



ADVANCED ENERGY  
STORAGE SYSTEMS



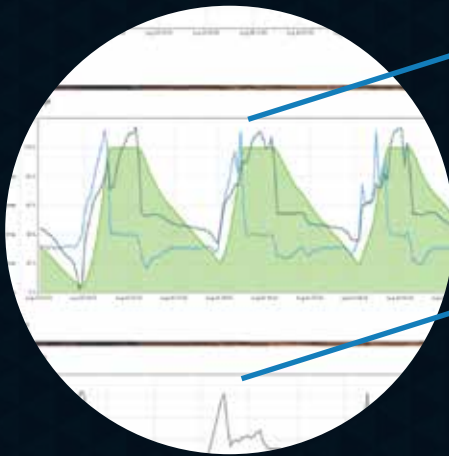
### HUBBLE - RIOT CLOUDLINK

- CAN bus converter for Hubble Lithium BMS
- Cloud monitoring of batteries and select inverters
- Remote control of Voltronic Axpert Inverters
- RS232, CAN bus, 3G, RS485 Modbus communication ports
- A.I. - Artificial Intelligence Processor
- Integrates with most CAN bus inverters
- Multiple CAN bus protocols built in for maximum inverter compatibility
- Smart 1Phase & 3Phase meter ready for Cloud Monitoring
- Embedded Protocols: Hubble Cloudlink, Victron, SMA, Pylontech
- Reports Inverter values to the cloud for monitoring
- Industry grade encrypted communications & cloud reporting
- Automatic encrypted Over the Air (OTA) firmware updates
- Easy install - "Plug & Play" power over RS232 for select Voltronic inverters
- Engineered, designed & assembled in South Africa



## DETAILED INSIGHTS

- Inverter operation details
- Real-time battery details
- Inverter data displaying Load, Grid & PV Watts
- Remote inverter control (selected models)

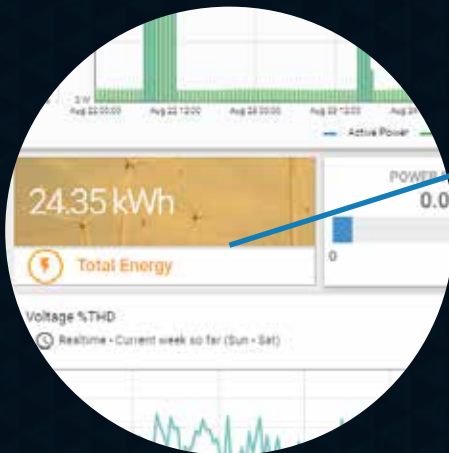


## SMART WIDGET DISPLAY

- Easy to navigate layout
- Featuring location maps & weather

## CLEAR & INFORMATIVE DESIGN

- Real-time graphs & historical View
- Data export for offline analysis
- Annual & monthly power saver data



## DEDICATED ENERGY METER

- Power quality measuring
- THD% measuring
- Phase angle measuring
- Volts and Amps metering
- kWh metering

\* Due to continuous product improvements, specifications are subject to change without further notice.

## ADVANCED ENERGY STORAGE SYSTEMS

All products are manufactured to the following standards:





## SPECIFICATION

Input	Voltage	20V to 75V DC		
	Power	<2W		
Indicators	LED	Off	Flash/Pulse	On
	LED-1	No Power	-	Defice Powered
	LED-2	3G Off	3G Connected to Internet	Signal On
	LED-3	No Communications	Battery Connected	CAN Connected
	LED-4	CPU Fault	Normal	Config. Mode
	Buzzer	-	Config. Mode	-
Mode Button	Multi Function button for: Config. mode, factory reset			

## COMPATIBILITY

Batteries	Hubble Lithiums	Models: AM Series & X Series
Inverters	*Please see attached Inverter Compatibility List	

## COMMUNICATIONS

Protocol	Standard	Physical	Build in termination	Pinouts
CAN Bus	CAN	2xRJ45	Yes	H-4, L-5, GND-2
MOD Bus	RS485	Config.	Yes	Config.
Serial	RS232	RJ11	N/A	TX-4, RX-3, GND-5, P-6

## WI-FI MODE

Wi-Fi Mode	Station/SoftAP/SoftAP=Station/P2P
Standards	FCC/CE/IC/TELEC/KCC/SRRC/NCC
Protocol	802.11b/g/n/e/i (802.11n up to 150 Mbps)
Security	WPA/WPA2/WPA-2-Enterprise/WPS

## BLUETOOTH

Protocols	Bluetooth V4.2 BR/EDR & BLE Specification
Radio	NZIF receiver with -98 dBm sensitivity Class-1, Class-2 & Class-3 transmitter
Dimensions	80mm x 75mm x 32mm

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