## **MOBILE POWERHOUSE 350KWH BIDIRECTIONAL**

## 420kW / 350kWh full liquid cooled

Industry, Commercial and bidirectional Energy Storage Solution with PV MPPT DCDC converter

The Udenco 350 kwh bidirectional Energy Storage is specially designed for the commercial and industrial energy storage and EV charging energy storage applications. It offers all in one design with max 420kW power capacity and max 2 sets of 175kWh battery energy capacity. It features building block design with power inverter, power distribution, PV access and battery access for easy maintenance and flexible configuration.

Independent battery group access with separate battery bus isolation in power conversion enhances battery safety and the working life. Also supports optional STS function for instant backup power switch.

The bidirectional ACDC power module, PV MPPT DCDC converter, EMS controller, battery access interface and AC Grid access interface are all integrated in one power cube to improve the space efficiency and cost efficiency. It also offers easy alternative energy access and flexible configuration.

Full liquid cooled design and CATL high performance battery cell can meet the continue 1P and 1C charge and discharge performance with the whole battery group cells temepature difference keep in 5°C to keep the 10000 times using cycles.



## **Technical parameters**

AC grid access		
AC voltage	260Vac-530Vac, 45-65Hz/ 3-pha	ases+(N)+PE
AC max power	420kVA (12 * 35kVA)	
Inner Battery Groups		
Battery group access	2 groups, independent with diffe	erent ACDC groups connect
Battery dis/ charging current ratio	1C charge and discharge, 1.1C c	lischarge with 30 min
Battery dis/ charging power to/ fro	m AC Grid Max 2 * (6 * 35kW)=420kW	
Backup AC support (option)		
STS Configuration	500kW	
STS power switch time	20mS	
STS efficiency	99.5%	
Function	ON/OFF grid control(automatic	and manual), Seperate 3 phase and N line power switch
Protection	Protection against countercurre	nt
Backup Power	Max 420kW	
Bypass function / Off grid function	Yes (option)	
PV access (option)		
Access Channel	Max 2 channels (Reduce the Gri	d power as the power module slots shared with ACDC)
Access Power	Max 2*(2*40kWp)=160kWp,	MPPT support
Electric isolation	Full isolation between the Grid, i	Sattery and the PV
Metering		
AC Grid main side	1 bi-directional AC energy meter	
Backup load side	I Di-directional AC energy meter	
Station transformer entry side (opt	ion) I bi-directional AC energy meter	
EMS		
Local EMS	IMIMUZ EMS controller, Inner EM	IS algorithm and big data
Remote EWS platform	Based on the Ethemet/TCPTP, V	redsocket+Json, MQTT+Json, Modbus, IECT04, IEC61850
Remote HW Interface	4G/WIII/WLAN and LAN	
Inculation data at	Each Battery channel and Each	PV channel +/PE and -/PE detector
	10 " TET Touch Screen 5 status	I ED III E-STOP Battery Fire Alarm Light/Beener
НМІ		
	Default English, Multi Language	support.
Dimension	W ^ H ^ D mm = 2800 ^ 2200 ^ 1	400 mm
Weight	< 7000 kg	
Protection level	IP67 Battery pack, IP55 Battery	area, IP54 Distribution area
EMC/EMI	IEC61000-6-2/-4	
Safaty Cartification	EN62477-1, UL1741, EN 62109-	1/-2, IEC62619, IEC63056, UL9540A, UL9540, UL1973
	EN50549-2/-10 VDE-AB-N 4105	UNE217001 UI 17/184/SB CEL0-21
Grid connection		
Fire protection	Completely submerged aerosol	fire extinguishing system, water fire interface, optional Pack level active
	perfluorohexanone	
Fire sensors	Smoke detector + Variety of cor	nbustible gas detector
Envirement Sensor	Water sensor + Temperature se	nsor + Humidity sensor + Door access seneor
Safety Design		
	Explosion-proof board configura	tion and fire-proof spread structure design, emergency fan
Survey Beergin	Explosion-proof board configura	tion and fire-proof spread structure design, emergency fan
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Power Module Configuration	Explosion-proof board configura	tion and fire-proof spread structure design, emergency fan
Power Module Configuration Max 12 power module	Explosion-proof board configura	tion and fire-proof spread structure design, emergency fan Max 4 modules in parallel to support 160kW Solar power input

## 2 \* 175kWH Liquid Cooled Battery Rack

Energy Storage Battery	Two groups 175kWh/285Ah liquid cooled battery rack. Bat volt: 537.6~691.2VDC, 1 P/C dis/charge, max 1.1P/C discharge 10 min
Battery BMS	Level BMS structure: Battery Pack BSU + High voltage control box BMU
Thermal Management	Two liquid chilling unit with 20kW refrigerating and 2.5kW heating capacity each
Fire suppression system	Complete aerosol fire extinguishing system, water fire interface, emergency fan
Safety Design	Explosion-proof board configuration and fire-proof spread structure design
Environment Sensor	Water sensor + Temperature sensor + Humidity sensor + Door access sensor + Smoke detector + Variety of combustible gas detector
Protection Class	IP67 Battery pack, IP55 Battery cabinet area
Discharging Power	2 * 200kW

\*The images, technical details, and specifications provided in this flyer are for informational purposes only and are subject to change with prior notice.

