



BlueArk X5/W10 Application Scenarios & Supported / Unsupported Configurations

JULY 2026

向过去致敬
为未来向前



1

X5 Supported / Unsupported Scenarios

2

W10 Supported / Unsupported Scenarios

Select the Right Solution for Each Business Requirement

Scenarios Where X5 Is Preferred

1. PV + storage + diesel, fully off-grid systems, critical loads requiring <20 ms transfer, long-duration backup, or projects requiring fast battery-to-diesel transfer after paralleling.
2. New PV installations using a DC-coupled PV + storage solution.

Scenarios Where W10 Is Preferred

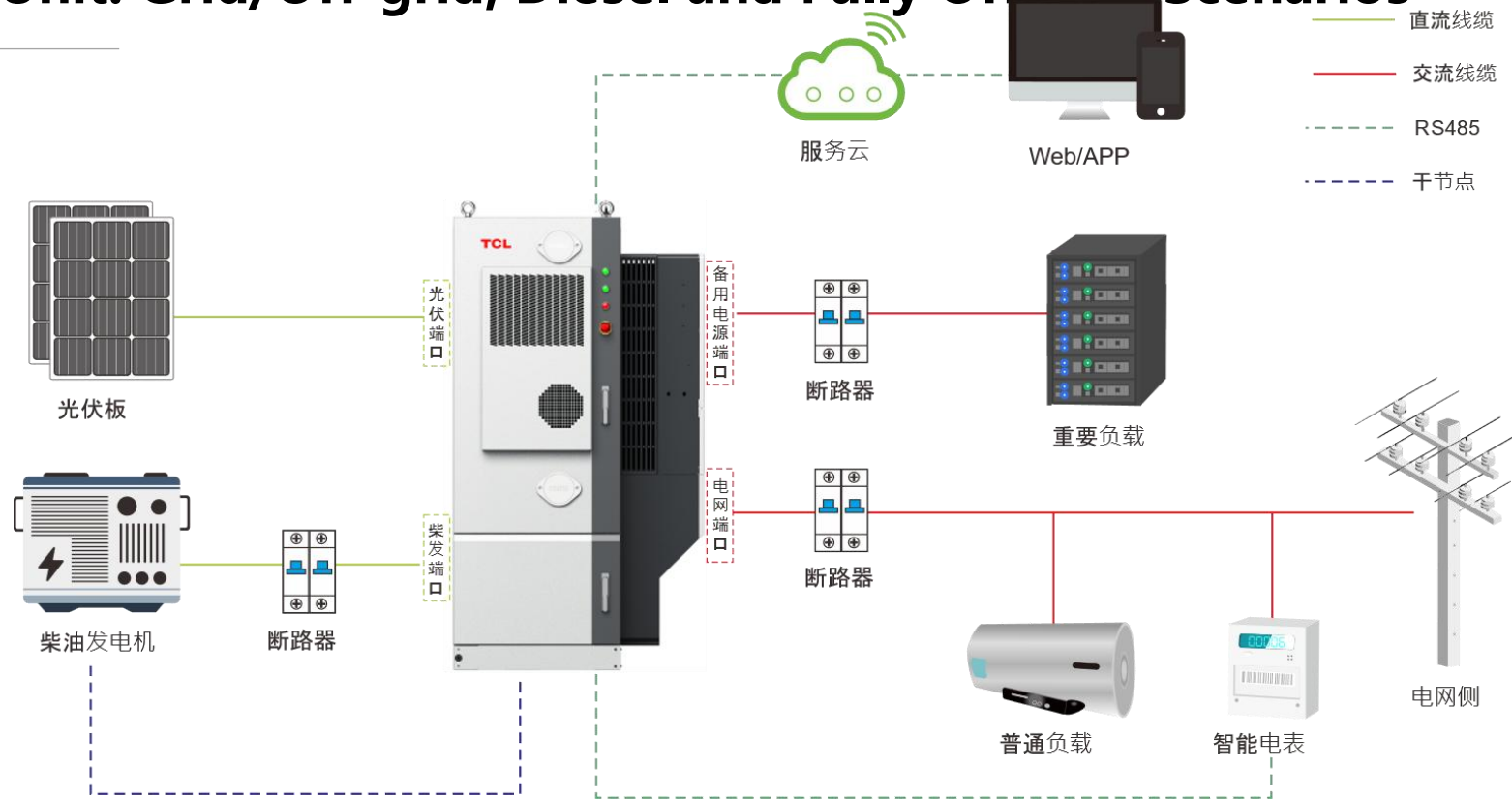
1. Grid-connected parallel systems, conventional grid-connected backup, or critical-load backup using an STS grid/off-grid transfer cabinet.
2. AC-coupled storage retrofits for existing PV systems.

Opportunities to Qualify Out Early

1. Do not pursue W10 configurations combining STS + ATS + diesel generator.
2. In grid-connected scenarios, X5 cannot guarantee diesel-generator transfer within 20 ms without an ATS (transfer time depends on generator start-up time).

Customer Requirement	X5	W10	Sales Recommendation
PV + Storage + Diesel / Fully Off-grid / Fast Diesel Transfer	Supported; select options based on single-unit or parallel configuration	Not preferred	Prioritize the X5 solution
Grid-connected Parallel / Conventional Grid Backup	Supported; suitable for smaller systems	Supported; recommended for larger systems	Both models can be evaluated based on project conditions.
STS Grid/Off-grid Transfer	Supported (built in), <20 ms	Supported (optional), <20 ms	Both models can be evaluated based on project conditions.
STS + ATS + Diesel Generator	Supported: 1. Fully off-grid: built-in battery-to-diesel transfer in <20 ms. 2. Grid/off-grid: add an ATS transfer box for battery-to-diesel transfer in <20 ms.	Not supported	Prioritize the X5 solution

X5 – Single Unit: Grid/Off-grid, Diesel and Fully Off-grid Scenarios

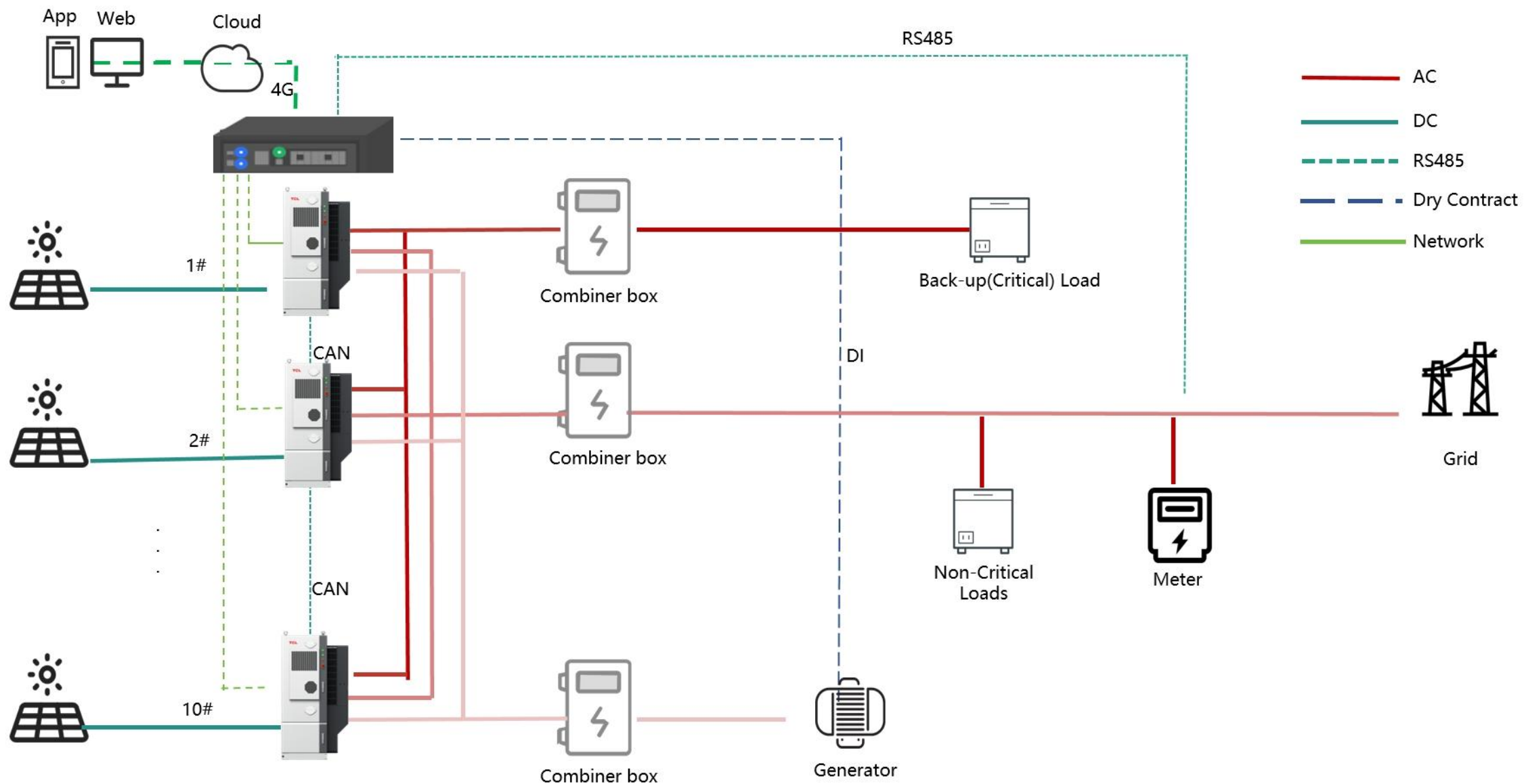


Scenario	Supported Capability	Additional Configuration	Notes
Standard Grid/Off-grid	Grid/off-grid transfer in <20 ms with uninterrupted critical loads; supports up to 100 kW PV input.	1. Add a zero-export meter; the customer may use its own meter or a specified brand.	Suitable for standard grid/off-grid backup. Battery-to-diesel transfer must wait for generator start-up, approximately 1–2 minutes.
Grid/Off-grid + Battery-to-Diesel Transfer <20 ms	Connect the grid and diesel generator to the ATS first, then connect the ATS to X5 to ensure battery-to-diesel transfer in <20 ms.	1. Add a zero-export meter. 2. Add a single-unit ATS transfer box.	The ATS option is mandatory when uninterrupted diesel-generator transfer is required.
Fully Off-grid	Supports 100 kW PV. With the diesel generator connected to the Grid port, battery-to-diesel transfer can be completed in <20 ms.	1. A smart meter is optional.	Connect the diesel generator to the X5 Grid port.

**Items Not
Guaranteed**

Without an ATS, X5 does not guarantee battery-to-diesel transfer within 20 ms in grid-connected scenarios; transfer time depends on generator start-up time.

X5 – Multiple Units in Parallel: Larger Grid/Off-grid, Diesel and Fully Off-grid Scenarios – 1



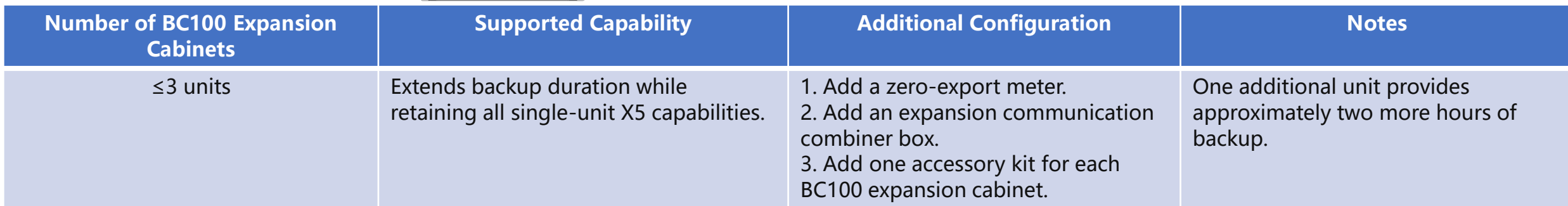
X5 – Multiple Units in Parallel: Larger Grid/Off-grid, Diesel and Fully Off-grid Scenarios – 2

Scenario	Supported Capability	Additional Configuration	Notes
Standard Grid/Off-grid	Grid/off-grid transfer in <20 ms. PV input scales with the number of X5 units in parallel. Supported generator capacity: number of X5 units × 138 kW.	1. Add three power combiner cabinets for the Grid, diesel-generator and Backup ports respectively. 2. Add one smart meter; CTs supplied by the customer. 3. Add a communication combiner box.	1. Power combiner cabinets are supplied by the customer. 2. Suitable for large grid/off-grid systems; diesel transfer still depends on generator start-up and the load will be interrupted.
Grid/Off-grid + Battery-to-Diesel Transfer <20 ms	Use the five-unit parallel ATS transfer box to achieve diesel transfer in <20 ms without interrupting the load.	1. Add a smart meter. 2. Add a five-unit parallel ATS transfer box. 3. Add a communication combiner box.	This transfer box can replace three power combiner cabinets.
Fully Off-grid	Connect the diesel generator to the power combiner cabinet at the X5 Grid port to complete battery-to-diesel transfer in <20 ms.	1. A smart meter is optional. 2. Add two power combiner cabinets for the Grid and Backup ports respectively. 3. Add a communication combiner box.	Connect the diesel generator to the X5 Grid port.

Key Constraints

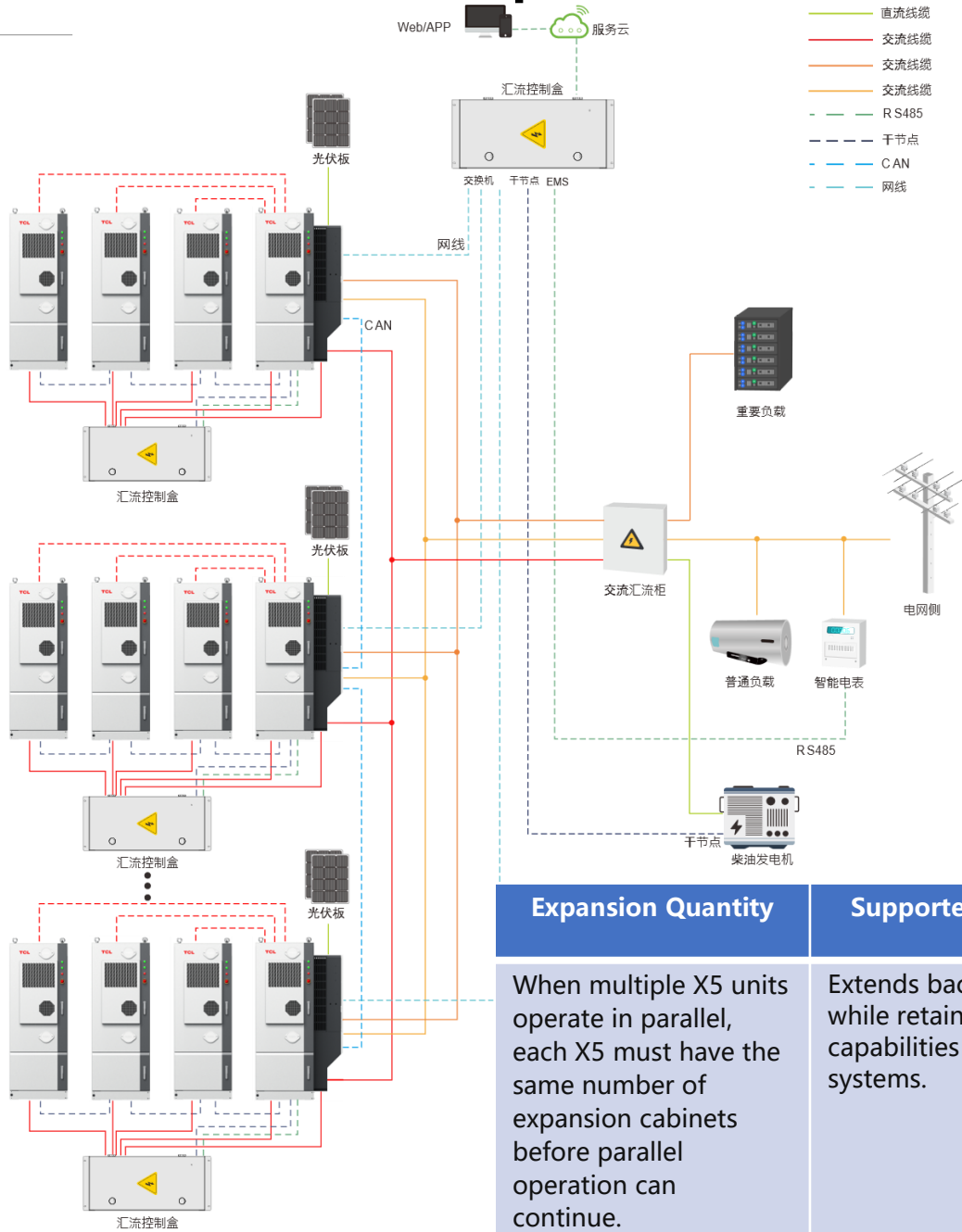
For multi-unit projects, do not commit to standard-solution delivery without either three combiner cabinets or a five-unit parallel ATS transfer box.

TCL 深蓝



1. Install all BC100 cabinets during the initial project phase. 2. If BC100 cabinets are added later, parameter adjustment by our team is required; the new units will also be constrained by the SOH of the operating units and cannot be fully charged or discharged.

X5 – Multiple Units with BC100 Expansion Cabinets



Expansion Quantity	Supported Capability	Additional Configuration	Qualification Criteria
When multiple X5 units operate in parallel, each X5 must have the same number of expansion cabinets before parallel operation can continue.	Extends backup duration while retaining all capabilities of parallel X5 systems.	1. Add a zero-export meter. 2. Add one expansion communication combiner box per group. 3. Add one expansion-cabinet accessory kit per group.	One additional unit provides approximately two more hours of backup.

1

X5 Supported / Unsupported Scenarios

2

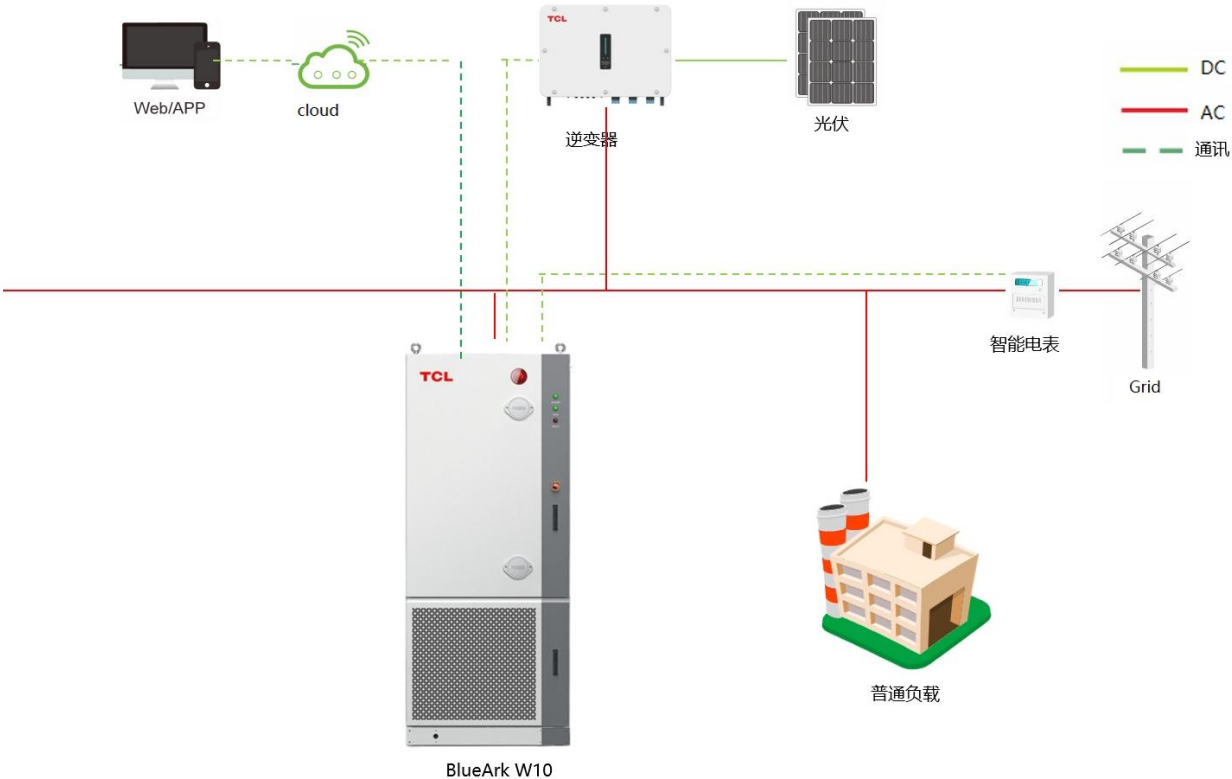
W10 Supported / Unsupported Scenarios

W10 Supports Grid-connected Standalone Storage



Scenario	Supported Capability	Additional Configuration	Notes
Grid-connected Only	≤ 24 units	1. Add a zero-export meter; CTs supplied by the customer. 2. Add a power combiner cabinet.	1. 5-in-1 and 10-in-1 power combiner cabinets are available; lead time: 30 days.

W10 Supports Grid-connected AC-coupled PV + Storage

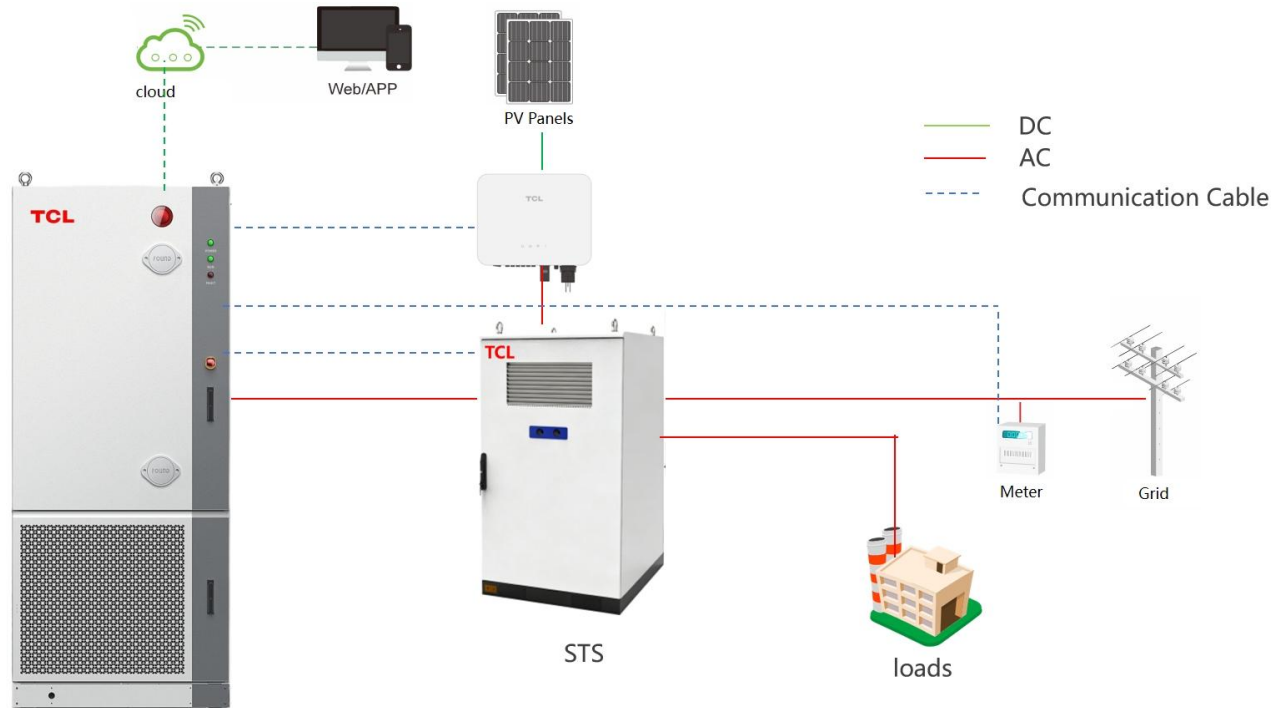


Compatible Inverter Brands

Brand Name
Huawei
Sungrow
Solis
Deye
Hopewind
KOYOE
GoodWe
Inv#
Solinteg
Sineng
Growatt
ThinkPower
Zonergy
XIZI ELECTRIC POWER

Scenario	Supported Capability	Additional Configuration	Notes
Grid-connected Only – PV Zero Export	≤24 units	1. Add a zero-export meter; CTs supplied by the customer. 2. Add a power combiner cabinet.	1. 5-in-1 and 10-in-1 power combiner cabinets are available; lead time: 30 days. 2. The customer must provide the inverter communication protocol.
Grid-connected Only – PV Export Allowed		Two meters (dual-meter solution)	If the inverter communication protocol is unavailable, a dual-meter solution is supported, provided PV export is allowed.

W10 Supports Grid/Off-grid Operation



Scenario	Supported Capability	Additional Configuration	Notes
Grid/Off-grid Scenario	Grid/off-grid transfer completed in ≤ 20 ms. Supports 2, 4 or 6 W10 units. Final configuration depends on load type and application scenario.	1. STS equipment (250 kW / 500 kW / 1,000 kW; three ratings).	1. STS lead time: 30 days. 2. The 1,000 kW STS supports six W10 units only. 3. Loads must be classified as capacitive, purely resistive, etc.; confirm based on the actual project. 4. The STS can replace the power combiner cabinet, for up to six units.

Key Constraints

In grid/off-grid scenarios, the STS does not support diesel-generator connection.

W10 Does Not Support Fully Off-grid Operation



BlueArk W10



loads

Key Constraints

W10 does not support fully off-grid operation. Contact us for further technical details.



THANK YOU