

Our offer

SUNSYS HES XXL: High Power Energy Storage System

The best **native outdoor** modular Energy Storage System for On & Off-Grid application



C-Cab – conversion cabinet

- PCS 1500 kVA single unit (1,75 MVA for 5min)
- From 480 to 690 VRMS – 50/60 Hz configurable
- Four quadrant with Black Start capability
- Outdoor IP55 / NEMA 3R,
- Hybrid liquid/air cooled , operating T° -20 to + 45°C

B-Cab – battery cabinet

- 372 kWh/rack LFP battery cell technology
- DoD of 97,5%
- IP56 Liquid-Cooled Battery Modules , op. T° -30 to +50°C
- Communication Architecture & BMS functions
- UL 9540A fire tests compliant
- C5M UV and environmental protective paint

Behoort bij besluit van
Gemeente Barneveld
Kenmerk: 2025W1324
Datum: 30-04-2025



Our offer

C-Cab XXL: Technical specifications

1 SUNSYS C-Cab XXL: PCS Flexible Scalable and Reliable grade Energy Storage Inverter

Lineup Quality						
1			4			
AC	AC configuration max. cables (throat bus optional)					
	3-wire (3P3W) 600 kcmil x 6					
	AC voltage range					
	480 - 690 VRMS +10% / -12%					
	AC export power @ 40°C (690 VRMS) (1)		1500 kVA 1255 ARMS		6000 kVA 5020 ARMS	
	AC import capacity @ 40°C (690 VRMS)		1500 kVA 1255 ARMS		6000 kVA 5020 ARMS	
	Export power overload capacity @ 40°C, starting from 66% full load. (690 VRMS) (3)		1.8 MW for 3 sec. or 1.75 MW for 5 min.		7.2 MW for 3 sec. or 7 MW for 5 min.	
	Allowed grid short ckt. current ratios		Current mode: >4 Voltage mode: all			
	Max. fault current allowed from AC source		100 kA (AC RMS) throat version 180 kA (AC RMS) non-throated version			
	Max. fault current allowed from DC source		180 kA (with internal DC fuses, per input)			
DC	Nominal frequency range		50 - 60 Hz (configurable)			
	Harmonic distortion		UL1741 / IEEE 1547, <2% TDDi at rated power per IEEE 519			
	Efficiency: Max CEC Euro		99.3% (est.) >98% (est.) >98% (est.)			
	Power factor / reactive power		0.89 leading / 0.93 lagging			
	DC voltage range (2)		750 - 1500 VDC			
	Most common battery voltage range		1125 - 1500 VDC @ 690 VRMS			
	Maximum DC current		1400 ADC		5600 ADC	
	Number of DC inputs (4)		1 x [600 kcmil x 8]		4 x [600 kcmil x 8]	
	Max. deviation of DC input voltage between // units		100 VDC			

(1) Power ratings at nominal line voltage.

(2) Minimum SCQR operation requires inverter to be in 'spinning reserve' mode.

(3) Minimum DC voltage at nominal AC line voltage.

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Environmental	Ambient temperature (operation)	-20°C to 40°C (-40°C with Arctic option)	
	Ambient temperature (storage)	-40°C to 60°C	
	Protection degree	Outdoor: IP55 / NEMA 3R. Salt fog kit available for coastal sites.	
	Max elevation	3,500 m [11,400 ft.]	
	Airborne noise	<75 dBA @ 3m	
	Seismic	ICC-ES AC 156 Sds @ 1.35 G	
	Altitude derating (current)	10% per 1,000m above 2000m elevation	
	Altitude derating (voltage)	10% per 1,000m above 2000m elevation	
	Temperature de-rating	1.7% per degree °C from 40-55 °C	
Cabinet	Maximum dimensions (H x W x D)	mm: [2281 x 1000 x 1636] [89.8 x 39.4 x 64.4]	in.: ... in: [2281 x 4915 x 1636] in.: [89.8 x 193.6 x 64.4]
	Weight	1360 kg [3000 lb.]	... (4) x 1360 kg [(4) x 3000 lb.]
	Mounting	Pad mount / skid mount	
	Cooling	Hybrid liquid / air, temperature controlled	
Certifications	Safety	UL 1741 C22.2 No. 107.1-16 IEC	
	Utility interconnect	UL 1741:2010 R2.18 (SA) IEEE 1547.1-2005 CA Rule 21 No. 16-06-052 Hawaii Rule 14 No. 2014-0192 AS4777(pending) CSA C22.2	
		Contactor	
Protections	AC disconnection	Motorized switch	
	DC disconnection		
	AC fuses (optional) DC fuses (optional)	2 x 1000 A, 200 kAIC (24kA SC min) 3 x 750 A, 180 kAIC (20kA SC min) (5)	
	AC DC surge protection (Type 2 optional)	Type 1 surge arrester Class 1 surge arrester	
	Safety features	F-stop, AC / DC overvoltage, AC timed overvoltage, inst. & timed overcurrent, overtemperature (both instantaneous and time-overload), condensation, etc.	
	Ground fault detection (optional)	Bender ISO685(W-D or W-D-B (soft./h))	

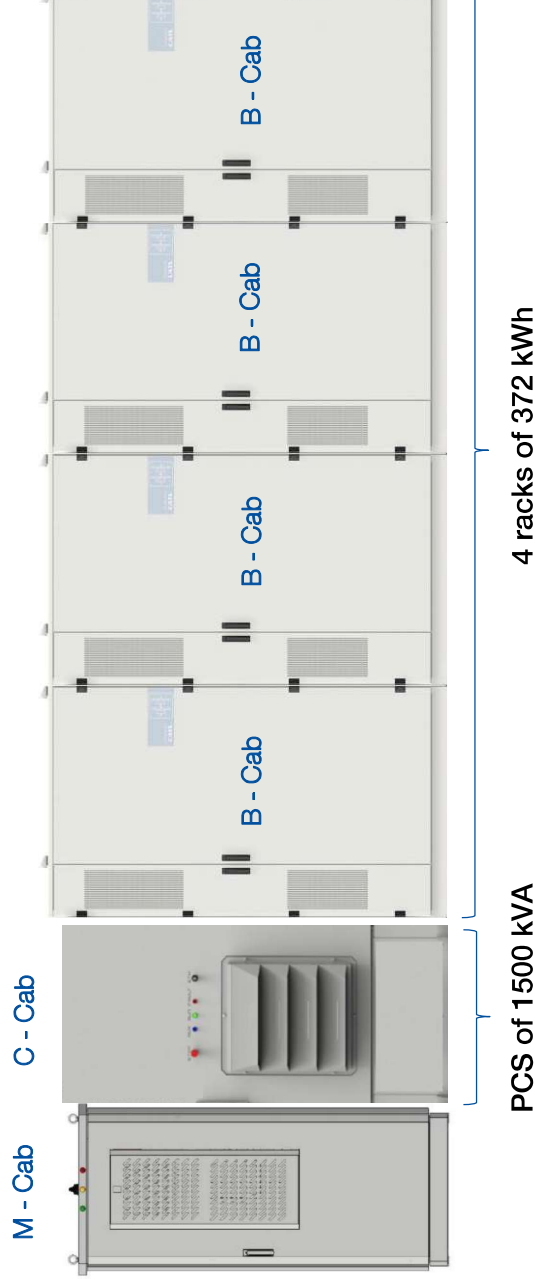
Our technical proposal

SUNSYS HES XXL: 1500 kVA - 1488 kWh

Global view of the SUNSYS HES XXL

Total project:

- Nominal Power: 1500 kVA
- Nominal Energy: 1488 kWh



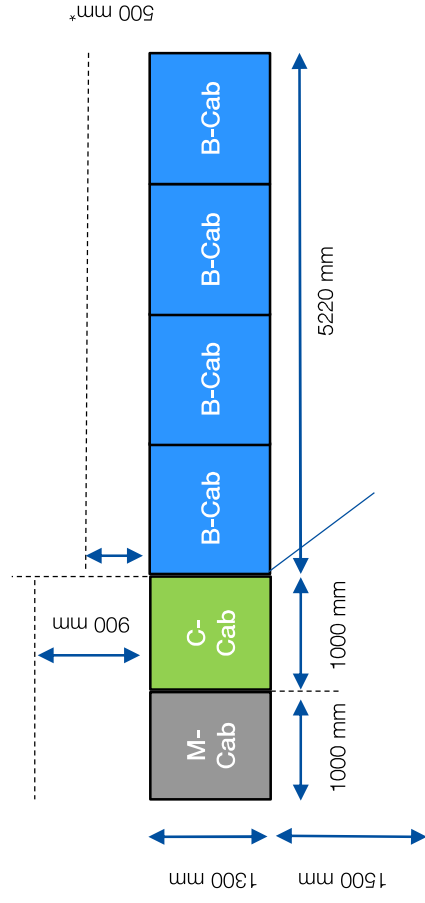
Our technical proposal

On-line installation for 1500 kVA / 1488 kWh

System Sunsys HES XXL of 1500 kVA / 1488 kWh

Total project:

- Nominal Power: 1500 kVA
- Nominal Energy: 1488 kWh



Product Footprint per system: 9.4 m²

*500mm recommended value