



C A T A L O G U E

OFFGRID SOLAR X SERIES INVERTER



FEATURES

- Pure sine wave solar inverter
- Output power factor up to 1.0
- Compatible to AC mains or generator inputs
- Considerable PV input types
- Build-in smart solar charger (PWM/MPPT)
- Battery independent design(5kW)
- Auto restart while AC is recovering
- Configurable AC/Solar input priority via LCD setting
- Selectable input voltage range for home appliances and personal computer loads

**ENJOY THE
SOLAR POWERED
GREEN LIFE**





OFFGRID SOLAR X SERIES INVERTER

NV-X3024

24VDC
3000W Rated Power
6000W Surge Power
Pure Sine Wave
(230VAC) $\pm 5\%$
50Hz/60Hz (Auto sensing) Frequency Range

BATTERY

24VDC Normal Voltage
30VDC Overcharge Protection

CHARGER

Max PV Array 145VDC
PV Array Voltage MPPT 30~120VDC
Max PV Input 1500W
Max Solar Charge 60A
Max AC Charge 30A
Max Charge Current 80A

NV-X5048

48VDC
Parallel Capability
5200W Rated Power
10400W Surge Power
Pure Sine Wave
(230VAC) $\pm 5\%$
50Hz/60Hz (Auto sensing) Frequency Range

BATTERY

48VDC Normal Voltage
60VDC Overcharge Protection

CHARGER

Max PV Array 145VDC
PV Array Voltage MPPT 30~120VDC
Max PV Input 5000W
Max Solar Charge 80A
Max AC Charge 60A
Max Charge Current 80A

Lithium Ion Batteries VS Lead Acid Batteries

Lithium ion batteries and deep cycle batteries are two types of batteries commonly used in solar energy systems. Here are some of the key differences between the two:



Chemistry

Lithium iron batteries are rechargeable batteries that use lithium iron phosphate as their cathode material, while deep cycle batteries are typically lead-acid batteries that use lead and sulfuric acid.

Energy Density

Lithium iron batteries have a higher energy density than deep cycle batteries. This means they can store more energy in a smaller and lighter package, making them a popular choice for mobile and off-grid applications.

Lifespan

Lithium iron batteries have a longer lifespan than deep cycle batteries. They can last up to 10 years or more, while deep cycle batteries typically last for 1-3 years.

Efficiency

Lithium iron batteries are more efficient than deep cycle batteries, meaning they can discharge more of their stored energy and have a higher charge retention rate.

Cost

Lithium iron batteries are generally more expensive than deep cycle batteries. However, their longer lifespan and higher efficiency can help to offset this cost over time.

LITHIUM IRON PHOSPHATE ENERGY STORAGE



Lithium Iron Phosphate (**LiFePO₄**) batteries are rechargeable lithium-ion batteries widely utilized in electric vehicles, solar power systems, and energy storage systems.

These batteries offer several benefits, primarily in terms of safety. **LiFePO₄** batteries have a lower risk of overheating and thermal runaway, distinguishing them from other lithium-ion batteries and making them a preferred choice for applications that prioritize safety.

LIFEPO4 BATTERY

NV-LFP-48100RM

48V Nominal Voltage
4.8kWh Normal Capacity
4.46kWh Usable Capacity
30A (100A Max) Charging Current
100A Discharging Current
4.2kWh Max Discharging Power
5.35kWh Max Charging Power

FEATURES

CAN/RS485
Max .16packs Parallel Connection
5 Years

NV-LFP-48200RM

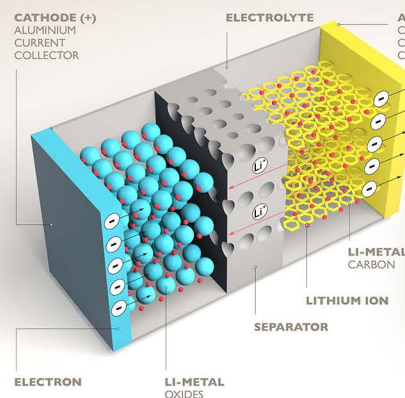
48V Nominal Voltage
9.6kWh Normal Capacity
9kWh Usable Capacity
40A (100A Max) Charging Current
100A Discharging Current
4.2kWh Max Discharging Power
5.4kWh Max Charging Power

FEATURES

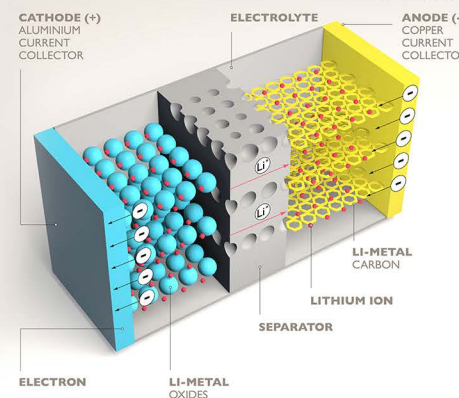
CAN/RS485
Max .16packs Parallel Connection
5 Years

LITHIUM-ION BATTERY

DISCHARGE



CHARGE



VRLA – SUBSTITUTE LITHIUM SOLUTION



DEEP CYCLE BATTERY

A deep cycle battery is a type of battery designed to provide sustained power over an extended period of time. Unlike a traditional car battery that is designed to deliver a quick burst of power for starting the engine, a deep cycle battery is built to discharge a large amount of its capacity over a longer period of time. Deep cycle batteries are commonly used in applications that require a reliable, long-lasting source of power, such as marine vessels, RVs, off-grid solar systems, and electric vehicles. They are also used in backup power systems for homes and businesses.



NV-LFP-12100E

Prismatic Lithium

IP Grade: IP65

Charge Current: 50A

Max Charge Current: 100A

Max Continuous Discharge Current: 100A

Recommended Charge Voltage: 14.6V

Overcharge Protection Voltage: 14.8~15.2V

Discharge Cut-off Voltage Range: 11.2V

Nominal Voltage: 12.8V

Nominal Capacity: 100Ah

Standard Discharge Time: 100A @60min



NV-LFP-12200E

Prismatic Lithium

IP Grade: IP65

Charge Current: 50A

Max Charge Current: 100A

Max Continuous Discharge Current: 100A

Recommended Charge Voltage: 13.6~13.8V

Overcharge Protection Voltage: 14.8~15.2V

Discharge Cut-off Voltage Range: 11.2V

Nominal Voltage: 12.8V

Nominal Capacity: 200Ah

Standard Discharge Time: 100A @120min



NV-LFP-25100E

Prismatic Lithium

IP Grade: IP65

Charge Current: 50A

Max Charge Current: 100A

Max Continuous Discharge Current: 100A

Recommended Charge Voltage: 27.2~27.6V

Overcharge Protection Voltage: 29.6~30.0V

Discharge Cut-off Voltage Range: 17.6V

Nominal Voltage: 2 5.6V

Nominal Capacity: 100Ah

What are your benefits between Gel lead-acid batteries and AGM?

Gel lead-acid batteries and AGM (Absorbent Glass Mat) batteries are both types of lead-acid batteries, which are commonly used in a variety of applications, including automotive, marine, and off-grid power systems.

While both types of batteries have their advantages and disadvantages, here are some benefits of gel lead-acid batteries over AGM batteries.



Better Durability



Better tolerance for deep discharge



Less Maintenance



Better performance in extreme temperatures



12V100AH

Nominal Voltage: 12V
Rated Capacity 100Ah (20 Hour Rate)

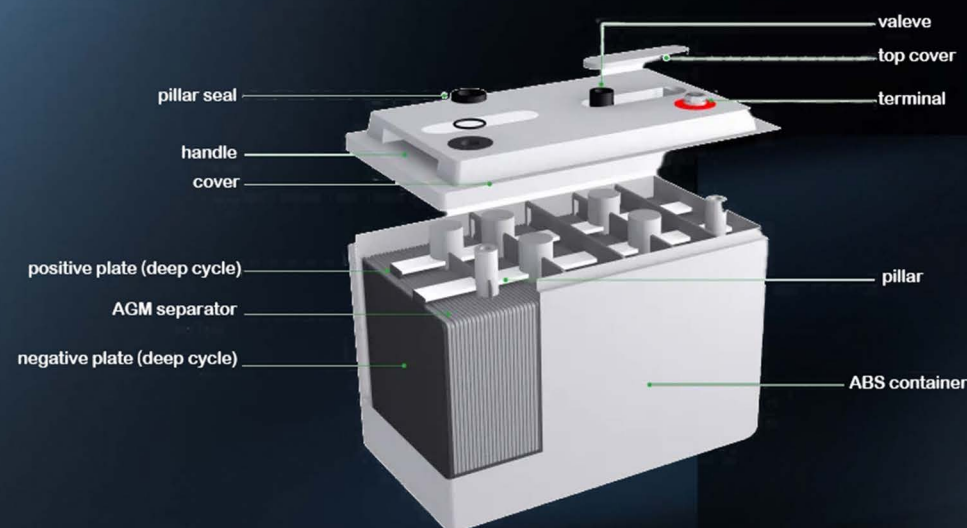
Max Discharge Current: 800A



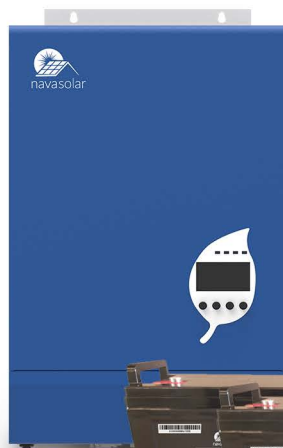
12V200AH

Nominal Voltage: 12V
Rated Capacity 200Ah (20 Hour Rate)

Max Discharge Current: 1333A

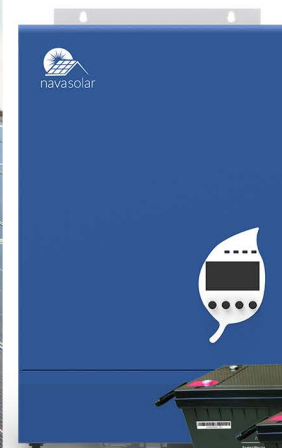


YOUR PERFECT RESIDENTIAL SOLUTION



3KW Inverter with 2.4kWh Battery Solution








1x NV-NX3024
2x NV-DCG-12100



3KW Inverter with 4.8kWh Battery Solution

1x NV-NX3024
2x NV-DCG-12200



RESIDENTIAL ESS BUNDLES							
							
	Efficient Bulb (5W)	Fan (45W)	Rice Cooker (60W)	Laptop (30W Fully Charged)	32 Inch LCD TV (60W)	Refridgerator (140W)	Microwave (650W)
	RUNTIME						
2.4kWh Bundle	240 Hours	27 Hours	20 Hours	40 Hours	20 Hours	8.5 Hours	1.8 Hours
4.8kWh Bundle	480 Hours	54 Hours	40 Hours	80 Hours	40 Hours	17 Hours	3.6 Hours

YOUR PERFECT RESIDENTIAL SOLUTION



3KW Inverter with 2.4kWh Battery Solution








1x NV-MV3024VPM
2x NV-LFP-12100E



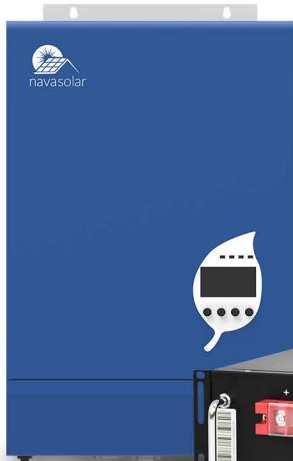
3KW Inverter with 2.4kWh Battery Solution

1x NV-MV3024VPM
1x NV-LFP-25100E



RESIDENTIAL ESS BUNDLES							
							
	Efficient Bulb (5W)	Fan (45W)	Rice Cooker (60W)	Laptop (30W Fully Charged)	32 Inch LCD TV (60W)	Refridgerator (140W)	Microwave (650W)
	RUNTIME						
2.4kWh Bundle	384 Hours	42 Hours	32 Hours	64 Hours	32 Hours	13 Hours	3 Hours
2.4kWh Bundle	384 Hours	42 Hours	32 Hours	64 Hours	32 Hours	13 Hours	3 Hours

YOUR PERFECT RESIDENTIAL SOLUTION



5kW Inverter with 4.8kWh Battery Solution








1x NV-X5048
1x NV-LFP-48100RM



5kW Inverter with 9.6kWh Battery Solution

1x NV-X5048
1x NV-LFP-48200RM

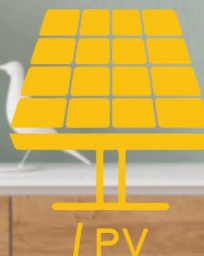


RESIDENTIAL ESS BUNDLES							
							
	Efficient Bulb (5W)	Fan (45W)	Rice Cooker (60W)	Laptop (30W Fully Charged)	32 Inch LCD TV (60W)	Refridgerator (140W)	Microwave (650W)
	RUNTIME						
Bundle 1	768 Hours	85 Hours	64 Hours	128 Hours	64 Hours	27.5 Hours	6 Hours
Bundle 2	1536 Hours	170 Hours	128 Hours	256 Hours	128 Hours	55 Hours	12 Hours

ENJOY THE GREEN LIFE

Mobile All-in-One ESS

Mobile & Convenient
Plug & Play



Integrated:

Build-in offgrid solar inverter and lithium battery modules

Simple:

Pre-programed system, plug & play, no bother to electricians

Powerful:

Optional output power flexible enough to power most of home or office appliances

Smart:

Mobile with wheels ,stay powered at anywhere

Reliable:

Enhanced surge protections, considered AC breakers and DC fuse protections

Quicker Charge:

Combined AC and solar chargers, max 1C charging current, fully recharge within 1-2 hours

Intelligent:

Equips with RS232 & USB communication ports, available for remote monitoring



MOBILE ALL-IN-ONE ESS RESIDENTIAL SOLUTION



	NV-TI-1512	NV-TI-3024	NV-TI-3052
INPUT			
Rated Inverter Power	1500VA/1500W	3000VA/3000W	3000VA/3000W
Voltage	230Vac+/-5%	230Vac+/-5%	230Vac+/-5%
Voltage Range	154~264Vac	154~264Vac	154~264Vac
Frequency Range	40~70Hz	40~70Hz	40~70Hz
OUTPUT			
AC Voltage Regulation	230VAC +/- 5%	230VAC +/- 5%	230VAC +/- 5%
Surge Power	1500VA	3000VA	3000VA
Efficiency (Peak)	93%	93.50%	93.50%
Transfer Time	20 ms (Typical)	20 ms (Typical)	20 ms (Typical)
Waveform	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
Output Type	4* AC Outlets, 2* USB PD Ports	4* AC Outlets, 3* USB PD Ports	4* AC Outlets, 3* USB PD Ports
SOLAR & AC CHARGER			
Solar Charge Type	PWM	PMMT	PMMT
Maximum PV Array Power	960W	1500W	1500W
BATTERY			
Capacity	1280Wh (25.6V 50Ah)	2560Wh (25.6V 100Ah)	5120Wh (25.6V 200Ah)

EASY INSTALLATION ESS WALL-MOUNT



Rechargeable Lithium
& VRLA Batteries



Pure Sine Wave

98%

High Efficiency



Eco



Easy Installation

Integrated

Built in offgrid solar MPPT inverter, long life energy storage batteries and full set power distribution protection

Simple

Pre-connected cables on circuit breakers, easy connections to inverter and batteries before operation

Reliable

Built in circuit breakers for AC input, DC input, PV input, AC output, Switch over, Earth leakage

Smart

Built in standard SA output socket, plug and play for the system

Flexible

Support both VRLA deep cycle or lithium batteries

***1.5kW and 3kW Available**



HYBRID SOLAR INVERTER

MH SERIES

FEATURES

- Pure sine wave inverter
- Configurable input voltage range for home appliances and personal computers via LCD setting
- Configurable battery charging current based on applications via LCD setting
- Configurable AC/Solar Charger priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload/ Over temperature/ short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function

NV-MH10048

48VDC Nominal Battery System Voltage
 10 000W Rated Power
 20 000W Surge Power
 Pure Sine Wave
 (230VAC) $\pm 5\%$ AC Voltage

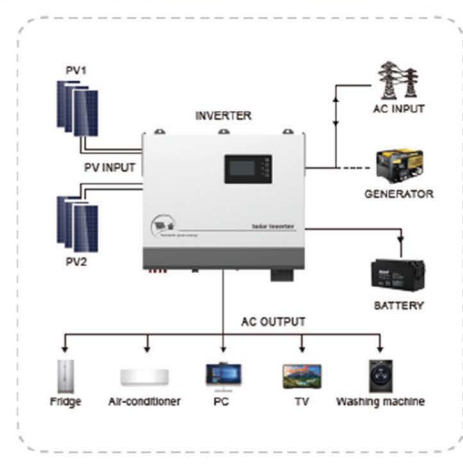
50Hz/60Hz (Auto sensing) Frequency Range

BATTERY

48VDC Normal Voltage
 60VDC Overcharge Protection

CHARGER

145VDC Max PV Array
 MPPT 60~130 VDCPV Array Voltage



All-in-One Energy Storage

This ESS is a versatile combination of an inverter, solar charger, and battery charger, capable of providing uninterrupted electric energy to various loads.

Its comprehensive LCD display enables users to customize settings according to their specific requirements, such as adjusting battery charging current, setting AC/solar charger priority, and configuring different input voltage for different applications.

*Supports LiFePO4

1C Fast Charging

A+ Grade cells for long cycle life

Smart BMS Protection

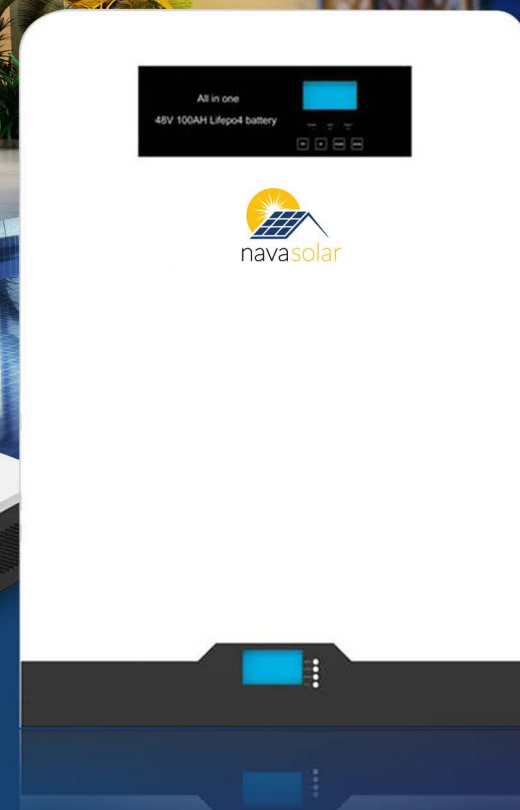
Inverter built in for easy maintenance

Stable Performance

Easy to Install

Intelligent Wi-Fi Monitoring

High density and conversion efficiency energy battery



Wall Mounted Lithium Ion Battery

- 10 years service life with Brand New A Grade LiFePO₄ Lithium Ion Phosphate Cells
- Patent designed for 5Kwh, 7Kwh and 10Kwh
- Easy for installation and maintenance with software BMS monitoring
- Can easily stand on the floor or hang on the wall
- Support high current charging/ discharging
- Support RS485, RS232 and CAN communications
- Intelligent BMS can be compatible with most of the inverter brands in the market
- High performance A Grade Cells and chips provide safe and reliable using experience



10 Years Service life Experience with A Grade LiFePO₄ Lithium Ion Phosphate Cells



Support RS485, RS232 and CAN communications



Easy for installation and maintenance with software BMS monitoring



Intelligent BMS can be compatible with most of the inverter brands in the market



Support high current charging/discharging



High performance A grade cells and chips provide safe and reliable user experience



Can be easily switched between floor standing and wall mounted



Patent designed for 5kWh, 7kWh and 10kWh



Stacked Energy Storage Battery

- Pure Sine Wave solar inverter
- High PV input voltage range
- Battery independant design
- Built-in 100A MPPT solar charger
- Battery equalization function to optimize battery performance and extended lifecycle
- Built-in anti-dust kit for harsh environment



More Usable Energy -
100% Depth Discharge

Safe and Reliable -
Lithium Ion Phosphate Cell

Quick Comissioning - Automatically
Detected by APP

Flexible Investment - 5kWh modular
design, scalable from 5 to 30 kWh

Easy Installation - 12kgs Power
Module, 50kgs Battery Module

Compatibility - Residential Single
and Three Phase Inverter



COMMERCIAL

RESIDENTIAL

High Voltage Cabinet

Convenient -

Quick installation of 19 inch embedded designed module

Eco-Friendly -

Module is non-toxic, non-polluting and environmentally friendly

Safe and Reliable -

Cathode material is made from LiFe-PO4 with long life cycle

Flexible Configuration -

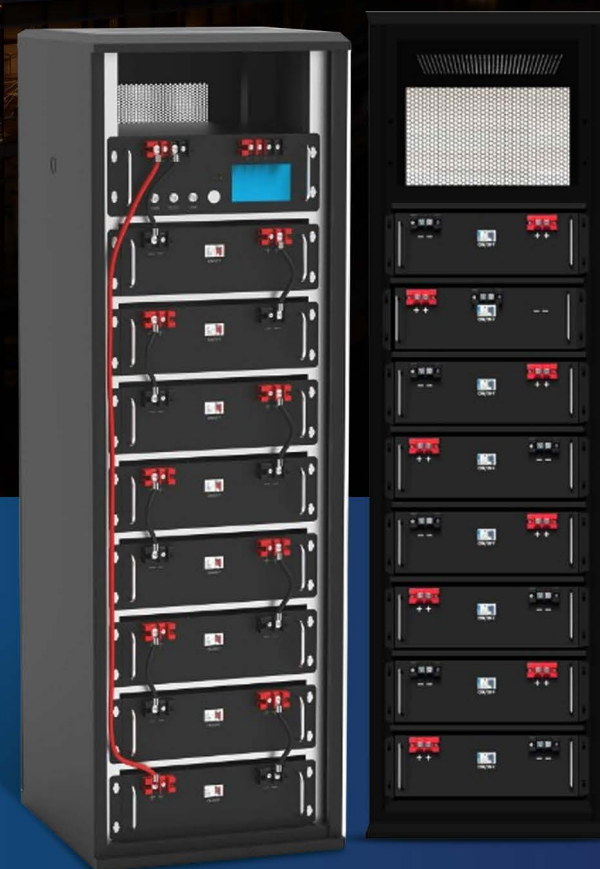
Multiple batteries can be parallel for expanding capacity

Intelligent BMS -

Protection functions: over-discharge, over-charge, over-current and more

Wide Temperature -

Working temperature range is from -20°C - 55°C



LiFePO4 Energy Storage Container

- LiFePO4 Battery System
- PCS Inverter
- HVAC (Heating, Ventilation and Air Conditioning)
- Fire Fighting, Lighting System
- Thunder-proof, AC & DC Distributor, optional parts
- SCADA (Supervisory Control And Data Acquisition) System

Integrated design for energy storage

Lithium battery design with BMS/EMS

Factory Automatic Emergency backup

Automatic diesel generator supplement

High ROI for selling energy to utility



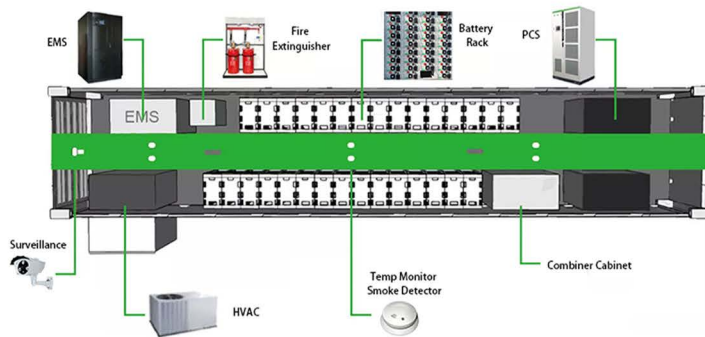
LiFePO4 Energy Storage Container



Energy Storage Container - 1MWH ESS



Energy Storage Container - 2MWH ESS



Solar Panel: 1MWh

Hybrid Inverter: 1MW PCS

Lithium Battery Packs BMS/MBMS/EMS Protection;

Wifi Monitor/4G Terminal Monitor

Interface: RS232, RS485, CAN

PV Cable: 4/6mm², custom

Container: 20/40H Container

Solar Panel: 2MWh

Hybrid Inverter: 2MW PCS

Lithium Battery Packs BMS/MBMS/EMS Protection;

Wifi Monitor/4G Terminal Monitor

Interface: RS232, RS485, CAN

PV Cable: 4/6mm², custom

Container: 20/40H Container

COREX

JOHANNESBURG

500, 16th Road
Randjespark,
Midrand, 1684

Tel: +27 (011) 357 8080

Fax: +27 (011) 357 8082

CAPE TOWN

12 Woodbridge Business Park,
452 Koeberg Road,
Milnerton, 7441

Tel: +27 (021) 528 8000

Fax: +27 (021) 528 8055

DURBAN

Unit 1, Pelican Place
61 Siphosethu Road,
Mount Edgecombe, 4302

Tel: +27 (031) 537 4912

Fax: +27 (031) 537 4988

