

V O L V O

PU500

Battery Energy Storage System - Temporary Power



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Safety first - battery packs

The battery packs in the PU500 are produced in-house in the Volvo Group and their inherent safety have already been proven in the operation of heavy-duty electric trucks and construction equipment for millions of hours.

Safety first - system design

Several safety solutions, normally found in larger battery energy storage systems, are included e.g. fire detection, dividing wall, thermal management with liquid cooling, fire hose connection, deflagration panels & remote operation and monitoring.

In numbers

Max energy	540 kWh
Power output	240 kW DC CCS2 44 kW (63 A 3-phase)
Power input	86 kW (125 A 3-phase)
Dimensions	2.4x3.0x2.7 m, 10 ft ISO
Weight	~7500 kg

Secure & accessible

Control and monitoring can be done locally, via an intuitive HMI, as well as remotely via app and web-portal interfaces. The latter also includes functionality for fleet owners to keep track of multiple Power Units. All within a certified cybersecure cloud solution.

Integrated & versatile

The robust & mobile all-in-one solution allows for quick deployment at site. The DC-integrated charger reduces energy conversion losses. The Power Unit can be easily handled, for example, by a crane, forklift, or wheel loader. Multiple AC outlets provide power to additional equipment.

Genuine Volvo

The PU500 is designed to fulfil the expectations of a genuine Volvo product; safety, environmental care, quality, trust and support over time.

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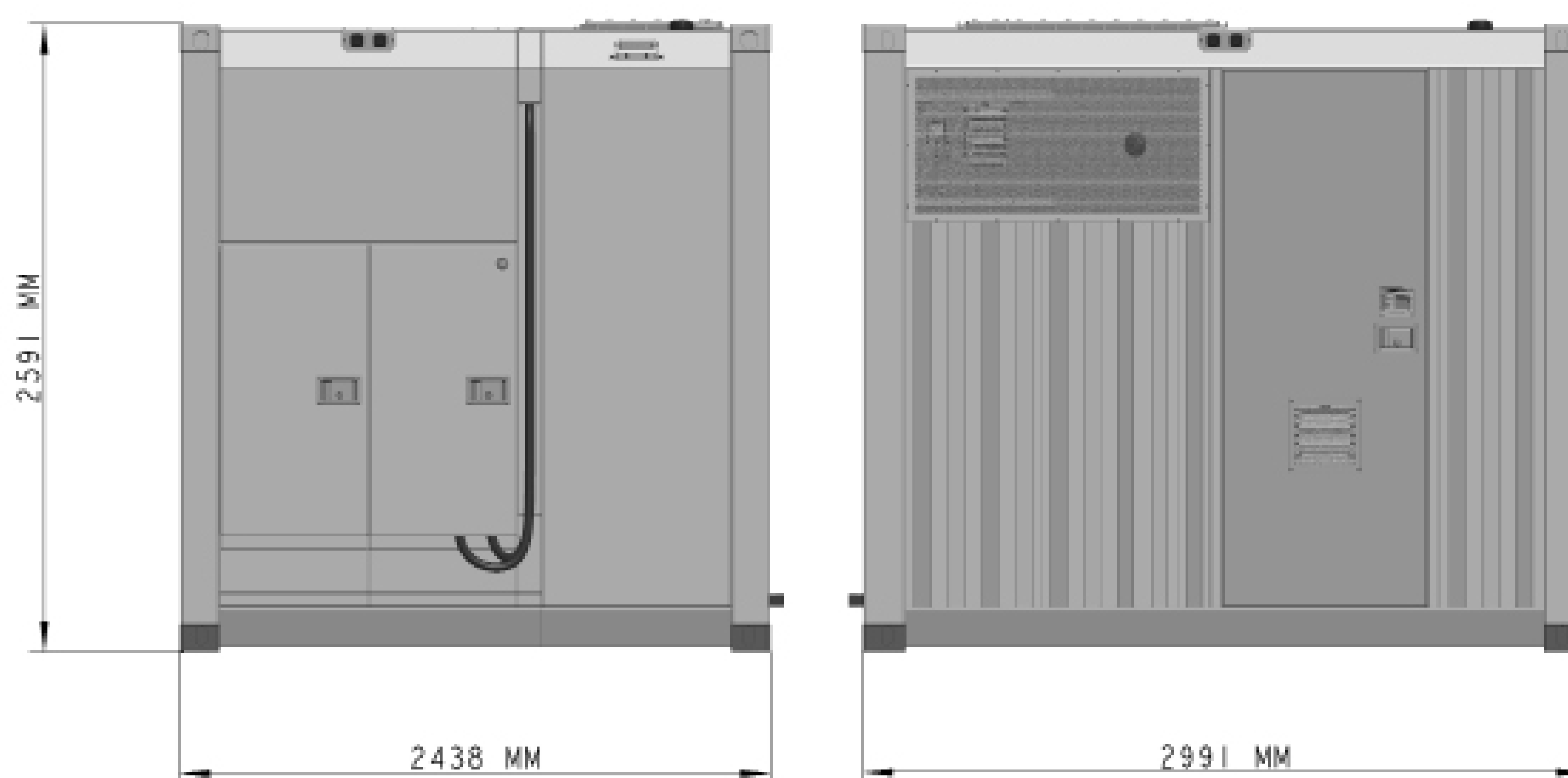


Contact us: sales.bess@volvo.com

Visit: volvoenergy.com

Technical data

	PU500-240-450-B-EU	PU500-240-540-B-EU
Electrical input/output		
AC input	Up to 86 kW, 32-125 A, 400 V (3-phase, 50 Hz), CEE connector	
AC output	63 A CEE 3-ph, 32 A CEE 3-ph, 16 A 1-ph CEE, 2x16 A 1-ph Schuko	
DC charger output	240 kW, CCS2, 8 m cable length	
Battery		
Nominal energy	450 kWh	540 kWh
Recharge time	~5h (typical 70% SOC window, with 125 A input)	
Cell chemistry	Li-ion, NCA	
Expected lifetime	>10 years (for up to two cycles per day)	
Certification, pack level	UN 38.3, UNECE R100, EUBR, IEC 62619, IP69K	
Cooling	Fluid circulation	
General		
Configuration	All-in-one, integrated charger, power conversion, switchgear, transformer	
BESS modes	Grid connected, island	
Enclosure	10 ft ISO container, adapted	
Mass	~6900 kg	~7500 kg
Operating temperature range	-25°C to +40°C	
Altitude	< 2000 m	
Humidity	5-95 %	
Enclosure protection rating	IP54	
Handling interfaces	Forklift pockets, container corners	
Safety solutions, container level	Fire detection, sprinkler via fire hose connection, deflagration panels	
Compliance	CE, UN 3536, IEC 62619	
Digital		
Connectivity	4G SIM card	
Local	HMI, RFID access control	
Remote	Monitoring & control, web & app	



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