谷套利方案在该时段能节省约222.6元(282.6-60) 的用电成本。

同理，12点至14点再次为工商业储能一体柜充满电，15点到17点再放电使用，仅需约150元即可获得原价约313.4元的电力，能够节省约163.4元(313.4-150)的用电成本。

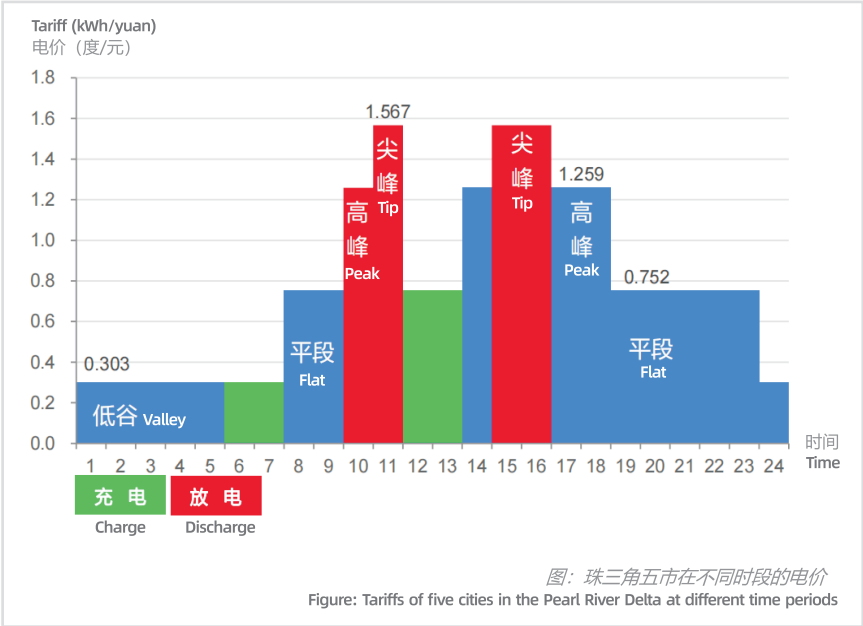
每天两充两放，每天可节省电费约386元，在提升储能系统利用率的同时缩短收回成本周期。按照312天/年的生产周期计算，可获利超过10万元/年，第一年就能收回设备价值的30%以上。四年可获利超过40万元，不仅能收回成本，还能收益8万元左右。

Take the tariff of five cities in the Pearl River Delta (Guangzhou, Dongguan, Foshan, Zhongshan and Zhuhai) that can meet the requirements of two charges and two discharges as an example (as shown on the right).

When the electricity charge is the lowest at night, the PISEN CUBE is charged with 200 kWh of electricity (the required electricity charge is about RMB 60), and then discharged during the peak/tip tariff period from 10:00 to 12:00 during the day. However, if the electricity is charged according to the normal tariff during the peak/tip period, about RMB 282.6 will be charged for 200 kWh, which means that the peak-valley arbitrage scheme can save about RMB 222.6 (282.6-60) in the electricity cost during this period.

Similarly, the PISEN CUBE is fully charged from 12:00 to 14:00, and then discharged from 15:00 to 17:00. It only takes about RMB 150 to get the electricity at original price of about RMB 313.4, which can save about RMB 163.4 (313.4-150) in electricity cost.

Charging and discharging two times a day can save about RMB 386 of electricity every day, which can improve the utilization rate of energy storage system and shorten the cost recovery period. According to the production cycle of 312 days/year, the profit can exceed RMB 100,000/year, More than 30% of the equipment value can be recovered in the first year. Over four years, the profit can exceed 400,000 yuan, not only recovering costs, but also earning around 80,000 yuan.



1. 峰谷套利

2023年电网代理购电一般工商业峰谷电价价差（6-7月）

1. Peak-valley arbitrage
Peak-valley tariff difference of general industry and commerce with electricity purchased by power grid in 2023 (June-July)

省市 Provinces and cities	分类 Classification		2023年6月一般工商业 General industry and commerce in June 2023		2023年7月一般工商业 General industry and commerce in July 2023	
			尖峰低谷电价差(元/kWh) Tip-valley tariff difference (RMB yuan /kWh)	高峰低谷电价差(元/kWh) Peak-valley tariff difference (RMB yuan /kWh)	尖峰低谷电价差(元/kWh) Tip-valley tariff difference (RMB yuan /kWh)	高峰低谷电价差(元/kWh) Peak-valley tariff difference (RMB yuan /kWh)
广东 Guangdong	深圳3000KVA以下 Below 3000KVA in Shenzhen		1.193	0.9026	1.2165	0.9204
	深圳3000KVA以上 Above 3000KVA in Shenzhen		1.0532	0.788	1.0754	0.8046
	深汕特别合作区(单一制) Shenzhen-Shantou Special Cooperation Zone (unitary system)		1.2403	0.9380	1.2668	0.9583
	深汕特别合作区(两部制) Shenzhen-Shantou Special Cooperation Zone (two-part system)		1.0692	0.8088	1.0957	0.8289
	惠州市 Huizhou City	单一制 Unitary system	1.3983	1.0577	1.3698	1.0362
		两部制 Two-part system	1.2069	0.9129	1.1988	0.9069
	江门市 Jiangmen City	单一制 Unitary system	1.4035	1.0616	1.4092	1.066
		两部制 Two-part system	1.2582	0.9517	1.2382	0.9367
	东西两翼 East and west wings	单一制 Unitary system	1.8244	0.9715	1.6268	0.9583
		两部制 Two-part system	1.1051	0.8359	1.0957	0.8289
	东西两翼 Mountainous area of northern Guangdong	单一制 Unitary system	1.218	0.9213	1.1814	0.8937
		两部制 Two-part system	1.0161	0.7686	1.0103	0.7643
浙江 Zhejiang	单一制 Unitary system		0.9699	0.6173	0.9803	0.6185
	单一制1.5倍 1.5 times of unitary system		1.2747	0.8094	1.286	0.8117
	两部制 Two-part system		0.8652	0.5461	0.8722	0.5505
	两部制1.5倍 1.5 times of two-part system		1.1858	0.7484	1.1782	0.7437
江苏 Jiangsu	单一制 Unitary system		— —	0.9125	— —	0.8893
	两部制 Two-part system		— —	0.8417	— —	0.9404
重庆 Chongqing	单一制 Unitary system		— —	0.8041	1.1428	0.9053
	两部制 Two-part system		— —	0.7318	1.0516	0.8331

省市 Provinces and cities	分类 Classification		2023年6月一般工商业 General industry and commerce in June 2023		2023年7月一般工商业 General industry and commerce in July 2023	
			尖峰低谷电价差(元/kWh) Tip-valley tariff difference (RMB yuan /kWh)	高峰低谷电价差(元/kWh) Peak-valley tariff difference (RMB yuan /kWh)	尖峰低谷电价差(元/kWh) Tip-valley tariff difference (RMB yuan /kWh)	高峰低谷电价差(元/kWh) Peak-valley tariff difference (RMB yuan /kWh)
湖南 Hunan	单一制 Unitary system	— —	0.8627	1.2558	0.9914	— —
河南 Henan	单一制 Unitary system	— —	0.798	0.9719	0.8045	— —
四川 Sichuan	单一制 Unitary system	— —	0.7591	— —	0.7747	— —
	两部制 Two-part system	— —	0.6187	0.8035	0.6343	— —
北京 Beijing	城区 Urban area	单一制 Unitary system	— —	0.5665	0.693	0.6114
		两部制 Two-part system	— —	0.4196	0.5119	0.4469
	城区1.5倍 1.5 times of urban area	单一制 Unitary system	— —	0.8497	1.0395	0.9171
		两部制 Two-part system	— —	0.6294	0.7678	0.6704
	郊区 Suburbs	单一制 Unitary system	— —	0.6043	0.738	0.6536
		两部制 Two-part system	— —	0.428	0.5207	0.4554
	郊区1.5倍 1.5 times of suburbs	单一制 Unitary system	— —	0.9064	1.1069	0.9803
		两部制 Two-part system	— —	0.642	0.7811	0.6831
	开发区 Development zone	单一制 Unitary system	— —	0.6043	0.738	0.6534
		两部制 Two-part system	— —	0.4196	0.5119	0.4469
重庆 Chongqing	单一制 Unitary system	— —	0.9064	1.1069	0.9803	— —

1.峰谷套利

各地区收益测算示例

1. Peak-valley arbitrage

Examples of income measurement in various regions

充放电深度
Charge and discharge depth

95%

建设容量
Construction capacity

232kWh

初期建设成本
Initial construction cost

313,200元

RMB 313,200

年化收益最高可达
Maximum annualized income

100,000+ 元

RMB 100,000+

年内循环
Annual cycle

624

放电效率
Discharge efficiency

90%

年衰减
Annual attenuation

0.02

均采取单一制一般工商业用电，1-10KV电压等级价格计算
General industrial and commercial electricity consumption in unitary system is adopted, and the price of 1-10KV voltage level is calculated.

省份 Province	尖峰电价 Tip tariff	高峰电价 Peak tariff	平段电价 Flat tariff	低谷电价 Valley tariff	充放策略 Charging and discharging strategy	尖峰电价时长 Tip tariff duration	尖峰最高日收益 Tip maximum daily income	高峰日收益 Peak daily income	年化收益 Annualized income	回本周期 Payback period
上海 Shanghai	1.814	1.457	0.8224	0.3464	两充两放 Two charges and two discharges	四个月 Four months	398	323	108568	≈3年 ≈3 years
广东(珠三角五市) Guangdong (five cities in the Pearl River Delta)	1.69	1.36	0.81	0.33	两充两放 Two charges and two discharges	四个月 Four months	396	288	10880	<4年 <4 years
广东(惠州市) Guangdong(Huizhou City)	1.64	1.32	0.79	0.32	两充两放 Two charges and two discharges	四个月 Four months	386	284	99216	<4年 <4 years
浙江 Zhejiang	1.41	1.04	\	0.42	两充两放 Two charges and two discharges	全年 annual	322	\	100464	<4年 <4 years
广东(深圳) Guangdong (Shenzhen)	1.52	1.22	0.73	0.29	两充两放 Two charges and two discharges	四个月 Four months	374	284	97968	<4年 <4 years
江苏 Jiangsu	1.52	1.27	0.76	0.34	两充两放 Two charges and two discharges	四个月 Four months	388	288	97656	<4年 <4 years
重庆 Chongqing	1.52	1.28	0.83	0.37	两充两放 Two charges and two discharges	两个月 Two months	320	272	87360	<5年 <5 years
湖南 Hunan	1.39	1.16	0.74	0.32	两充两放 Two charges and two discharges	五个月 Five months	298	252	84604	<5年 <5 years
河南 Henan	1.29	1.13	0.69	0.36	两充两放 Two charges and two discharges	两个月 Two months	290	244	78000	<5年 <5 years
四川 Sichuan	1.24	1.03	0.66	0.29	两充两放 Two charges and two discharges	四个月 Four months	264	222	73632	<6年 <6 years
北京(亦庄) Beijing (Yizhuang)	1.28	1.19	0.87	0.58	两充两放 Two charges and two discharges	两个月 Two months	272	186	62504	≈6年 ≈6 years

注：以品胜工商业储能一体柜232kWh为例，按各地2023年7月电价计算，仅为理论测算，实际收益以当地实时电价为准。
Note: Take 232kWh PISEN CUBE as an example. According to the tariff in July 2023, it is only a theoretical calculation, and the actual income is subject to the local real-time tariff.

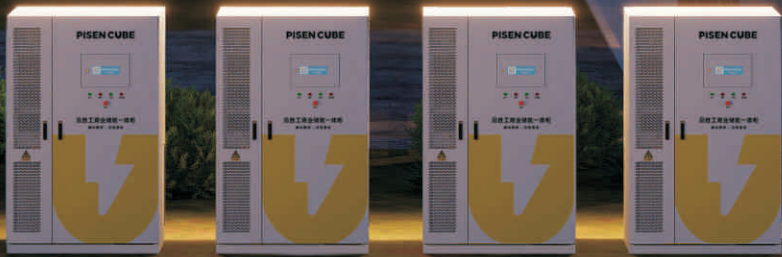
2.应急备电

既是省钱利器 也是应急电源

2. Emergency standby power
It can not only save money, but also serve as an emergency power supply.

当停电或出现紧急状况时，品胜工商业储能一体柜能自动识别电网状态，自动从并网切换为离网模式，为关键设备和系统提供应急电力供应，保障企业的生产和运营。

In case of power failure or emergency, PISEN CUBE can automatically identify power grid state, automatically switch from grid-connected mode to off-grid mode, and provide emergency power supply for key equipment and systems to ensure the production and operation of enterprises.



注：需开启应急备电功能。电网来电后，需手动开启设备以切回并网模式。

Note: Emergency standby power function needs to be turned on. After the power grid has electricity, it is necessary to manually turn on the equipment to switch back to the grid-connected mode.

产品质保与安全保护

Quality Warranty and Safety Protection

产品质保

Quality Warranty



电池质保

提供电池十年质保
持续保障系统稳定运行

Battery warranty

A ten-year battery warranty
Continuously ensure the stable operation of the system



整机质保

产品终身维护

液冷系统主机质保

质保范围包含水泵、压缩机、风扇和管道等主要部件
(不包含制冷剂和防冻液)

消防系统质保

全氟己酮灭火剂建议每6年更换一次

Machine warranty

Lifelong maintenance of products

Main engine warranty of liquid cooling system

The warranty covers the main components such as water pump,
compressor, fan and pipeline
(Excluding refrigerant and antifreeze)

Fire protection system warranty

It is recommended to replace the perfluorohexanone fire
extinguishing agent every 6 years



免费维修换新

若质保期间产品出现故障
广东品胜电子股份有限公司
将免费提供维修或换新服务

Free maintenance and replacement

If the product fails during the quality warranty period, Guangdong
PISEN Electronics Co., Ltd. will provide free maintenance or
replacement service.

产品安全

Product Safety

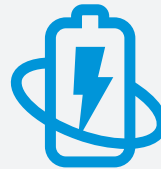


PcS 《储能变流器》 具有13项安全保护

配置完善，保护范围交叉重叠，没有死区。能确保在各种故障情况下的系统安全。

PCS (Power Conversion System) has 13 safety protections

Perfect configuration, overlapping protection range and no dead zone can ensure the safety of the system under various fault conditions.



电池系统 具备三级保护

触发一级保护则限制充放电功率、触发二级保护则有条件停止充放电功能、触发三级保护则系统停止运行。环环相扣，确保使用安全。

The battery system has three-level protection

Triggering the primary protection will limit the charging and discharging power, triggering the secondary protection will stop the charging and discharging function conditionally, and triggering the tertiary protection will stop the system. Three-level protection is interlocked to ensure safe use.



产品配备 全氟己酮自动灭火装置

具备冷却降温、隔绝氧气、化学抑制等多种灭火机理，从而实现快速且有效的灭火效能。

The product is equipped with automatic perfluorohexanone fire extinguishing device

There are many fire extinguishing mechanisms, such as cooling, oxygen isolation and chemical inhibition, so as to achieve rapid and effective fire extinguishing efficiency.

部分项目案例

Partial project cases

项目案例1 (广东东莞)

Storage Project Case 1 (Guangdong Dongguan)



项目案例2（广东东莞）

Storage Project Case 2 （ Guangdong Dongguan ）



项目案例3（广东深圳）

Storage Project Case 3（Guangdong Shenzhen）



项目案例4（广东深圳）

Storage Project Case 4（ Guangdong Shenzhen ）



PISEN CUBE

品胜工商业储能一体柜

峰谷套利 应急备电

Peak-valley Arbitrage Emergency Standby Power

以德为先 品质取胜

Put Morality First Quality Wins



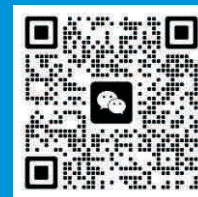
郭锐 (GUO RUI)

新能源事业部-工商储能销售总监
New Energy Department - PISEN CUBE Sales Director



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