

EMS Coordination Controller

WL-CC-500

Application scenarios

With the rapid development of large-scale energy storage power station construction, such as in containerized scenarios, a single energy storage power station may deploy many energy cabinets, with the number of converters (PCS) and battery packs typically reaching dozens or even hundreds. This significantly increases the complexity of the coordinated control of the energy management system (EMS). The EMS coordinating controller, as the host for multiple parallel cabinets, is responsible for the coordination, monitoring, and scheduling of the entire power station. Combined with local controllers, the EMS coordinating controller can aggregate upper-level EMS commands and lower-level device data in real time, dynamically allocating power through multi-objective optimization algorithms. It also supports rapid control functions such as primary frequency regulation and demand response, ensuring efficient and stable operation of the power station and extending the lifespan of critical equipment. In multi-cabinet master-slave mode (such as container scenarios), the EMS coordination controller is used as the master.

Product Introduction

The Lnxall IoT WL-CC-500 series EMS coordinating controller, combined with PCS/BMS, forms an integrated 3S energy storage system solution. The WL-CC-500 series EMS coordinating controller features a single industrial-grade CPU, enabling it to connect to and manage devices with various interfaces in energy storage and microgrid power stations. It can also interface with the Lnxall IoT WL-SMC station control system or other third-party energy management, equipment management, and system maintenance platforms.



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Product Name	EMS Coordination Controller	WL-CC-500
Power supply	DC 24V/1A or DC 12V/2A	Reference power supply range DC 12V ~ 36V
Operating power consumption	Average 10W	Full load operation < 15W
Hardware parameters	ARM industrial-grade CPU	4 cores 1.8 GHz
	8 GB eMMC storage	Onboard 8GB storage
	2GB LPDDR4	Onboard 2GB memory
	256GB harddisk	Onboard 256GB harddisk
	Shelf size	25.7 × 18.5 × 4.5cm (L×W×H)
	Main unit size	21 × 16.5 × 4.5cm (L×W×H)
Communication interface	Approximate weight	1.4Kg
	Wireless (Optional)	Supports full network 4G Cat 1
	Ethernet	2-way WAN, 4-way LAN
	Industrial serial port	8-way RS485
	CAN	2
	DI	16
Other	DO	8
	Operating temperature	-20℃ ~ 60℃
	Storage temperature	-40℃ ~ 85℃
	Operating humidity	≤ 95% RH (No condensation)
	Test certificate	TUV/CE、RoHS2.0