



PCS模組化智慧 電力轉換系統

Modular Power Conditioning System

TE-PCS-HM

模組化智慧電力轉換系統

Modular Intelligent Power Conversion System



PCS 模組化智慧電力轉換系統

Modular Power Conditioning System

產品設計旨在滿足儲能系統、智慧電網、再生能源併網、微電網與 EV 充電基礎設施對於「高效率電力轉換、快速擴充與遠端維運」的剛性需求。

產品以模組化架構為核心，使系統可依應用場域快速配置容量，並透過智慧監控與多重保護降低停機與維護風險。

The product is designed to address the rigid demands of energy storage systems, smart grids, renewable energy grid integration, microgrids, and EV charging infrastructure for high-efficiency power conversion, rapid scalability, and remote operation and maintenance.

At its core, the product adopts a modular architecture, enabling flexible capacity configuration based on different application scenarios. In addition, intelligent monitoring and multiple protection mechanisms are incorporated to reduce downtime and maintenance risks.

設計重點 Design Highlights

前維護架構 Front Access Architecture

採 Front Access 設計，維護人員可由前方進行模組檢修與更換；降低維護複雜度與停機時間。

Designed with a front-access structure, allowing maintenance personnel to perform module inspection and replacement from the front side, reducing maintenance complexity and minimizing downtime.

直覺狀態辨識 Intuitive Status Visualization

配置清楚直觀的狀態指示燈與即時運轉資訊；提升故障判斷速度與操作正確性。

Equipped with clear and intuitive status indicators and real-time operational information, improving fault diagnosis efficiency and operational accuracy.

遠端監控告警 Remote Monitoring & Alerts

支援遠端監控與警示通知；降低現場巡檢負擔，提升維運效率。

Supports remote monitoring and alert notifications, reducing the need for on-site inspections and improving maintenance efficiency.

多重安全保護 Multiple Safety Protections

整合過壓、過流、短路、異常溫升與絕緣監測；提升設備安全與長期可靠度。

Integrates protections for overvoltage, overcurrent, short circuit, abnormal temperature, and insulation monitoring, enhancing equipment safety and long-term reliability.

技術規格 Technical Specification

技術規格 Technical Specification

型號 Type	TE-PCS-100K-HM	TE-PCS-125K-HM	TE-PCS-175K-HM	TE-PCS-200K-HM
輸入電壓 (最大) Max. DC voltage	1000 Vdc	1500 Vdc	1500 Vdc	1500 Vdc
工作電壓範圍 DC fullload voltage range	600-1000 Vdc	720~1300 Vdc	920~1450 Vdc	1060-1450 Vdc
最大輸入直流電流 Max. DC current	187.1 A	195 A	214 A	211.8 A
額定輸出功率 Rated AC output power	100 kW	125kW	175kW	200 kW
額定交流電壓 Rated output voltage	400Vac (3P3W+PE)	480Vac (3P3W+PE)	600Vac (3P3W+PE)	690Vac (3P3W+PE)
最大輸出交流電流 Max. output current	158.8 A	165.4 A	185.2 A	184.1 A
頻率 Grid frequency range	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz
總諧波電流 THDi (on-grid)	<3% @ 額定輸出功率 (at rated power)	<3% @ 額定輸出功率 (at rated power)	<3% @ 額定輸出功率 (at rated power)	<3% @ 額定輸出功率 (at rated power)
功率因數 Adjustable power factor	1 (超前) -1 (滯後) 1 (leading)~1 (lagging)	1 (超前) -1 (滯後) 1 (leading)~1 (lagging)	1 (超前) -1 (滯後) 1 (leading)~1 (lagging)	1 (超前) -1 (滯後) 1 (leading)~1 (lagging)
最大效率 Max. efficiency	≥98.8	≥98.8	≥98.8	≥98.8
尺寸 (W×H×D) Dimensions (W×H×D)	600×295×900mm (箱體尺寸·不含外部端子) (Box dimensions, excluding external terminals)	600×295×900mm (箱體尺寸·不含外部端子) (Box dimensions, excluding external terminals)	600×295×900mm (箱體尺寸·不含外部端子) (Box dimensions, excluding external terminals)	600×295×900mm (箱體尺寸·不含外部端子) (Box dimensions, excluding external terminals)
重量 Weight	95 kg	95 kg	95 kg	95 kg
保護等級 Protection Level	IP66	IP66	IP66	IP66
冷卻方式 Cooling method	智能風冷 Smart air cooling	智能風冷 Smart air cooling	智能風冷 Smart air cooling	智能風冷 Smart air cooling
運行溫度 Operation temperature	-35~60 (≥40°C降載)	-35~60 (≥40°C降載)	-35~60 (≥40°C降載)	-35~60 (≥40°C降載)
相對溼度 Relative humidity	0~100% (不冷凝) No-condensing)	0~100% (不冷凝) No-condensing)	0~100% (不冷凝) No-condensing)	0~100% (不冷凝) No-condensing)
最大海拔高度 Altitude	4000 m (>2000 m降載) (>2000 m derating)	4000 m (>2000 m降載) (>2000 m derating)	4000 m (>2000 m降載) (>2000 m derating)	4000 m (>2000 m降載) (>2000 m derating)
噪音 Noise	< 80dBA@1m	< 80dBA@1m	< 80dBA@1m	< 80dBA@1m
通訊協議 Communication protocol	Modbus-RTU/Modbus-Sunspec/Modbus-TCP/CAN2.0B	Modbus-RTU/Modbus-Sunspec/Modbus-TCP/CAN2.0B	Modbus-RTU/Modbus-Sunspec/Modbus-TCP/CAN2.0B	Modbus-RTU/Modbus-Sunspec/Modbus-TCP/CAN2.0B
通訊方式 Communication interface	RS485/CAN/Ethernet/Bluetooth/WIFI/4G	RS485/CAN/Ethernet/Bluetooth/WIFI/4G	RS485/CAN/Ethernet/Bluetooth/WIFI/4G	RS485/CAN/Ethernet/Bluetooth/WIFI/4G
並網支持 Grid-forming	●	●	●	●
標準 Standard	EN/IEC 62477-1 EN IEC 61000-6-2/4 EN 61000-3-12 EN IEC61000-3-11 EN50549-1 NC RfG VDE-AR-N 4105 VDE-AR-N 4110/	UL 1741 CSA C22.2#107.1 IEEE 1547 IEEE 1547.1 UL 1741 SB CFR 47 Part 15 ANSI C63.4	UL 1741 CSA C22.2#107.1 IEEE 1547 IEEE 1547.1 UL 1741 SB CFR 47 Part 15 ANSI C63.4	EN/IEC 62477-1 EN IEC 61000-6-2/4 EN 61000-3-12 EN IEC61000-3-11 EN 50549-1 / NC RfG VDE-AR-N 4105 VDE-AR-N 4110/

認證 Standards

符合多項國際標準
Complies with multiple international standards

IEC 61000-6-2

IEC 61000-6-4

IEC 62116

IEC 62477-1

IEEE 1547

FCC part15 class A



ATTESTATION

ATTESTATO

ATESTACIÓN

BESCHEINIGUNG

ATTESTATION



Compliance Document

No. D 092437 0012 Rev. 00

Holder of Attestation: **Teco Electric & Machinery Co., Ltd.**
SF, No. 19-8, Sanzhong Rd.
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TAIWAN

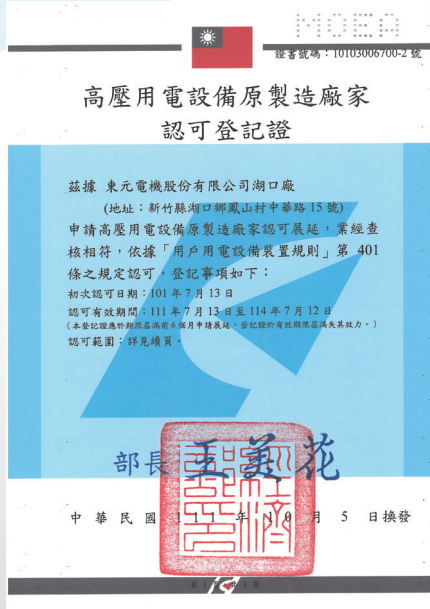
Product: **Converter
(Energy Storage Inverter)**

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the particular sample. This compliance document makes no statement regarding the quality or safety of the serial products. For details see: www.tuvsud.com/pe-cert

Test report no.: 64290263015101

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Kennen Wang
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CERTIFICATE



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