



# TMEIC PV INVERTER

普士電業股份有限公司  
行銷管理部  
賴邦輝 BOND LAI 編輯

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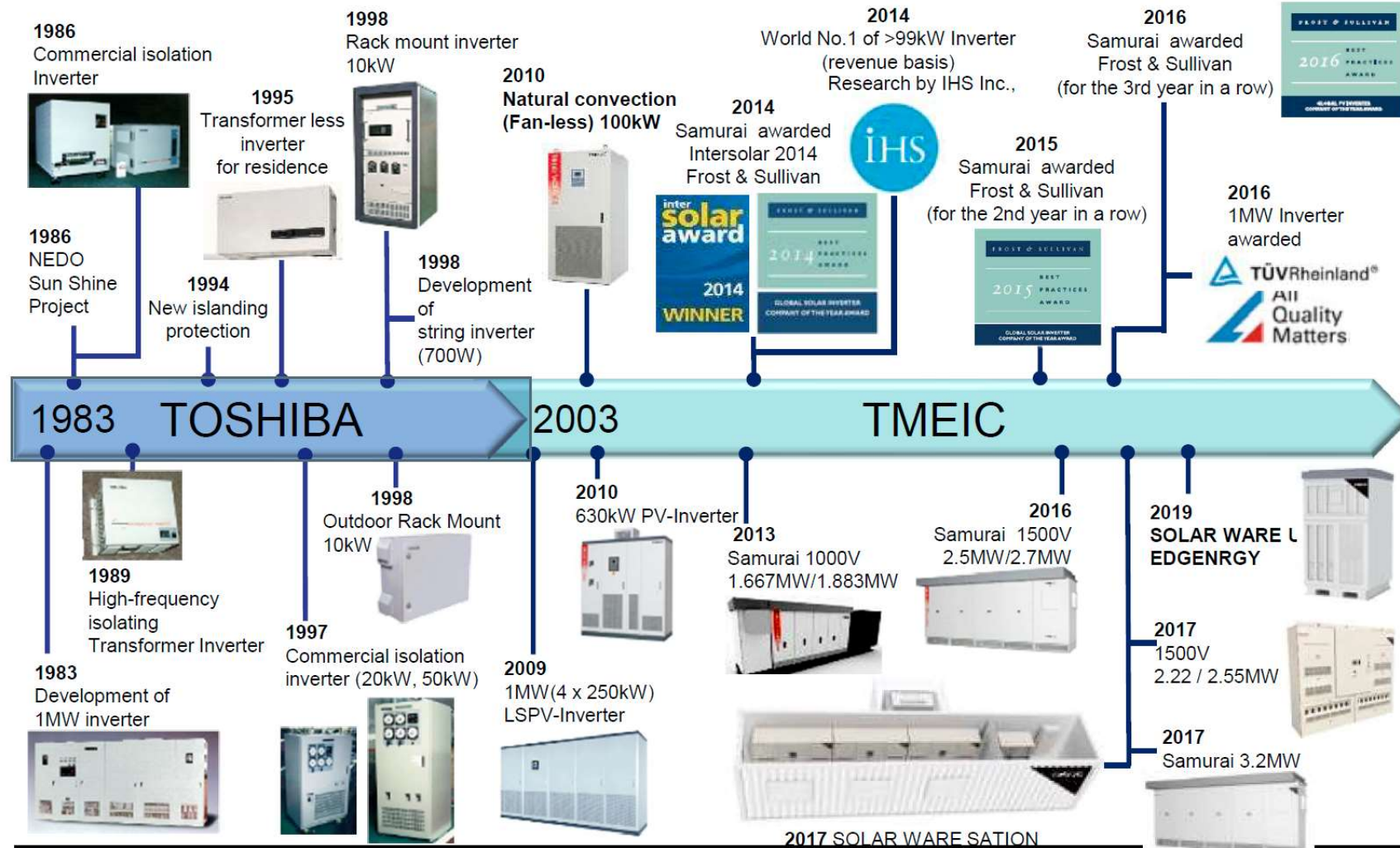
再生能源設備

# PV INVERTER





# TMEIC PV INVERTER 發展歷史





## TMEIC PV INVERTER 特性

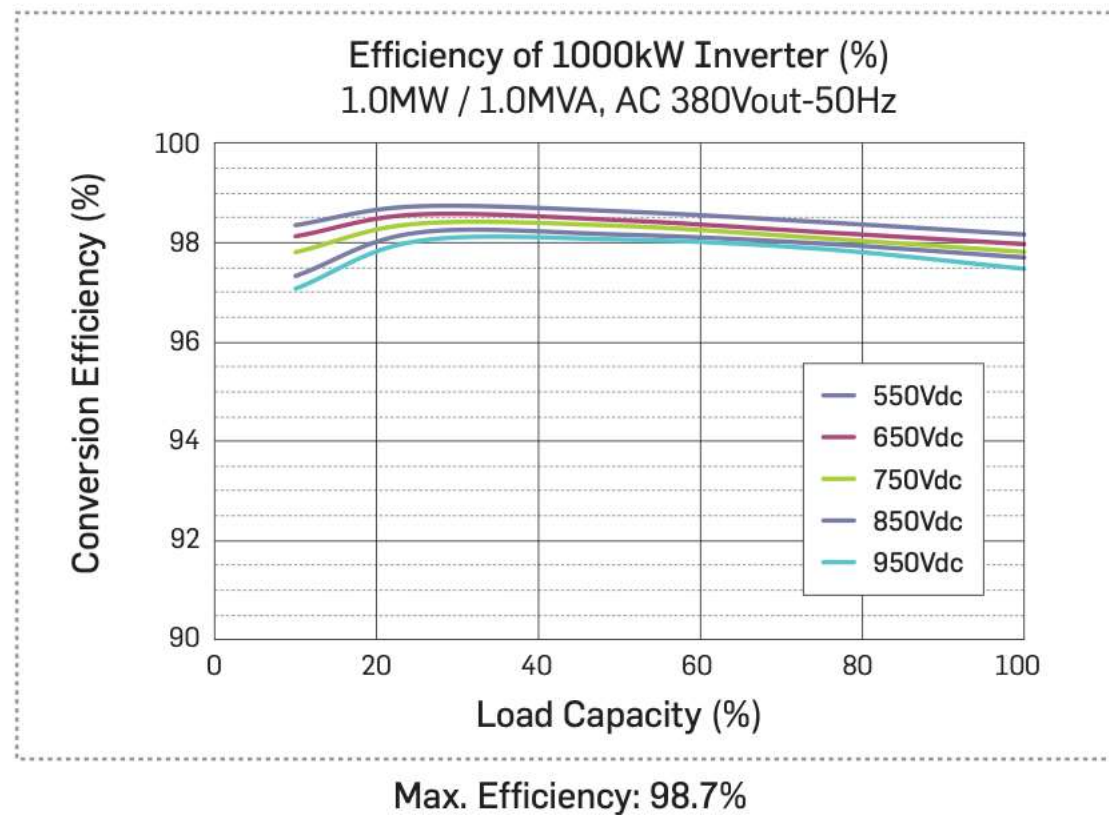
- 最高效率**98.6%**，提高發電電量
- 抽取式**IGBT**
- 三層級**IGBT**減少開關損失
- 領先的並聯電網管理性能
- 自有專利的孤島效應保護設計





# TMEIC PV INVERTER 特性

## ■ 高效率的發電電量





## TMEIC PV INVERTER 特性

- 抽取式IGBT



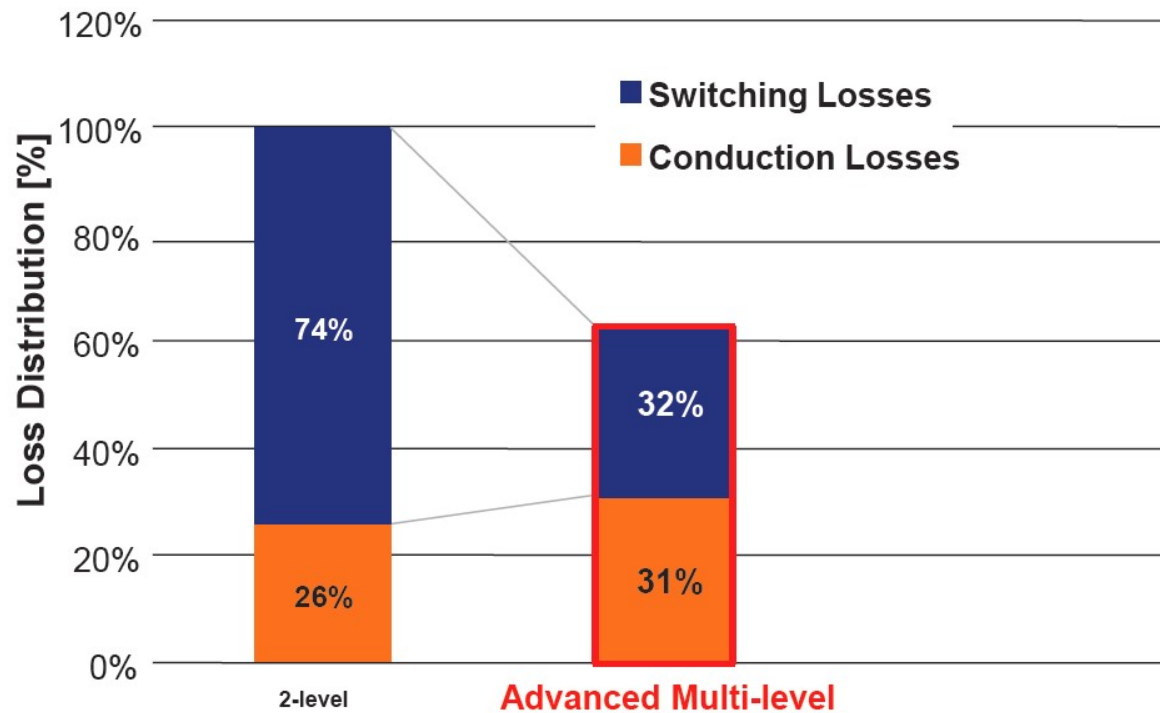
抽取式IGBT直流盤設計  
維修方便



# TMEIC PV INVERTER 特性

- 三層級IGBT減少開關損失

### Comparison of Semiconductor Losses

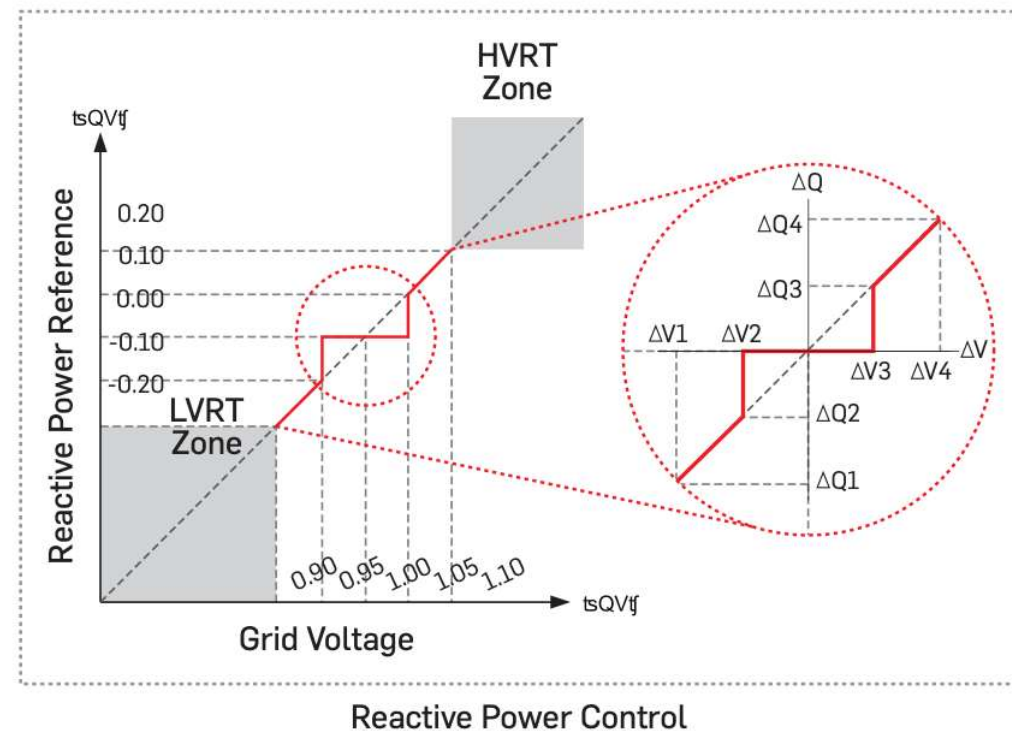




# TMEIC PV INVERTER 特性

## ■ 領先的並聯電網管理性能

- ◎ 強大的實功/虛功控制
- ◎  $\pm 0.83$ 範圍內功因連續可調
- ◎ 低電壓持續運轉功能(LVRT)  
符合國際電網標準

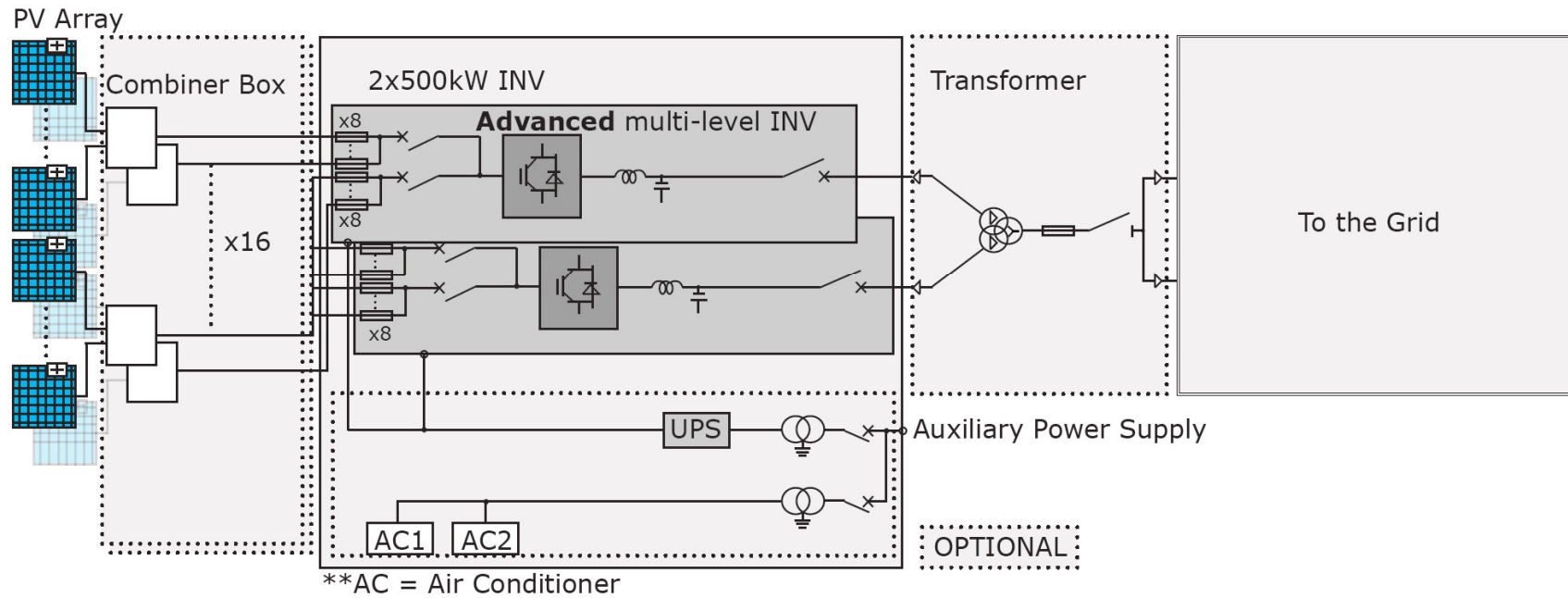






# TMEIC PV INVERTER 特性

## 1MW system configuration



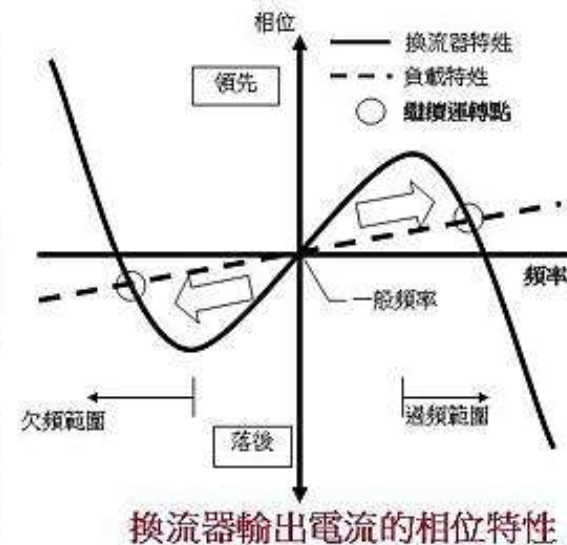


# TMEIC PV INVERTER 特性

- 自有專利的孤島效應保護設計

## Slip mode frequency shift method

該系統的目的是為了以一個穩定的操作條件來檢測孤島狀態和驅動系統

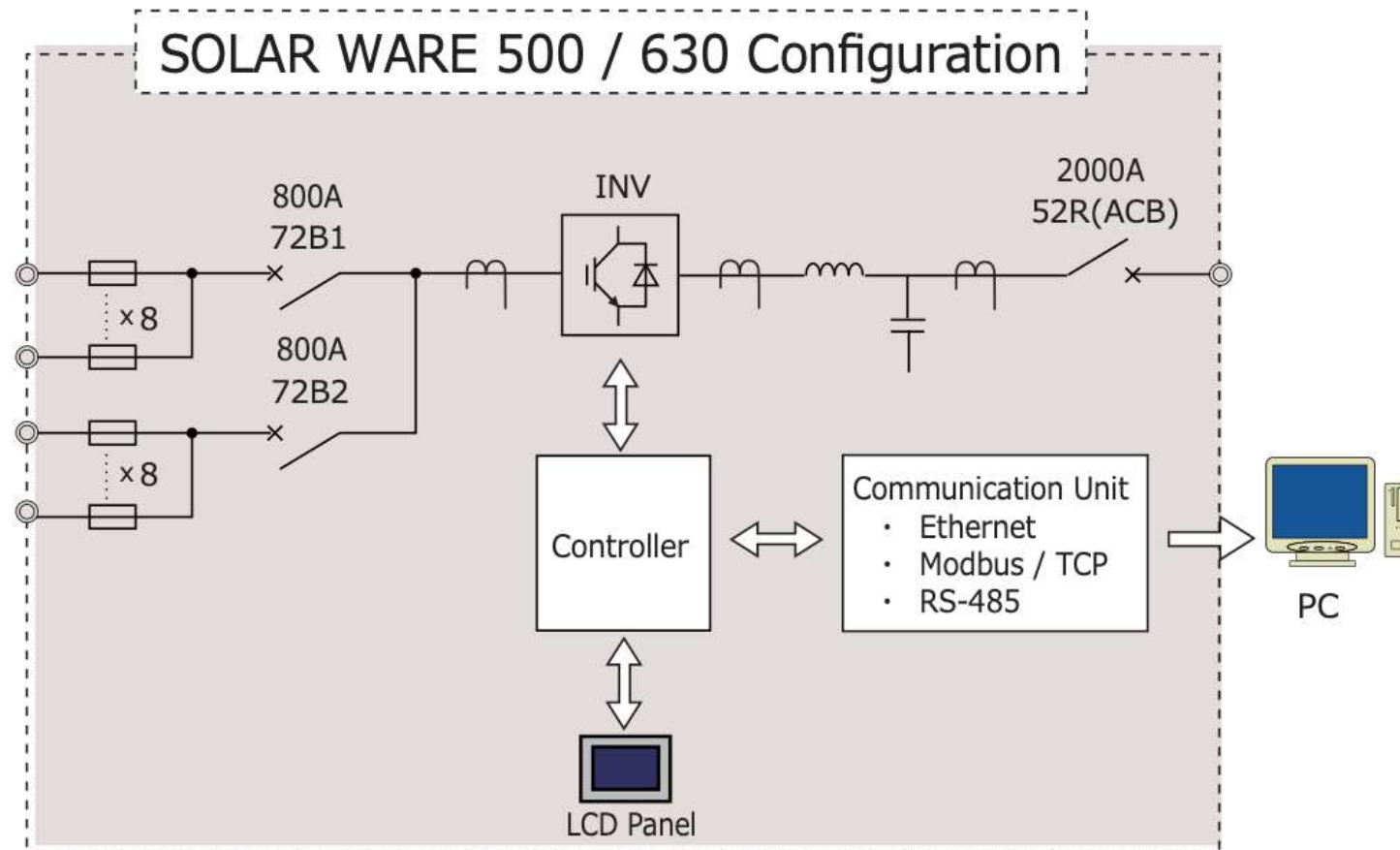


專利 (日本專利號 2796035)





# TMEIC PV INVERTER 特性





# 太陽光電發電站集裝箱

### Solar Ware 500 or Solar Ware 250

- Configurable with 2x500kW or 4x250kW for 1MW PV substation

### Energy Meter and UPS

- UPS for monitoring system, MV switchgear control power, and inverter control power.

### Low Voltage Panel

- Low voltage panel for air conditioners, UPS, inverter fans, lighting, service socket, and power for monitoring devices in combiner boxes for String Monitor option.

### Medium Voltage Switchgear

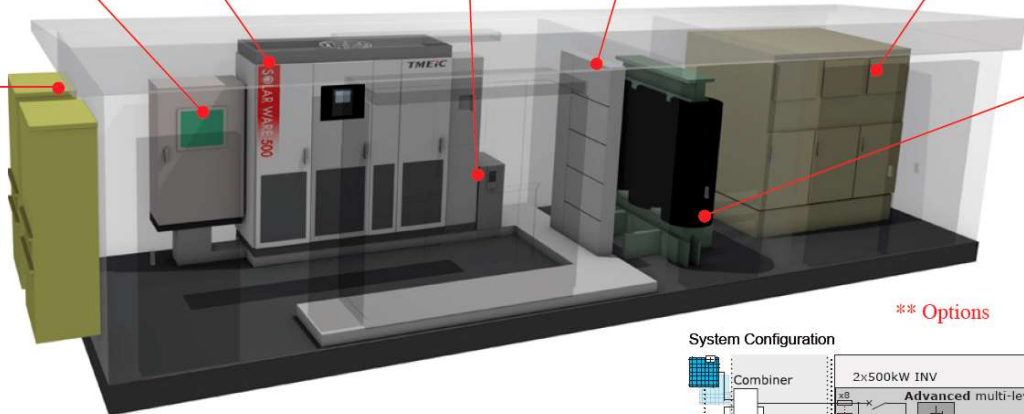
- MV switchgear easily configurable for customer requirement for safe operation. Includes:
- Vacuum or gas circuit breakers
  - Switch-disconnectors
  - Isolators
  - Protection relays

### Monitoring System Panel\*\*

- LCD for Solar Ware View and String Group Viewer\*\*
- Monitoring system for entire PV substation. Includes intrusion alarm records.

### Cooling System

- Forced air cooling ventilation or closed air conditioning are available depending on customer requirement.
- Integrated forced air cooling system for transformer room and MV switchgear room



### Dry-type Transformer

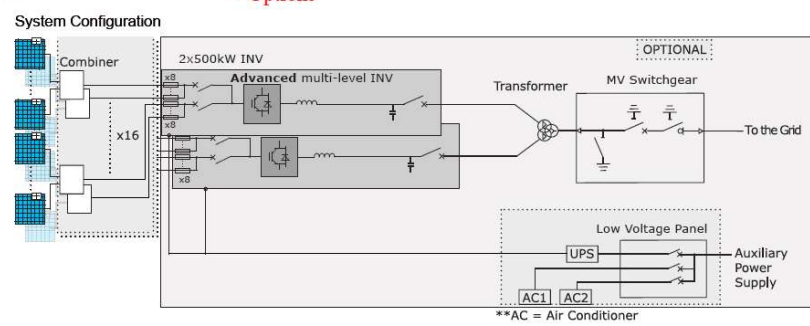
- 1MVA three-winding transformer step-up to required grid voltage
- Configurable low-voltage transformer for operation and auxiliary power source

\*\* Options

## A New Standard for 1 MW block PV inverters

TMEIC offers 1MW PV Substation with either 500kW inverter or 250kW inverter configurations. This small-sized and all weather resistive PV substation is highly cost effective and most robust solution for utility scale PV plant.

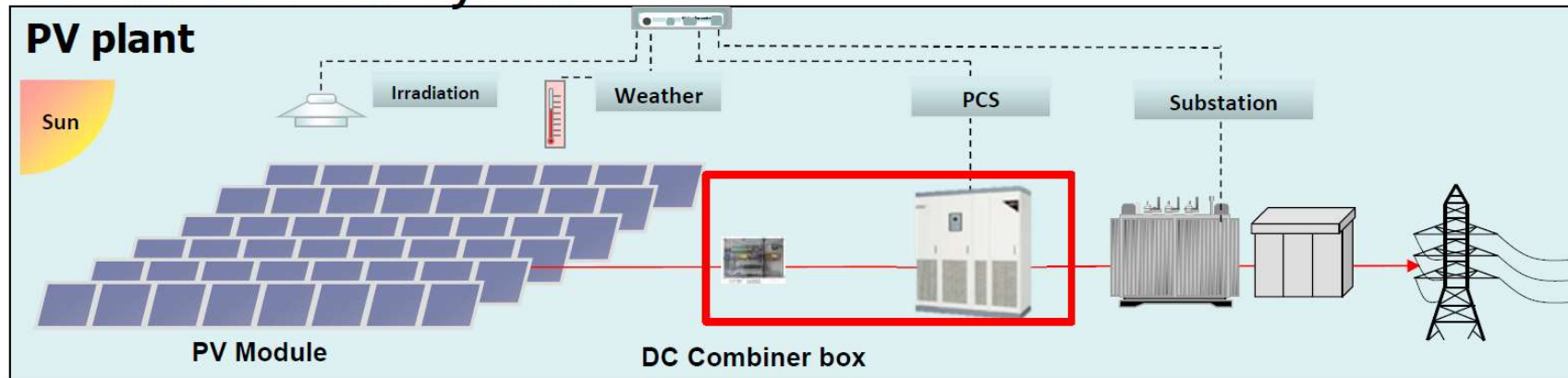
TMEIC's PV Substation consists of SOLAR WARE 500 or SOLAR WARE 250, DC re-combiner boxes (integrated for SOLAR WARE 500), and integrated MV transformer prefabricated in a small sized container for a quick and cost effective installation for utility scale PV plants. This pre-packaged substations have been intelligently engineered for stable and most reliable operation in harsh conditions such as heavy snow area and high heat desert zones.



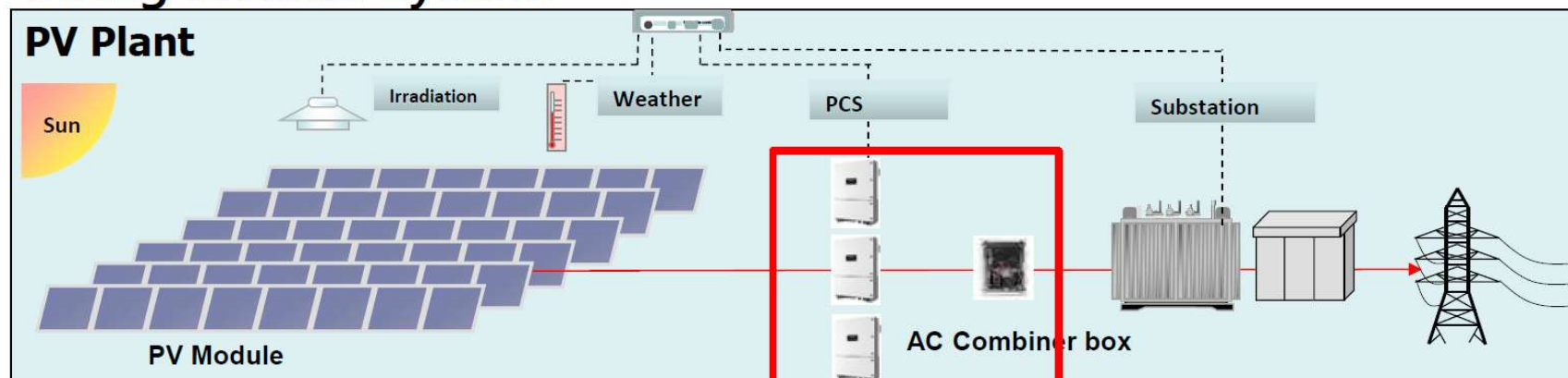


# 集中型與組串型比較

## Central inverter system

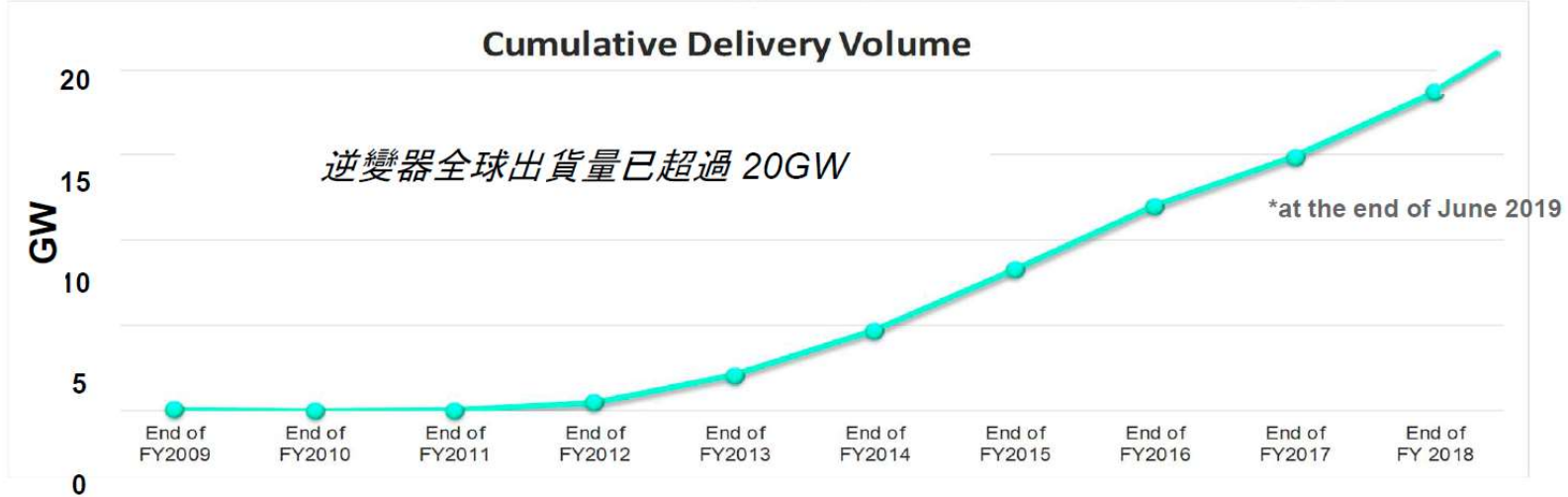
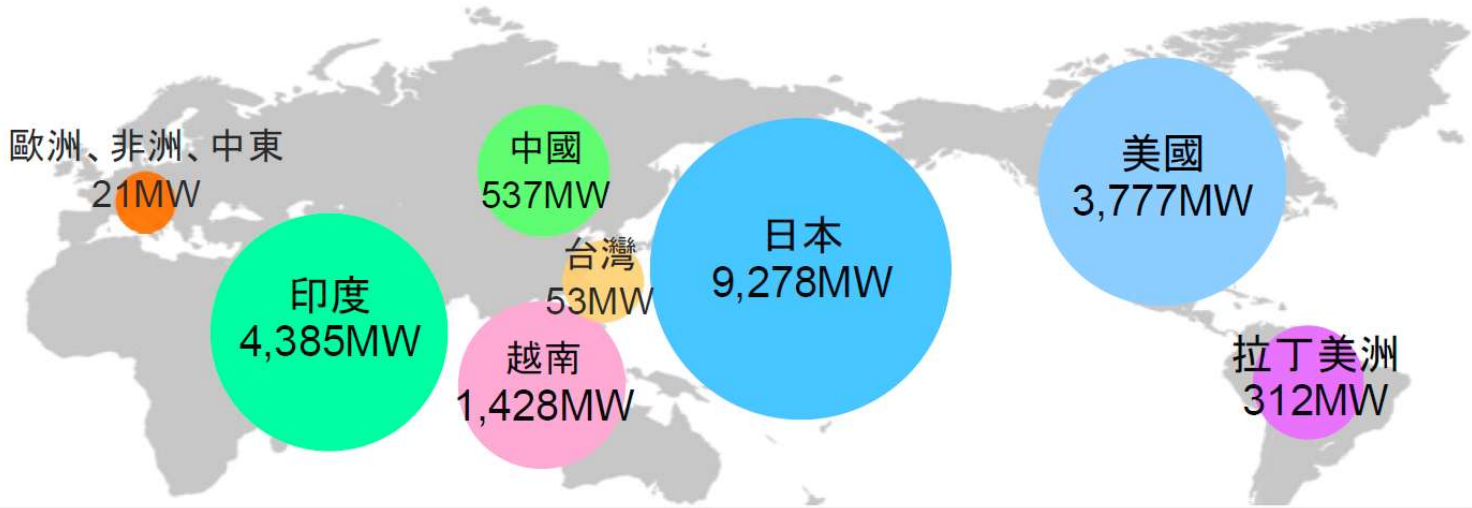


## String inverter system





# TMEIC PV INVERTER 世界版圖



END

感謝各位此次之  
蒞臨指教



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