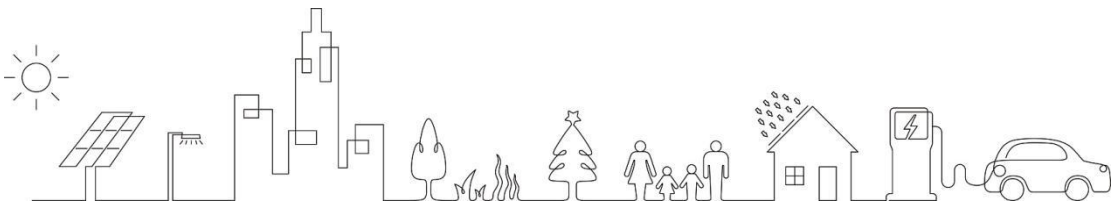
Tensorpack T

TC AC Control System

Specification

R1.0



Abbreviations

PCS	Power Conversion System
LC	Local Controller
SPD	Surge Protection Device
EMS	Energy Management System

1 Product Introduction

1.1 Background

With the global energy transformation, energy storage technology has become a key link to ensure the stability of the power grid. In this context, Tensorpack T C&I ESS provides efficient and reliable energy storage solutions for modern power grids and energy systems.

1.2 Scope of Use

The Tensorpack T energy storage product consists of a battery system and an AC control system. This document aims to describe in detail the system composition, product and specifications of the AC Control System within the Tensorpack T ESS , providing clear guidance and reference for engineers, users, and other relevant personnel.

1.3 Type Designation

	No.	Def.	Description
T C 1xx Mx-xG 1 2 3 4 5	1	Serial Product	T：Tensorpack T ESS
	2	System Name	C：AC Control System
	3	PCS Power Rating	100：Modular PCS Power: 100kW 125：Modular PCS Power: 125kW
	4	Amount of PCS Module	1：Number of Module is 1 2：Number of Module is 2 3：Number of Module is 3 4：Number of Module is 4
	5	Application	OG：On-Gird System MG：Micro(On/Off) Grid System

Table 1.1 Type Designation

2 System Topology

The TC AC control system can expand the scale of the energy storage system by flexibly configuring the number of modular PCS units and connecting TB battery system with string topology. An optional UPS can be equipped to meet the needs of grid-connected or microgrid applications.

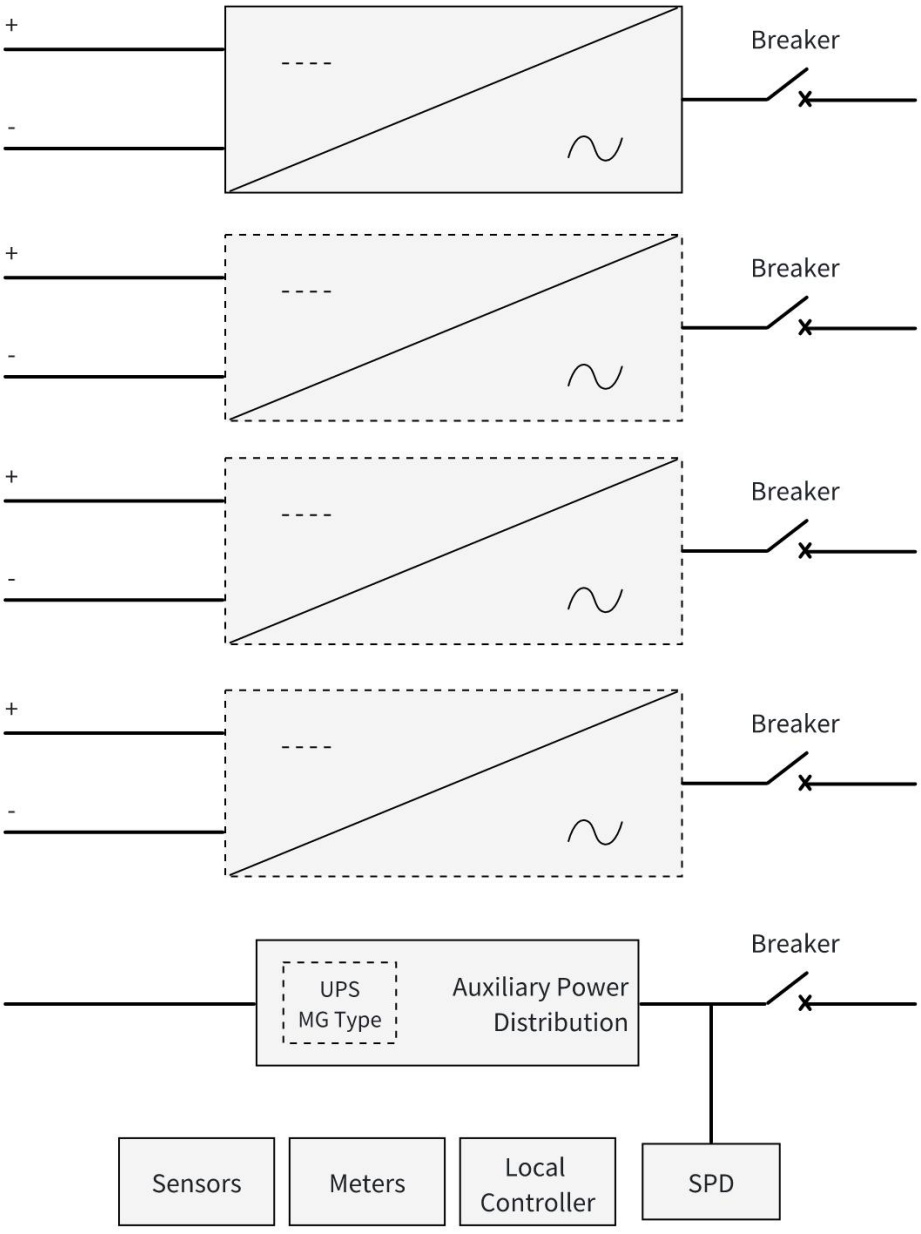


Figure 2.1 AC Control System Topology

3 System Specification

Tensorpack T AC Control System			
Model Type	TC100Mx		
Configuration Parameters			
Configuration	M1	M2	M3
Rated AC Power	100kW	200kW	300kW
Maximum AC Current	158A	316A	474A
AC Parameters			
Rated AC Voltage	400Vac		
Wiring Method	3P + PE		
AC Voltage Range	–15% ~ 10%		
Rated AC Frequency	50Hz/60Hz		
Power Factor	–1 ~ +1		
THDi	＜3% (Rated Power)		
Mechanical Parameters			
IP Rating	IP55		
Corrosion Protection	C4		
Dimension (WxDxH)	800 x 1300 x 2200mm		
Weight	425kg	525kg	620kg
System Parameters			
Operating Temp	–20˚C ~ +55˚C		

Storage Temp	–30˚C ~ +60˚C
Operating Humidity	0% ~ 100% (Non Condensing)
Altitude	≤2000m
Cooling Method	Smart Air Cooling
Communication Interface	RS485/Ethernet/4G
Communication Protocol	Modbus RTU/Modbus TCP/IEC 104/MQTT
System Certification	
EMC/LVD	IEC61000–2/–4; IEC 62477–1;
Grid Code Compliance	EN50549–1; EN50549–2; VDE 4105; VDE 4110; G99; AS 4777.2; GB/T 34133; GB/T 34120

Table 3.1 System Specification

4 System Appearance

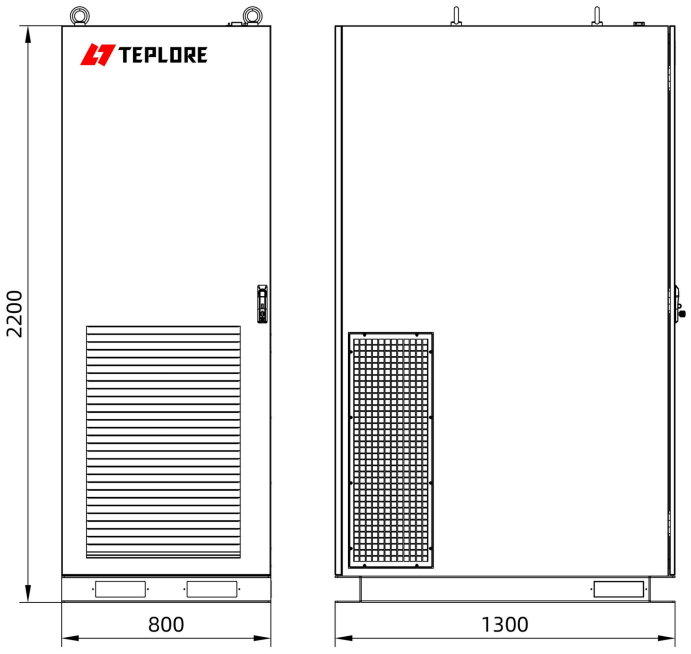


Figure 4.1 System Appearance