

# **HIGH VOLTAGE SOLAR HYBRID POWER SOLUTIONS**

## **For C&I Applications 30KW to 500KW Range**

**Brands you can Trust – Experienced Teams - Energy Certainty – Investment Returns – A Greener Future**



**We design and install customized energy systems that Focus on your power needs**

**NEW BUILD PROJECTS - EXISTING SOLAR RETROFITS - POWER BACK UP**

**Combining Electricity and Fuel savings with Power Security**

## **Project Application Examples**

**Factories for Key production and Plant equipment – Schools and Education Facilities – Hotels -IT Systems and Networks - Common Area Services in :- Buildings Lifts, Lighting, Water pumps, Fire hydrants - Warehouses for Peak TOU savings and Generator Load Replacements – Hospitals and Medical Facilities**

## **Key Benefits of High Voltage Systems**

- Improved power efficiencies reduced line losses
- Capable of covering quick demand surges from starting equipment
- Higher voltage allows lower current to be used in battery charging
- Faster Charging and discharge Rates
- Less overheating and optimal power retention in the system
- Remote Portal monitoring and reporting

## About Blue Sun Energy

With its **Specialist Engineering, Electrical and Solar Installation Teams**, **Blue Sun Energy** offers professional services that combine the best of breed equipment to with our experience to foster long term relationships with our clients

- Solar system design & performance team
- Accurate Power Analysis and Electrical reticulation design
- Dedicated Energy station assembly and testing workshops
- Experienced Solar Installers and Trained High Voltage Technicians
- Aftersales Service and support with workmanship warranties on all systems and equipment

**Pursuit of excellence** - Electrical and Solar By-Laws NRS 97, Sans, COC's, PR Eng Line Drawings



### Recently Installed System Site Examples

Prices below include AC Works Costs which vary site to site



**SIZE 50 KW**

#### System Information

<b>50Kw Deye Solar Hybrid Inverters</b>	<b>1</b>
<b>Max rated Output</b>	<b>80 Amps</b>
<b>Battery Type Deye 5.12 HV</b>	<b>8 X 5.12KW = 40KWh</b>
<b>Battery Bank Size</b>	<b>Minimum size 8 Batteries</b>
<b>PV Array</b>	<b>24KWp</b>
<b>Price Guide</b>	<b>R545 000 Ex VAT</b>



**SIZE 100KW**

**System Information**

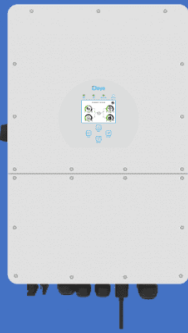
<b>50Kw Deye Solar Hybrid Inverters</b>	<b>2</b>
<b>Max rated Output</b>	<b>160 Amps</b>
<b>Battery Type Deye 5.12 HV</b>	<b>24 X 5.12KW = 124KWh</b>
<b>Battery Bank Size</b>	<b>Minimum size 20 Batteries</b>
<b>PV Array</b>	<b>40 KWp</b>
<b>Price Guide</b>	<b>R 1 340 000 Ex VAT</b>



**SIZE 150KW**

**System Information**

<b>50Kw Deye Solar Hybrid Inverters</b>	<b>3</b>
<b>Max rated Output</b>	<b>240 Amps</b>
<b>Battery Type Deye 5.12 HV</b>	<b>36 X 5.12KW</b>
<b>Battery Bank Size</b>	<b>184KWh</b>
<b>PV Array</b>	<b>55Kwp</b>
<b>Price Guide</b>	<b>R1 750 000 Ex VAT</b>



**SIZE 30KW**

**System Information**

<b>30Kw Deye Solar Hybrid Inverters</b>	<b>1</b>
<b>Max rated Output</b>	<b>60 Amps</b>
<b>Battery Type Sunwoda 5.12 HV</b>	<b>6 X 5.12KW</b>
<b>Battery Bank Size</b>	<b>30KWh</b>
<b>PV Array</b>	<b>24KWp</b>
<b>Price Guide</b>	<b>R495 000 Ex VAT</b>

**For Further information or a quote, Please Contact James Fisher or email us at [Info@bluesunenergy.co.za](mailto:Info@bluesunenergy.co.za)**

**Some of Our Clients and Partners**



## PREBUILT BATTERY ENERGY STATION



### Pre-assembled power packs

(up to 10 in parallel 500kw)

- 50 KW Deye Hybrid inverter
- 60 kWh Lithium power pack.
- Built in air conditioner
- Built in fire suppression
- Built in Smoke detector
- IP 55 Rated



**\* R420 000 Ex VAT**

### C&I Solution-1: 60KWh Energy Station



#### Features:

- Easy to install and deploy with large space utilization.
- Unique modular design & flexible function configuration.
- With self-use, peak shifting, forced charging & discharging and other working modes.
- Strong scalability, simple & convenient expansion on both AC and DC sides.



#### SPECIFICATION

Module	3060	5060
Rated voltage	614.4V	
Voltage range	556.8~662.4V	
Rated energy	60kWh	
Cycle life	6000 times	
Max.PV input power	39kW	65kW
AC rated input/output power	30kVA	50kVA
Voltage	3L/N/PE, 230/400V	
Frequency	50/60Hz	
Dimension (W*H*D)	1200*2160*750mm	
Warranty	10 years	
Expansion	Support in parallel up to 150kW/180kWh	
Protection grade	IP55	
Cooling Method	Air conditioner	
Fire protection	Fire extinguisher	
Certification	UN38.3,CE,IEC62619 ,CEI 0-21,VDE-AR-N 4105 ,IEC 62109	
Environment temperature	-30°C ~ 50 °C	

System Parameter	CIESS25-R	CIESS30-R	CIESS35-R	CIESS40-R	CIESS45-R	CIESS50-R	CIESS55-R	CIESS60-R
System Model	CIESS25-R	CIESS30-R	CIESS35-R	CIESS40-R	CIESS45-R	CIESS50-R	CIESS55-R	CIESS60-R
Number of battery packs	5	6	7	8	9	10	11	12
Rated voltage	256V	307.2V	358.4V	409.6V	460.8V	512V	563.2V	614.4V
Voltage range	224~284V	268.8~340.8V	313.6~397.6V	371.2~454.4V	417.6~511.2V	464~568V	510.4~624.8V	556.8~681.6V
Rated energy	25kWh	30kWh	35kWh	40kWh	45kWh	50kWh	55kWh	60kWh
Usable energy (90%DOD)	22.5kWh	27kWh	31.5kWh	36kWh	40.5kWh	45kWh	49.5kWh	54kWh
Max.continuous charging/ discharging current	100A/100A	100A/100A	100A/100A	100A/100A	100A/100A	100A/100A	100A/100A	100A/100A
Weight	311kg	356kg	401kg	446kg	515kg	560kg	605kg	650kg

## High Voltage Solar Hybrid Inverters 30KW and 50Kw Models



- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
-  DC couple and AC couple to retrofit existing solar system
- 10** Max. 10pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 100** Max. charging/discharging current of 100A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

**Deye**

Stock Code: 605117.SH

AC Output Data	25000	30000	40000	50000
Rated AC Output and UPS Power (W)	25000	30000	40000	50000
Max. AC Output Power (W)	27500	33000	44000	55000
AC Output Rated Current (A)	37.9/36.3	45.5/43.5	60.7/58	75.8/72.5
Max. AC Current (A)	50	60	70	83.3
Max. Continuous AC Passthrough (A)	150			
Peak Power (off grid)	1.5 time of rated power, 10S			

## 10 Year Warranty with Deye or Sunwoda Batteries

## 545W TIER ONE MONO SOLAR PANELS



**JA SOLAR**



**25 Year Warranty**

Installed with Schletter Solar Mounting Systems



## HIGH VOLTAGE BATTERIES WITH BMS



### FEATURES

- Easy to install and deploy with large space utilization;
- Unique modular design & flexible function configuration;
- Real time monitoring , remote maintenance and upgrades;
- Strong scalability, simple & convenient expansion on DC sides;



**10 Year Warranty**