

All-In-One Cabinet DYNESS BESS **100kW Inverter / 215kWh Battery**

2024/10/18

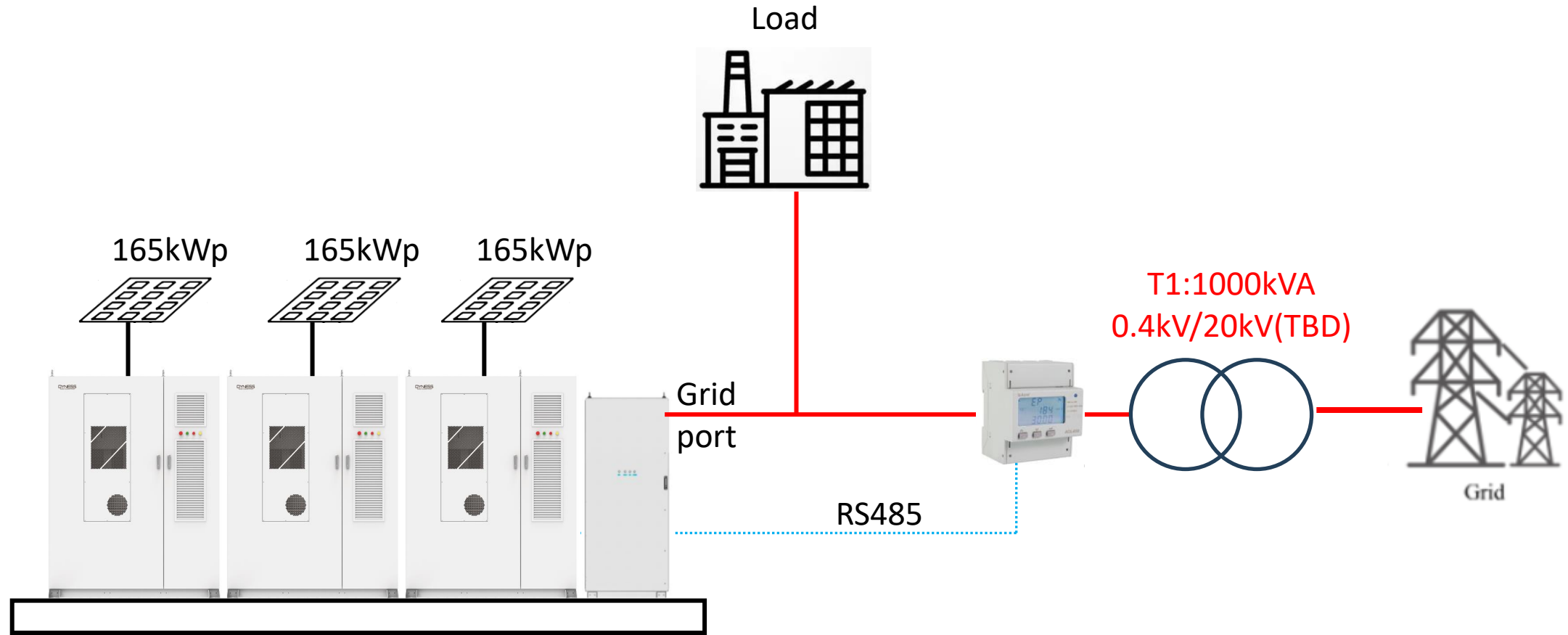


Parameter requirements

Project	
Energy storage capacity	645kWh
Energy storage power	300kW
Charge /discharge rate	0.5C
External power supply information	Grid , PV

System scheme(Grid connected use)	
Product	DH200F
Num	3
Num of pack	45
Capacity	645kWh (DOD: 95%)
Power	MAX. 300kVA
AC output	AC400V , 3P4L
External communication interface	The BESS system supports the MODBUS RTU/TCP protocol externally and provides a serial communication interface.

Construction Plan



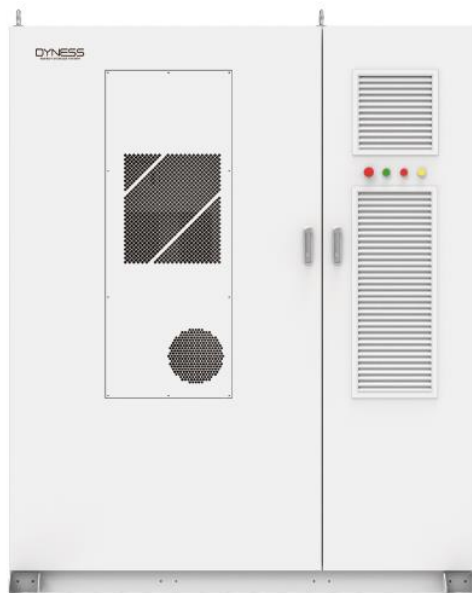
Master	Slave 1#	Slave 2#
100kW	100kW	100kW
215kWh	215kWh	215kWh

Location	SN	Item	specifications	Unit	Num
300kW/645kWh	1	ESS	DH200F-S000L00, 100kW/215kWh	pcs	3
	1.1	ESS-PCS	100kW	pcs	3
	1.2	ESS-Battery	215kWh	pcs	3
	1.3	ESS-MPPT	50kW	pcs	9
	2	AC bus box	Support 3 units in parallel using	pcs	1

One DH200F internal configuration			
Item	Parameter	Unit	Num
PCS	100kW	pcs	1
Battery	215kWh	pcs	1
MPPT module	50kW	pcs	3
EMS		pcs	1
Fire Protection System		pcs	1

All power cables, communication cables, power transformers, High voltage side metering meter, master EMS, etc. are provided by customer. Dyness only provides the above items.

Product Introduction



DH200F

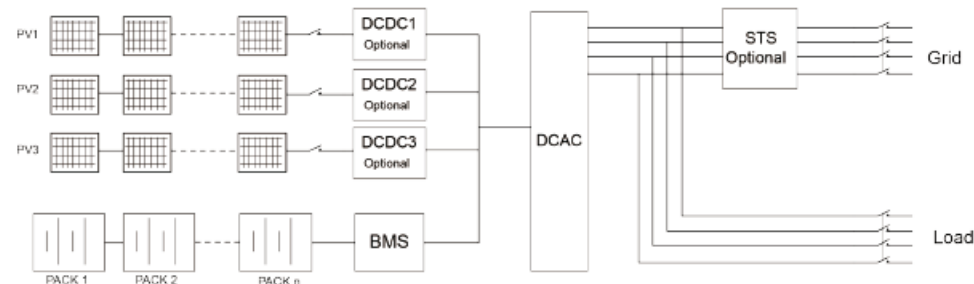
C&I Storage System

All-in-One integrated system design inside the Cabinet to fulfill C&I scenarios

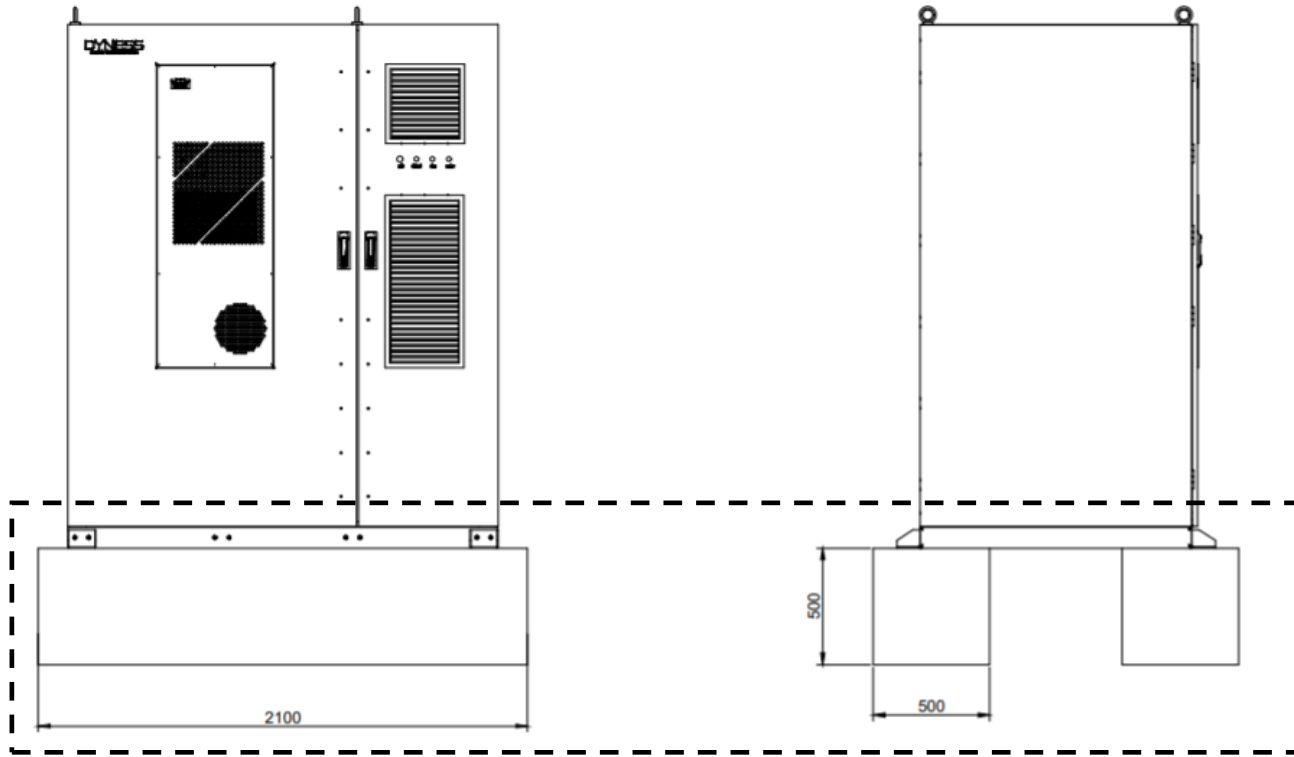
HIGHLIGHTS

- Overall Solar+Storage Solution
- Convenient Outdoor Setup
- All in one design Concept
- Allow Flexible System Design
- High-level Safety design
- Capacity Extensible to MegaWatts

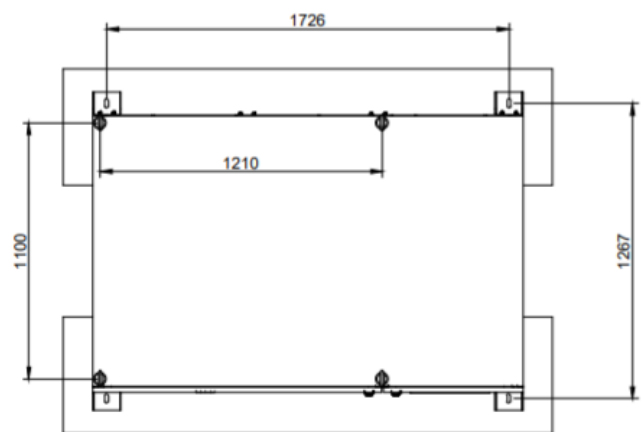
BATTERY PARAMETER	
Cell Capacity	280Ah
Battery Voltage Range	672~864V
Nominal Current	140A (0.5C)
System Storage Power	215kWh
AC PARAMETERS (ON-GRID)	
Nominal Power	100kW
AC Nominal Voltage	400V
Wiring	3P4L+PE
Nominal Frequency	50Hz
AC Maximum Current	158A
AC PARAMETERS (OFF-GRID)	
Nominal Power	100kW
AC Nominal Voltage	400V
Wiring	3P4L+PE
Nominal Frequency	50Hz
AC Maximum Current	158A
Unbalanced Load Capacity	100%
PHOTOVOLTAIC INPUT	
MPPT Voltage Range	200-670V
MPPT channels	Up to three
Input Power	Single channel 50kW
SYSTEM SPECIFICATIONS	
Dimensions (W*D*H)	1.85m*1.2m*2.25m
Weight (Kg)	≈3300Kg
System Round-trip Efficiency	91% (TBD)
Operation Temperature	-20~55°C
Operation Humidity	0~95%
Protection Level	IP55
Anti-corrosion Level	C4
Noise Level	≤75dB
Altitude	≤3000m
Cooling System	Fan Cooling
Communication	Ethernet /RS485/CAN/USB
Certification	CE/CQC



System layout

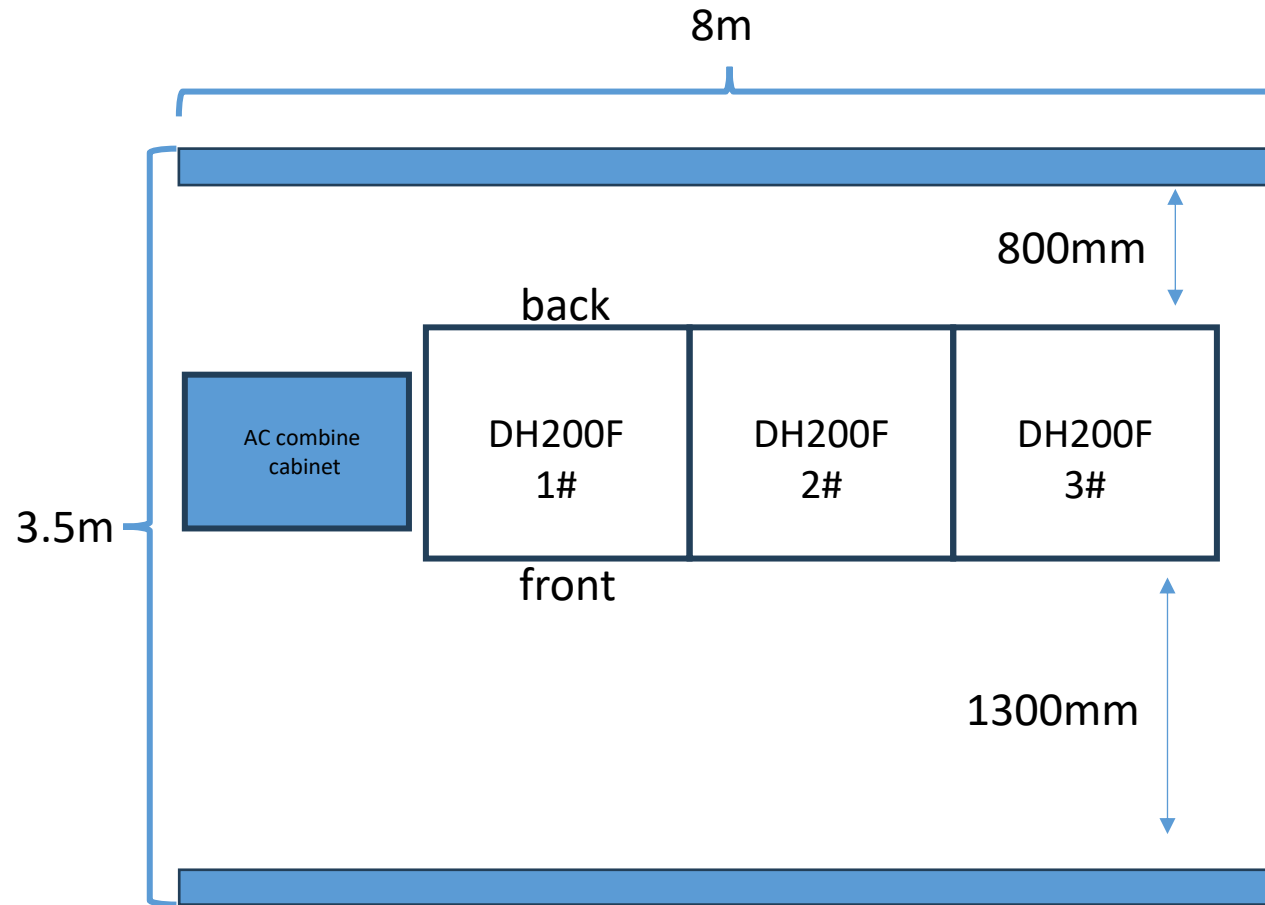


The customer built it and AC power cable by themselves



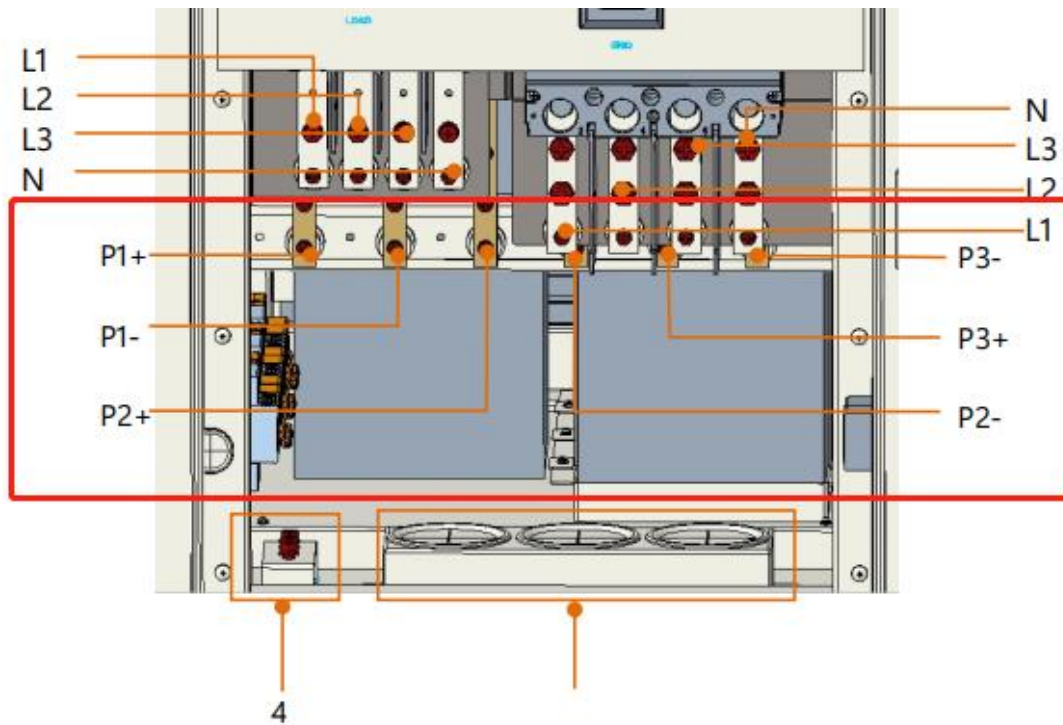
- The base height needs to be greater than the historical highest flood level
- The bearing capacity of the installation foundation is greater than 3.3t/m² (TBD), the service life of the foundation is greater than 20 years (TBD), and the foundation level is 3mm/m² (TBD).

System layout



The floor area is 28m²

Dyness only provides equipment, does not mention external power lines, wiring terminals, and other accessories, and does not provide EPC services



Each MPPT corresponds to one P+ and one P -, and this project is equipped with three 50kW-MPPT modules for each DH200F

Parameters of per MPPT module

Maximum MPPT power tracking current	100A
Input Voltage	200V-670V
I _{sc}	150A (TBD)