

Pylontech
Product Presentation 2021

Contents

- 01) AR&RT Series
- 02) UP Series
- 03) US/FORCE L Series
- 04) Powercube-X/FORCE H series
- 05) Powercube-H series
- 06) Compatible Inverter list

Product Tree



12V Amber Rock/Mini Amber
Capacity: 473kWh



12V RT12100G31
Capacity: 1.2kWh



Back Up

24V UP Series
Capacity: 2.84kWh
Up to 56kWh per String



Product Tree



Residential ESS

48V US Series
US2000C: 2.4kWh
US3000C: 3.55kWh
UP5000: 4.8kWh
Up to 76.8 kWh per String
Up to 6 Strings per system



96~528V Powercube-X series
Powercube X1: 4.8~26.4kWh
Powercube X2: 7.1~39.1kWh
Up to 6 strings per system



48V Force L Series
Force L1: 7.1~24.86kWh
Force L2: 7.1~14.21kWh
Up to 6 strings per system



96~384V Force H Series
Force H1: 7.1~24.85kWh
Force H2: 7.1~14.21kWh



Product Tree

150 ~700V (neutral)

LiPower-U100-400

Full rack capacity:58.6kWh/rack

1C charge / 3.6C discharge



**UPS
Back UP**

**Outdoor
C&I ESS**

Optimus

All-in-one outdoor cabinet

MPPT incl. (Max. 180kW)

PCS incl. (Max. 180kW)

Battery system incl.(100 - 400kWh)

EMS incl.

Air-con & fire system incl.

Pre-wire & pre-install battery module

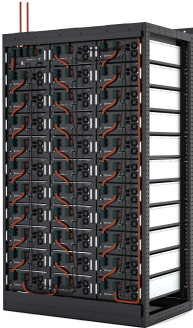


Product Tree



C&IESS

Utility ESS



700 – 1100V

Powercube-**M** series
Up to 182kWh per string
Up to 32 strings per system
Up to 1C-rate continuous operation

400 - 700V

Powercube-**H** series
Up to 45kWh per string
Up to 6 strings per system



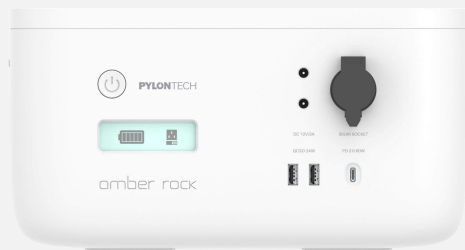
1000 - 1400 V

Powercube-**20H/40H**
Up to 3.3MWH per container



1. AR Series (12V)

Amber Rock AR500-473Wh



12V37Ah

Innovative portable battery bank

Features:

- Wireless Phone charging
- 2*AC output (110V/220V)
- 3*USB output QC2.0/QC3.0/PD2.0(type-c)
- SOS Signal Light for Help
- 9hrs full charged-Standard Charger from PV or AC
- 2hrs full charged-Optional Charger from PV or AC
- Connect to Mini Amber for capacity extension

Mechanical Characteristics

Dimensions	Depth	303 mm
	Height	198mm
	Width	161 mm

Weight

6.4 kg

1. AR Series (12V)

Mini Amber MA500-473Wh



12V37Ah
Extension Battery Pack

Features:

Fast charging for Cell phone/laptop and other DC device
9hrs full charged-Standard Charger
2hrs full charged-Optional Charger

Mechanical Characteristics

Dimensions	Depth	303 mm
	Height	198mm
	Width	108 mm

Weight **3.2 kg**

1. RT Series (24V)

RT12100G31-1.20kWh



12V100Ah

Features:

- IP67 enclosure
- Serial connect up to 4 pcs(48V). Parallel connect up to 4pcs(400Ah).
- Heating film included, operating between -20 ~ 60°C
- Continuous 100A, peak at 200A@30Sec
- Support monitoring by CANBUS, RS485, Bluetooth, dry contactor.

Application: Lead Acid battery replacement, truck, RV, marine...

Mechanical Characteristics

Dimensions	Depth	325 mm
	Height	173.5mm
	Width	226 mm
Weight		13 kg

2. UP Series (24V)

UP2500-2.66kWh



25.6V111Ah

Up to 20pcs per string

Design life: > 15years

Communication protocols: CAN, RS485

Lead Acid battery replacement

Mechanical Characteristics

Dimensions	Depth	442 mm
	Height	420 mm
	Width	119 mm

Weight **27.5 kg**

3. US Series (48V)

US2000C-2.4kWh



48V50Ah

DoD: 95%

Life cycle: > 6000

Design life: > 15years

Up to 16pcs per string

Communication protocols: CAN, RS485

Safety Certificate: IEC62619,CE, UN38.3, ROHS

Mechanical Characteristics

Dimensions	Depth	173mm
	Height	220mm
	Width	300mm
Weight		15 kg

3. US Series (48V)

US3000C-3.55kWh



48V74Ah

DoD: 95%

Life cycle: > 6000

Design life: > 15years

Up to 16pcs per string

Communication protocols: CAN, RS485

Safety Certificate: IEC62619, CE, VDE2510-50, UL1973, UL9540A, UN38.3, ROHS

Mechanical Characteristics

Dimensions	Depth	442mm
	Height	420mm
	Width	132mm
Weight		32 kg

3. US Series (48V)

Phantom-2.4kWh



48V50Ah

DoD: 95%

Life cycle: > 6000 (25°C)

Design life: > 15years

Communication protocols: CAN, RS485

Safety Certificate: IEC62619,CE, UN38.3, ROHS

Mechanical Characteristics

Dimensions	Depth	440mm
	Height	440mm
	Width	88.5mm
Weight		24 kg

3. US Series (48V)

UP5000-4.8kWh



48V100Ah

DoD: 95%

Life cycle: > 4500

Up to 16pcs per string

Communication protocols: CAN, RS485

Safety Certificate: IEC62619/CE/ UN38.3

Mechanical Characteristics

Dimensions	Depth	440mm
	Height	485mm
	Width	132mm
Weight		45 kg

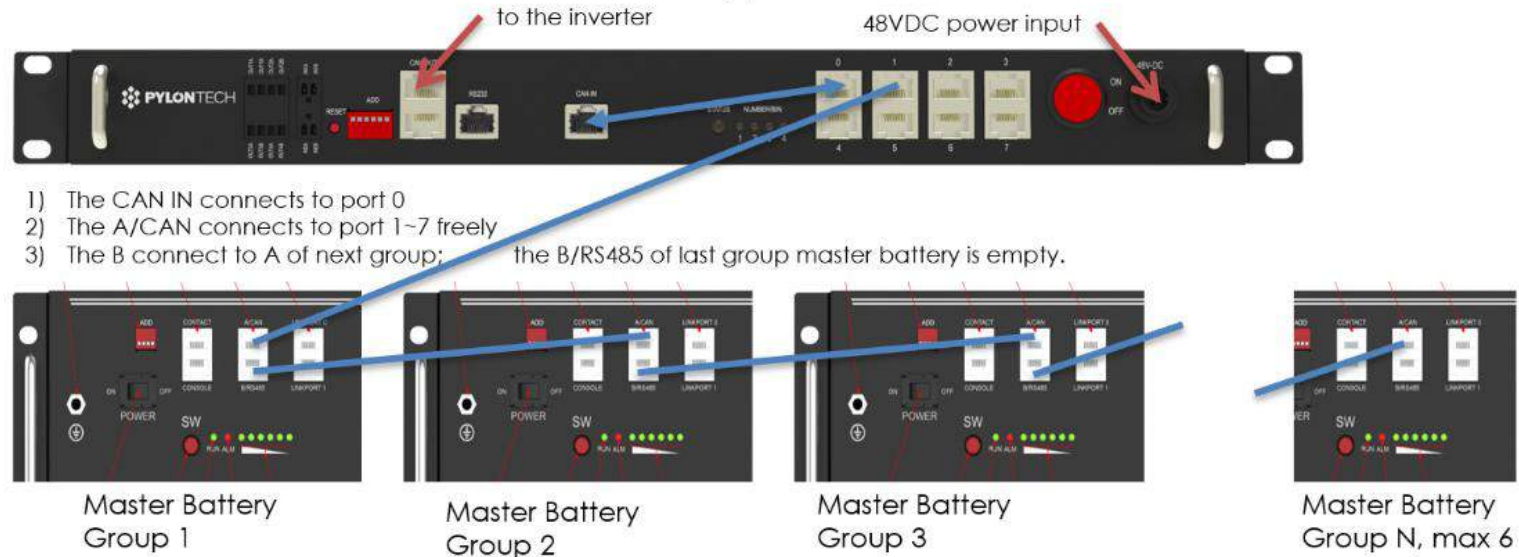
3. US Series (48V)

LV-HUB-For communication

Multi Battery Piles **RS485/CAN Communication** Cable Connection
Each Communication HUB connects maximum 6 battery string.
5 LV-hubs support maximum 480 batteries in parallel with communication.

Multiple Battery Groups CAN Communication Cable Connection

Each Communication HUB connects maximum 6 battery piles.

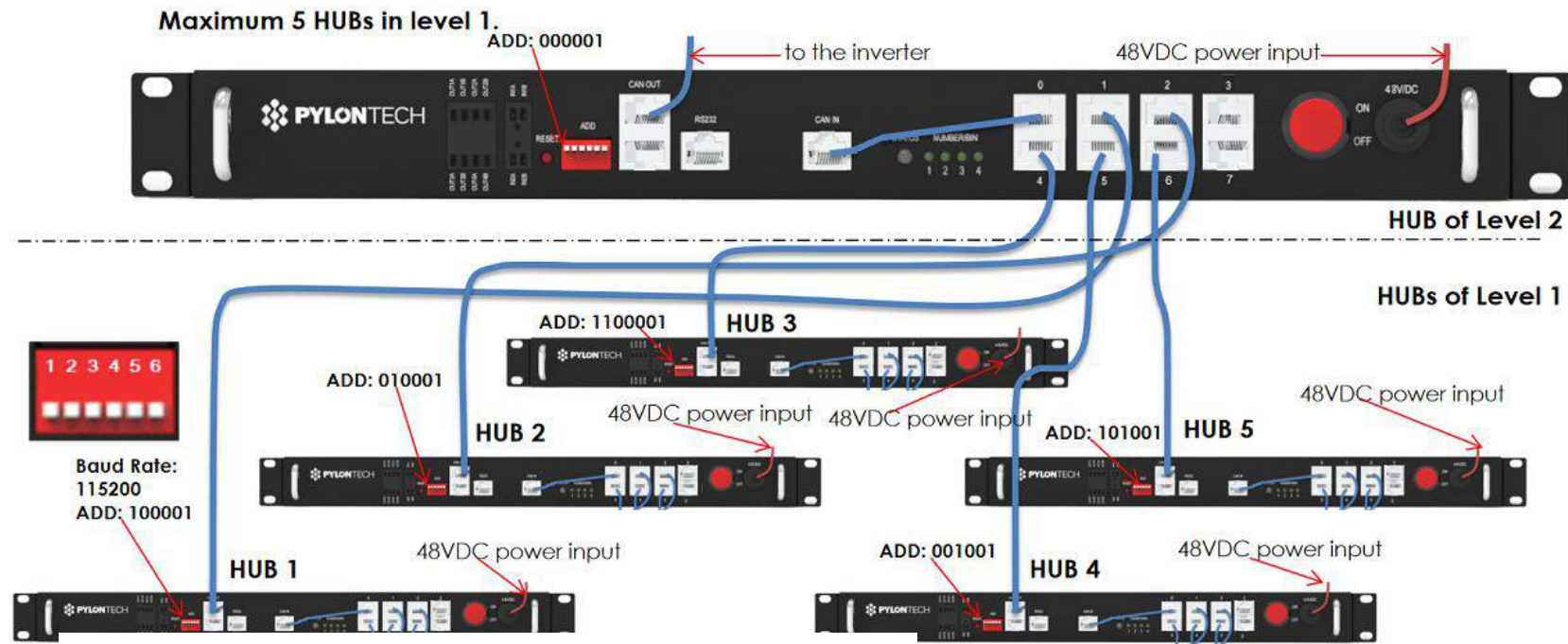


Each battery pile can configure maximum 16pcs US2000C/US3000C/UP5000

3. US Series (48V)

LV-HUB-For communication

Multiple HUBs CAN Communication Cable Connection



Battery bank can configure maximum 200pcs US2000 or US3000.

Battery bank can configure maximum 480 pcs US2000C/US3000C/UP5000

3. US Series (48V)

Installation-Bracket



Vertical installation



Horizontal installation

3. US Series (48V)

Installation-Indoor Cabinet



3. US Series (48V)

Installation-Outdoor Cabinet



3. US Series (48V)

Installation-Wall Mounted Cabinet



3. FORCE L Series (48V)

Force L1-(7.1~24.86kWh)



7.1-24.86 kWh
Flexible Mounting
Plug & Play
95% DOD
IP 55 Protection
IEC62619/VDE2510-50/CE/UN38.3/ROHS

3. FORCE L Series (48V)

Force L2-(7.1~24.86kWh)



7.1-14.21 kWh
Flexible Mounting
Plug & Play
95% DOD
IP 55 Protection
IEC62619/VDE2510-50/CE/UN38.3/ROHS

4.FORCE H series (96V-336V)

Force H-(7.1~24.86kWh)



Basic Parameters	FORCE H1 (336V74AH)	FORCE H2 (384V37AH)
Battery Module	FH48074	FH9637M
Battery Module Voltage(Vdc)	48	96
Battery Module Capacity(Ah)	74	37
Battery Module Qty.(Optional)	3~7 Pcs	2~4 Pcs
Battery System Capacity(kWh)	24.86	14.21
Battery System Voltage (V)	336	384
Dimension(W*D*H cm)	600*380*1380	450*296*1415
Weight(kg)	259	155
Depth of Discharge	95%	95%
Charge&Discharge Current (continuous/max.@15sec, amps)	37/40	18.5/40
Communication	CAN,Modbus	CAN,Modbus
Protection Class	IP55	IP55
Working Temperature(°C)	0-50	0-50
Storage Temperature(°C)	-20-60	-20-60
Design Life	15 ⁺ Years(25 °C /77 °F)	15 ⁺ Years(25 °C /77 °F)
Authentication Level	UL1973/IEC62619/IEC 62477/ IEC62040/VDE2510/CE	IEC62619/IEC62477/ IEC 62040/VDE2510/CE

4.Powercube X series (96V-528V)

Powercube X1/X2-Full Rack capacity: 26.4/39.1kWh

Commercial Battery Solution:

Modularization design in 48VDC in series

Battery voltage: 96V~528V

Battery Module Qty.(Optional):2-11 Pcs

DoD: 95%

Life cycle: 5000

Design life: > 15years

Battery system charge Current 1C (Max.)

Communication protocols: CAN, Modbus RTU

Safety Certificate: IEC62619/VDE2510-50/UL1973/CE/UN38.3/ROHS



H48050 (2.4 kWh)
H48074 (3.55 kWh)



Main Controller
SC500-40/100S



Rack Dimension:
600(W)*505(D)*1300(H)MM
600(W)*505(D)*2140(H)MM

5.Powercube-H series (240V-720V)

Powercube H1-Full Rack capacity: 36 kWh

Commercial Battery Solution:

Modularization design in 48VDC in series

Battery voltage:240V~720V

Battery Module Qty.(Optional):5-15 Pcs

DoD: 95%

Life cycle: 5000

Design life: > 15years

Battery system charge Current 1C (Max.)

Communication protocols: CAN, Modbus RTU

Safety Certificate: IEC62619/VDE2510-50/UL1973/CE/UN38.3/ROHS



Battery
H48050 (2.4 kWh)



Main Controller
SC1000-100S



**Rack Dimension:
600(W)*505(D)*2140(H)MM**

5.Powercube-H series (240V-576V)

Powercube H2-Full Rack capacity: 42.62 kWh

Commercial Battery Solution:

Modularization design in 48VDC in series

Battery voltage:240V~576V

Battery Module Qty.(Optional):5-12 Pcs

DoD: 95%

Life cycle: 5000

Design life: > 15years

Battery system charge Current 1C (Max.)

Communication protocols: CAN, Modbus RTU

Safety Certificate: IEC62619/VDE2510-50/UL1973/CE/UN38.3/ROHS



Battery
H48074 (3.55 kWh)



Main Controller
SC1000-100S



Rack Dimension:
600(W)*505(D)*2140(H)MM

6. Compatible Inverter list

48V Energy Storage Solution (US2000 / US3000 / US2000C / US3000C / UP5000 / Phantom-S / Force-L1/L2)

Inverter Brand	Inverter Type	Communication	Application	Key Features		Firmware Ver	Installation
				Activation	Force Charge		
Victron Energy	Multiplus 48V (via Venus OS)	CAN	On/off-grid*	Yes	Yes	422/V2.15	Wall mounting
	Quattro 48V (via Venus OS)	CAN	On/off-grid*	Yes	Yes	422/V2.15	Wall mounting
Schneider-Electric	Conext XW Pro series	CAN	On/off-grid	Yes	Yes	Gateway: V1.06 XW+ Pro: V1.04 (UL) / V1.05 (IEC)	Wall mounting
SolaX Power	SK-SU	CAN/RS232	On-grid	PV only	Yes		Wall mounting
	SK-TL	CAN/RS232	On-grid	PV only	Yes		Wall mounting
	SK-BMU	CAN/RS232	On-grid	PV only	Yes		Wall mounting
Goodwe	GW-BP	CAN	On-grid	Yes	Yes		Wall mounting
	SBP GW-ES	CAN	On-grid	Yes	Yes		Wall mounting
	EM	CAN	On-grid	Yes	Yes		Wall mounting
Imeon Energy	IMEON 3.6	CAN	On/off-grid	Yes	Yes	V1.7.6.5	Wall mounting
	IMEON 9.12	CAN	On/off-grid	Yes	Yes	V1.7.6.5	Wall mounting
Studer Innotec	Xtender 48V serie	CAN	On/off-grid	Yes	Yes	R652	Wall mounting
	VarioString serie	CAN	On/off-grid	Yes	Yes	R652	Wall mounting
	VarioTrack 48V serie	CAN	On/off-grid	Yes	Yes	R652	Wall mounting
Selectronic	SPMC 480	CAN	On/off-grid	No	Yes		Wall mounting
	SPMC 481	CAN	On/off-grid	No	Yes		Wall mounting
	SPMC 482	CAN	On/off-grid	No	Yes		Wall mounting
Voltronic	Infinisolar series 48V	RS485(9600)	On/off-grid	Yes	Yes	V1.00	Wall mounting
	Axpert series 48V**	RS485(9600)	On/off-grid	Yes	Yes	02.61	Wall mounting
Sofar	ME3000SP	RS485(115200)/CAN	On-grid	Yes	Yes	V1.2	Wall mounting
	HYD series	RS485(115200)/CAN	On-grid	Yes	Yes	V1.2	Wall mounting

10.Compatible Inverter list

48V Energy Storage Solution (US2000 / US3000 / US2000C / US3000C / UP5000 / Phantom-S / Force-L1/L2)

Inverter Brand	Inverter Type	Communication	Application	Key Features		Firmware Ver	Installation
				Activation	Force Charge		
Sermatec	SMT-5K-TL-LV	CAN	On/off-grid	Yes	Yes		Wall mounting
Zucchetti Centro Sistemi	Azzurro 3000SP	RS485(115200)/CAN	On-grid	Yes	Yes	V1.2	Wall mounting
	Azzurro HYD3000/6000-ES	RS485(115200)/CAN	On-grid	Yes	Yes	V1.2	Wall mounting
Solis	RHI series	CAN	On/off-grid	PV only	Yes	90009	Wall mounting
	RAI series	CAN	On/off-grid	PV only	Yes	90009	Wall mounting
Redback	SH5000	RS485(115200)	On-grid	PV only	No		Cabinet
Deye(Sunsynk)	SUN-SG01LP1 series	CAN	On/off-grid	Yes	Yes	V1586	Wall mounting
	SUN-SG03LP1 series	CAN	On/off-grid	Yes	Yes	V1586	Wall mounting
Alpha & Outback Energy	SPC III 5000-48	N/A	Off-grid	Manual	No		Wall mounting
Lux Power	LXP Hybrid	CAN	On-grid	Yes	Yes	AA1.0	Wall mounting
	ACS series	CAN	On-grid	Yes	Yes	AA1.0	Wall mounting
Sungrow	SH5K	CAN	On-grid	Yes	Yes	V13	Wall mounting
Morningstar	TriStar MPPT in 48V	N/A	On/off-grid	PV only	No	v32b	Wall mounting
	TriStar MPPT 600V in 48V	N/A	On/off-grid	PV only	No	v32b	Wall mounting
	TriStar PWM TS-45 in 48V	N/A	On/off-grid	PV only	No	v32b	Wall mounting
Delios s.r.l.	DLS/C series	CAN	On/off-grid	No	Yes	A 1.30; B 1.18; C1.27	Wall mounting
	DLS AC series	CAN	On/off-grid	No	Yes	A 1.30; B 1.18; C1.27	Wall mounting
Ingeteam Power Technology	ISS 1Play TL M series	CAN	On/off-grid	Yes	Yes	ABH1007_D	Wall mounting
MLT	Oasis 448	N/A	Off-grid	No	Yes	V2.19	Wall mounting
	Oasis 648	N/A	Off-grid	No	Yes	V2.19	Wall mounting
Steca	Solarix PLI 5000-48	N/A	Off-grid	Manual	No		Wall mounting
SAJ	Sunfree series	RS485(9600)	On/off-grid	Yes	Yes	V2.031/V1.037	Wall mounting
	H1 series	CAN	On/off-grid	Yes	Yes	V2.094/V1.318	Wall mounting

10. Compatible Inverter list

48V Energy Storage Solution (US2000 / US3000 / US2000C / US3000C / UP5000 / Phantom-S / Force-L1/L2)

Inverter Brand	Inverter Type	Communication	Application	Key Features		Firmware Ver	Installation
				Activation	Force Charge		
SolarMax	ES series	CAN	On/off-grid	No	Yes	A 1.30; B 1.18; C1.27	Wall mounting
	AC series	CAN	On/off-grid	No	Yes	A 1.30; B 1.18; C1.27	Wall mounting
Growatt	SPH3000 - 6000	CAN	On/off-grid	No	Yes	RA1.0	Wall mounting
	SPF2000 - 5000 HVM-48/LVM-48P***	RS485(9600)	On/off-grid	No	Yes	GW500.08/502.05/503.03/507.03	Wall mounting
	M2000H/3000H/5000H - 48***	RS485(9600)	On/off-grid	No	Yes	SK001.11/012.06/013.03/035.00	Wall mounting
AXIOMA energy	ISPWM 5000	N/A	On/off-grid	No	No		Wall mounting
	ISMPPT BF 3000 - 5000	N/A	On/off-grid	No	No		Wall mounting
	ISGRID (BF) 3000 - 5000	N/A	On/off-grid	No	No		Wall mounting
Phocos	Any-grid PSW-H-5kW-230/48V	RS485(9600)	On/off-grid	Yes	Yes	V1.00	Wall mounting
Western CO.	LEONARDO PRO 3000/48 Li (via Western LK3)	CAN	On/off-grid	Yes	Yes	V1.1	Wall mounting
EFFEKTA	AX-M1 4000/5000-48(1)	RS485(9600)	On/off-grid	Yes	Yes	54.40/74.40(1) 14.40/34.40(2)	Wall mounting
	AX-K1 4000/5000-48(2)	RS485(9600)	On/off-grid	Yes	Yes	54.40/74.40(1) 14.40/34.40(2)	Wall mounting
Kehua	SPH5000-BL	CAN	On-grid	Yes	Yes	V1.00.013	Wall mounting
INVT	BD series	CAN	On/off-grid	Yes	Yes	V1.06	Wall mounting
TBB	Kinergier Pro Series: CK-II 2.0S-3.0S	CAN	On/off-grid	No	Yes	DSP: V1.03C LCD: V1.01B	Wall mounting
	Kinergier Pro Series: CK4.0S-8.0S	CAN	On/off-grid	No	Yes	DSP: V1.23A LCD: V1.21A	Wall mounting
MUST	PV1800 VHM 3KW - 5.5KW	CAN	On/off-grid	No	Yes	1.17.06	Wall mounting
Moixa	Smart Battery V4 3000	CAN	On-grid	Yes	Yes	V2.2.1	Wall mounting
	GridShare Hub	CAN	On-grid	Yes	Yes	V2.2.1	Wall mounting

10. Compatible Inverter list

48V Energy Storage Solution (US2000 / US3000 / US2000C / US3000C / UP5000 / Phantom-S / Force-L1/L2)

Inverter Brand	Inverter Type	Communication	Application	Key Features		Firmware Ver	Installation
				Activation	Force Charge		
MEGAREVO	RKL1 Series	CAN	On/off-grid	Yes	Yes	ARM: 1.00.28 DSP: 1.01.23	Wall mounting
AISWEI	ASW3000/3680/4000/5000H -S	CAN	On/off-grid	Yes	Yes	master v610-02001-00	Wall mounting
OPTI-Solar	SP5000 Brilliant series	RS485(9600)	On/off-grid	Yes	Yes	V1.00/00.32	Wall mounting
	SP5000 Regal/Handy Plus	RS485(9600)	On/off-grid	Yes	Yes	V1.00/00.32	Wall mounting
	SP4000/10000 Premium	RS485(9600)	On/off-grid	Yes	Yes	V1.00/00.32	Wall mounting
GMDE	SolDate 3700TL+BM024	RS485(9600)	On-grid	No	Yes	V2.0.1	Wall mounting

*When compatible with Victron Multi/Quattro in off-grid application via Venus-device, it is required to have a Victron MPPT or other compatible PV inverter with Victron to avoid the system getting shut down.

**When compatible with Voltronic Axpert series, only VM III and King two types are available for RS485 communication, for the rest types of Axpert only available for manual settings. When using VM III and King, only launch firmware 02.61 or higher can work with Force L1/L2.

***When compatible with Growatt SPF/M series corresponding type, according to inverter logic, the depth of discharge(DoD) of battery shall be set to 80% or lower. Otherwise may lead to system shut down and need of manually recharge battery.

10. Compatible Inverter list

100 – 1000V Energy Storage Solution

Inverter Brand	Inverter Type	Battery	Communication	Application	Key Features		Firmware Ver	Installation
					Activation	Force Charge		
Ingeteam Power Technology	ISS 1Play 3TL / 6TL	Powercube X1/X2/H1/H2 Force H1/H2	CAN	On/off-grid	Yes	Yes	ABH1002AA ABH1003_Q(dispatch)	Wall mounting
	ISS 1Play 3TL M / 6TL M		CAN	On/off-grid	Yes	Yes	ABH1007_A ABH1003_Q(dispatch)	Wall mounting
Solis	RHI-3P-HVES-5G series		CAN	On/off-grid	Yes	Yes	4002E	Wall mounting
Sungrow	SH5.0/6.0/8.0/10.0RT		CAN	On/off-grid	Yes	Yes	SAPPHIRE-H_V11_V01_A	Wall mounting
Delios s.r.l.	DLX HV series		CAN	On/off-grid	Yes	Yes	V3.00	Wall mounting
Goodwe	EH/ET/BT/BH series		CAN	On/off-grid	Yes	Yes	V14	Wall mounting
EATON	xStorage Home 3P Series		CAN	On/off-grid	Yes	Yes	V3.00	Wall mounting
SolarMax	ES-T Series		CAN	On/off-grid	Yes	Yes	V3.00	Wall mounting
Lux Power	Hybrid HB series		CAN	On/off-grid	Yes	Yes		Wall mounting
Redback	RB-HVS(ST10000)(1) RB-HVS-AC(SB7200)(2)		Modbus RTU	On/off-grid	Yes	Yes	V2.6(1) V2.9(2)	Cabinet
Sofar	HYD 10000/15000/20000 TL-3PH		CAN	On/off-grid	Yes	Yes	FW: D0110036 DSP: V010027	Wall mounting
SolaX Power	X1/X3-Hybrid HV		CAN	On-grid	Yes	Yes		Wall mounting
Sermatec	SMT-10K/30K/50K-TL-TH		CAN	On-grid	Yes	Yes		Wall mounting
Imeon Energy	3/3.7/4.6/5HV		CAN	On/off-grid	Yes	Yes	V1.10	Wall mounting
Growatt	SPH10000TL3		CAN	On/off-grid	Yes	Yes	V410	Wall mounting
Tsun	TSOL-H/A-3.0~6.0K-H		CAN	On/off-grid	Yes	Yes	DSP:V1.0; ARM:V1.14	Wall mounting
GMDE	TB5200TD		CAN	On-grid	Yes	Yes	1.0.3	Wall mounting
Voltronic	Infinisolar TX-PA 30K		Modbus RTU	On/off-grid	Yes	Yes	2008.27.12	Cabinet
ATESS	HPS30/50/100/120/150	CAN	On/off-grid	Yes	Yes	HPS30K_150K_HV3_SV9.1. 39	Cabinet	
Efacec	Battery Inverter	Powercube H1/H2/M1	Customized with additional EMS	On/off-grid			Cabinet	
Ferroamp	EnergyHub							
Sungrow	SC series							
Sinexcel	PWS/PWG series							
Kehua	BCS series							

THANK YOU