

ENERGY PRODUCTS CATALOGUE 2020



***Quality Brands
Sourced Globally***

Power of Heritage

Probe, established in 1963, is South Africa's largest importer of automotive batteries and a leader in rotating electrics, with over fifty years of experience in distributing and providing aftermarket support for leading international brands. With brothers Frank and Rick Rovelli at the helm, the family-run business exemplifies a robust success story built on trust, service and understanding market needs.

Probe serves the heavy and light duty automotive, mining and construction equipment industries through a national dealer network, providing new, re-manufactured, genuine and approved replacement parts as well as the highest quality approved workshop and repair facilities. Leading automotive fitment centres and retailers are supplied with premium, maintenance free batteries imported largely from Brazil and Poland, the heart of the Probe range. We further provide the latest battery technologies for evolving solar applications.

Building on Probe's proud heritage and established networks is a strategic vision to strengthen the company's competitive advantage through continued diversification of our product range as a trusted supplier of world class power solutions. Probe's expansion into power and air solutions through our Industrial Technologies division is contributing to the business becoming a R1 billion company by 2020.

Probe B-BBEE Shareholding

Probe remains committed to transformation in South Africa. Thesele Group acquired a 49.95% stake in Probe Corporation in 2016 and the company is an active shareholder.



1.	INVERTERS	4 - 5
2.	ENERGY STORAGE	6 - 7
3.	PLUG & PLAY BACK-UP POWER KITS	8 - 9
4.	BACK-UP & SOLAR KITS	10 - 11
5.	SOLAR PANELS	12
6.	ACCESSORIES	13
7.	NOTES	14
8.	DISTIBUTION NETWORK	15

INVERTER SOLUTIONS

Probe offers you a quality power package at the right price. During periods of untimely power outages Probe helps to keep homes, businesses and offices powered up. Probe's Inverters and complete range of Batteries are also widely used on Solar applications throughout Southern Africa offering you reliable and sustainable energy.

EP1100-12V 1200VA

- > Rated Power: 12V 720W
- > Modified sinewave output
- > Pro Series: Built in charger, overload and bypass protection.
- > Warranty: 12 Months



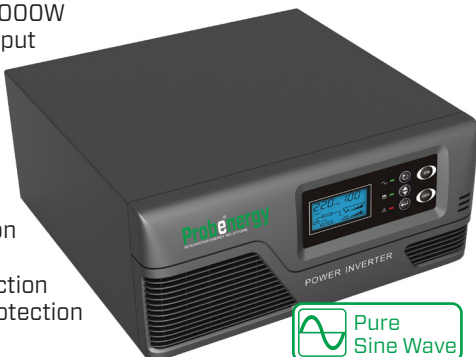
EP1100-24V 2400VA

- > Rated Power: 24V 1440W
- > Modified sinewave output
- > Pro Series: Built in charger, overload and bypass protection.
- > Warranty: 12 Months



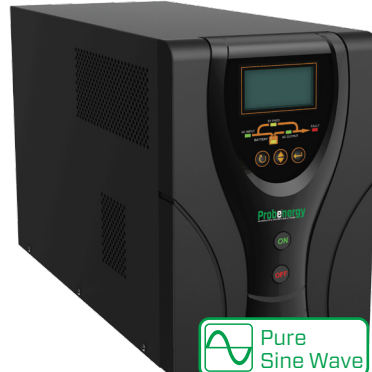
EP20-R1000W

- > Rated power: 12V 1000W
- > Pure sine wave output
- > Smart LCD setting (frequency, charge voltage, charge current, etc).
- > 3 steps charging algorithm
- > Built in AVR function
- > Overload and short-circuit protection
- > Deep discharge protection
- > Cold start function



EP20-T1500W

- > Rated Power: 24V 1500W
- > Pure sine wave output
- > Smart LCD setting (frequency, charge voltage, charge current, etc).
- > 3 steps charging algorithm
- > Built in AVR function
- > Overload and short-circuit protection
- > Deep discharge protection
- > Cold start function



EP20-T2000W

- > Rated Power: 48V 2100W
- > Pure sine wave output
- > Smart LCD setting (frequency, charge voltage, charge current, etc).
- > 3 steps charging algorithm
- > Built in AVR function
- > Overload and short-circuit protection
- > Deep discharge protection
- > Cold start function



PH18-5KW-PLUS

- > Rated Power: 48V 5KW
- > Pure sine wave output
- > Self-consumption and Feed-in to the grid
- > Programmable supply priority for PV, Battery or Grid
- > User-adjustable battery charging current suits deferent types of batteries
- > Programmable multiple operation modes: Grid-tie, o-grid and grid-tie with backup
- > Multiple communication for USB, RS-485
- > Optional Monitoring software & Wi-Fi Kit for real-time status display and control
- > Parallel operation up to 3 units



INVERTER SOLUTIONS

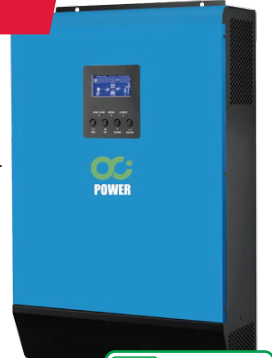
OC POWER 24V 3KVA

- > Rated Power: 24V 3Kva
- > Pure sine wave solar inverter
- > Selectable high-power charging current
- > Wide DC input range
- > Selectable input voltage range for home appliances and personal computers
- > Configure AC/Solar priority via LCD setting
- > Compatible to AC mains or generator power
- > Auto restart while AC is recovering
- > Overload and short circuit protection
- > Smart battery charger design for optimized battery performance
- > Cold function start



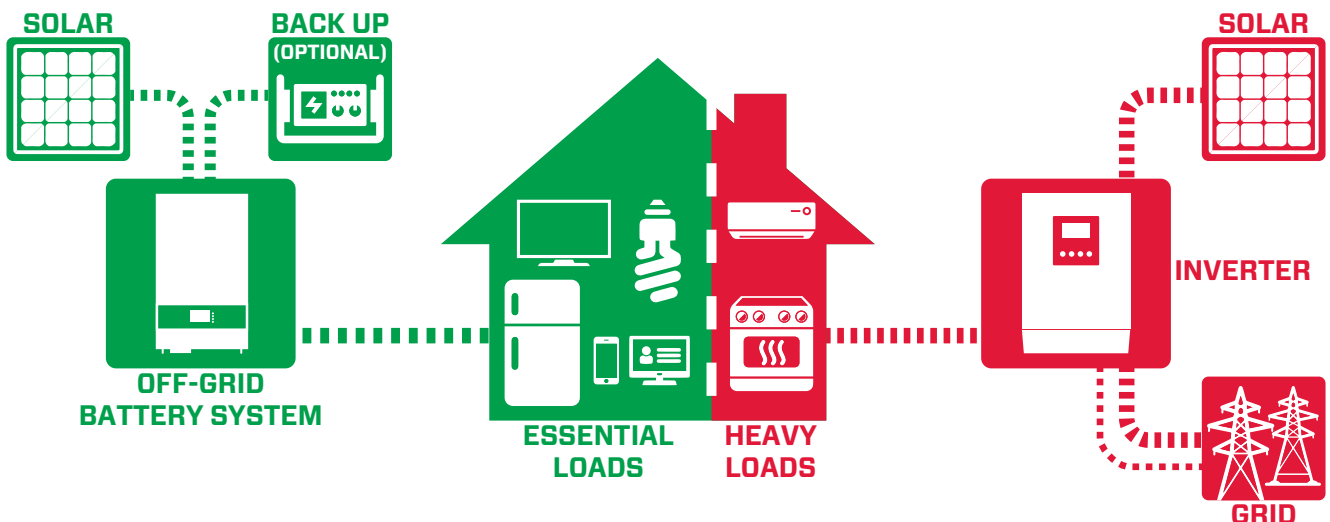
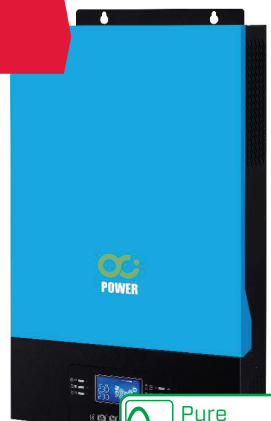
OC POWER 48V 5KW

- > Hybrid Inverter
- > Rated Power: 48V 5Kw
- > Pure sine wave inverter
- > Output power factor 1
- > Built-in MPPT solar charge controller
- > Selectable input voltage range for home appliances and personal computers
- > Selectable charging current based on applications
- > Configurable AC/Solar input priority via LCD setting
- > Compatible to AC mains or generator power
- > Battery equalization for optimized battery performance and lifecycle



OC KING 48V 5KW

- > KING Off Grid Inverter
- > Rated Power: 48V 5Kw
- > Zero transfer time to protect mission-critical loads Such as Computer
- > Detachable LCD control module with multiple communications
- > Built-in Bluetooth for mobile monitoring (Android App is available)
- > Supports USB on-the-go function
- > Reserved communication port for BMS (RS485, CAN-BUS or RS323)
- > Configurable AC/PV output usage timer and prioritization
- > Parallel operation up to 9 unit Can work in a UPS application



POWER SOLUTIONS FOR ALL APPLICATIONS

GEL



AGM



LEAD ACID



LITHIUM IRON



Our series of cycling batteries offers a **complete range of multipurpose and deep cycle batteries** for all commercial and industrial applications, namely: marine, uninterrupted power supplies (UPS), solar, camping, backup power and for telecommunication stations and energy lighting.

This series includes **lead calcium “wet plate type”, tubular, AGM, GEL and Lithium Iron Phosphate technologies** that cater for various deep cycle applications. We are proud to offer a unique, fully comprehensive **alternative energy power package**.

POWER SOLUTIONS FOR ALL APPLICATIONS

AGM | GEL | LEAD-ACID | LITHIUM-IRON

SABMA NUMBER	BATTERY TYPE	CAPACITIES*		DIMENSIONS MM			TOTAL HEIGHT	HANDLE
		Ah	RC	LENGTH	WIDTH	HEIGHT	MM	
STATIONARY/BACK UP/UPS BATTERIES: AGM/GEL - VRLA								
12TE105	SMF	110	195	330	174	226	243	Yes
12TE220	SMF	220	430	525	275	228	245	Yes
12GEL100	SMF	105	195	329	172	214	236	Yes
12GEL200	SMF	220	400	522	240	235	235	Yes
12AGM100 VRLA	SMF	105	-	340	173	220	220	Yes

SABMA NUMBER	BATTERY TYPE	CAPACITIES*		DIMENSIONS MM			TOTAL HEIGHT	HANDLE
		Ah	RC	LENGTH	WIDTH	HEIGHT	MM	
MULTI PURPOSE BATTERIES: EXTREME SERIES								
M24PMF	SMF	75	132	260	173	205	226	Yes
M27PMF	SMF	90	160	305	173	205	226	Yes
M31PMF	SMF	110	195	331	173	220	240	Yes

SABMA NUMBER	BATTERY TYPE	CAPACITIES*		DIMENSIONS MM			TOTAL HEIGHT	HANDLE
		Ah	RC	LENGTH	WIDTH	HEIGHT	MM	
AGM - DEEP CYCLE SOLAR								
12AGM7.2	SMF	7,2	13	151	65	91	99	Yes
12AGM65	SMF	65	120	242	175	190	190	Yes
12AGM80	SMF	80	148	275	175	190	190	Yes
12AGM90	SMF	90	165	353	175	190	190	Yes
12AGM100	SMF	100	185	345	175	227	230	Yes
12AGM140	SMF	140	260	513	189	196	223	Yes
12AGM170	SMF	170	310	513	223	196	223	Yes
12AGM195	SMF	195	340	518	274	215	242	Yes
12AGM220	SMF	220	400	518	274	215	242	Yes

Model	Battery Type	Nominal Voltage	Nominal Capacity (Ah)	Energy (Wh)	DIMENSIONS MM			Weight (Kg)
					LENGTH	WIDTH	HEIGHT	
Max Li - Lithium Iron Phosphate (LiFePO4)								
YS-25.6-100	Lithium Iron Phosphate	25.6V	100	2560	521	238	222	24
YS-48-50	Lithium Iron Phosphate	48V	50	2400	412	438	135	31
YS-48-70	Lithium Iron Phosphate	48V	70	3360	450	438	178	45
YS-48-100	Lithium Iron Phosphate	48V	100	4800	650	438	178	55
YS-48-50-W	Lithium Iron Phosphate	48V	50	2400	412	438	135	31
YS-48-70-W	Lithium Iron Phosphate	48V	70	3360	450	438	178	45
YS-48-100-W	Lithium Iron Phosphate	48V	100	4800	650	438	178	55

PLUG & PLAY BACK-UP POWER SOLUTIONS

KIT 1 12V 1200VA (PE-KIT-1)

- > 12V 1200VA (720W) Inverter + Charger (EP1100-1200VA)
- + 1 x 12V 105Ah Deep Cycle Battery (12TE105)
- + Single Battery Steel Box Black (INV1BATT CAB)



KIT 2 24V 2400VA (PE-KIT-2)

- > 24V 2400VA (1440W) Inverter + Charger (EP1100-2400VA)
- + 2 x 12V 105Ah Deep Cycle Batteries (12TE105)
- + Double Battery Steel Box Black (INV2BATT CAB)



Quick Reference Runtime Guide

Modified Sine Wave 720W/1200VA 12VDC to 220VAC UPS System KIT 1				Modified Sine Wave 1440W/2400VA 24VDC to 220VAC UPS System KIT 2								
MOBILE PHONE 5W	LED LAMP 3 x 5W	ALARM 20W	PORTABLE LAMP 10W	SMALL LED TV 50W	= 100W	approximate runtime 9 hours	approximate runtime 17.5 hours					
MOBILE PHONE 5W	LED LAMP 4 x 5W	ALARM 20W	DVD PLAYER BLU-RAY PLAYER 65W - 175W	SATELLITE 30W	SMALL LED TV 50W	= 200W	approximate runtime 4 hours	approximate runtime 9 hours				
MOBILE PHONE 5W	LED LAMP 5 x 5W	ALARM 20W	PORTABLE LAMP 10W	DVD PLAYER BLU-RAY PLAYER 65W - 175W	SATELLITE 30W	LED TV 50W - 150W	COMPUTER 100W - 300W	= 400W	approximate runtime 2 hours	approximate runtime 4 hours		
MOBILE PHONE 5W	CFL LAMP 3 x 8W	LED LAMP 4 x 5W	ALARM 20W	PORTABLE LAMP 50W	SATELLITE 30W	LED TV 50W - 150W	COMPUTER 100W - 300W	= 600W	approximate runtime 1 hour	approximate runtime 2,5 hours		
MOBILE PHONE 5W	LED LAMP 5 x 5W	ALARM 20W	PORTABLE LAMP 10W	TABLET 20W	DVD PLAYER BLU-RAY PLAYER 65W - 175W	SATELLITE 30W	LED TV 50W - 150W	COMPUTER 100W - 300W	FAN 65W - 175W	= 800W	approximate runtime 2 hours	
MOBILE PHONE 5W	CFL LAMP 2 x 8W	LED LAMP 10 x 5W	ALARM 20W	PORTABLE LAMP 3 x 20W	TABLET 20W	DVD PLAYER BLU-RAY PLAYER 65W - 175W	SATELLITE 30W	LED TV 50W - 150W	COMPUTER 100W - 300W	FAN 65W - 175W	= 1000W	approximate runtime 1.3 hours
MOBILE PHONE 5W	CFL LAMP 3 x 8W	LED LAMP 10 x 5W	ALARM 20W	PORTABLE LAMP 2 x 50W	TABLET 20W	DVD PLAYER BLU-RAY PLAYER 65W - 175W	SATELLITE 30W	LED TV 50W - 150W	COMPUTER 100W - 300W	FAN 65W - 175W	= 1200W	approximate runtime 1 hour

Electric motors require an average power source of up to 3 x their rating to start. The calculations provided are based on estimations.

KIT 3 12V R1000W (PE-KIT-3)

- > 12V 1000W Inverter + Charger (EP20-R1000W)
- + 1 x 12V 105Ah Deep Cycle Battery (12TE105)
- + Single Battery Steel Box Black (INV1BATTCAB)



KIT 4 24V T1500W (PE-KIT-4)

- > 24V 1500W Inverter + Charger (EP20-T1500W)
- + 2 x 12V 105Ah Deep Cycle Batteries (12TE105)
- + Double Battery Steel Box Black (INV2BATTCAB)



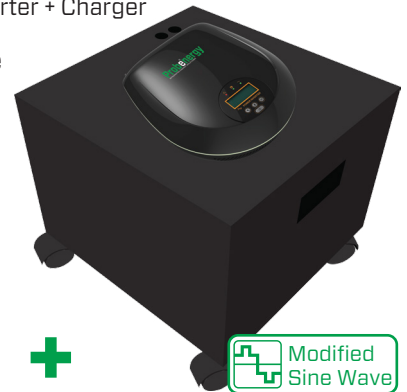
KIT 5 48V T2000W (PE-KIT-5)

- > 48V 2000W Inverter + Charger (EP20-T2000W)
- + 4 x 12V 105Ah Deep Cycle Batteries (12TE105)
- + Quatro Battery Steel Box Black (INV4BATTCAB)



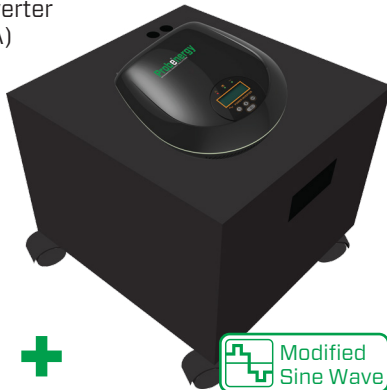
KIT 1 AGM+ 12V 1200VA PLUS (PE-KIT-1-AGM+)

- > 12V 1200VA (720W) Inverter + Charger (EP1100-1200VA)
- + 1 x 12V 100Ah Deep Cycle Battery (12GAM100)
- + Single Battery Steel Box Black (INV1BATTCAB)



KIT 2 AGM+ 24V 2400VA PLUS (PE-KIT-2-AGM+)

- > 24V 2400VA (1440W) Inverter + Charger (EP1100-2400VA)
- + 2 x 12V 100Ah Deep Cycle Batteries (12GAM100)
- + Double Battery Steel Box Black (INV2BATTCAB)



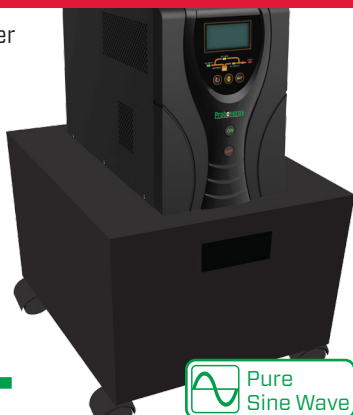
KIT 3 AGM+ 12V R1000W PLUS (PE-KIT-3-AGM+)

- > 12V 1000W Inverter + Charger (EP20-R1000W)
- + 1 x 12V 100Ah Deep Cycle Battery (12GAM100)
- + Single Battery Steel Box Black (INV1BATTCAB)



KIT 4 AGM+ 24V T1500W PLUS (PE-KIT-4-AGM+)

- > 24V 1500W Inverter + Charger (EP20-T1500W)
- + 2 x 12V 100Ah Deep Cycle Batteries (12GAM100)
- + Double Battery Steel Box Black (INV2BATTCAB)



KIT 5 AGM+ 48V T2000W PLUS (PE-KIT-5-AGM+)

- > 48V 2000W Inverter + Charger (EP20-T2000W)
- + 4 x 12V 100Ah Deep Cycle Batteries (12GAM100)
- + Quatro Battery Steel Box Black (INV4BATTCAB)



BACK-UP & SOLAR SOLUTIONS



Probe offers you a quality power package at the right price. During periods of untimely power outages, Probe helps to keep homes, businesses and offices powered up.

LOAD SHEDDING BACK-UP LITHIUM KITS

(Installer/Electrician Required)



KIT 6 - 5 KWH (PE-KIT-6)

> 5 KWH Inverter
+ 4.8 KWH Lithium Iron Battery

KIT 8 - 15 KWH (PE-KIT-8)

> 15 KWH Inverter (Linked)
+ 14.4 KWH Lithium Iron Battery (Linked)

KIT 10 - 30 KWH (PE-KIT-10)

> 30 KWH Inverter (Linked)
+ 28.8 KWH Lithium Iron Battery (Linked)

KIT 7 - 10 KWH (PE-KIT-7)

> 10 KWH Inverter (Linked)
+ 9.6 KWH Lithium Iron Battery (Linked)

KIT 9 - 20 KWH (PE-KIT-9)

> 20 KWH Inverter (Linked)
+ 19.2 KWH Lithium Iron Battery (Linked)

KIT 11 - 40 KWH (PE-KIT-11)

> 40 KWH Inverter (Linked)
+ 38.4 KWH Lithium Iron Battery (Linked)

KIT 6 - 11 SPECIAL FEATURES:

- Consists of 5KVA inverters & 48V Lithium Iron rack mount batteries only.
- Intended to deliver back-up power when utility is unavailable.
- Once utility is lost, the inverter automatically changes over, extracts (DC) energy from the lithium iron storage battery and provides (AC) electricity where desired, i.e. the DB board.

- The inverter has a built-in AC charger to replenish the battery when low.
- Includes the expansion option to upscale the kit, add extra inverters, solar panels and batteries to accommodate your future requirements.

Site assessments are essential to analyse your installation requirements.

HYBRID SOLAR + LITHIUM KITS

(Installer/Electrician Required)



KIT 12 - 5 KWH (PE-KIT-12)

- > 5 KWH Inverter
- + 4.8 KWH Lithium Iron Battery
- + 1980 PV Generation Solar Panel (6x330W)

KIT 14 - 15 KWH (PE-KIT-14)

- > 15 KWH Inverter (Linked)
- + 14.4 KWH Lithium Iron Battery (Linked)
- + 5840 PV Generation Solar Panel (18x330W)

KIT 16 - 30 KWH (PE-KIT-16)

- > 30 KWH Inverter (Linked)
- + 28.8 KWH Lithium Iron Battery (Linked)
- + 10560 PV Generation Solar Panel (32x330W)

KIT 12 - 17 SPECIAL FEATURES:

- Consists of 5KVA inverters, 330W Poly Panels & 48V Lithium Iron rack mount batteries only.
- Intended to deliver solar back-up power when utility is unavailable.
- Once utility is lost, the inverter automatically changes over, extracts (DC) energy from the lithium iron storage battery and provides (AC) electricity where desired, i.e. the DB board.

KIT 13 - 10 KWH (PE-KIT-13)

- > 10 KWH Inverter (Linked)
- + 9.6 KWH Lithium Iron Battery (Linked)
- + 3960 PV Generation Solar Panel (12x330W)

KIT 15 - 20 KWH (PE-KIT-15)

- > 20 KWH Inverter (Linked)
- + 19.2 KWH Lithium Iron Battery (Linked)
- + 7920 PV Generation Solar Panel (24x330W)

KIT 17 - 40 KWH (PE-KIT-17)

- > 40 KWH Inverter (Linked)
- + 38.4 KWH Lithium Iron Battery (Linked)
- + 15840 PV Generation Solar Panel (48x330W)

- The inverter has a built-in MPPT solar (PV) charger and an AC charger to replenish the battery when low.
- Includes the future expansion option to upscale the kit, add extra inverters, solar panels and batteries to accommodate your requirements.

Site assessments are essential to analyse your installation requirements.

PROGRAMABLE ON/OFF GRID SOLAR KITS + WIFI MONITORING

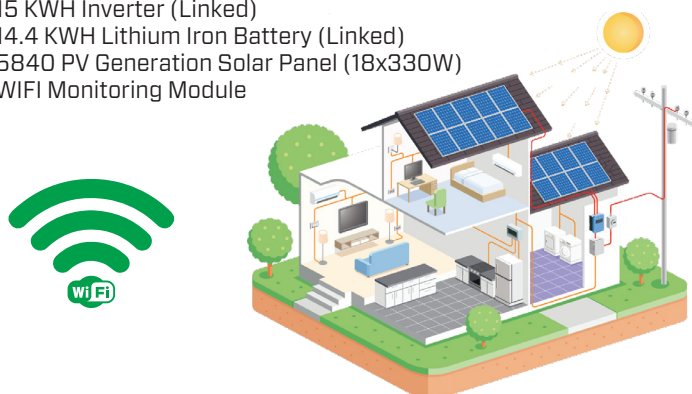
(Installer/Electrician Required)

KIT 18 - 5 KWH (PE-KIT-18)

- > 5 KWH Inverter
- + 4.8 KWH Lithium Iron Battery
- + 1980 PV Generation Solar Panel (6x330W)
- + WIFI Monitoring Module

KIT 20 - 15 KWH (PE-KIT-20)

- > 15 KWH Inverter (Linked)
- + 14.4 KWH Lithium Iron Battery (Linked)
- + 5840 PV Generation Solar Panel (18x330W)
- + WIFI Monitoring Module



KIT 19 - 10 KWH (PE-KIT-19)

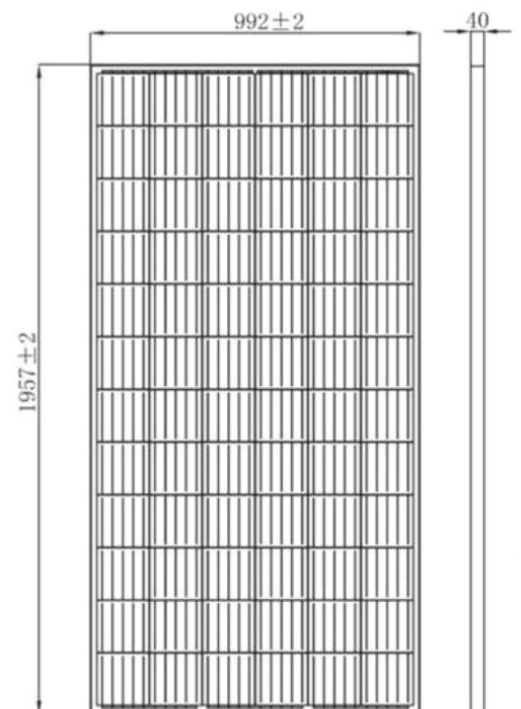
- > 10 KWH Inverter (Linked)
- + 9.6 KWH Lithium Iron Battery (Linked)
- + 3960 PV Generation Solar Panel (12x330W)
- + WIFI Monitoring Module

KIT 18 - 20 SPECIAL FEATURES:

- Consists of programable 5KVA inverters, 330W Poly Panels, 48V Lithium Iron rack mount batteries & a WIFI Monitoring Module.
 - Intended to deliver solar back-up power when utility is unavailable.
 - Once utility is lost, the inverter automatically changes over, extracts (DC) energy from the lithium ion storage battery or Solar Panel (PV) and provides (AC) electricity where desired, i.e. the DB board.
 - The inverter has a built-in MPPT solar (PV) charger and an AC charger to replenish the battery when low.
 - Includes the expansion option to upscale the storage and add batteries to accommodate your future requirements.
- Site assessments are essential to analyse your installation requirements.

330W POLYCRYSTALLINE SOLAR PANEL

MECHANICAL DATA		
Cell Type	156.75x156.75mm Polycrystal	
Cell Orientation	72 (6x12)	
Module Dimensions	1957x992x40mm	
Weight	21.5kg	
Front Cover	3.2mm high transmittance, reinforced glass	
Back Sheet	Anti-aging film	
Frame Material	Anodized aluminium alloy	
Junction Box	Protection class IP67	
Cable	4.0mm² photovoltaic special cable	
Connector	MC4 compatible connector	
PACKAGING CAPACITY		
Full Box Capacity	26pcs	
ELECTRIC DATA		
MODULE PART NUMBER	F6P330H4A	
Test Conditions	STC	NOCT
Maximum Output Power (Pm)	330W	244W
Maximum Power Voltage(Vmp)	37.52V	35.11V
Maximum Power Current (Imp)	8.80A	6.95A
Open-circuit Voltage (Voc)	45.95V	43.56V
Short-circuit current (Isc)	9.29A	7.34A
Module Conversation Efficiency (STC)	17%	
Maximum System Voltage	1000V	
Operating Temperature	-40°C~+ 85°C	
Temperature Coefficient (Pm)	-0.394%/°C	
Temperature Coefficient (Voc)	-0.307%/°C	
Temperature Coefficient (Isc)	0.04°C	
Cell Rated Operating Temperature (NOCT)	45±2°C	
WARRANTY		
Output warranty	25 years from purchase	
Product guarantee	10 years from purchase	
Return to supplier		



KEY FEATURES:



Positive power tolerance
+0 ~ +4.99 watt



100% EL inline inspection
Better module reliability



Withstand heavy loading
front load 5400 Pa & rear load 2400 Pa



Ammonia resistance



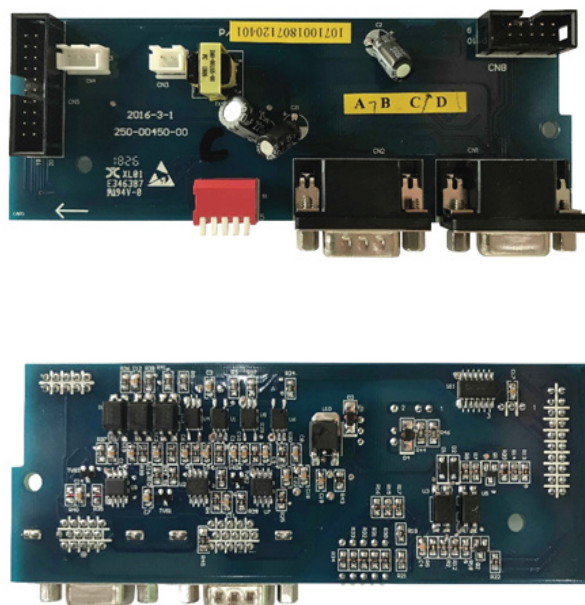
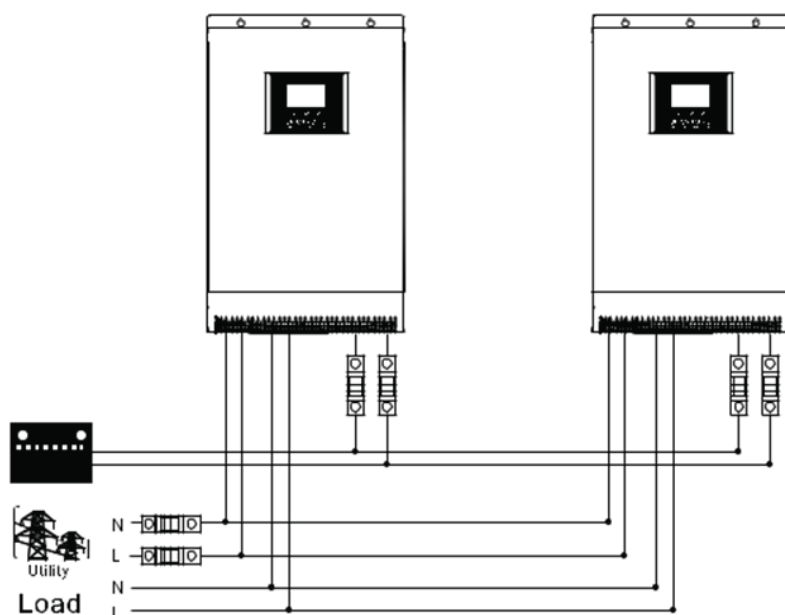
WIFI MODULE

WIFI Module for PH18-5Kw-Plus
for real time status display and control from the inverter



PARALLEL CARD

Parallel Card for PH18-5Kw-Plus
compulsory for future expansion on the inverter



BATTERY BOX

Probe's range of battery boxes are designed to house batteries, enhance battery safety and thermal efficiency, and is ideal for use with UPS, Inverters, DC Banks or Solar Systems.

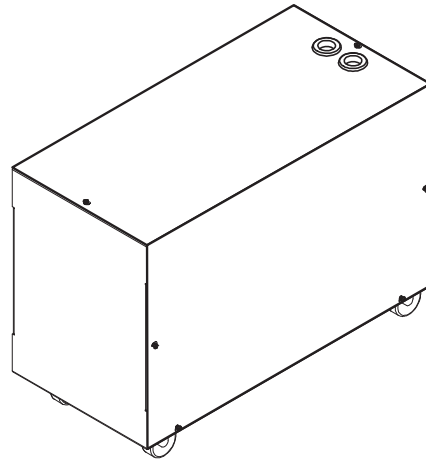
Easy to install, the lid can be unscrewed for access to insert or replace the batteries.

SPECIAL FEATURES:

- > A light-weight steel structure which is firmly positioned
- > Powder-coated casing
- > Castor wheels for easy movement
- > Insulated grommets for cable input

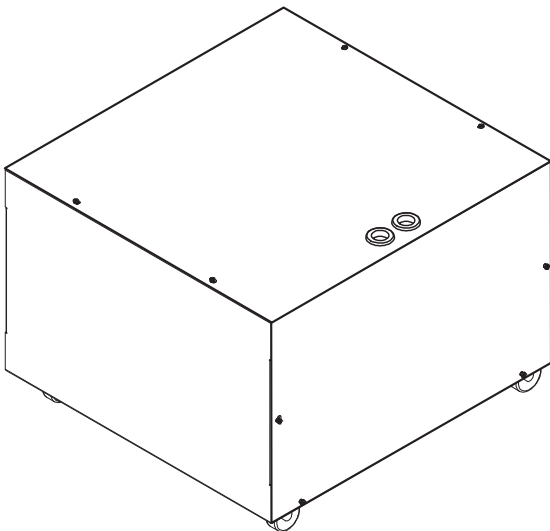
BATTERY BOX - INV1BATTCAB

> Single Battery Steel Box - Black



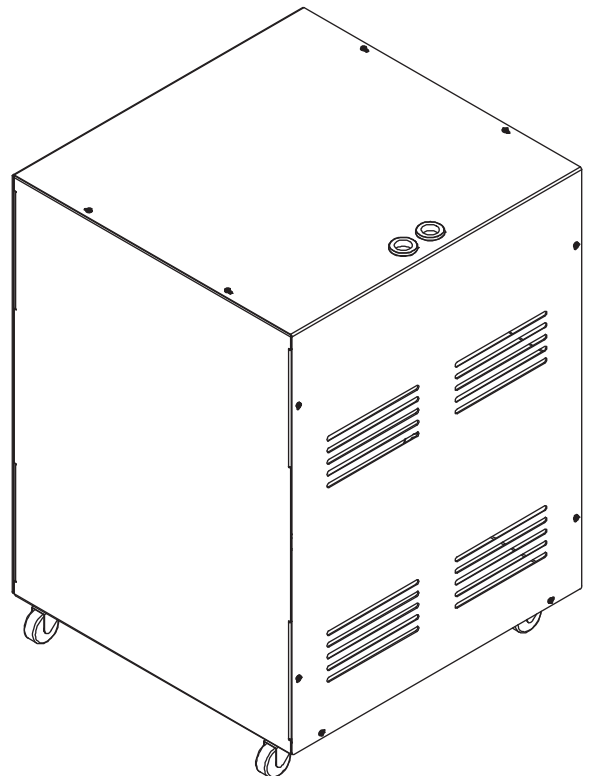
BATTERY BOX - INV2BATTCAB

> Double Battery Steel Box - Black



BATTERY BOX - INV4BATTCAB

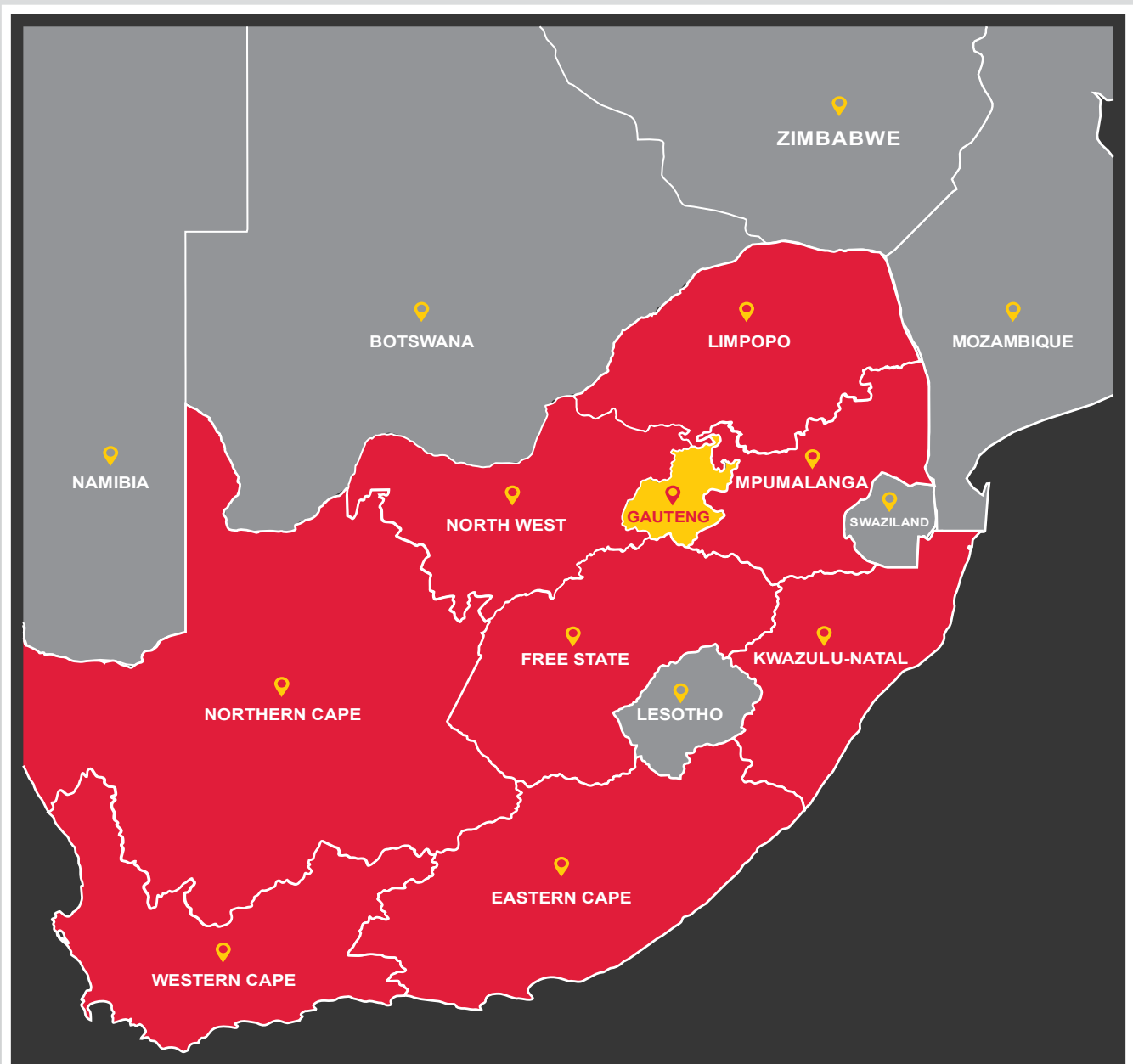
> Quatro Battery Steel Box - Black



National Branch Network

Probe offers comprehensive aftermarket support via a nationwide footprint, including full workshop facilities for electrical repairs, technical sales support and training, and assistance with preventative maintenance programs.

Our national footprint is important for accessibility and service, offering same-day delivery from our branches, with deliveries twice a day in main centres.



www.probegroup.co.za
www.probebattery.co.za
www.probeindustrial.co.za

For more details on various branches, please visit:

GAUTENG HEAD OFFICE

244 Albert Amon Road, Millennium Business Park, Meadowdale, Germiston, Johannesburg 1614
Tel: +27 (0) 11 453 0924 or +27 (0) 86 111 3507
Email: probe@probegroup.co.za

GAUTENG HEAD OFFICE

Johannesburg

Tel: +27 (0) 11 453 0924

FREE STATE

Bloemfontein

Tel: +27 (0) 51 430 8722

Cell: +27 (0) 83 262 0779

WESTERN CAPE

Cape Town

Tel: +27 (0) 21 981 9287

Tel: +27 (0) 82 372 9079

EASTERN CAPE

Port Elizabeth

Tel: +27 (0) 41 374 4343

Tel: +27 (0) 76 086 1771

NORTHERN CAPE

Kuruman

Tel: +27 (0) 53 712 2331

NORTHERN CAPE

Kathu

Cell: +27 (0) 83 259 9163

MPUMALANGA

Witbank

Tel: +27 (0) 13 692 4161

Cell: +27 (0) 82 461 2239

LIMPOPO

Steelpoort

Tel: +27 (0) 13 230 4008

Cell: +27 (0) 79 897 4091

KWAZULU NATAL

Durban

Tel: +27 (0) 31 705 6050

Tel: +27 (0) 79 595 4697

NATIONAL SHARE CALL

Tel: +27 (0) 86 111 3507

NAMIBIA

Windhoek

Tel: +264 (0) 61 401 170

BOTWANA

Gaborone

Tel: +276 (0) 7293 7878