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DYNAMICS
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The Leading Supplier of Industrial & Commercial
SOLAR POWER SOLUTIONS
Solar Power Systems - The building blocks for a greener tomorrow

T H I N K E L E C T R I C A L

ECOBOXX PORTABLE SOLAR KITS

<p>ECOBOXX[®] POWER4FREE</p> <p>LED Light 8 hours 3W Phone 8 hours 5W Tablet 4 hours 10W USB Fan 8 hours 5W</p>	<p>ECOBOXX 50 Ideal for having light and charging your phone</p> <table border="1"> <tr> <th>Code</th> <th>ECOBOXX 50</th> </tr> <tr> <td>Description</td> <td> <ul style="list-style-type: none"> • 5W Solar Panel + Stand for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 1 x USB Charging Port • 4Ah Lead Crystal Battery </td> </tr> </table>	Code	ECOBOXX 50	Description	<ul style="list-style-type: none"> • 5W Solar Panel + Stand for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 1 x USB Charging Port • 4Ah Lead Crystal Battery 	<p>ECOBOXX 90 Ideal for charging small appliances</p> <table border="1"> <tr> <th>Code</th> <th>ECOBOXX 90</th> </tr> <tr> <td>Description</td> <td> <ul style="list-style-type: none"> • 10W Solar Panel + Stand for daily battery maintenance • 4 x 3W super bright LED lights, with independant switches • 1 x USB Charging Port • 7Ah Lead Crystal Battery </td> </tr> </table>	Code	ECOBOXX 90	Description	<ul style="list-style-type: none"> • 10W Solar Panel + Stand for daily battery maintenance • 4 x 3W super bright LED lights, with independant switches • 1 x USB Charging Port • 7Ah Lead Crystal Battery 	<p>ECOBOXX 90 Ideal for charging small appliances</p> <table border="1"> <tr> <th>Code</th> <th>ECOBOXX 90</th> </tr> <tr> <td>Description</td> <td> <ul style="list-style-type: none"> • 10W Solar Panel + Stand for daily battery maintenance • 4 x 3W super bright LED lights, with independant switches • 1 x USB Charging Port • 7Ah Lead Crystal Battery </td> </tr> </table>	Code	ECOBOXX 90	Description	<ul style="list-style-type: none"> • 10W Solar Panel + Stand for daily battery maintenance • 4 x 3W super bright LED lights, with independant switches • 1 x USB Charging Port • 7Ah Lead Crystal Battery 		
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<p>LED Light 24 hours 3W Phone 24 hours 5W USB Fan 28hours 5W Camping Fridge 1.5 hours 80W</p>	<p>ECOBOXX 160 The All-In-One Value Kit, for Light & multiple charging, medium 12V Power & AC Inverter 75W</p> <table border="1"> <tr> <th>Code</th> <th>ECOBOXX160</th> </tr> <tr> <td>Description</td> <td> <ul style="list-style-type: none"> • 75W 230VAC Modified Sine Wave Inverter, Built-in • 2 x 10W Solar Panel + Stand for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 2 x USB Charging Ports • 13Ah Lead Crystal Battery </td> </tr> </table>	Code	ECOBOXX160	Description	<ul style="list-style-type: none"> • 75W 230VAC Modified Sine Wave Inverter, Built-in • 2 x 10W Solar Panel + Stand for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 2 x USB Charging Ports • 13Ah Lead Crystal Battery 	<p>LED Light 24 hours 3W Phone 24 hours 5W USB Fan 28hours 5W Camping Fridge 1.5 hours 80W</p>	<p>ECOBOXX 160DC The All-In-One Value Kit, for Light & Multiple Charging, medium 12V Power</p> <table border="1"> <tr> <th>Code</th> <th>ECOBOXX 160DC</th> </tr> <tr> <td>Description</td> <td> <ul style="list-style-type: none"> • 2 x 10W Solar Panel + Stand for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 2 x USB Charging Ports • 12Ah Lead Crystal Battery </td> </tr> </table>	Code	ECOBOXX 160DC	Description	<ul style="list-style-type: none"> • 2 x 10W Solar Panel + Stand for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 2 x USB Charging Ports • 12Ah Lead Crystal Battery 						
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<p>LED Light 24 hours 3W Phone 24 hours 5W USB Fan 28 hours 5W 22 inch TV 2 hours 65W AC Laptop 2.5 hours 65W AC Radio 4 hours 30W AC</p>	<p>Barber Kit Business in a Box, 230V Power</p> <table border="1"> <tr> <th>Code</th> <th>BARBER KIT</th> </tr> <tr> <td>Description</td> <td> <ul style="list-style-type: none"> • 2 x 10W Solar Panel for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 2 x USB Charging Ports • 12Ah Lead Crystal Battery • 1 x Multi-point Phone Charging Cable • Built-in Inverter 75W (max) • Hair Clipper • USB Fan • AC/DC Wall Charger </td> </tr> </table>	Code	BARBER KIT	Description	<ul style="list-style-type: none"> • 2 x 10W Solar Panel for daily battery maintenance • 2 x 3W super bright LED lights, with independant switches • 2 x USB Charging Ports • 12Ah Lead Crystal Battery • 1 x Multi-point Phone Charging Cable • Built-in Inverter 75W (max) • Hair Clipper • USB Fan • AC/DC Wall Charger 	<p>SOLSAV[™]</p>	<p>Modified Sine Wave Compact Inverter Small size & easy connection for use with solar kits or in your vehicle</p> <table border="1"> <tr> <th>Code</th> <th>SG-PSI-150W</th> </tr> <tr> <td>Continuous Power</td> <td>150W</td> </tr> <tr> <td>Surge Power</td> <td>300W</td> </tr> <tr> <td>Input</td> <td>12VDC (Car Lighter Plug)</td> </tr> <tr> <td>Output</td> <td>1 x 3Pin Multi-standard (230VAC / 150W) 2 x USB-A (5V/2.1A Total)</td> </tr> </table>	Code	SG-PSI-150W	Continuous Power	150W	Surge Power	300W	Input	12VDC (Car Lighter Plug)	Output	1 x 3Pin Multi-standard (230VAC / 150W) 2 x USB-A (5V/2.1A Total)
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ACCESSORIES

<p>ECOBOXX[®] POWER4FREE</p>	<p>Ecoboxx Lamp</p> <table border="1"> <tr> <th>Code</th> <th>ECO-LAMP-3W</th> </tr> <tr> <td>Power Supply</td> <td>3W</td> </tr> <tr> <td>Supply Voltage</td> <td>12VDC</td> </tr> <tr> <td>Features</td> <td>c/w DC Jack, Cable and On/Off Switch</td> </tr> </table>	Code	ECO-LAMP-3W	Power Supply	3W	Supply Voltage	12VDC	Features	c/w DC Jack, Cable and On/Off Switch		<p>DC Connectors</p> <table border="1"> <tr> <th>Code</th> <th>PP15/45-BK/R</th> </tr> <tr> <td>Description</td> <td>DC Connector Set Black + Red Rated Current: 50A Wire Size: 0.75 to 6mm²</td> </tr> </table>	Code	PP15/45-BK/R	Description	DC Connector Set Black + Red Rated Current: 50A Wire Size: 0.75 to 6mm ²
Code	ECO-LAMP-3W														
Power Supply	3W														
Supply Voltage	12VDC														
Features	c/w DC Jack, Cable and On/Off Switch														
Code	PP15/45-BK/R														
Description	DC Connector Set Black + Red Rated Current: 50A Wire Size: 0.75 to 6mm ²														

NEW

PORTABLE BACK-UP UNIT



150W/160Wh



500W/500Wh



SLP-P60W

Portable Power Station - A versatile backup unit suitable for home back-up power and outdoor power source. It is compact and lightweight, with a handle that makes it portable

Code	PBU-MS-150	PBU-PS-500
AC Outputs		
Rated Power	150W	500W
Output voltage	230VAC (Modified sine wave)	230VAC (Pure sine wave)
AC outlets	2x Universal sockets	1x 3-pin SA
DC Outputs		
12VDC	3x 2.1mm Barrel (10A tot. load)	2x 2.1mm Barrel (5A tot. load) 1x Car Charger Socket (10A max.)
USB Outputs	2x USB-A (5V/3.1A total load)	2x USB-A (5V/3.1A total load) 1x USB-A QC3.0 1x USB-C PD (5-20V/45W max.)
Charging		
230VAC Adapter	15VDC/30W	24VDC/72W
PV Input	13-22VDC/30W max. (1.4mm barrel)	11-26VDC/120W max. (Anderson)
Battery		
Capacity	162Wh	505Wh
Cycle life	≥500 Cycles @80% DOD	≥500 Cycles @80% DOD
General Specifications		
Physical Dimensions	196 x 108 x 126mm / 1.6kg	300 x 200 x 193mm / 5.8kg
Package Includes	AC power adaptor, Car charging cable	AC power adaptor, car charging cable, Travel pouch

Portable Folding PV Panels

Code	SLP-P60W	SLP-P120W
Voc	23V	23V
Outputs	1 x Anderson: 18V (60W) 1 x USB-A QC: 5-12V (24W) 1 x USB-C PD: 5-15V (18W)	1 x Anderson: 18V (120W) 1 x USB-A QC: 5-12V (24W) 1 x USB-C PD: 5-15V (45W)
Folded Size	360 x 400 x 45mm	520 x 405 x 50mm
Open Size	1370 x 360 x 25mm	1755 x 520 x 25mm

TV (100W) ~ 4.5hrs	Laptop (50Wh) ~ 5 Recharges	Mini Fridge (60W) ~ 8hrs	LED Light (5W) ~ 96hrs	Phone (12Wh) ~ 40 Recharges	Tablet (15Wh) ~ 32 Recharges
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NEW



Portable Power Station

Code	PBU-PS-1300
AC Outputs	
Rated Power	1300W
Output voltage	230VAC (Pure sine wave)
AC outlets	3 x 3-pin SA
DC Outputs	
12VDC	2 x 2.1mm Barrel (5A tot. load) 1 x Car Charger socket (10A max.)
USB Outputs	1 x USB-A (5V/3.1A) 2 x USB-A QC3.0 (5-9V/18W max.) 1 x USB-C PD (5-20V/60W max.)
Charging	
230VAC Adapter	24VDC/160W
PV Input (MPPT)	12-26VDC/250W max (Anderson)
Battery	
Type	LiFePO4
Capacity	1254Wh
Cycle life	≥2000 Cycles @80% DOD
General Specifications	
Physical Dimensions	430 x 243 x 240mm / 17.5kg
Package Includes	AC power adaptor, car charging cable, Travel pouch

TV (100W) ~ 9hrs	Laptop (50Wh) ~ 10 Recharges	Mini Fridge (60W) ~ 16hrs	LED Light (5W) ~ 192hrs	Phone (12Wh) ~ 80 Recharges	Tablet (15Wh) ~ 64 Recharges
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- Smart battery management system
- LCD status display showing input and output power and battery state of charge
- Long lasting portable power
- Multiple output ports for use with a wide variety of devices

NEW

MOBILE BACK-UP UNIT

DPiL is ideal for Recreational Vehicles, Camping and Outdoor Projects and as Source of Backup Power during an Emergency. You can monitor the DPiL via a Smart Phone App (Gen-mate inside)



SOL



Wall Outlet

Charging:



Solar Panel



Car Charging



12V LED
600+ Hours



Smartphone
x 100+



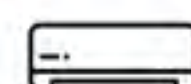
Laptop
x 30+



Fridge
Up to 40 Hours



Electric Drill
up to 10 Hours



Air Conditioner
Up to 2 Hours

DPiL Power Station

Code	DP1000iL	DP2000iL
AC Outputs		
Rated power	1000W	2000W
Output voltage	230VAC (Pure sine wave)	
AC outlets	2x 3-pin SA	
DC Outputs		
12VDC	1x 2.5mm Barrel (6A tot. load) 1x Car Charger socket (10A max.)	
USB Outputs	2x USB-A (5V/2A) 2x USB-A (5V/1A)	
Charging		
230VAC Adapter	Built in charger, IEC inlet	
PV Input	13-140VDC / 600W max.	
Battery		
Capacity	2048Wh	
Cycle life	≥2000 Cycles @80% DOD	
General Specifications		
Physical Dimensions	530 x 320 x 460mm / 34kg	530 x 320 x 460mm / 36kg
Package Includes	AC input cord, Solar input cable c/w MC4 connectors, Car charging cable	

NEW

SOLAR ENERGY STORAGE SYSTEM

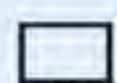
- Pure Sine Wave 230VAC output
- MPPT solar input
- Different operating modes can be set up namely, Power mode, Energy saving mode and Battery mode
- Safe and reliable with smart fan control
- Real-time LCD display of device parameters and running status
- Input and output overload protection



SOL

Mobile Backup Unit

Code	ESS-1.5KW-LITHIUM
AC Outputs	
Rated Power	1500W
Output voltage	230VAC (Pure sine wave)
AC outlets	2x 3-pin SA
DC outputs	
12VDC	2x 2.1mm Barrel (4A tot. load)
USB Outputs	2x USB-A (5V/2A)
Charging	
230VAC Adapter	Built in charger, IEC inlet
PV Input	30-100VDC / 1000W max.
Battery	
Capacity	1536Wh
Cycle life	≥2000 Cycles @80% DOD
General Specifications	
Physical Dimensions	520 x 260 x 500 / 25.5kg
Package Includes	AC Input Cord



Television
15+ Hours



Laptop
30+ Recharges



Smartphone
450+ Recharges



LED Light
155+ Hours



Power Bank
200+ Recharges



Electric Cooker
8+ Times



Electric Kettle
10+ Times



Electric Fan
30+ Hours

DC APPLIANCES

	DC TV	DC Ceiling Fan	DC Fan	DC Fridge/Freezer
Code	JY-60-TV	SLE-F2001HD	SF-D6609	SLA-0145
Rated Power	-	20W	10W	45W
Voltage	12VDC/ 230VAC	12VDC	12VDC	12/ 24VDC
Specifications	15" Colour LCD TV - Antenna excl	Metal body 3 blades, 1 speed	9" Alu./chrome, 3 blades, 2 speed	45l capacity, Temp: -10°C to 18°C

SOL2

SOLAR POWERED DEVICES

SOLAR POWERED DEVICES						
	Solar Power Bank	Solar Lantern / Power Bank	Solar Lamp / Torch	Solar Lamp / Torch	Solar Power Bank	Portable Solar Backpack LED Light
 	 Open					
Code	WAKA-LX2	SG-MYLAMP	SG-MYLITE	WAKA-L-*	WAKA-P-*	HHB-GZD
	<ul style="list-style-type: none"> • New design with 2 PV Panels integrated for Faster Charging • Wireless charging of compatible devices • Powerful LED Light • Long Battery Life • Weatherproof • Easy & Safe to use • USB Port for Charging Devices • Power Bank 	<ul style="list-style-type: none"> • Perfect for Load Shedding • LED Brightness Control Feature • Hang Lantern Anywhere with the Hook • Lithium Power Bank • Solar Panel for Charging • Manual Charging via Handle • USB Output for Device • USB Charging Cable Incl. 	<ul style="list-style-type: none"> • New Revolutionary Technology • Powerful LED Bulb & Torch with Turbo Batt. • Solar Panel for Charging Bulb • Long Battery Life • Weatherproof • Easy & Safe to use • Hang Bulb anywhere with Hook • Generous 3m Cable 	<ul style="list-style-type: none"> • Patented Sunboost Technology • Highly Efficient Mono-Crystalline Solar Panel • SOS Beacon • 3 Light Levels 	<ul style="list-style-type: none"> • Solar mobile phone or tablet charger with LED light • Large Lithium battery capacity • Water, dust and shock resistant 	<ul style="list-style-type: none"> • Solar Panel charging / USB charging • LED Brightness adjustable to 3 levels • Hang on backpack to charge on the move • Alarm light - Flashing Blue & Red
	Solar Panel: 3W Internal Battery: 8000mAh LED: 45lm, 0.5W LED	Solar Panel: 0.5W Internal Battery: 2200mAh LED: 120lm Super Bright LED	Solar Panel: 1.5W Internal Battery: 1500mAh, 5yrs Batt Life LED: 90lm Super Bright LED	Solar Panel: 1W Internal Battery: 500mAh LED: 5 - 25lm LED	Solar Panel: 1.8W Mono Internal Battery: 10000mAh LED: 120lm, 1W LED	Solar Panel: 3.5W/6V Internal Battery: 3.7V/4500mAh LED: 350lm (Max), 3.5W Max
	Charging Time: ±15hrs (Solar) ≥6hrs (USB)	Charging Time: 3-4hrs (USB) Approx. 14hrs (Solar)	Charging Time: 6-8hrs (Solar)	Charging Time: 5-8hrs (Solar)	Charging Time: 55hrs (Solar) ≥6hrs (USB)	Charging Time: ≥ 3hrs (USB) Approx. 15hrs (Solar)
	Working Time: 58hrs (LED Only)	Working Time: 8hrs Full Brightness	Working Time: 6hrs Full Brightness	Working Time: 10 - 40hrs	Working Time: 20hrs (LED Only)	Working Time: Dependant on Mode: 4-12hrs
	USB In/Out: 5V/1A / 5V/2.1A	USB In/Out: 5V/1A	USB In/Out: -	USB In/Out: -	USB In/Out: 5V/2.1A	USB In/Out: 5V/2.1A
	Includes: USB Cable & Carabiner	Includes: Crank Handle for Manual Charging	Includes: -	Includes: Handy Stand for Hands Free Use	Includes: c/w Cigarette Lighter function	Includes: -

SOLAR DC POWER KITS

SOLAR DC POWER KITS					
	Solar Shed Light	Solar Torch	Solar Camp Light	Solar Desk Lamp	Solar Travel Light
<ul style="list-style-type: none"> - High Quality PV - Super Bright LED - Rechargeable Battery 					
Code	BSL-P0807W	BSS-00107	BSS-00207	BSS-00213	BX-H09
Battery Type	Lithium	Lithium	Lithium	Lithium	Lithium
Battery Life	5hrs full charge	7hrs full charge	6 / 24hrs full charge	5 / 11 / 66hrs full charge	80 / 4hrs full charge
Lamp Power/Lumen	0.4W / 35lm	0.6W / 50lm	1.2 / 0.2W / 110/20lm	0.7W / 45lm	1W / 380lm
Accessories	PV Panel Holder, Pull cord	Lamp Holder	Carry Holder, Cell Accessories	Cell Accessories	Cell Accessories, AC Adapter
	Solar Lamp	2 Solar Lamp Kit	4 Solar Lamp Kit	Solar Home Light	Solar Junior 2 Light Kit
<ul style="list-style-type: none"> - High Quality PV - Super Bright LED - Rechargeable Battery 	Portable 	Portable 	Portable 		
Code	MRD-401	MRD-401/2	MRD-401/4	BSS-00504S	BSS-00311S
Battery Type	3.7V / 4400mAH Lithium	3.7V / 2000mAH Lithium / Lamp	3.7V / 2000mAH Lithium / Lamp	Lithium	Lithium
Battery Life	7 - 8hrs Full brightness	3 - 4hrs Full brightness	3 - 4hrs Full brightness	72/18hrs full charge	18/9hrs full charge
Lamp Power/Lumen	1.7W / 120lm	1.7W / 120lm per lamp	1.7W / 120lm per lamp	0.6W / 50lm	0.6W / 50lm
Accessories	USB Cable, Mini USB	-	-	Cell Accessories	Cell Accessories

SOLAR DC POWER KITS

	Solar Light & Radio	Solar Junior Light	Solar Home Light 2	Solar Home Light 4	
<ul style="list-style-type: none"> - High Quality PV - Super Bright LED - Rechargeable Battery 			<p>Spare Lamp- SLL-L1515</p>	<p>Spare Lamp- SLL-L1515</p>	
Code	BX-FD016-1F	BSS-00314LH	BSS-00504LH	BSS-01004LH	
Battery Type	4500mAh Lead Acid	Lithium	Lithium	Lithium	
Battery Life	High 7hrs / Low 22hrs	7hrs full charge	8/ 4 hrs full charge	18/ 9 hrs full charge	
Lamp Power/Lumen	0.9W / 100lm	1.5W / 120lm	1.5W / 140lm	1.5W / 140lm	
Accessories	USB Port with 5 in 1 Charger, FM Radio	Cell Accessories	Cell Accessories	Cell Accessories	
	Solar Complete Home Kit	Portable Home Kit	Solar Carry Bag	Solar Backpack Charger	
<ul style="list-style-type: none"> - High Quality PV - Super Bright LED - Rechargeable Battery 		<p>4 Lamps</p> <p>Cellphone not included</p>			
Code	JY-30	JY-60	MRD-426	CB-03	SC-17PRO
Battery Type	Lead Acid	Lead Acid	Lithium	Li-Ion	Li-Ion Battery, 5V 500mAh
Battery Life	8 hrs full charge	8 hrs full charge	17hrs full charge	4hrs full charge	2hrs full charge
Lamp Power/Lumen	3W / 290lm	5W / 360lm	2W / 160lm	-	-
Accessories	DC Fan, Cell Accessories	15" TV, DC Fan, Cell Accessories	USB, Cell Charger	Mini Controller with 5V 500mA USB + LED Lights. Phone Connectors	4 Adaptors for Mobile Phone, for Ipad or Camera
	Solar Power Bank	Solar Powerpack 3.0	Inflatable LED Light	Solar Lantern/Torch	LED Solar Lantern
<ul style="list-style-type: none"> - High Quality PV - Super Bright LED - Rechargeable Battery 				<p>Solar, USB, Mains</p>	
Code	ES-130	BSS-00318	FNA-SL1533	SP-SCL01	SL33205
Battery Type	Lithium, 3000mAh	Lithium	Li-Polymer (100mAh)	3.7V 600mAh	900mAh Lithium
Battery Life	Dependant on device	High: 4hrs, Low: 11hrs	High: 6hrs, Low: 12hrs	±6hrs with Full Charge	Up to 4hrs
Lamp Power/Lumen	-	1W	1W (90lm High)	2-5W	1.2W / 45lm
Accessories	iPhone/ iPod, Blackberry, Samsung	Cell Accessories	-	-	-
	LED Solar Lantern	Solar Lantern / Reading Light	NEW Solar LED Floodlight / Lantern		NEW Solar Portable Work Light IP65
<ul style="list-style-type: none"> - High Quality PV - Super Bright LED - Rechargeable Battery 			<ul style="list-style-type: none"> • Solar Charger • 3 Light Modes + Red & Blue Flash • 180° Rotatable Bracket 		
Code	SP-CPL13A	IGLOW-1	CPL-PL-50W	CPL-PL-100W	SWL-50-7-12
Battery Type	900mAh Lithium	3.7V 2200mAh Lithium Ion	3.7V, 5400mAh Li-ion	3.7V, 7200mAh Li-ion	3.2V/12000mAh LiFePO4
Battery Life	Up to 4hrs	6-8Hrs (Lantern) / 14Hrs (Reading)	Up to 6hrs	Up to 6hrs	12/24/48hrs (Dependant on Mode)
Lamp Power/Lumen	1.2W / 45lm	50-85lm (Lantern) / 45lm (Reading)	10W/580lm	15W/780lm	5W/650lm
Accessories	5V USB Output (No Cable)	5 in 1 Charging Cable Solar or AC Charging	5V/1A USB Input/Output Ports	5V/1A USB Input/Output Ports	5V/1A USB Input/Output Ports

SOLAR SECURITY LIGHTING

	Flood Light IP44	Courtyard Light IP44	Security Flood IP65	Spot Light IP44	
<ul style="list-style-type: none"> - High Quality PV - Rechargeable Battery - Super Bright LED 					
Code	BSSJ12	BSSJ22	BSSJ10	BSSJ09	
Battery Type	Lead Acid	Lead Acid	Lithium 11.1V / 2000mAh	Lithium 3.7V / 2000mAh	
Battery Life	8hrs (Fully charged)	6hrs (Fully charged)	5-10hrs (Fully charged)	Dependant on mode	
Lamp Power/Lumen	1.8W / 180lm	3.5W / 378lm	10W / 550lm	3.6W / 500lm	
PV Panel	2.3W Polycrystalline	10W Polycrystalline	7W Polycrystalline	1.2W Polycrystalline	
Features	PV Panel Holder	Mounting Kit	c/w Mounting Kit	Multiple Lighting Modes, PIR Motion Sensing, c/w Mounting Kit	
	Flood Light IP65	Detector Flood Light IP55	Solar Wall Flood Light IP65		
<ul style="list-style-type: none"> - High Quality PV - Rechargeable Battery - Super Bright LED 	<div style="display: flex; align-items: center;"> <div style="background-color: red; color: white; padding: 2px 5px; font-weight: bold; margin-right: 5px;">NEW</div>  </div>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">PIR 10m Detection & Timer</div> </div>	<div style="display: flex; align-items: center;"> <div style="background-color: red; color: white; padding: 2px 5px; font-weight: bold; margin-right: 5px;">NEW</div>  <div style="margin-left: 10px;">PIR Motion Detection</div> </div>		
Code	SFL203	BSSJ03	SWL-20W		
Battery Type	Lithium 3.7V / 3000mAh	Lithium 3.7V / 2000mAh	Li-ion 3.7V / 4000mAh		
Battery Life	Up to 10hrs (fully charged)	Dependant on mode	Dependant on Mode		
Lamp Power/Lumen	16W / 1600lm	6W / 500lm	20W/2000lm		
PV Panel	1W Polycrystalline	1.2W Polycrystalline	1W Mono-Crystalline		
Features	PIR Motion Sensing, Light on for 30s when motion is detected	Multiple Lighting Modes, PIR Motion Sensing, c/w Mounting Kit	Multiple Lighting Modes, Horizontally & Vertically Adjustable LED		
	Multifunction Flood Lights IP65		High Power Solar Light IP65		
<ul style="list-style-type: none"> - High Quality PV - Rechargeable Battery - Super Bright LED 	<ul style="list-style-type: none"> • Built-in stand for portable use • PIR Motion Sensor 		 <div style="margin-top: 5px;">PIR 10m Detection & Timer</div>		
Code	LD-SFL-5W		BSSDM02		
Battery Type	Lithium 3.7V / 3000mAh		Lithium 3.6V / 24000mAh		
Battery Life	Dependant on Mode		24hrs(Fully charged)		
Lamp Power/Lumen	5W / 500lm		18W / 1485lm		
PV Panel	2.3W Polycrystalline		12W Polycrystalline		
Features	2 Working Modes: Motion Sensing / Always on, PV & Light Panel independantly adjustable		PIR, Day Night Sensor		
	Eco Flood Lights with Remote Control IP65				
<div style="display: flex; align-items: center;"> <div style="background-color: red; color: white; padding: 2px 5px; font-weight: bold; margin-right: 5px;">NEW</div> <ul style="list-style-type: none"> - Slim ABS Housing - Replaceable Battery - Optical Lens to focus light where it is needed </div>					 <div style="margin-top: 5px;">Aluminium Body</div>
Code	TK-03-20W	TK-03-60W	TK-03-100W	TK-03-200W	TK-03-300W
Battery Type	3.2V / 5Ah	3.2V / 10Ah	3.2V / 15Ah	3.2V / 20Ah	3.2V / 40Ah
Battery Life	Dependant on Mode	Dependant on Mode	Dependant on Mode	Dependant on Mode	Dependant on Mode
Lamp Power/Lumen	20W / 400lm	60W / 800lm	100W / 1200lm	200W / 1800lm	300W / 3200lm
PV Panel	6W Poly	10W Poly	15W Poly	20W Poly	40W Poly

SOLAR PERIMETER LIGHTING

	Gutter/Wall Light IP44	LED Solar Wall Lights IP65			
<ul style="list-style-type: none"> - High Quality PV - Rechargeable Battery - Super Bright LED 	Can be fixed to Gutter/Wall 	c/w Motion Sensor 	Sound Activated 		
Code	SLL-02*	RW-X12A	RW-X12B	BSSJ23	FL-5-1
Battery Type	1.2V 600mAh	3.7V / 800mAh	3.7V / 800mAh	Lithium 3.7V / 900mAh	Lithium 3.7V / 2000mAh
Working Time	Up to 6hrs (Fully charged)	30sec (PIR Sensor)	Up to 8hrs (Fully charged)	Up to 24hrs (Fully charged)	Up to 36hrs (Fully charged)
Lamp Power / Lumen	0.2W / 21lm	1W/100lm	1W/100lm	1W / 112lm	0.5W / 20lm
PV Panel	0.2W Polycrystalline	PIR 0.55W Amorphous	0.55W Amorphous	0.4W Polycrystalline	1W Polycrystalline
Features	Can be fixed to Gutter/Wall *Add /3 to code for 3 pack	PIR Motion Detector	Sound Activated	PIR Motion Detector	Built in day night switching
	Solar Wall Light c/w Motion Sensor IP65				Solar Alarm Light IP55
<ul style="list-style-type: none"> - High Quality PV - Rechargeable Battery - Super Bright LED 					
Code	B72306-16W	LD-SWL-03W-CL-1	LSD-SWL-3.2W-B	LD-TSWL-15W	KW-SNLN
Battery Type	Lithium 3.7V/2000mAh	Lithium 3.7V/1200mAh	Lithium 3.7V/2000mAh	Lithium 7.4V/5400mAh	Lithium (3.7V/1200mAh)
Working Time	Up to 24hrs (Fully charged)	Dependant on Mode	Dependant on Mode	Dependant on Mode	Dependant on mode
Lamp Power / Lumen	16W / 700lm	1.5W / 200lm	3.2W / 400lm	15W / 1500lm	2W/60LM
PV Panel	1.3W Polycrystalline	0.7W Polycrystalline	2.3W Monocrystalline	7.3W Polycrystalline	0.8W Polysilicon
Features	PIR Motion Sensing - 3-5m / 270° Easy Installation	2 Selectable working modes and back lighting onto wall	3 Selectable working modes and back lighting onto wall	3 Selectable working modes & remote control. Adjustable Solar Panel angle	PIR Motion Sensor (5-8m/125°) Siren (129dB), Flashing LED's
	Solar Motion Light IP65	LED Solar Light IP65		Solar Guard Light IP55	
<ul style="list-style-type: none"> - High Quality PV - Rechargeable Battery - Super Bright LED 	Top View 				
	PIR 2m Detection & Timer			Pole Excluded	
Code	ESL-08	LS48M-2	LS48M-5	BSS7CLPL	
Battery Type	Li-ion 3.7V/4000mAh	6.4V/1500mA	6.4V/3000mA	Lithium 11.1V/6000mAh	
Working Time	40hrs (Dim) / 4hrs (Bright)	> 250 Motion Triggers	> 250 Motion Triggers	Up to 13hrs (Fully charged)	
Lamp Power / Lumen	3W / 300lm	5W / 200lm	5W / 500lm	4W / 480lm	
PV Panel	3W Polycrystalline	2W Amorphous	5W Monocrystalline	10W Polycrystalline	
Features	PIR Sensor. Off in daytime. Bright light at night	Automatic day night switching Light on when motion detected		Day Night Sensor Wall or Pole Mounting	

SOLAR LIGHTS

	Solar Garden Lights IP44			Solar Post Tops IP44		
<ul style="list-style-type: none"> • 6-8 Hours Normal Brightness • Aluminium Body & Glass Lamp Shade • Auto Turn On / Off Dusk & Dawn 						
Code	JY-0012-C	JY-0007-C	JY-0008-C	JY-0012-D	JY-0007-D	JY-0008-D
Wattage	2.4W	3W	4W	2.4W	3W	4W
Lumens	130lm	220lm	220lm	130lm	220lm	220lm
Size	Ø220 x 1400	Ø260 x 1300	Ø280 x 1300	Ø220 x 1800	Ø260 x 1750	Ø280 x 1750

LED SOLAR LAMPS

Solar Garden Lights IP44

<ul style="list-style-type: none"> Batteries Included Height does not include spike 							
	Code	RW-SF-03-8	RW-SF-03-2	RW-SF-03-4	RW-SLS004	E2009	CON-SOLAR
	Size (mm)	320H x 115Ø	455H x 120Ø	325H x 125Ø	360 x 115Ø	390H x 130Ø	1 Litre Consol Jar
	Type	1 x LED	1 x LED	1 x LED	1 x LED	1 x LED	4 x LED
	Batteries:	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 600mAh	2x1.2V 600mAh AAA
	Material	Plastic	Plastic	Plastic	Stainless Steel	Stainless Steel	Glass

<ul style="list-style-type: none"> Batteries Included Height does not include spike 						<p>With Mosquito Repeller Lawn & Table Light</p>	
	Code	RW-SLS001	RW-SLS002	RW-SLS003	SDBX115	ESL-10	SL-04M
	Size (mm)	307.5H x 150Ø	480H x 170Ø	365H x 125Ø	420H x 170Ø	800mm (H)	510(H) x 110Ø
	Type	1 x LED	1 x LED	1 x LED	1 x LED	1 x LED	1 x LED
	Batteries:	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 600mAh	Li-ion Battery	Li-ion Battery 450mAh
	Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel

Stainless Steel In-ground Series IP44

Batteries Included							
	Code	RW2LED-120	RW3LED-120	SDDM002	SDDM002-2	ZH-03-W	RW-SLR001
	Size (mm)	120Ø x 35D	120Ø x 35D	125 x 125	125 x 125	Ø50 x 35	120Ø x 35D
	Type	2 x White LED	3 x White LED	4 x White LED	RGB colour changing	1 x White LED	1 x LED
	Batteries	1 x NiMh 600mAh	2 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 350mAh	1 x NiMh 600mAh

In-ground IP68

Paving Lamp IP44

						Aluminium
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Plastic Floating Lamps IP67

Plastic Spot Lamp IP67

Flame Effect Torch Spike IP65

	Code	RW-SLB003	RW-SLB002	RW-SLP006	BF-SGL-1W
	Size (mm)	120Ø	160Ø	160D x 85W x 330H	1000H x 137Ø
	Type	2 x LED	2 x LED	1 x LED	Flame Effect LED 1W
	Batteries	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x NiMh 600mAh	1 x LiPO 2000mAh

Solar Wall Light IP44

Solar Pillar Light IP44

<ul style="list-style-type: none"> 6-8 Hrs Normal Brightness Alu. Body & Glass Lamp Auto Turn On/Off Dusk/Dawn 							
	Code	JY-0012-A	JY-0007-A	JY-0008-A	JY-0012-B	JY-0007-B	JY-0008-B
	Wattage	2.4W	3W	4W	2.4W	3W	4W
	Lumens	220lm	130lm	220lm	130lm	220lm	220lm
	Size	Ø220 x 530	Ø260 x 400	Ø280 x 360	Ø220 x 550	Ø260 x 430	Ø280 x 390

NEW

SOLAR CAMERA SECURITY FLOODLIGHT



Solar WiFi Camera Light - 82 LED pcs | Daylight | Beam Angle 160°

Code	MJ-01W-100W
Camera Floodlight	
LED Power/Lumens	100W/800lm (fully charged)
Battery	3.2V / 12000MAh (LifePO4)
Camera	1080P HD with full Colour Night Vision
Dimensions - L x W x D(mm)	217 x 179 x 45
Solar Panel	
Solar Panel	5V/18W Polycrystalline
Dimensions - L x W x D(mm)	350 x 350 x 17



Functions

- LED light output will be gradually reduced as the battery is depleted
- Motion detection alarm, multi-angle adjustable
- Supports SD card (**not included**) & Cloud Storage (**subscription fee to be paid in app**)
- Supports Video Playback function
- Supports multiple remote viewers at the same time
- Remote Control for Lighting modes:
 1. Always On or 4hrs High Brightness + Motion Sensor
 2. Timer Function: 8H,5H, 3H + Brightness Change + Auto on/off
 3. Manual Brightness Adjustment



NEW

SOLAR STREET LIGHT C/W CAMERA IP65



Solar Street Lights c/w Camera

Code	BS-SR02-WIFI	BS-SR02-4G
LED Power	60W (150lm/W)	60W (150lm/W)
Solar Panel	60W Polycrystalline	60W Polycrystalline
Battery	Lithium 12V/30Ah	Lithium 12V/30Ah
Colour Temp	6000K	6000K
Communication	Wifi / Wired Ethernet	4G GSM- Sim Card not included

- LED Beam Angle: 120 x 50°
- Camera Specs: Resolution: 1080p | 4mm Lens | Automatic Night Vision & IR Cut Filter
- **Note: Pole not included**

NEW

SOLAR LIGHTING ACCESSORIES

For use with light weight street lights



Powder coated black. Light fitting excluded.



Joints can rotate through 270°



Application

Code	ST-BR-POLE	ST-BR-WALL	Code	JM-ZJ-01	JM-ZJ-02	JM-ZJ-03
Description	Pole mount for Light Weight Street Lights	Wall mount for Light Weight Street Lights	Description	600mm fixed arm	1200mm hinged arm (2 x 600mm)	1800mm hinged arm (3 x 600mm)
Spigot Size	Ø50mm	Ø50mm	Max Fitting Weight	32kg	14kg	14kg

ALL-IN-ONE SOLAR POST-TOP LIGHT



Note: Pole not included

Intelligent outdoor lighting system. Combines a high efficiency solar panel, controller, high-capacity lithium-ion battery & LED light into a compact housing. Smaller, lighter, higher efficiency and easy installation.

Code	AI-5L-8N
Solar Panel	15.6W Polycrystalline
LED Power	9W / 900lm
Battery	3.7V / 26000mAh Lithium
Control Mode	Daylight Switching
Light Output	5hrs @ 100% then 25% until dawn
Endurance	3 nights when fully charged
Size	Ø526 x 163mm

- Easy Installation. No cabling required
- Lithium-ion battery inside to extend product life
- Light output automatically controlled
- Modular design
- Compact and light weight design
- Rustproof, dustproof and waterproof

SOL2

SOLAR GARDEN / AREA LIGHTING IP65

Note: Supplied without batteries. Batteries to be ordered separately.



LM-TT011

LM-TT012

Solar Garden Lights

Code	LM-TT011	LM-TT012
Lamp Power	15W	12W x 2
Solar Panel	40W / 18V	70W / 18V
Controller	12V / 5A	12V / 5A
Battery	12V / 45Ah (SY12045)	12V / 80Ah (SY12080)
Pole Height	3m (Included)	3m (Included)
Battery Life	Up to 8hrs	Up to 8hrs

- Self contained units for parks and housing developments
- Easy to install and low maintenance
- c/w Battery Box

SOL2

Solar Garden Lights with Built-in Day/Night Switching Function

Note: Supplied without batteries. Batteries to be ordered separately.



Code	SGL-A-3501	SGL-A-3502	SGL-A-3505	SGL-B-4001	SDGG307
Height	4m	4m	4m	4m	2.2m
Light Source	9W LED	9W LED	9W LED	2 x 9W LED	1.2W LED
Luminous Flux	800lm	800lm	800lm	2 x 800lm	80lm
Solar Panel	35W Monocrystalline	35W Monocrystalline	35W Monocrystalline	40W Monocrystalline	3.5W Monocrystalline
Battery	12V/45Ah (SY12045)	12V/45Ah (SY12045)	12V 45Ah (SY12045)	12V/45Ah (SY12045)	3.2V/6Ah Lithium
Working Time	10hrs per day	10hrs per day	10hrs per day	10hrs per day	8hrs per day
Endurance	Up to 4 days	Up to 4 days	Up to 4 days	Up to 4 days	Up to 5 days

SOL

COMPACT SOLAR STREET LIGHTING IP65



- Ideal for Eco Estates
- All in one Battery, Solar Panel & LED
- Colour Temperature: 6000-7000K
- Low cost installation - No cabling required
- Light is dim when no movement is detected
- Light output is increased when a person is detected by PIR Sensor
- Working Time is Estimated and will be affected by local conditions
- **Note: Pole not included**

Code	LS48-5	LS48-8	LS48-10	LS48-40
LED Power	5W	8W	10W	40W
Solar Panel	12W	18W	30W	60W
Lumen Bright Mode	420lm	720lm	1100lm	4400lm
Lumen Dim Mode	210lm	210lm	350lm	1100lm
Working Time	10hrs Bright 30hrs Dim	10hrs Bright 30hrs Dim	10hrs Bright 30hrs Dim	10hrs Bright 30hrs Dim
Installation Height	3 - 4m	3 - 4m	3 - 4m	5 - 7m
Distance btwn Poles	8 - 10m	8 - 10m	8 - 15m	20 - 25m
Battery	12.8V/6Ah	12.8V/6Ah	12.8V/9Ah	12.8V/27Ah
Size - LxWxD (mm)	400x320x50	400x320x50	710x350x55	1080x325x140

NEW

SOLAR STREET LAMPS IP65



Code	ISL-8-16-75	ISL-15-20-150	ISL-25-33-230	ISL-40-45-300	ISL-60-75-600	ISL-80-93-825
LED Power	8W	15W	25W	40W	60W	80W
Solar Panel	16W	20W	33W	45W	75W	93W
Lumen Bright Mode	800lm	1500lm	2500lm	4000lm	6000lm	8000lm
Lumen Dim Mode	320lm	600lm	1000lm	1600lm	2400lm	2400lm
Working Time	8-12hrs Bright 20-24hrs Dim	8-12hrs Bright 20-24hrs Dim	8-12hrs Bright 20-24hrs Dim	8-12hrs Bright 20-24hrs Dim	8-12hrs Bright 20-24hrs Dim	8-12hrs Bright 20-24hrs Dim
Installation Height	3 - 4m	3 - 5m	5 - 6m	5 - 7m	6 - 8m	6 - 8m
Distance btwn Poles	8m	10m	12m	15m	20m	20m
Battery	12.8V/6Ah	12.8V/12Ah	12.8V/18Ah	12.8V/24Ah	12.8V/48Ah	12.8V/78Ah
Size - LxWxD (mm)	465 x 338 x 78	630 x 338 x 148	875 x 338 x 148	1120 x 338 x 148	1120 x 465 x 153	1120 x 465 x 153

- All in one Battery, Solar Panel & LED
- Low cost installation - No cabling required
- Compact and Long Lasting Lithium Battery
- Aluminium Housing

- Colour Temperature: 6500K
- Working Time is Estimated and will be affected by local conditions
- Light is dim when no movement is detected

- Light output is increased when a person is detected by PIR Sensor
- **Note: Pole not included**

NEW

SOLAR STREET LIGHTS IP65

Low Cost Integrated Solar Street Lights

- All in one
 - Light weight ABS housing
 - PIR motion sensing to extend battery life
 - Working time is estimated and will be affected by local conditions
- **Note: Pole not included**



ST-S20



ST-S40



ST-S60



ST-S90

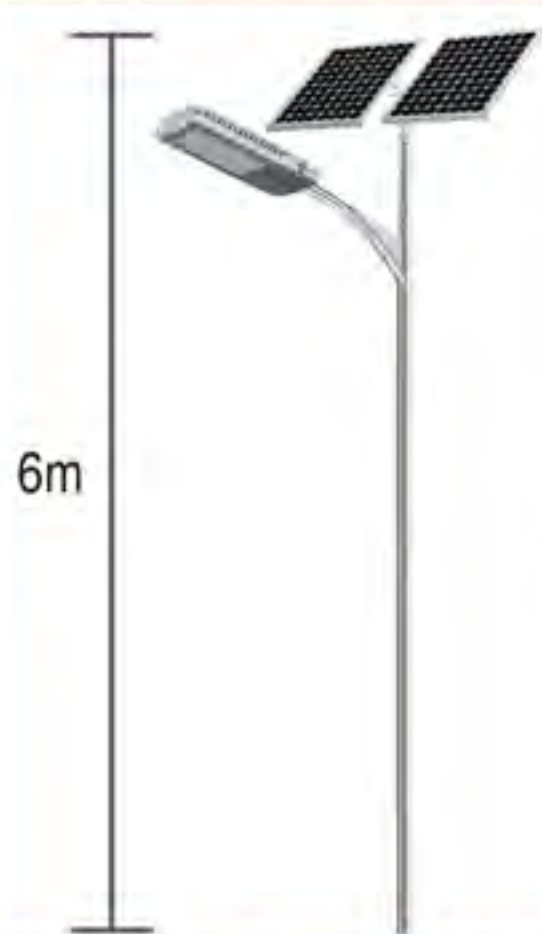


ST-S120

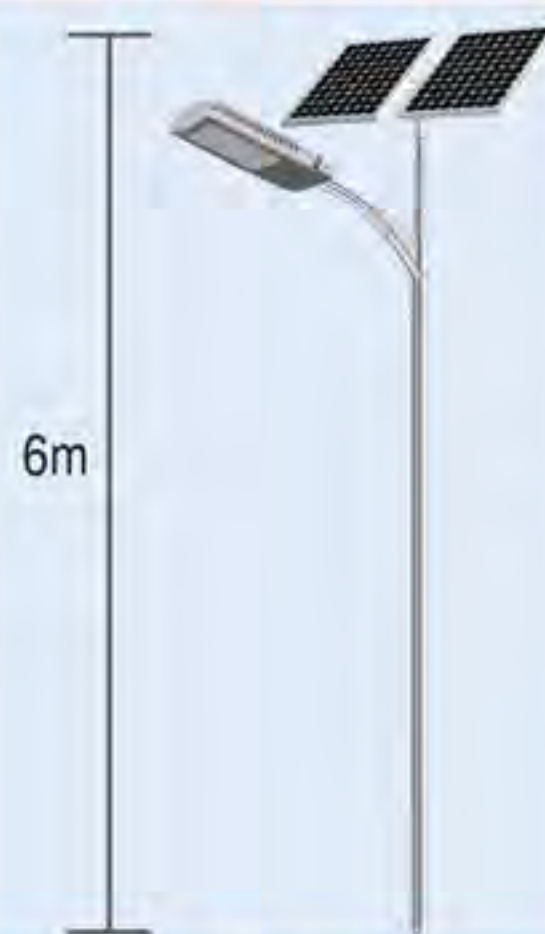
Code	ST-S20	ST-S40	ST-S60	ST-S90	ST-S120
LED Power	20W	40W	60W	90W	120W
Solar Panel	7W	8W	12W	18W	18W
Lumen Bright Mode	360lm	750lm	1350lm	1850lm	2400lm
Working Time	18-20 Hours	18-20 Hours	18-20 Hours	18-20 Hours	18-20 Hours
Installation Height	2 - 3m	2 - 3m	2 - 3m	3 - 4m	3 - 4m
Battery	3.2V/5Ah	3.2V/5Ah	3.2V/12Ah	3.2V/18Ah	3.2V/22Ah
Size - LxWxD (mm)	410 x 220 x 60	305 x 185 x 65	410 x 190 x 65	600 x 190 x 65	745 x 235 x 55

SOLAR STREET LAMPS IP65

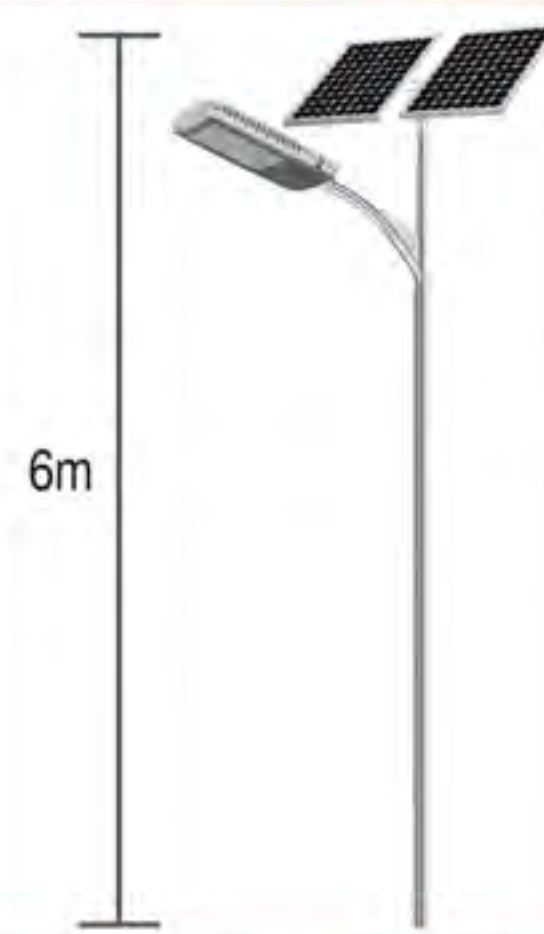
Note:
Supplied without batteries. Batteries to be ordered separately.



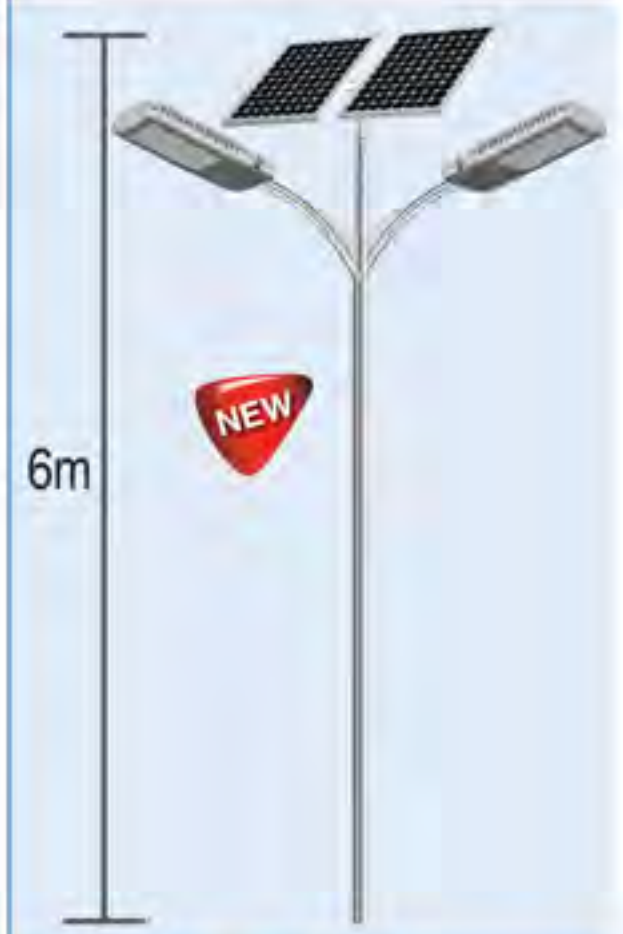
6m



6m



6m



6m

NEW

Code	SL-30W	SL-60W	SL-90W	SL-90W-2
Light Source	30W LED Lamp	60W LED Lamp	90W LED Lamp	2 x 90W LED Lamp
Luminous Flux	2700lm	5400lm	10500lm	2 x 10500lm
Colour Temp	6500K (Daylight)	6500K (Daylight)	6500K (Daylight)	6500K (Daylight)
Housing material	Tempered glass and Die-cast Aluminium	Tempered glass and Die-cast Aluminium	Tempered glass and Die-cast Aluminium	Tempered glass and Die-cast Aluminium
Solar Panels	40W*2pcs Mono Crystalline	80W*2pcs Mono Crystalline	120W*2pcs Mono Crystalline	240W*2pcs Mono Crystalline
Battery	12V/65AH (SY12065)	12V/65AH x 2pcs (SY12065)	12V/100AH x 2pcs (SY120102)	12V/200AH x 2pcs (NSB200-12)
Controller	10A - 12/24V Auto Sensing Charge Controller / LED Driver Intelligent Light & Time Control	10A - 12/24V Auto Sensing Charge Controller / LED Driver Intelligent Light & Time Control	15A - 12/24V Auto Sensing Charge Controller / LED Driver Intelligent Light & Time Control	20A - 12/24V Auto Sensing Charge Controller / LED Driver Intelligent Light & Time Control
Battery Box	Underground PVC Plastic	Underground PVC Plastic	Underground PVC Plastic	Underground PVC Plastic
Pole Included	6m, steel, hot dip galvanised	6m, steel, hot dip galvanised	6m, steel, hot dip galvanised	6m, steel, hot dip galvanised
Working time	8hrs per day	8hrs per day	8hrs per day	8hrs per day
Max Endurance	3 consecutive rainy days	3 consecutive rainy days	3 consecutive rainy days	3 consecutive rainy days

Components included



LED Lamp

+



Controller

+



Cable

+



Battery Box

+



Solar Panel

+



Post

NEW

SOLAR STREET LIGHTS IP66



Code	LL-407	LL-603
LED Power	104W	50W
Lumen Bright Mode	2340lm	2600lm
Solar Panel	30W	50W
Working Time	12hrs (4hr 100% + 8hr 30%)	
Installation Height	4-6m	5-7m
Battery	3.2V / 36Ah	3.2V / 60Ah
Solar Panel Size (mm)	355 x 650 x 30mm	480 x 690 x 30mm

NEW

SOLAR STREET LIGHTS IP65



Code	RYS-SD01-100W	RYS-SD01-150W	RYS-SD01-200W	RYS-SD01-300W
LED Power	100W	150W	200W	300W
Lumen Bright Mode	1300lm	1950lm	2600lm	3250lm
Solar Panel	20W	25W	30W	35W
Working Time	Up to 12 Hours	Up to 12 Hours	Up to 12 Hours	Up to 12 Hours
Installation Height	3-4m	4-5m	4-6m	4-6m
Battery	3.2V/15Ah	3.2V/20Ah	3.2V/25Ah	3.2V/30Ah
Lamp Size (mm)	500 x 213 x 50	500 x 213 x 50	500 x 213 x 50	500 x 213 x 50
Solar Panel Size (mm)	450 x 350 x 17	530 x 350 x 17	600 x 350 x 17	630 x 350 x 17

Features

- 5730 SMD LED chip, Beam angle: 70 x 140°
- Aluminium Housing
- c/w Remote Control to control Light Output & Timing Functions
- **Note: Pole not included**

SOLAR LED BULKHEAD LIGHT IP54



SL02-D-60W



SL02-D-100W

Solar Bulkhead - c/w Remote Control

Code	SL02-D-60W	SL02-D-100W
LED Power	60W	100W
Lumen	520-535lm	770-860lm
Colour Temperature	3000-6500K Adjustable	
Battery	3.2V/5000mAh	
PV Panel	6V/6W	6V/8W
Dimensions	Body: Ø238 x 60mm PV: 173 x 260 x 16mm	Body: Ø280 x 64mm PV: 235 x 350 x 18mm

- Remote Control
- Time Control
- Dimming
- Colour Temperature
- c/w 5m cable for PV panel
- Working Time 10-12hrs (fully charged)

SOLAR PV MODULES

(Poly) Multicrystalline PV Module (Lower cost)

AC/DC offers a range of Photovoltaic panels designed for both On-Grid and Off-Grid applications. All panels are constructed using the highest quality components and are CE certified according to the IEC61215:1995 standard. All AC/DC panels are covered by our 25 year limited linear power warranty.



Code	Maximum Power (Pmax)	Voltage @ Pmax (Vmp)	Current @ Pmax (Imp)	Open-Circuit Voltage (Voc)	Short-Circuit Current (Isc)	Dimensions L x W x H
SLP005-12	5W	17.20V	0.29A	21.60V	0.31A	195 x 275 x 15mm
SLP010-12	10W	18.30V	0.55A	21.98V	0.59A	275 x 355 x 18mm
SLP020-12	20W	18.30V	1.10A	21.96V	1.17A	510 x 355 x 25mm
SLP030-12	30W	18.25V	1.65A	21.90V	1.75A	630 x 430 x 25mm
SLP040-12	40W	18.49V	2.17A	22.19V	2.30A	620 x 515 x 25mm
SLP050-12	50W	18.41V	2.72A	22.10V	2.89A	770 x 515 x 30mm
SLP060-12	60W	18.01V	3.36A	21.61V	3.70A	650 x 665 x 30mm
SLP080-12	80W	18.25V	4.40A	21.96V	4.69A	905 x 678 x 30mm
SLP090-12	90W	18.36V	4.92A	22.00V	5.25A	1008 x 678 x 35mm
SLP100-12	100W	18.57V	5.39A	22.29V	5.72A	1100 x 668 x 35mm
SLP120-12	120W	18.81V	6.38A	22.58V	7.02A	1250 x 678 x 35mm
SLP140-12	140W	18.08V	7.75A	21.70V	8.22A	1485 x 668 x 35mm
SLP270-24	270W	31.26V	8.64A	37.52V	9.16A	1640 x 992 x 35mm
SLP290-24	290W	37.08V	7.83A	44.32V	8.37A	1956 x 992 x 40mm
SLP330-24	330W	37.50V	8.24A	46.10V	9.24A	1956 x 992 x 35mm

Monocrystalline PV Modules

SLP090S-12	90W	18.54V	4.86A	22.14V	5.46A	1195 x 541 x 35mm
SLP180S-24	180W	36.10V	4.99A	45.00V	5.35A	1580 x 808 x 40mm
SLP330S-24	330W	30.00V	11.00A	36.00V	11.77A	1640 x 992 x 35mm
SLP420S-24	420W	39.80V	10.55A	48.00V	12.84A	1940 x 1048 x 35mm

Mechanical Characteristics

Solar Cells: Multicrystalline or Monocrystalline Solar cells
Construction: Front High-Transmission 3.2mm Tempered Glass;
Frame: Clear Anodized Aluminium Alloy (Silver colour)

Module Warranty

- 25 year Limited Warranty of 80% Power Output;
- 10 year Limited Warranty of 90% Power Output;
- 5 year Limited Warranty of materials & workmanship



Tier-1 Solar Panels

- IEC Compliant: 61215, 61730
 - High Module Efficiency
- Note:** Product specification may vary. Confirm exact specifications and availability when ordering.

Mechanical Characteristics

Cells: Polycrystalline / Monocrystalline
 Frame: Anodized Aluminum Alloy
 Junction Box: **IP68**

Module Warranty

- 25 Year Limited Power output Warranty
- 10 Year Product Warranty & Workmanship



Code	Maximum Power (Pmax)	Voltage @ Pmax (Vmp)	Current @ Pmax (Imp)	Open-Circuit Voltage (Voc)	Short-Circuit Current (Isc)	Dimensions L x W x H
T1-SLP-72-330	330W	37.7V	8.76A	46.4V	9.1A	2000 x 992 x 30mm
T1-SLP-144-340	340W	38.1V	8.84A	46.6V	9.16A	2000 x 992 x 30mm
T1-SLP-144-405	405W	38.5V	10.42A	47.4V	10.98A	2108 x 1048 x 40mm
T1-SLP-144-410	410W	39.1V	10.49A	47.6V	11.06A	2108 x 1048 x 40mm
T1-SLP-144-415	415W	39.3V	10.56A	47.8V	11.14A	2108 x 1048 x 40mm
T1-SLP-144-430	430W	39.90V	10.78A	48.40V	11.32A	2108 x 1048 x 40mm

Mono-Crystalline Solar Panels

T1-SLP-144-435-M	435W	40.50V	10.75A	48.50V	11.42A	2108 x 1048 x 35mm
T1-SLP-144-455-M	455W	41.82V	10.88A	49.85V	11.45A	2112 x 1052 x 35mm
T1-SLP-144-455-M-CAN	455W	41.30V	11.02A	49.30V	11.66A	2108 x 1048 x 35mm
T1-SLP-144-535-M	535W	41.47V	12.90A	49.45V	13.79A	2279 x 1134 x 35mm
T1-SLP-144-540-M	540W	41.64V	13.11A	49.6V	13.86A	2278 x 1134 x 35mm
T1-SLP-144-545-M-CAN	545W	41.5V	13.14A	49.4V	13.95A	2254 x 1135 x 35mm
T1-SLP-120-595-M	595W	34.70V	17.15A	41.10V	18.42A	2172 x 1303 x 35mm

HIGH VOLTAGE PV MODULES

High Voltage Solar PV Modules

- Suitable for use in Solar Pumping Applications
- IEC Compliant: 61215, 61730
- Positive Power Tolerance
- Highly Reliable Anti-Reflective Coated Glass
- 120/144 Cell High Voltage Configuration

Mechanical Characteristics

Cells: Polycrystalline
 Construction: 3.2mm Thick, Low Iron Tempered Glass
 Frame: Anodized Aluminum Alloy
 Junction Box: **IP65**

Module Warranty

• 10 Year Limited Power output Warranty • 5 Year Product Warranty



Code	Maximum Power (Pmax)	Voltage @ Pmax (Vmp)	Current @ Pmax (Imp)	Open-Circuit Voltage (Voc)	Short-Circuit Current (Isc)	Dimensions L x W x H
RHV260	260W	63.04V	4.15A	75.52V	4.52A	1627 x 1025 x 40mm
RHV300	300W	75.17V	4.03A	91.67V	4.2A	1934 x 1021 x 40mm

Solar Panel Voltage Booster

The Micro-Care Voltage booster is designed to interface with and boost the voltage of a standard Solar PV panel (17-35V) to the levels required for use with borehole pumps.

Example of application would be in rural or farming areas where grid electricity is not always available close to water sources such as boreholes and dams.

Operating as a high frequency DC / DC converter the unit allows the pump controller to track the maximum power from the solar panel through the regulator in such a way that the performance of the system and pump controller is not affected. 4.5kA Surge protection fitted to all inputs.



Code	PV Voc Range	PV Vmp Range	Nominal Input Voltage	Nominal Output Voltage	Multiplication Factor	Rated Power	Dimensions L x W x H
SVB-350	20V to 50V	12V to 40V	±37V	350V	9.7	360W	70 x 100 x 36mm
SVB-550	20V to 50V	12V to 40V	±37V	550V	14.9	360W	70 x 100 x 36mm

CIS THIN FILM SOLAR PANELS

CIS Thin Film Solar Panels

- Production output in unfavourable conditions
- Excellent low light performance
- Light soaking effect raises output after installation
- High shadow tolerance
- High temperature stability
- Aesthetically pleasing black appearance

Features








- Dimensions: 1257 x 977 x 35mm
- Weight: 20kg
- Maximum Load: 2400Pa



Code	SF1505-CIS
Nominal Power	165W
Open Circuit Voltage	110V
Short Circuit Current	2,20A
Current at Nominal Power	1,93A
Voltage at Nominal Power	85,5V



FOLDABLE / FLEXIBLE SOLAR PANELS

	Foldable 	Foldable 	Semi-Rigid 	
Code	SHB-10W	SHB-20W	SLP10F-12A	
Max Power	10W	20W	10W	
Voltage Pmax (Vmp)	17.42V	17.46V	18,0V	
Current Pmax (Imp)	0.57A	1.18A	0,56A	
Open Voltage (Voc)	21.2V	21.6V	22,5V	
Short Circuit Current	0.62A	1.29A	0,81A	
Size	220 x 320 x 40mm	220 x 320 x 40mm	290 x 333 x 17mm	
	Flexible Semi-Rigid 	Flexible Semi-Rigid 	Flexible Semi-Rigid 	Flexible Semi-Rigid 
Code	SLP20F-12A	SLP30F-12A	SLP40F-12A	SLP50F-12A
Max Power	20W	30W	40W	50W
Voltage Pmax (Vmp)	18,0V	18,0V	18,0V	18,0V
Current Pmax (Imp)	1,11A	1,67A	2,22A	2,77A
Open Voltage (Voc)	22,5V	22,5V	22,5V	22,5V
Short Circuit Current	1,36A	1,92A	2,47A	3,02A
Size	470 x 333 x 17mm	650 x 333 x 17mm	775 x 333 x 17mm	690 x 500 x 17mm

SOLAR BATTERY CHARGERS

Code	SLP10F-12	SLP20F-12	SLP80F-12	SLP120F-12
Max Power	10W	20W	80W	120W
Voltage Pmax (Vmp)	17.0V	17.2V	18.0V	18.0V
Current Pmax (Imp)	0.58A	0.87A	4.44A	6.67A
Battery Voltage	12V	12V	12V	12V
Charge Controller	4.5A	4.5A	7A	20A
Panel Size	302 x 357 x 30mm	576 x 357 x 30mm	570 x 500 x 50mm x 2	740 x 518 x 30mm x 2

SOLAR MOUNTING SYSTEMS

	Profile		PV Panel Clamps	
Code	CK-FZ-F4200	CK-FZ-SK	CK-FZ-AM	CK-FZ-AE
Description	Solar Standard Rail 4.2M	Solar Standard Rail Splice	Adjustable Solar Mid Clamp	Adjustable End Clamp
	Mounting Hardware			
Code	CK-FZH-013	CK-FZH-TC	CK-FZH-01	CK-FZH-021
Description	Solar Aluminium Tin Hook	Solar Tin Roof Al Clamp	Solar SUS304 Tile Hook	Solar Tin Thin Roof Al Clamp
Code	CK-FZA-FL	CK-TM-1530	CK-2V-3035	CK-FSC-CP1
Description	Solar Adjustable Front Leg	Adjustable Tri Structure 15 - 30	2V Ground Support 30/35°	Solar Cable Clips

ACDC provides professional solutions for Solar photovoltaic mounting for residential, corporate and utility scale applications

- Roof Top mounting for both tiled and tin roofs
- High quality material in Aluminium 6005-T5
- Fast and simple installations
- Open area: Ground mounting / Pole mounting
- Suitable for all roof types and PV modules

SOLAR ROOF TILT RACKING SYSTEM

Code	GR-AD-FL	GR-AD-FL 10/15	GR-AD-FL 15/30	GR-AD-FL 30/60
Description	Front Support	Rear Support: 10 - 15cm	Rear Support: 15 - 30cm	Rear Support: 30 - 60cm

* Use the following Parts Code: **CK-FZ-F4200** (Solar Panel Profile)

- High class aluminium alloy Al6005-T5 & Stainless Steel 304
- Roof Slope: up to 60°
- Suitable for pitched or flat roof

SOLAR PANEL MOUNTING STRUCTURE

	Aluminium Profiles - Alloy 6063 T6			Structural Components	
Material: Aluminium Alloy 6063 T6					
Code	VAP2A-01	VAP2S-01	VAP3HD-01	VFPJ-01	VLBS-01
Description	Square 2-Slot Angle Profile. Bolt Head Slot + Nut Slot 40 x 40 x 4400mm Gauge: 1.2mm	Square 2-Slot Straight Profile. Bolt Head Slot + Nut Slot 40 x 40 x 4400mm Gauge: 1.2mm	Heavy Duty 3-Slot Profile. Bolt Head Slot + 2 x Nut Slots 28 x 56 x 4400mm Gauge: 1.6mm	Straight Joining Plate for Profiles 40 x 400 x 5mm	Standard L-Bracket 40 x 40 x 60 x 5mm
Mass	0.735kg/m	0.746kg/m	1.133kg/m	43g	45g
Application	PV panel mounting for side mounting brackets	PV panel mounting for top mounting brackets	PV panel mounting for top and/or side mounting brackets	Straight joining of aluminium profiles	Angled joining of alu. profiles, upright & roof brackets

Penetrating Roof Brackets

					
Code	VLBH-02	VLBCS-02	VLBCT-02	VDTRBS-02SS	VDTRBS-02G
Description	Aluminium High L-Bracket Side Mount 40 x 40 x 80 x 5mm	Galvanised High L-Bracket for corrugated roof Side Mount	Galvanised High C-Bracket for corrugated roof Top Mount	Stainless Steel Tile Roof Bracket - Side Mount 60-105mm adj elevation	Galvanised Tile Roof Bracket - Side Mount 60-105mm adj elevation
Mass	52g	48g	73g	525g	474g
Application	Fixing aluminium profiles directly to the roof structure (eg. IBR)	Fixing aluminium profiles directly to the corrugated roof structure	Fixing aluminium profiles directly to the corrugated roof structure	Fixing aluminium profiles to domestic tile roof structures	Fixing aluminium profiles to domestic tile roof structures

				
Code	VDTRBT-02G	VHB-02-250	VIBRAC-02	VIBRAL-02
Description	Galvanised Tile Roof Bracket Top Mount	Stainless Steel Double Thread Hanger Bolt Top Mount M10 x 250mm	Aluminium IBR Mounting Bracket Side Mount Across the rib	Aluminium IBR Mounting Bracket Side Mount Along the rib
Mass	474g	230g	115g	115g
Application	Fixing aluminium profiles to domestic tile roof structures	Fixing aluminium profiles to slate roof structures	Fixing aluminium profiles to IBR roof structures	Fixing aluminium profiles to IBR roof structures

Non-Penetrating Roof Brackets

					
Code	VKLSLOT-03	VBBSLOT-03	VBBSTUD-03	VCLSET-03	VNOVA-4
Description	Aluminium Klip-Lock Roof Bracket with Slot Top Mount	Aluminium Brown Built Roof Bracket with Slot Top Mount	Aluminium Brown Built Roof Bracket with Stud Top Mount	Aluminium Craft Lock Roof Bracket set c/w Grub Screws Top Mount	Galvanised Novatexi 440 Roof Bracket with Studs Top Mount
Mass	225g	278g	359g	115g	176g
Application	Fixing aluminium profiles to Klip-lock GRS roof sheets	Fixing aluminium profiles to Brownbuilt GRS roof sheets	Fixing aluminium profiles to Brownbuilt GRS roof sheets	Fixing aluminium profiles to Craft Lock roof sheets	Fixing aluminium profiles to Novatexi roof sheets

SOLAR PANEL MOUNTING STRUCTURE



Upright Kits for Tilted Installations

Code	Panel Size	Layout	Long Upright Length
VUK300P-*	300W	Portrait	1600mm
VUK250P-*	250W	Portrait	1200mm
VUK150PL-*	150W/300W	Portrait /Landscape	850mm



VEPSS-01

Earthing plate for grounding of Solar Panels. Stainless Steel.

*Add kit angle to code:
10 (10°), **20** (20°), **26** (26°)
 Other angles available on request

Kit Includes

- Long & Short Upright
- 3 x L-Brackets for upright assembly
- Nuts & Bolts
- Fasteners required for upright assembly

Solar Panel Clamps

Material: Aluminium Alloy 6063 T6 Caps Screws & Nuts to be ordered separately						
	VFMC-04	VFEC-04*	VDGMC-04-100	VDGEC-04-100	VDGMC-04-130	VDGEC-04-130
Description	Middle Clamp U-Bracket 50mm length	End Clamp Z-Bracket 50mm length	Middle Clamp for double glass panels 100mm length	End Clamp for for double glass panels 100mm length	Middle clamp for double glass panels 130mm Length	End clamp for for double glass panels 130mm Length
Mass	26g	26g	147g	114g	147g	114g
Application	Securing framed PV panels to aluminium profiles in the middle of a row	Securing framed PV pan- els at the end of a row. *Standard 40mm or add panel thickness to code: 30mm, 35mm	Securing 60 cell double glass PV panels to alu. profiles in the middle of a row Use SSCAPM8-35	Securing 60 cell double glass PV panels to alu. profiles at the end of a row Use SSCAPM8-35	Securing 72 cell double glass PV panels to alu. profiles in the middle of a row Use SSCAPM8-35	Securing 72 cell double glass PV panels to alu. profiles at the end of a row Use SSCAPM8-35

Mounting Accessories

	For Brackets & Uprights	For Brackets & Uprights	For Brackets & Uprights	For Panel Clamps	For Panel Clamps		
Code	SSBOLTM8-20	SSBOLTM8-55	SSNUTM8-HEX	SSCAPM8-*	SSNUTM8-SQ	SSFWM8	SSSWM8
Description	Stainless Steel Bolt M8 x 20	Stainless Steel Bolt M8 x 55	Stainless Steel M8 Nut	Stainless Steel M8 Cap Screws	Stainless Steel M8 Square Nut	Stainless Steel Flat Washer for M8	Stainless Steel Spring Washer for M8
Mass	12g	22g	5g	11 - 23g	5g	2g	2g
Application	Connection of profiles to brackets	Connection of profiles/brackets to uprights	Use with SSBOLTM8	Connection of solar panel clamps to profiles	Use with SSCAPM8	Use one for every bolt or cap screw used	Use one for every bolt or cap screw used

*Add panel depth to code: **25mm, 30mm, 35mm, 40mm, 45mm, 50mm**



Code	VSSBAT/50	AC700	AC101	VCB-35	VRN-M8	VRN-TOOL
Description	Stainless Steel Anti-theft Balls for Cap Screws	Butyl Tape 8 x 3mm x 15m	Butyl Tape 48 x 2.5 x 500mm	Concrete Ballast with mounting stud	M8 Rivet Nut	Rivet Nut Tool Manual Crimping M4 - M8
Mass	-	-	-	35kg	5g	-
Application	Placed in cap screws to prevent theft of PV Panels	Sealing of Penetrating Roof Brackets	Sealing of Penetrating Roof Brackets	Ballast for free standing ground or roof structures	Rivet Nut for fixing structures to roof sheeting	Crimping Rivet Nuts onto roof sheeting

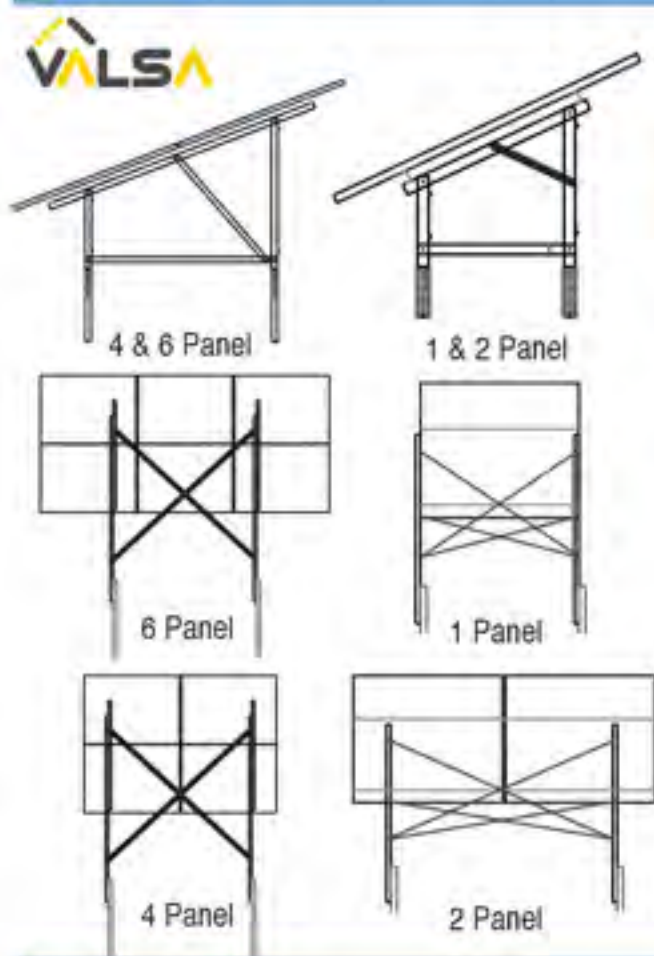
OFF GRID SOLAR MOUNTING KITS

Solar SLB Series Off-Grid Mounting Kits - Fit for 1 Panel

				
Code	SLB-0112	SLB-0113	SLB-0102	SLB-0103
Module Frame	30/35mm	35mm	35mm	35mm
Mounting Holes	3.5mm x 12	4.5mm x 12	4.5mm x 12	4.5mm x 12
Module Power	10 - 30W	40 - 135W	40 - 135W	40 - 135W
Mounting Type	Pole - Adjustable	Wall, Vertical Surface Adjustable	Fixed Bracket	Flat Surface Adjustable

These kits include all brackets and hardware needed for assembly. Can be used to mount panels on any surface such as walls, roofs, caravans, poles etc.

	Pre-Assembled Pole Bracket	
	Watts	Code
Galvanised	20W	DM120
	50 - 85W	DM175
	Triangle Bracket Set	
	20 - 85W	DR275



Off-Grid Ground Mounting Kits

Code	No of Panels	Foot Print (mm)
VOGGM-01	1	1012 x 870
VOGGM-02	2	1530 x 870
VOGGM-04	4	2100 x 1500
VOGGM-06	6	2100 x 1500

- Perfect for stand alone Solar Pumping Applications
- Manufactured in pre-galvanised steel as standard
- 20° Tilt angle as standard
- Customised engineered solutions available on request

Large Scale Ground Mounting System



Code	VLSGM-12*
• 2 Rows of 6 panels in portrait orientation	* For coastal applications: HDG (Hot dipped galvanised)
• Extendable to 40m	* For inland applications: PG (Pre-galvanised)
• Flexible design to suit any panel size	
• 20° Tilt angle as standard	
• Compact and easy to transport & assemble	
• Customised engineered solutions available on request	

PANEL MOUNTING KITS

Kits Includes

- Frame Work & Clamps
- Bolts & Nuts for structure
- Aluminium Profile 4.2m
- Suited for 170 - 290W

			
Code	CK-PM-02NP	CK-TL-08	CK-TNO-08
Description	2 Panel Pole Mounting Kit	8 Panel Tile Mounting Kit	8 Panel Tin-Tilt Mounting Kit
			
Code	CK-TNC-08	CK-GD-08	CK-UT-08
Description	8 Panel Tin-Clamp Mounting Kit	8 Panel Ground Mounting Kit	8 Panel Utility Ground Mounting Kit
			CK-V2-08
			8 Panel Ground Mounting Kit

SOLAR ROOF MOUNTING KITS

Domestic Tile Roof

Code	No of Panels
V2PKIT-TILE	2
V3PKIT-TILE	3
V4PKIT-TILE	4

Kit Includes

- Profiles
- Penetrating Tile Roof Brackets
- Framed PV panel clamps and fasteners for structure assembly



Domestic Corrugated Roof

Code	No of Panels
V2PKIT-COR	2
V3PKIT-COR	3
V4PKIT-COR	4

Kit Includes

- Profiles
- Penetrating Corrugated Brackets
- Framed PV panel clamps and fasteners for structure assembly



IBR Roof

Code	No of Panels
V2PKIT-IBR	2
V3PKIT-IBR	3
V4PKIT-IBR	4

Kit Includes

- Profiles
- Brackets for installation across the rib
- Framed PV panel clamps and fasteners for structure assembly



Kliplock Roof

Code	No of Panels
V2PKIT-KL	2
V3PKIT-KL	3
V4PKIT-KL	4

Kit Includes

- Profiles
- Kliplock Roof Brackets
- Framed PV panel clamps and fasteners for structure assembly



Note: For larger installations or customised solutions contact the solar product specialist

PV JUNCTION BOXES



PV String Box

Code	PV-JBOX16
PV input voltage	<1000V
PV Input string no.	16
Maximum current/string	10A
Protection level	IP65
Communication mode	RS-485, RS-232

Characteristics

- Equipped with PV dedicated surge arrestor
- With function or arrestor failure alarm
- Including RS 232/485 Communication interface

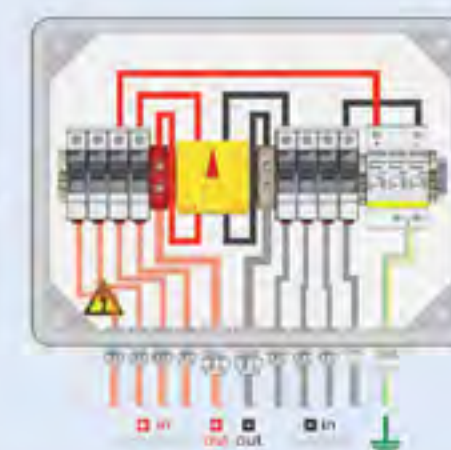
Note: Incl. DIN mount 24VDC 1.25A Power Supply

String Boxes for Grid-Tied Systems - IP65

High voltage string boxes are enclosures where PV arrays are electrically connected and where the isolation function is performed in order to permit maintenance work to be done. Junction boxes are supplied complete with fuse, surge and overload protection.

According to Standards

• IEC 60634-7-712 • IEC 60943-7-3 • EN 61439-1-2 • IEC61643-11



Code	Strings	Voltage	Isc	Surge Protection	Size (mm)	Gland Size
ST039025P	3	1000VDC	25A	Class 2 1000VDC	225 x 305 x 130	M12 / M16
ST049025P	4	1000VDC	25A	Class 2 1000VDC	285 x 380 x 185	M12 / M16
ST068060P	6	800VDC	63A	Class 2 1000VDC	285 x 570 x 185	M12 / M16
ST106080P	10	600VDC	80A	Class 2 1000VDC	380 x 570 x 185	M12 / M16
ST101010P	10	1000VDC	125A	Class 2 1000VDC	405 x 650 x 200	M12 / M16
ST148012P	14	800VDC	125A	Class 2 1000VDC	380 x 760 x 225	M12 / M16
SH161012	16	1200VDC	160A	Class 2 1500VDC	760 x 380 x 225	M12 / M16

Note: For PV surge protection devices and fuses see page 206, 267, 270, 272 of the ACDC Main Catalogue

STRING BOXES

NEW

Characteristics

- Non-SPD: No Surge Protection
- SPD II: Surge Protection Device Class 2
- SPD I,II: Surge Protection Device Class 1+2
- DC Isolation for Outputs
- Separate Fuse Protection for each String
- Max. Current Rating per Fuse 12A / 1000VDC
- Cable Gland Entry to Enclosure
- String Boxes can be manufactured to your specifications in our Panel Workshop



1 in / 1 out



4 in / 1 out



2 in / 2 out

String Boxes with Multiple Inputs to a Single Output

Code (NON-SPD)	Code (SPD II)	Code (SPD I,II)	Voltage	Strings
STRB-600V-1I-1O	STRB-600V-1I-1O-2	STRB-600V-1I-1O-1+2	600V	1:1
STRB-600V-2I-1O	STRB-600V-2I-1O-2	STRB-600V-2I-1O-1+2		2:1
STRB-600V-4I-1O	STRB-600V-4I-1O-2	STRB-600V-4I-1O-1+2		4:1
STRB-600V-6I-1O	STRB-600V-6I-1O-2	STRB-600V-6I-1O-1+2		6:1
STRB-600V-8I-1O	STRB-600V-8I-1O-2	STRB-600V-8I-1O-1+2		8:1
STRB-600V-12I-1O	STRB-600V-12I-1O-2	STRB-600V-12I-1O-1+2		12:1
STRB-600V-16I-1O	STRB-600V-16I-1O-2	STRB-600V-16I-1O-1+2	16:1	
STRB-1000V-1I-1O	STRB-1000V-1I-1O-2	STRB-1000V-1I-1O-1+2	1000V	1:1
STRB-1000V-2I-1O	STRB-1000V-2I-1O-2	STRB-1000V-2I-1O-1+2		2:1
STRB-1000V-4I-1O	STRB-1000V-4I-1O-2	STRB-1000V-4I-1O-1+2		4:1
STRB-1000V-6I-1O	STRB-1000V-6I-1O-2	STRB-1000V-6I-1O-1+2		6:1
STRB-1000V-8I-1O	STRB-1000V-8I-1O-2	STRB-1000V-8I-1O-1+2		8:1
STRB-1000V-12I-1O	STRB-1000V-12I-1O-2	STR-1000V-12I-1O-1+2		12:1
STRB-1000V-16I-1O	STRB-1000V-16I-1O-2	STR-1000V-16I-1O-1+2	16:1	

Protection: Fused, Iso, SPD or NON-SPD

String Boxes with Multiple Inputs and Outputs

STRB-600V-2I-2O	STRB-600V-2I-2O-2	STRB-600V-2I-2O-1+2	600V	2:2
STRB-600V-4I-2O	STRB-600V-4I-2O-2	STRB-600V-4I-2O-1+2		4:2
STRB-600V-4I-4O	STRB-600V-4I-4O-2	STRB-600V-4I-4O-1+2		4:4
STRB-600V-6I-2O	STRB-600V-6I-2O-2	STRB-600V-6I-2O-1+2		6:2
STRB-600V-6I-6O	STRB-600V-6I-6O-2	STRB-600V-6I-6O-1+2	6:6	
STRB-1000V-2I-2O	STRB-1000V-2I-2O-2	STRB-1000V-2I-2O-1+2	1000V	2:2
STRB-1000V-4I-2O	STRB-1000V-4I-2O-2	STRB-1000V-4I-2O-1+2		4:2
STRB-1000V-4I-4O	STRB-1000V-4I-4O-2	STRB-1000V-4I-4O-1+2		4:4
STRB-1000V-6I-2O	STRB-1000V-6I-2O-2	STRB-1000V-6I-2O-1+2		6:2
STRB-1000V-6I-6O	STRB-1000V-6I-6O-2	STRB-1000V-6I-6O-1+2	6:6	

Off Grid PV String Box

Code - Enclosed	STRB-PWM-*	STRB-01	STRB-02	STRB-04	STRB-06
Code - DB Type	-	STRBD-01	STRBD-02	STRBD-04	-
PV input voltage	55VDC	150VDC	150VDC	150VDC	150VDC
PV Input string no.	1	1	2	4	6
Maximum current/string	*5/8/10/20/30/40A	20A	20A	20A	20A
Protection output current	5/8/10/20/30/40A	20A	40A	80A	120A

* Add String Current to Code: 5/8/10/20/30/40A

- Separate fuse protection for each string on positive and negative
- STRB-PWM Includes: PV Isolation & Fuse Protection only
- STRB-01/02/04/06 & STRBD-01/02/04: PV Surge & Fuse Protection and Isolation included



STRB-01



STRBD-02

NEW

DC CIRCUIT BREAKERS

DIN Rail Mounting DC Miniature Circuit breaker - $U_i = 1200V$ / $U_{imp} = 4kV$ | $I_{cu}=I_{cs} :6KA$ | B curve



1P



2P



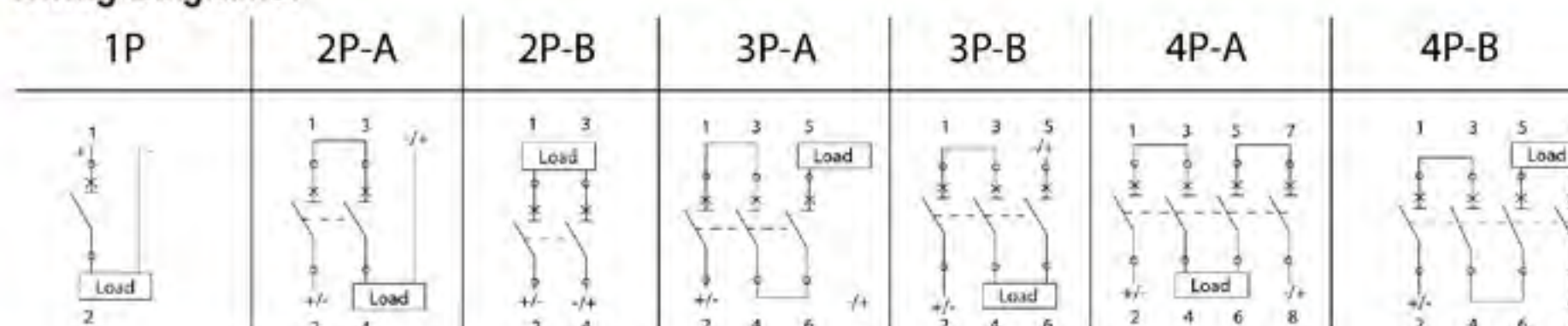
3P



4P

Rated current	1 Pole Code 1M - 300VDC	2 Pole Code 2M - 600VDC	3 Pole Code 3M - 900VDC	4 Pole Code 4M - 1200VDC
10A	BB1-1P-10	BB1-2P-10	BB1-3P-10	BB1-4P-10
16A	BB1-1P-16	BB1-2P-16	BB1-3P-16	BB1-4P-16
20A	BB1-1P-20	BB1-2P-20	BB1-3P-20	BB1-4P-20
25A	BB1-1P-25	BB1-2P-25	BB1-3P-25	BB1-4P-25
32A	BB1-1P-32	BB1-2P-32	BB1-3P-32	BB1-4P-32
40A	BB1-1P-40	BB1-2P-40	BB1-3P-40	BB1-4P-40
50A	BB1-1P-50	BB1-2P-50	BB1-3P-50	BB1-4P-50
63A	BB1-1P-63	BB1-2P-63	BB1-3P-63	BB1-4P-63

Wiring Diagrams:



Moulded Case DC Circuit breaker for ESS - $U_{imp} = 8kV$



BDM-125



BDM-250



EBDM-125



EBDM-250

Nominal current Ratings (In)

Open Code	BDM-125*	BDM-250*	
Enclosed Code IP65	EBDM-125*	EBDM-250*	
Ratings:	U_i/U_e	500VDC	500VDC
	I_{cs}/I_{cu}	15kA	15kA
	Dimensions: Open	165x80x118mm	151x65x119mm
Enclosed	271x154x134mm	271x154x130mm	

See 2P wiring diagram above

DC ISOLATORS



DIN Rail Mounting Modular DC Isolator - DC21B - $U_i = 1200V$ / $U_{imp} = 8kV$

Code	Rated Current	Rated Voltage	Strings	Din Width
BB1H-63-2P	63A	600VDC(300V/Pole)	1	2 modules
BB1H-63-4P	63A	1200VDC(300V/Pole)	1	4 modules

See 2P & 4P wiring diagrams above

Moulded Case DC Isolator - DC21B - $U_i = 1200V$ / $U_{imp} = 8kV$ / $kW = 8kA$



125A



250A



400A

Code	Rated Current	Rated Voltage	Strings	Size (mm) H x W x D
BDH-125	125A	1200VDC(300V/Pole)	1	151 x 123 x 114
BDH-250	250A	1200VDC(300V/Pole)	1	165 x 140 x 110
BDH-400	400A	1200VDC(300V/Pole)	1	259 x 199 x 153

See 4P wiring diagram above

OPEN DC ISOLATORS

DC Rotary Isolator - DC21B - $U_i = 1500V$ / $U_{imp} = 8kV$ / Panel Mount: $\varnothing 16 \times 12mm$ hole



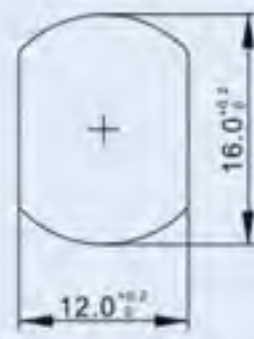
BYSS-2P



BYSS-4P



BYSS-6P

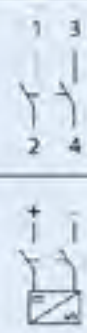


Panel Cutout

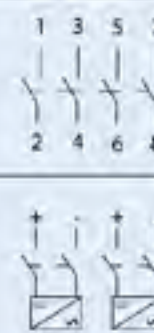
Code	Rated Current@ 800VDC	Rated Current@ 1000VDC	Rated Current@ 1200VDC	Rated Current@ 1500VDC	Strings	Size (mm) H x W x D
BYSS-1-18-2P	25A	18A	15A	-	1	60 x 47 x 94
BYSS-1-18-4P	25A	18A	15A	-	2	60 x 47 x 115
BYSS-1-18-6P	25A	18A	15A	-	3	60 x 47 x 136
BYSS-1-32-2P	40A	32A	25A	-	1	60 x 47 x 94
BYSS-1-32-4P	40A	32A	25A	-	2	60 x 47 x 115
BYSS-1-32-6P	40A	32A	25A	-	3	60 x 47 x 136
BYSS-1-50-2P	50A	50A	40A	16A	1	60 x 47 x 94
BYSS-1-50-4P	50A	50A	40A	16A	2	60 x 47 x 115
BYSS-1-50-6P	50A	50A	40A	16A	3	60 x 47 x 136

Wiring Diagrams:

2P - 1 String



4P - 2 Strings



6P - 3 Strings



Gawe



IP20
Finger safe



Series links
mounted in factory

Panel Mount DC Isolator - DC21 - $U_{imp} = 4kV$

Code	Rated Current @ 300VDC	Rated Current @ 400VDC	Rated Current @ 600VDC	Rated Current @ 800VDC	Rated Current @ 1000VDC	Strings	Panel Depth (mm)
A-5342PV0	35A	-	-	-	-	1	60
A-5362PV0	-	25A	15A	-	-	1	72
A-5382PV0	-	-	25A	10A	-	1	83
A-5102PV0	-	-	-	-	25A	1	95

- Double breaking mechanism - Avoids arcing independent of operator turning speed or pressure
- Contacts in series to optimize electrical characteristics | External series links mounted in factory
- Silver alloy contacts - For additional mounting accessories see the ACDC Main Catalogue.

END OF RANGE



L100AD11

Open Type DC Isolator - DC21B/DC-PV2 (1000V) - $U_i = 1200V$ / $U_{imp} = 8kV$

Code	Rated Current @ 600VDC	Rated Current @ 1000VDC	Rated Current @ 1200VDC	Strings	Size (mm) H x W x D
PV225	25A/10A	20A/8A	12A (DC21B)	1	73 x 53 x 60
PV232	32A/12A	25A/10A	16A (DC21B)	1	73 x 53 x 60
PV425	25A/25A	25A/25A	25A (DC21B)	1	73 x 74 x 60
PV432	32A/32A	32A/32A	32A (DC21B)	1	73 x 74 x 60

- Compact size and wide operating temperature range
- Operating Handle & Shaft to be ordered separately

Open Type Accessories

Code	Description	Code	Description
Shafts		Door Mounting Operating Handles IP66 - Padlockable	
L100AD11	100mm Alu Shaft for KU/VKA	LK10	Black Handle for KU 25 - 80A
L200AD11	200mm Alu Shaft for KU/VKA	LK10Y	Yellow Handle for KU 25-80A
L300AD11	300mm Steel Shaft for KU/VKA	LK10YR	Yellow & Red Handle for KU 25 - 80A
Direct Opening Handle		Door Mounting Kit	
K/PV-2P	2 Pole Direct Handle	OKA/PV-2P	2 Pole Door Mounting Kit
K/PV-4P	4 Pole Direct Handle	OKA/PV-4P	4 Pole Door Mounting Kit



LK10

LK10Y

LK10YR



K/PV

OKA/PV

NEW

HIGH RATING DC ISOLATORS

According to Standards

- IEC 60947-3



General Features

- Extra-quick Circuit-Breaking Technology
- High Insulating Distance (>50mm)
- High Thermal and Dynamic withstand
- Positive Break Indication
- Fast and Easy to Install
- Quick Arc Suppression

DC Isolators - Series bridges, handle & shaft to be ordered separately.

Series **55PV** manually operated load break switches provide safety isolation for any high voltage DC circuit in photovoltaic applications. Designed to isolate one circuit/string.

Code	DC-21B @1000V	Ui	Uimp	Strings	Frame size	Size (mm) H x W x D
55PV2010	100A	1500V	12kV	1	B4	160 x 180 x 95
55PV2016	160A	1500V	12kV	1	B4	160 x 180 x 95
55PV2025	250A	1500V	12kV	1	B4	160 x 180 x 95
55PV2031	315A	1500V	12kV	1	B4	160 x 180 x 95
55PV4016	160A	1500V	12kV	1	B4	160 x 230 x 79
55PV4040	400A	1500V	12kV	1	B4	170 x 230 x 92
55PV4050	500A	1500V	12kV	1	B4	170 x 230 x 92
55PV4063	630A	1500V	12kV	1	B5	260 x 290 x 111
55PV4080	800A	1500V	12kV	1	B5	260 x 290 x 111
55PV4120	1200A	1500V	12kV	1	B6	330 x 360 x 143
55PV4200	2000A	1500V	12kV	1	B7	288 x 492 x 143

Accessories



Frame Size	B4 2P 100-315A	B4 4P 160A	B4 4P 400-500A	B5 4P 630A	B5 4P 800A	B6 4P 1250A	B7 4P 2000A
Protection Screen	S063B4	S064B4		S064B5		S064B6	S064B7
Bridging Bars (Order 2/4P Switch)	-	41DC4026	S04P0500	S04P0800		S04P1100	S04P1200
Direct Handle	S11J1			S11J4			
Panel Mount Handle + 200mm Shaft	55K1G200			-			

For more accessories see **55AC** Range in the ACDC Main Catalogue.

ENCLOSED DC ISOLATORS

Enclosed DC Isolators IP65 - Use standard MC4 connectors



Padlockable Handle Available

Code	Rated Current @ 300VDC	Rated Current @ 400VDC	Rated Current @ 600VDC	Rated Current @ 800VDC	Rated Current @ 1000VDC	Size (mm)
A-5342MC7	35A	-	-	-	-	160 x 130 x 155
A-5362MC7	-	25A	15A	-	-	160 x 130 x 155
A-5382MC7	-	-	25A	10A	-	160 x 130 x 155
A-5102MC7	-	-	-	-	25A	160 x 130 x 155

- Original and compact design
- Base Mounting
- 1 MC4 Output (+ & -)
- 2 MC4 Input (+ & -)
- Enclosure UV resistant
- Simple & fast plugin

Enclosed Type Isolators IP66 - DC21B/DC-PV2 (1000V) - Ui = 1200V / Uimp = 8kV



PVA

PVM

Code PC	Code Alu	Rated Current @ 600VDC	Rated Current @ 1000VDC	Rated Current @ 1200VDC	Strings	Size (mm) H x W x D
PVM225	PVA225	25A/10A	20A/8A	12A (DC21B)	1	131 x 97 x 106
PVM232	PVA232	32A/12A	25A/10A	16A (DC21B)	1	131 x 97 x 106
PVM425	PVA425	25A/25A	25A/25A	25A (DC21B)	1	131 x 97 x 106
PVM432	PVA432	32A/32A	32A/32A	32A (DC21B)	1	131 x 97 x 106

- PC Enclosure - 2 x 20/25mm knock outs top & bottom
- Aluminium Enclosure - 2 x M25, 1 x M16 Entries
- Door interlock with defeat mechanism
- Padlockable Operating Handle
- Good resistance to UV and chemicals
- Wide Operating temperature range - up to 60°C

ENCLOSED DC ISOLATORS

Enclosed DC Isolators - IP66



Glanded Type



MC4 Type

Code Glanded	Code MC4 NEW	Rated Current @ 600VDC	Rated Current @ 1000VDC	Rated Current @ 1200VDC	Strings	Size (mm) H x W x D
SISO-16P2	SISO-16P2-MC4	16A	9A	9A	1	166 x 109 x 108
SISO-25P2	SISO-25P2-MC4	25A	11A	11A	1	166 x 109 x 108
SISO-32P2	SISO-32P2-MC4	32A	13A	13A	1	166 x 109 x 108
SISO-16P4B	SISO-16P4B-MC4	16A	16A	16A	1	166 x 109 x 108
SISO-25P4B	SISO-25P4B-MC4	25A	25A	25A	1	166 x 109 x 108
SISO-32P4B	SISO-32P4B-MC4	32A	32A	32A	1	166 x 109 x 108

- UV Resistant Enclosure
- High Speed Contact Opening: ±2ms
- c/w Earth Terminal
- Interlocked Lid, only removable in off position
- Padlockable Operating Handle
- Rated Temp: -25°C to 85°C



Battery Switch

Code	VIC-BAT-SWITCH
Max. Continuous Current	275A
Rated Voltage	48VDC
Size (mm)	70 x 77 x 70
Mounting	Surface or Panel Mount

The battery switch can be used to isolate a battery from DC loads and/or DC charge sources. It is used to preserve battery charge in case a system is unattended, for system maintenance or in an emergency.



DC FUSES, FUSE HOLDERS & BUSBARS

Type	MIDI Fuses 32VDC	MIDI Fuses 58VDC	MEGA Fuses 32VDC	MEGA Fuses 58VDC	ANL Fuses 80VDC
Code	MIDI32-*	MIDI58-*	MEGA32-*		ANL80-*
* Add Current Rating to Code	100A 125A 150A 200A	60A 100A	60A 80A 100A 125A 150A 175A	200A 250A 300A 400A 500A	400A 500A
Fuse Bases					
Code	MIDI-FB		MEGA-FB	VIC-MEGA-FB	ANL-FB
Description	Standard base		Standard base	Modular base	Standard base

FUSE HOLDERS WITH BUSBARS



- Galvanised steel Terminal and Hex-Nut
- UL 94 HB, Clear Polycarbonate Cover
- Black UL 94 V-0, ABS base

6-Way MEGA Fuse Holder with Busbar

Code	VIC-MEGA6
Max. Current	250A
Max. Voltage	70VDC
Terminal Diameter Height	8mm / 14mm
Busbar Strip Material	Tin-plated Copper (3 x 18mm)
Size (HxWxD)	51 x 182 x 88mm



VIC-MEGA-BB5



VIC-MEGA-BB6

Busbars for use with Modular MEGA Fuse Base









The Single Fuse Holders VIC-MEGA-FB are stacked and used with the busbars to make up a DC bus

Code	VIC-MEGA-BB5	VIC-MEGA-BB6
No. Positions	5	6
Current Rating	500A	1500A
Terminals Size	M10 x 1	M10 x 2
Busbar Size	Copper (40 x 5mm)	

Note: Modular base and busbars are to be ordered separately.

NEW

DC FUSES & FUSE HOLDERS

Photovoltaic Fuses - 10 x 38mm - gPV		Photovoltaic Fuses - 14 x 51mm - gPV		Photovoltaic Fuses - 10 x 85mm - gPV		Photovoltaic Fuses - 14 x 85mm - gPV	
 <p>Rated Voltage: 1000V Breaking Capacity: 20kA</p>		 <p>Rated Voltage: 1000V Breaking Capacity: 20kA</p>		 <p>Rated Voltage: 1500V Breaking Capacity: 20kA</p>		 <p>Rated Voltage: 1500VDC Breaking Capacity: 20kA</p>	
Code	Rated Current	Code	Rated Current	Code	Rated Current	Code	Rated Current
30F1PV	1A	30F10PV	10A	30F15PV-L	15A	F1085GPV-2	2A
30F2PV	2A	30F12PV	12A	30F20PV-L	20A	F1085GPV-4	4A
30F3PV	3A	30F15PV	15A	30F25PV-L	25A	F1085GPV-10	10A
30F4PV	4A	30F20PV	20A	30F32PV-L	32A	F1085GPV-16	16A
30F5PV	5A	30F25PV	25A	30F40PV-L	40A	F1085GPV-20	20A
30F6PV	6A	30F30PV	30A	30F50PV-L	50A	F1085GPV-30	30A
30F8PV	8A						
10 x 38mm DIN Fuse Base - 1000VDC		14 x 51mm DIN Fuse Base - 1000VDC		10 x 85mm DIN Fuse Base - 1500VDC		10/14 x 85mm DIN Fuse Base - 1500VDC	
							
Code	Ratings	Code	Ratings	Code	Ratings	Code	Ratings
SRD-30	1000VDC, 30A	SRD-63	1000VDC, 50A	SRD-32L	1500VDC, 30A	CFPV63L	1500VDC, 50A

NH Photovoltaic Fuses - gPV			1000VDC NH Fuse Bases	
Code	Rated Current	DIN Fuse Size	Code	Ratings
NH1GPV-32	32A	1	NH1PVB	Size 1 1000VDC, 250A
NH1GPV-40	40A	1	NH2XLB	Size 2XL 1000V, 400A
NH1GPV-50	50A	1		
NH1GPV-63	63A	1		
NH1GPV-80	80A	1		
NH1GPV-100	100A	1		
NH1GPV-125	125A	1		
NH1GPV-160	160A	1		
NH2XLGPV-200A	200A	2XL		
NH2XLGPV-250A	250A	2XL		
NH2XLGPV-315A	315A	2XL		
NH2XLGPV-350A	350A	2XL		
NH2XLGPV-400A	400A	2XL		

NEW

1000VDC FUSEHOLDERS

Gaue

Fuse Holders for DC Applications

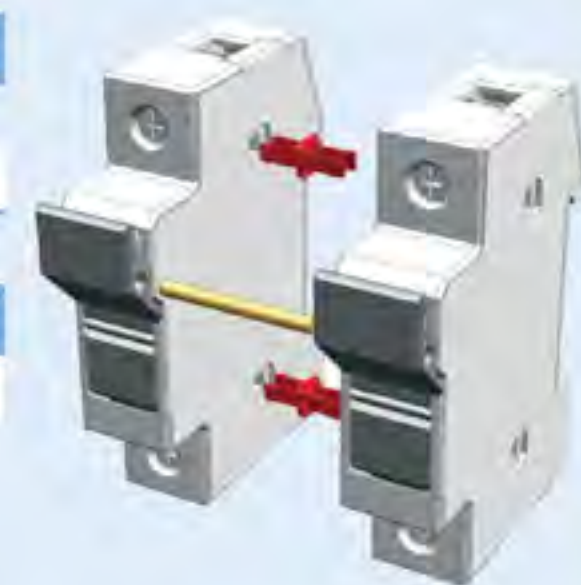
Code	Thermal Rating	Fuse Size	Poles	Width
211PV	20A	10 x 38	1 Pole	18mm
221PV	50A	14 x 51	1 Pole	27mm

Accessories

Code	Description
21KE	Multipole assembly kits

- According To**
- IEC 60947-1
 - IEC 60947-3
- Characteristics**
- 1000VDC - DC-20B
 - Mounting 35mm DIN rail
 - High temperature resistant plastics
 - Elevated insulation characteristics

For multipole fuse holders use multipole assembly kits - 21KE



SOLAR

PHOTOVOLTAIC SYSTEM PROTECTION



Photovoltaic Arrester: Class 1+2

Combined lightning and surge arrester for use in photovoltaic power supply systems. Fault-resistant Y circuit prevents damage to the surge protective device in case of insulation faults in the generator circuit.

Code	Description	In (8/20µs)	I _{tot} (8/20µs)	I _{imp} (10/350µs)	I _{tot} (10/350µs)	Aux	U _p	U _{cpv}
900070	DEHNcombo YPV 1200	20kA	40kA	6.25kA	12.5kA	No	≤3.8kV	≤1200V
900071	DEHNcombo YPV 1500	20kA	40kA	6.25kA	12.5kA	No	≤4.5kV	≤1500V



Photovoltaic Arrester with Integrated DC Fuse: Class 2

Combined disconnection and short circuiting device with safe isolation in the plug-in module prevents fire damage caused by DC arcing (patented SCI principal).

Code	Description	In (8/20µs)	I _{max} (8/20µs)	Aux	U _p	U _{cpv}	Replacement Modules	
							+/-	
952518	DEHNGuard M YPV SCI 150 FM	10kA	20kA	Yes	≤ 0.8kV	150V	952055	952045
952516	DEHNGuard M YPV SCI 600 FM	12.5kA	25kA	Yes	≤ 2.5kV	600V	952053	952043
952515	DEHNGuard M YPV SCI 1000 FM	12.5kA	25kA	Yes	≤ 4kV	1000V	952051	952041
952517	DEHNGuard M YPV SCI 1200 FM	12.5kA	25kA	Yes	≤ 4.5kV	1200V	952054	952044



Photovoltaic Arrester: Class 2

Plug-in with flag indication. High reliability due to "Thermo-dynamic Control" SPD monitoring device.

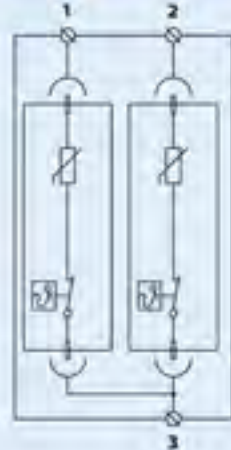
Code	Description	In (8/20µs)	I _{max} (8/20µs)	Aux	U _p	U _{cpv}	Replacement Modules
952565	DEHNGuard M YPV 1200 FM	20kA	40kA	Yes	≤ 4kV	1170V	952048
952567	DEHNGuard M YPV 1500 FM	15kA	40kA	Yes	≤ 5kV	1500V	952049

U2

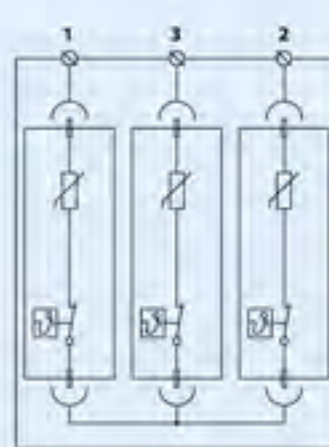
PHOTOVOLTAIC SYSTEM PROTECTION



SLP-PV V/U



SLP-PV V/Y



Surge Arrester for PV Systems: Class 2 - c/w Flag Indication & Replaceable Modules

Varistor surge arrestors for protection of PV systems where the separating spark-over distance is kept or without LPS. Maximum continuous operating voltage for PV application: U_{cpv} ≥ 1.2 x U_{oc stc}

Code	No. of Poles	I _{max} (8/20µs)	In (8/20µs)	U _p	U _{cpv}	DIN Width	Aux
SLP-PV170 V/U	2	40kA	15kA	0.6/12kV*	170 / 340VDC*	2	N
SLP-PV500 V/U	2	30kA	15kA	2/4kV*	510 / 1020VDC*	2	N
SLP-PV700 V/Y	3	40kA	20kA	3.6kV	750VDC	3	N
SLP-PV1000 V/Y	3	30kA	15kA	4.0kV	1020VDC	3	N
SLP-PV1500 V/Y	3	40kA	15kA	6.4kV	1500VDC	3	N

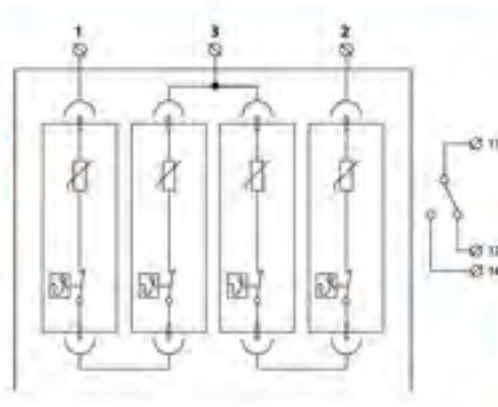
* Connection: 1-3, 2-3 / 1-2

Replacement Varistor Modules

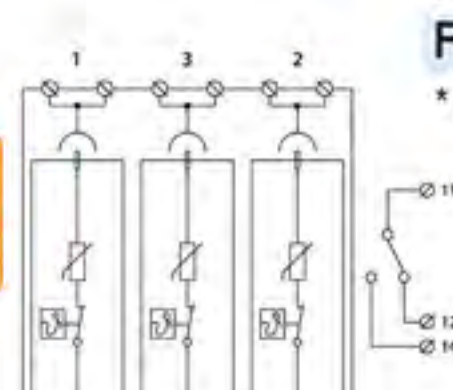
Code	SLP-PV170U V/O	SLP-PV500U V/O	SLP-PV350Y V/O	SLP-PV500Y V/O	SLP-PV750Y V/O
U _{cpv}	170V	500V	700V	1000V	1500V



FLP-PV550 V/US



FLP-PV1000 VS/Y



Surge Arrester for PV Systems: Class 1 + 2 - c/w Flag Indication and Replaceable Modules

Varistor lightning current arrester for the protection of PV systems on roofs, where the separating spark-over distance is not kept (connection to LPS). Maximum continuous operating voltage for PV application: U_{cpv} ≥ 1.2 x U_{oc stc}

Code	No of Poles	I _{tot} /I _{imp} (10/350µs)	I _{max} (8/20µs)	In (8/20µs)	U _p	U _{cpv}	DIN Width
FLP-PV550 V/US	4	25kA (total)	60kA	30kA	2.4/4.8kV*	560/1120VDC*	4
FLP-PV1000 VS/Y	3	12.5kA (imp.)	60kA	30kA	3.6kV	1000VDC	6

* Connection: 1-3, 2-3 / 1-2 Replacement Varistor modules: **FLP-PV275U V/O** (550V), **FLP-PV500Y V/O** (1000V)

PV SURGE PROTECTION DEVICES



Surge Arrestor for PV systems: Class 2 - c/w Flag Indication

For protection against lightning surge voltages in solar systems. It's recommended that protection is installed at both ends of the DC power supply line (solar panel side and inverter/converter side), especially if the line routing is external & long. High energy MOVs equipped with specific thermal disconnectors and related failure indicators.

Code	No. of Poles	I _{max} (8/20μS)	I _n (8/20μS)	Up	U _{cpv}	U _{oc} Max
SUP2-PV-500V	2	40kA	20kA	≤ 2.0kV	500VDC	500VDC
SUP2-PV-1000V	3	40kA	20kA	≤ 3.8kV	1000VDC	900VDC
SUP2-PV-1500V	3	40kA	20kA	≤ 5.0kV	1560VDC	1500VDC

INSTALLATION TOOLS & ACCESSORIES

	Wire Stripper	Wire Stripper	X-PRO 50mm Shears	Maxi Grip	Crimping Tool	Solar Tool Kit
Code	STRIP-7-SOLAR	STRIP-SOLARMINI	BM1325	BM1311	BM531	PV-BOX
	An automatic stripper for round cables used in PV solar and electric fence installation. Precise adjustment allows easy removal of multiple insulation layers of solar cables from 1.5-6mm ² .	<ul style="list-style-type: none"> • Stripping depth stop • Compact wire stripper designed for the solar industry • Suits 1.5-6mm² cable • Side blade cutter 	<ul style="list-style-type: none"> • Innovative new spring loaded opening action • For the easy stripping and cutting of cables • Especially designed blade for cutting of aluminium and copper cables up to a size of 50mm² 	<ul style="list-style-type: none"> • Wire Shears • Bi-Component handle for greater cutting force • Non-slip serrated blades • Tempered stainless steel blade • Belt clip holder 	<ul style="list-style-type: none"> • For barrel open terminals 0.5-6mm² • Possibility to change the crimping force 	Aluminium box with foam cushion for PV tools. All tools in storage.
					MET	Solar Connector Spanner
						 PV-STX

Solar-Flex White - 290ml

Code **WST-310SOL-WH**

Elastic one-component adhesive and sealant with fast development of adhesive strength.

It contains no substances that hinder the coating of laquer (eg. silicone), no solvents and no isocyanate.

Solar-Flex has a very high initial adhesive strength and also enables adhesive bonds on vertical surfaces indoors and outdoors.

P3

For strongly stressed adhesive bonds in the following areas:

- Solar Power systems
- Junction Boxes
- Marking Systems
- Metal Working
- Tank and apparatus construction
- Ventilation and air conditioning and wherever silicone or products containing silicone are unsuitable.

Advantages

- High initial adhesive strength on vertical surfaces;
- Broad range of adhesion, even on moist surfaces;
- Resistant to weathering and UV;
- Free of silicone, isocyanate and halogen;
- Solvent-Free, odour-free, non-corrosive;
- Sandable & can be painted over even when wet.



SOLAR MODULE ANALYSER



Solar Module Analyser

Code	Description
PROVA200	Solar Panel Performance Analyser
PROVA300XP	Test Result Printer

- Voltage Range: 0-60VDC
- Current Range: 0-6A
- I-V Curve Test for Solar Cell
- Pmax Search by Auto-Scan (60V, 6A)
- Maximum Voltage (Vmaxp) At Pmax
- Maximum Current (Imaxp) At Pmax
- Voltage At Open Circuit (Vopen)
- Current at Short Circuit
- Calculation of Efficiency (%)
- Manual Single Point Test

PV INSTALLATION SAFETY TESTER

Eutotest PV

Code	MI-3108
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Photovoltaic Installation

Voltage	0 - 999 VAC/DC I-V: 0 - 999 VDC
Current	Panel: 0 - 300 ADC Invert: 0 - 300 AAC I-V: 0 - 15 ADC
Power	Panel: 0 - 999 kW I-V: 0 - 14.99 kW
U / I Curve	1000V / 15A / 15kW
Irradiation	0 - 1.75 kW/m ²
Temperature	-10 - + 85°C

Electrical Installation

Insulation resistance (EN 61557-2)	Test Voltages = 50, 100, 250, 500, 1k VDC: R: up to 999 MΩ
Continuity 7mA/200mA (EN 61557-4)	0.0 - 1999 Ω
Loop/Line Impedance (EN 61557-3)	0.0 - 9.99 kΩ
Voltage	0 - 550 VAC
Frequency	0.0 - 499.9 Hz
Phase sequence (EN 61557-7)	1.2.3 or 3.2.1
RCD testing (EN 61557-6)	IΔN: 10mA, 30mA, 100mA, 300mA, 500mA, 1A
Trip-out time	0 - 40 ms
Trip-out current	0.2 - 2.2 x IΔN
Earth resistance (EN 61557-5)	0.0 - 9999 Ω
Energy	0.0 - 999 kWh
Harmonics	up to 11th
Power supply	6 x 1.2 V NiMH batteries, type AA
Overvoltage category	CAT II / 1000 VDC; CAT III / 600 V; CAT IV / 300V
COM port	RS232 and USB



Photovoltaic Installations:

- Calculation of STC values: the measured current and voltage values are, according to environment conditions, recalculated to Standard Test Condition values
- Graphical representation of the I-V characteristic of PV module or string
- Power and efficiency measurements: 2 voltage & 2 current channels for simultaneous AC & DC parameters measurements.
- PV Remote Unit: Optional unit for simultaneous measurements of solar irradiation and temp of PV module

Electrical installations:


- RCD Auto: Automated RCD testing procedure
- Trip Lock function
- B type RCD testing: is supported.
- Earth resist. measurement - Optional accessories required
- Online voltage monitoring
- Scope function
- Harmonics analysis: up to 11th harmonics
- Memory: Up to 1800 test or up to 500 graphical results
- BT connectivity: it enables BT communication with Android tablets and smart phones via optional BT dongle.

See the full specification sheet on www.acdc.co.za

Accessories

Code	Description	Code	Description	Code	Description	Code	Description
A1378	Eurotest PV Remote	A1018-M	Current Clamp	A1401	Tip Commander (3-wire)	A1391	AC/DC Current Clamp
						A2026	Earth 20m Set (3-wire)
						A1436	Bluetooth Dongle


PV CONNECTORS



PV MC4 Male Branch Connector

Code	Description	Pack
905229-1	PV MC4 FMM Branch	1


- For secure and easy connection of PV modules in parallel
- FMM = Female / Male / Male Connectors



PV MC4 Female Branch Connector


Code	Description	Pack
905228-1	PV MC4 MFF Branch	1

- For secure and easy connection of PV modules in parallel
- MFF = Male/ Female/ Female Connectors




PV MC4 Male Coupling Connector

Code	Cable Size	Cable Ø mm	Spare Pin
PV-ST01/M1	2.5-4mm ²	4.7 - 6	PV-ST01/PINM1
PV-ST01/M2	4 - 6mm ²	5.6 - 6.9	PV-ST01/PINM2
NEW PV-ST01/M3	10mm ²	6.9 - 8.7	PV-ST01/PINM3




PV MC4 Female Coupling Connector

Code	Cable Size	Cable Ø mm	Spare Pin
PV-ST01/F1	2.5mm ²	3 - 6	PV-ST01/PINF1
PV-ST01/F2	4 - 6mm ²	6.5 - 7.5	PV-ST01/PINF2
NEW PV-ST01/F3	10mm ²	6.9 - 8.7	PV-ST01/PINF3




PV MC4 Male Panel Mounting Connector

Code	Cable Size	Spare Pin
PV-PM01/M1	2.5 - 4mm ²	PV-ST01/PINM1
PV-PM01/M2	4 - 6mm ²	PV-ST01/PINM2



PV MC4 Female Panel Mounting Connector


Code	Cable Size	Spare Pin
PV-PM01/F1	2.5 - 4mm ²	PV-ST01/PINF1
PV-PM01/F2	4 - 6mm ²	PV-ST01/PINF2



T4 Connectors For Canadian Solar IP68


Code	Connector	Cable Size	Cable Ø mm	Pack
T4-PC-1-F	Female	4/6mm ²	4.3 - 6.6	1
T4-PC-1-M	Male	4/6mm ²	4.3 - 6.6	1

- Provides lower contact resistance which ensures high product efficiency
- Ratings 1000V/32A



Water Proofing Plugs for MC4


Code	Description
PV-CAP-F	MC4 Sealing Cap Female
PV-CAP-M	MC4 Sealing Cap Male



PV MC4 Fly-Leads

Code	Description
SLE-1M	1m 4mm PV Cable MC Male & Female
SLE-2M	2m 4mm PV Cable MC Male & Female
SLE-5M	5m 4mm PV Cable MC Male & Female
SLE-10M	10m 4mm PV Cable MC Male & Female


- 1000VDC UV Resistant



PV Panel Box Enclosure IP67


Code	Description	Cable Size
903709	PV panel box enclosure	2.5 - 10mm ²

- For connecting to panel contacts
- Durable and weather resistant
- Modules protected by means of one or more diodes
- Temperature Range: -40°C - +90°C
- UV-Resistant
- High-quality contacts
- Material: Contact: CuSn Casing: PC/PA



PV MC4 Inline Fuse Holder

Code	Fuse Type	Rated Voltage	Rated Current
SY-CF4A	10 x 38mm	1000VDC	1-20A
SY-CF0-15	10 x 85mm	1500VDC	1-30A



PV MC4 Inline Diode

Code	Description
SY-CM4A-D	Inline Diode 15A Max

Rated Voltage: 1000VDC

SOLAR CABLE

- Rated Voltage: 600/1000VAC; 900/1500VDC
- Stranded tin-plated copper insulated with XLPE under a PVC jacket



Solar Cable (100m roll)

Code	Colour	Size mm ²	Amps
SW101* BK	Black	2.5mm ²	41A
SW102* BK	Black	4mm ²	55A
SW103* BK	Black	6mm ²	70A
SW110* BK	Black	10mm ²	98A
SW101* R	Red	2.5mm ²	41A
SW102* R	Red	4mm ²	55A
SW103* R	Red	6mm ²	70A
SW110* R	Red	10mm ²	98A

*Add cut length to code: /5m, /10m, /20m, /50m, /500m, /1000m

WIR

SOL

BATTERY TERMINALS

Supplied 2pcs in Hanging Bag 					
Code	PRE4X4-2	PREBC-2	PREHD-2	PREHD12-2	PRELD-2
Terminal Type	4 X 4	Battery Cap	Heavy Duty	Heavy Duty	Light Duty
Cable Clamp	Universal Clamp	-	Universal Clamp	M12 Bolt	Universal Clamp
Material	Terminal P+N Brass	Red+Green Brass	Terminal P+N Brass	Terminal P+N Brass	Terminal P+N Brass
Supplied 2pcs in Hanging Bag 					
Code	PREMAR-2	PREQR-2	PRESTD-2	PRESTD-2	JHC150-1 (1Pc) JHC150-2 (2Pc)
Terminal Type	Marine	Quick release	Standard	Standard	Standard
Cable Clamp	Wingnut	For "PRE" Series	Universal Clamp	Universal Clamp	Universal Clamp
Material	Marine Brass	Brass	Terminal P+N Brass	Terminal P+N Nickle Plated	Terminal Lead

NEW

BATTERY TERMINAL INSULATORS

	Stud Terminal Insulators - Ø25.4mm				Lug & Ring Insulator - Ø32mm		Lug & Ring Insulator - Ø40mm		Tapered Battery Cable Boot	
Code	405N2-*	405N9-*	406N3-*	406N9-*	487N7-*	487N8-*	600N3-*	600N4-*	415N7V-*	415N9V-*
Entry Size Ø	7.6mm	12.7mm	4.1mm	19mm	15.2mm	16.5mm	12.7mm	2 x 12.7mm	11.2mm	15.9mm
Post Height	Ø24.8mm	24.8mm	23.88mm	23.88mm	24.9mm	24.9mm	41.1mm	41.1mm	18.8mm	18.8mm
	Tapered Snap-on Insulators		Offset Snap-On Insulators			Marine Boot Insulator		Snap-in Top - For Multi Cable		
Code	417N9-*		453D9V14			454D9V02		457N2-*		457N3-*
Entry Size	12.7mm		12.7mm			12.7mm		8.1mm		14.0mm
Post Height	23.1mm		18.8mm			18.8mm		48.3mm		48.3mm

*Add colour to code: ● BK (Black), ● R (Red)

NEW

POWER CONNECTIONS

4 Point Terminal Busbar



Code	Cover	No. of Studs	Max. Voltage	Max. Current Rating	Size: H x W x L (mm)
74008N*	723N*	4 x 8mm	48VDC	250A @ 12V	44 x 36 x 165
74010N*	723N*	4 x 10mm	48VDC	250A @ 12V	44 x 36 x 165

*Add colour to code: ● BK (Black), ● R (Red)

Dual 4 Point Terminal Busbar



Code	Cover	Polarity	No. of Studs	Max. Voltage	Max. Current Rating	Size: H x W x L (mm)
738834N	738N3P05	Negative	4 x 10mm ²	48VDC	250A @ 12V	45 x 76 x 146
		Positive	4 x 8mm	48VDC	250A @ 12V	45 x 76 x 146

NEW

ASTERION LEAD-ACID BATTERIES



DTS12100



DTS12200



DTM12100L



GEL12-100

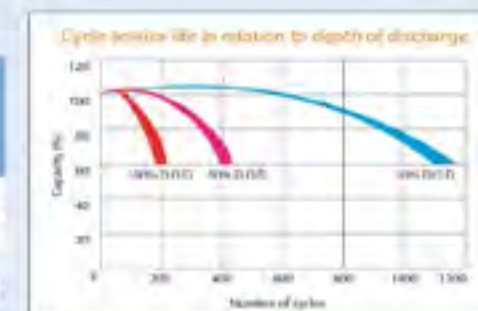


GEL12-200

Asterion DTS - AGM

Suitable for use in UPS and Back-up Power Applications and renewable energy systems

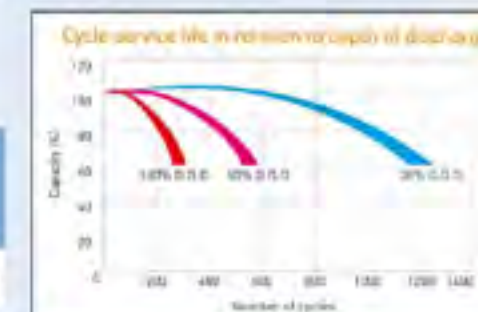
Code	Nominal Voltage	Nominal Capacity	Terminal	Size (mm)
DTS12100	12V	100Ah	M6 Terminal	330 x 173 x 222
DTS12200	12V	200Ah	M8 Terminal	522 x 238 x 223



Asterion DTM(L) - AGM

DTM L refers to a Long-Life series with a service-life up to 12 years. Suitable for use in UPS and Back-up Power Applications and renewable energy systems.

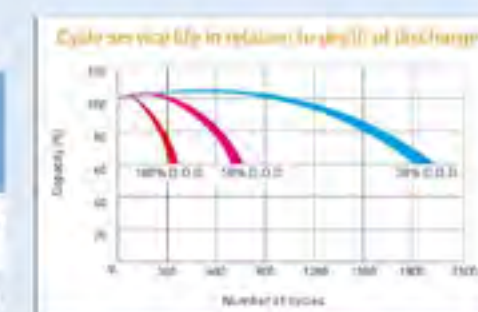
Code	Nominal Voltage	Nominal Capacity	Terminal	Size (mm)
DTM12100L	12V	100Ah	M6 Terminal	330 x 171 x 220



Asterion GEL - AGM+GEL

Equipped with a built-in LCD display showing the battery status: voltage, charge level and operating time. Recommended for use in autonomous power systems and renewable energy systems.

Code	Nominal Voltage	Nominal Capacity	Terminal	Size (mm)
GEL12-100	12V	100Ah	M6 Terminal	333 x 173 x 222
GEL12-200	12V	200Ah	M8 Terminal	522 x 239 x 222



DEEP CYCLE BATTERIES

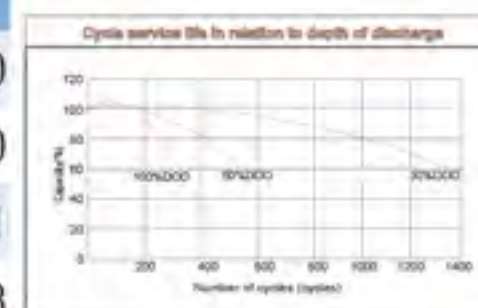
Deep Cycle AGM

* Battery sizes may be changed by manufacturer



Deep cycle Battery is specially designed for frequent cycling applications. This battery uses high-tin alloy positive plate, active paste materials and stronger electrolyte, which gives 30% longer life.

Code	Nominal Voltage	Nominal Capacity	Terminal type	*Size (mm)
SY12035	12V	35Ah	M5	196 x 131 x 180
SY12045	12V	45Ah	M6	197 x 166 x 170
SY12065	12V	65Ah	M6	350 x 167 x 181
SY120102	12V	102Ah	M6	331 x 173 x 218
SY120200	12V	200Ah	M8	522 x 240 x 240



DEEP CYCLE SOLAR BATTERIES

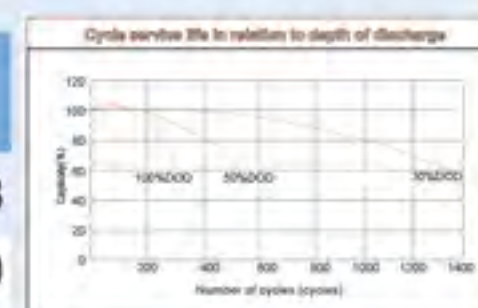
AGM / Gel Solar Batteries

- Reduce Cell failure due to premature dry-out
- Extend cycle service life by reducing plate corrosion
- Gelled Thixotropic Electrolyte

Note: Please ensure that the inverter/charger used can be set up with gel specific charging parameters.



Code	Nominal Voltage	Nominal Capacity	Terminal	Size (mm)
NSB065-12	12V	65Ah	M6 Terminal	350 x 167 x 183
NSB100-12	12V	100Ah	M6 Terminal	328 x 172 x 220
NSB200-12	12V	200Ah	M8 Terminal	522 x 240 x 240
NSB250-12	12V	250Ah	M8 Terminal	520 x 268 x 240



MOBILE POWER LITHIUM BATTERIES

13V Mobile Power Series IP56

Mobile Power Series range is perfectly positioned as a drop-in replacement for the normal Lead Acid battery, giving you a high-quality, light and ultra-reliable solution for your home, vehicle use, outdoor and security.



Code	BN13V-8-104WH	BN13V-11-140WH	BN13V-22-280WH	BN13V-44-570WH
Capacity @ C10, 25°C	104Wh / 8Ah	140Wh / 11Ah	280Wh / 22Ah	570Wh / 44Ah
Nominal Voltage	13VDC			
Discharge Current (Cont/Burst 30s)	1.44A / 7.2A	11A / 20A	20A / 40A	44A / 8A
Cycle Life @ 100% DoD, C10, 25°C	> 2000 cycles			
Cycle Life @ 80% DoD, C10, 25°C	> 3000 cycles			
Cycle Life @ 50% DoD, C10, 25°C	> 5000 cycles			
Dimensions (W x D x H)	150 x 65 x 95mm	151 x 99 x 100mm	181 x 77 x 167mm	196 x 166 x 184mm
Net Weight	1.3kg	1.5kg	2.6kg	5.5kg

- Ultra-safe Lithium Iron Phosphate (LiFeYPO4) technology
- Integrated battery management System (BMS)
- Light weight & compact
- Highly durable ABS enclosure
- 3 Year Limited Warranty



Code	BN13V-108-1.4K	BN13V-108-1.4K-BT	BN13V-218-2.8K
Capacity	1400Wh / 100Ah	1400Wh / 100Ah	2800Wh / 200Ah
Nominal Voltage	13VDC		
Discharge Current (Cont/Burst 30s)	110A / 160A	Recommended: 50A / Max: 100A	100A / 200A
Cycle Life @ 100% DoD, C10, 25°C	> 2000 cycles		
Cycle Life @ 80% DoD, C10, 25°C	> 3000 cycles		
Cycle Life @ 50% DoD, C10, 25°C	> 5000 cycles		
Dimensions (W x D x H)	330 x 173 x 220mm	330 x 175 x 195mm	522 x 240 x 245mm
Net Weight	14kg	12.5kg	27kg

RACK-MOUNT LITHIUM BATTERY

RacPower Range

- Developed to support business and telecommunications industries
- Can be mounted in 19" server cabinets
- Up to 6 x **BN52V-100-5.2k-BP** units (31kWh) & up to 9 x **BN52V-100-5.2k-DU** units (46kWh) can be connected in parallel
- Battery anti-theft CryptoLock functionality for **BN52V-100-5.2k-BP**
- Serial communication compatible with leading inverter brands (CAN/RS485)
- **DU-10 Year Limited Warranty**
- **BP-6 Year Limited Warranty**

Daily use



Backup Power



Code	BN52V-100-5.2K-DU	BN52V-100-5.2K-BP
Capacity	5120Wh	5120Wh
Normal Voltage	51.2V	51.2V
Max. Cont. Charge Current	60A ≤ 60A recommended	50A ≤ 30A recommended
Max. Cont. Discharge Current	100A	100A for 30mins ≤ 70A recommended
Life Cycles @ 100% DoD, C2	5000 cycles	3000 cycles
Life Cycles @ 80% DoD, C2	7500 cycles	4500 cycles
Dimensions (W x D x H)	483 x 520 x 178mm	481 x 435 x 135mm
Net Weight	55kg	43kg

Accessories

Code	Description
BN52V-DU-1-BRKT	Wall Mounting Bracket for 1 x BN52V-100-5.2K-DU/BP
BN52V-DU-2-BRKT	Wall Mounting Bracket for 2 x BN52V-100-5.2K-DU/BP



BN52V-DU-1- BRKT

BN52V-DU-2- BRKT

BN52V-DU-2-BRKT



LITHIUM BATTERIES

High Current (HC) Range

- High performance ultra-reliable Lithium Iron Phosphate chemistry LiFeYPO4
- Fully rechargeable in as little as 1.5 hours (see maximum charging current)
- Serial communication (CANBUS) compatible with leading inverter brands
- On-board monitoring & diagnostics via integrated user interface / display
- Marine-grade stainless steel enclosure
- 10 Year product warranty
- < 2% Self discharge per month



Nominal Voltage	13VDC		26VDC		
Code	BN13V-280-3.6K-HC	BN13V-560-7.3K-HC	BN26V-280-7.3K-HC	BN26V-560-14.5K-HC	BN26V-840-21.8K-HC
Capacity @C2, 25°C	3640Wh	7280Wh	7280Wh	14560Wh	21840Wh
Max. Continuous Charge / Discharge	250A	320A	240A	320A	320A
Cycle Life @ 100% DoD @C2, 25°C			3600 Cycles (20% fade)		
Cycle Life @ 80% DoD @C2, 25°C			5000 Cycles (20% fade)		
Cycle Life @ 70% DoD @C2, 25°C			7000 Cycles (20% fade)		
Dimensions (mm)(WxDxH)	510 x 210 x 310	800 x 210 x 310	800 x 210 x 310	800 x 210 x 620	800 x 210 x 1240
Weight	40kg	80kg	80kg	170kg	270kg

Nominal Voltage	52VDC				
Code	BN52V-280-14.5K-HC	BN52V-560-29K-HC	BN52V-840-43.6K-HC	BN52V-1120-58.2K-HC	BN52V-1400-72.8K-HC
Capacity @C2, 25°C	14560Wh	29120Wh	43680Wh	58240Wh	72800Wh
Max. Continuous Charge / Discharge	240A	320A	720A	960A	960A
Cycle Life @ 100% DoD @C2, 25°C			3600 Cycles (20% fade)		
Cycle Life @ 80% DoD @C2, 25°C			5000 Cycles (20% fade)		
Cycle Life @ 70% DoD @C2, 25°C			7000 Cycles (20% fade)		
Dimensions (mm)(WxDxH)	800 x 210 x 620	800 x 210 x 1240	800 x 720 x 1250	800 x 720 x 1250	1400 x 720 x 1250
Weight	170kg	340kg	500kg	700kg	270kg



BATTERY MONITORING AND CONTROL



The BlueNova BMAC has been designed to integrate BlueNova with inverter system. The BMAC will handle all serial (CAN/RS485) communication between a BlueNova battery and listed compatible inverter systems and provide remote system monitoring and control functionality.

BMAC - Battery BMS with integrated WiFi Module for Local & Remote Monitoring

Code	BMAC-WIFI
Supply Voltage	7-100VDC
Comms Ports	<ul style="list-style-type: none"> • RS485 Port (RJ45) • Inverter CAN Port (RJ45) • Battery BMS CAN Port (RJ45) • USB Port (Micro)

Kit Includes

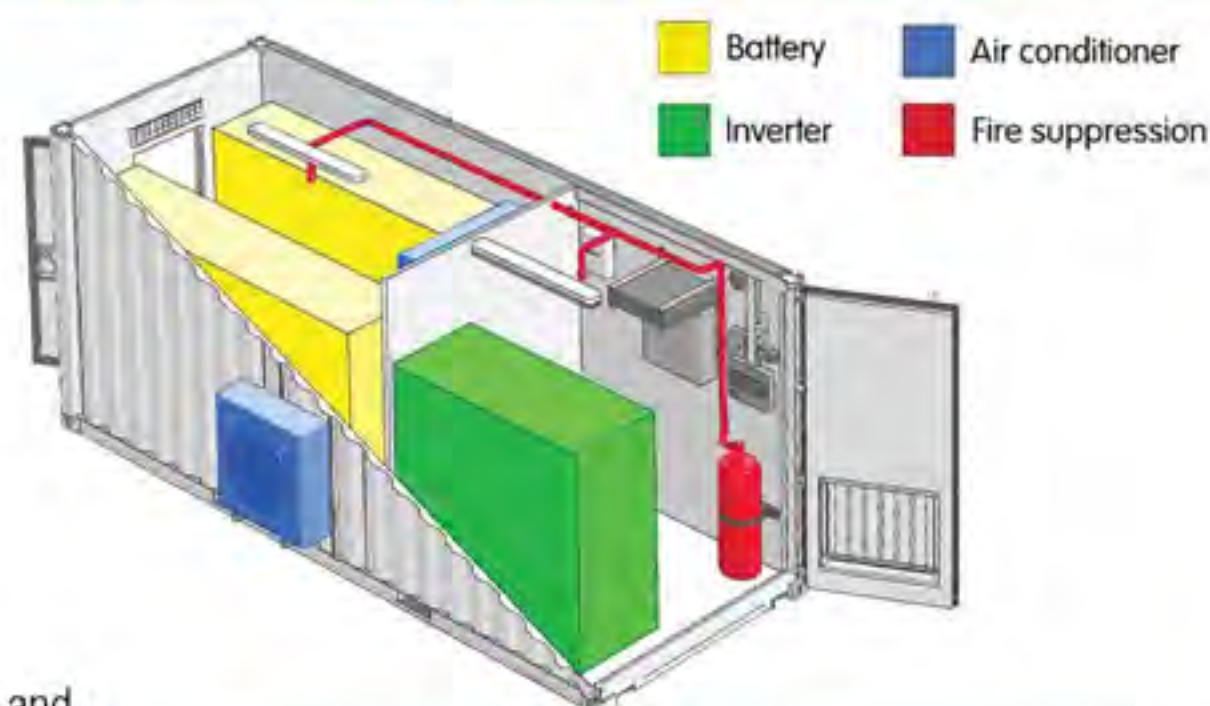
- DC Power Supply
- CAN Cable
- RS485 Cable
- USB Cable



INTELLIGENT ENERGY STORAGE SYSTEM

The BlueNova® iESS is a Containerised intelligent Energy Storage System, equipped with:

- One or more battery inverters
- High voltage lithium ion battery pack with a life expectancy rating of up to 20 years under normal operating conditions
- BMS (Battery Management System)
- RMaC (Remote Monitoring and Control) which is the EMS (Energy management System)
- HVAC to maintain ideal operating temperature
- Fire suppression system if necessary
- Access control system if necessary
- Station DC system, Emergency stop and Internal electrical distribution complete and ready to plug and play into the network. Multiple of these containers can be installed in parallel to provide increased power and energy levels.



Please contact our Solar Sales Team for assistance with designing a solution engineered to meet your project requirements.

LITHIUM BATTERIES

12V LiFePO4 Battery Range



SPF12-7.5



SPF12-20



SPF12-40



SPF12-60



SPF12-100

Code	SPF12-7.5	SPF12-10	SPF12-20	SPF12-40	SPF12-60	SPF12-100
Nominal Voltage	12.8V (14.6V)	12.8V (8-15.6V)	12.8V (8-15.6V)	12.8V (8-15.6V)	12.8V (8-15.6V)	12.8V (14.6V)
Nominal Capacity	7Ah	10Ah	20Ah	40Ah	60Ah	100Ah
Energy	89.6Wh	128Wh	256Wh	512Wh	768Wh	1280Wh
Max Cont. Discharge Current	7A	10A	20A	40A	60A	100A
Terminal	6.3mm Fast On	6.3mm Fast On	M5	M6	M6	M6
Weight	1.06kg	1.6kg	2.75kg	5.75kg	9kg	13.1kg
Dimensions (mm)	151 x 65 x 100	151 x 98 x 101	181 x 77 x 167	197 x 165 x 170	259 x 168 x 214	328 x 170 x 200

- Self Discharge: <3%/month
- BMS Functions:
 - Over Charge, Over Discharge, Over Current Protection
 - Short Circuit & Temperature Protection
 - Balancing Function

Freedom Won Lite Home and Business 52V Range

Freedom Won's LITE technology incorporates the highest quality LiFePO4 cells with an advanced battery management system (BMS) and protection features, ensuring an ultra-safe battery with high power capabilities.

freedom
WON



Code	FLHOME-5/4	FLHOME-10/8	FLHOME-15/12	FLHOME-20/16
Nominal voltage	52VDC	52VDC	52VDC	52VDC
Total Energy Capacity	5kWh	10kWh	15kWh	20kWh
Useable energy @80% DoD	4kWh	8kWh	12kWh	16kWh
Capacity	100Ah	200Ah	300Ah	400Ah
Max. And Cont. Charge Current	100A	200A	300A	400A
Max./Cont. Discharge Current	200A /100A	300A/200A	480/300A	480/400A
Dimensions HxWxD (mm)	500 x 340 x 290	745 x 340 x 290	745 x 490 x 290	745 x 640 x 290

- Control Interface: 2x RJ45CANBUS ports for interfacing with compatible inverters and System controllers.
- Protection: integrated DC circuit Breaker controlled by BMS
- DC Connection: Integrated 1.8m flyleads.
- Cycle life : ≥5500 expected life @ 80% DoD



Code	FLHOME-30/24	FLHOME-40/32	FLBUS-60/48	FLBUS-80/64
Nominal voltage	52VDC	52VDC	52VDC	52VDC
Total Energy Capacity	30kWh	40kWh	60kWh	80kWh
Useable energy @80% DoD	24kWh	32kWh	48kWh	64kWh
Capacity	600Ah	800Ah	1200Ah	1600Ah
Max. And Cont. Charge Current	600A	600A	800A	800A
Max./Cont. Discharge Current	750A / 600A	750A / 600A	1000A / 800A	1000A / 800A
Dimensions HxWxD (mm)	1300 x 413 x 370	1300 x 522 x 370	1300 x 743 x 370	1300 x 1009 x 370

NEW

LITHIUM BATTERIES

Dyness Lithium Battery Range	Rack Mounting	Wall mount / Floor standing	
			<ul style="list-style-type: none"> Expandable up to 40 units in parallel
Code	DYN-B3	DYN-A48100-4.8KWH	DYN-POWERBOX-PRO
Nominal Voltage	48VDC	48VDC	51,2V
Nominal Capacity	3.6kWh / 75Ah	4.8kWh / 100Ah	10,24kWh / 200Ah
Max. Cont. Charge/ Discharge Current	37A(Recommended) / 45A (Max.)	50A(Recommended) / 75A (Max.)	100A
Cycle life @80% DoD, 25°C	6000 (@ 0.2C)	6000 (@ 0.1C)	6000 (@ 0.2C)
Communication	RS485 / CAN	RS485 / CAN	RS485 / CAN
Dimensions HxWxD (mm)	130 x 480 x 360	597 x 504 x 170	928 x 555 x 210
Weight	30kg	45kg	110kg
IP rating	IP20	IP20	IP65

- Compact size and light weight
- Safe and reliable LiFePO4 battery technology
- Equipped with intelligent BMS for each battery pack



DYN-ICAB



DYN-B3-BR

Accessories

Code	Description
DYN-ICAB	Input cable set for Dyness Batteries
DYN-B3-BR	Stacking bracket for 3.6kWh (Pair)

Pylontech Lithium Battery Range					
Code	US2000B-PLUS	US2000C	UP2500	US3000C	UP5000
Nominal Voltage	48VDC	48VDC	25.6VDC	48VDC	48VDC
Nominal Capacity	2400Wh/50Ah	2400Wh/50Ah	2840Wh/110Ah	3552Wh/74Ah	4800Wh
Usable Capacity	2200Wh	2200Wh	2550Wh	3200Wh	4560Wh
Dimension	440 x 410 x 89mm	440 x 410 x 89mm	442 x 420 x 119mm	442 x 420 x 132mm	442 x 420 x 160mm
Weight	24kg	24kg	27.5kg	32kg	45kg
Charge/Discharge Current	25A (Recommended)	25A (Recommended)	56A (Recommended)	37A (Recommended)	80A (Recommended) 100A (Max)
Communication Port	RS232, RS485, CAN	RS485, CAN	RS485, CAN	RS485, CAN	RS485, CAN
Maximum String	8	16	8	16	16
Cycle life @ 90% DoD, 25°C	>4500 Cycles	>4500 Cycles	>4500 Cycles	>4500 Cycles	> 4500 Cycles
LV Hub Compatibility	Yes	Yes	No	Yes	Yes

Features

- Compact and modular design gives the end customer the power of choice of capacity
- Compatible with most of the available hybrid inverters (contact the category specialist for full compatibility list)
- All batteries supplied with brackets for mounting in 19" rack and parallel connection cables
- Integrated BMS protects the battery against abnormal temperature, current, voltage and displays state of charge & battery health



Batteries can be stacked using optional brackets or mounted in 19" rack.



Stacking Bracket



Cable Set



LV-HUB

Accessories

Code	Description
US2000/PH-BR	Stacking bracket for 2.4kWh
US3000-BR	Stacking bracket for 3.5kWh
US/PH-ICAB	Input cable set for Batteries
LV-HUB	Communication hub for connection of up to 5 battery strings

PWM SOLAR CHARGE CONTROLLERS

	Landstar EU Series					Daylight Switching & Timer Control	
Code	LS0512EU	LS1012EU	LS1024EU	LS2024EU	LS3024EU	LS1024EPD	LS2024EPD
Rated Charge Current	5A	10A	10A	20A	30A	10A	20A
Max Load Current	5A	10A	10A	20A	30A	10A	20A
Nominal System Voltage	12V	12V	12/24V Auto	12/24V Auto	12/24V Auto	12/24V Auto	12/24V Auto
Display	LED	LED	LED	LED	LED	LED	LED
Max Voc	30V	30V	50V	50V	50V	50V	50V
Dimensions (mm)	110 x 66 x 21	120 x 67 x 22	120 x 67 x 22	148 x 86 x 35	148 x 107 x 44	109 x 75 x 26	109 x 75 x 26
Features	5V / 1.2A USB Output	5V / 1.2A USB Output	5V / 1.2A USB Output	5V / 1.2A USB Output	5V / 2A USB Output	Light & Timer Control for Street or Area Lighting Applications	
	• 3- Stage Intelligent Charging		• LED Battery Status Indicator		• Battery Over / Under Voltage Protection		
	• Supports Sealed, Gel or Flooded Battery Types		• Battery Temperature Compensation		• Load Overload / Short Circuit Protection		

	Viewstar AU Series						PWM 48V	
Code	VS1024AU	VS2024AU	VS3024AU	VS3048AU	VS4524AU	VS4548AU	VS6048AU	SLX-410
Rated Charge Current	10A	20A	30A		45A		60A	10A
Max Load Current	10A	20A	30A		45A		60A	10A
Nominal System Voltage	12/24V Auto	12/24V Auto	12/24V Auto	12/24/36/48V Auto	12/24V Auto	12/24/36/48V Auto	12/24/36/48V Auto	48V
Max Voc	50V	50V	50V	96V	50V	96V	96V	90V
Display	Backlit LCD	Backlit LCD	Backlit LCD		Backlit LCD		Backlit LCD	Backlit LCD
Self Consumption	≤18mA	≤18mA	≤18mA		≤18mA		≤18mA	14mA
Dimensions (mm)	142 x 85 x 42	160 x 95 x 50	181 x 101 x 60		194 x 118 x 64		214 x 128 x 72	188 x 128 x 49
USB For Charging DC Appliance	Double USB 5V / 2.4A Tot	Double USB 5V / 2.4A Tot	Double USB 5V / 2.4A Tot		Double USB 5V / 2.4A Tot		Double USB 5V / 2.4A Tot	N/A
	• 3-stage intelligent charging		• Multiple load control modes		• Extensive electronic protection		• Multi-stage charging	
	• Supports sealed, gel or flooded batteries		• Energy statistics function		• Probe code: RTS300R47K3.81A		• Supports sealed, gel or flooded batteries	
	• Battery temperature compensation with external temperature probe Input							

MPPT SOLAR CHARGE REGULATORS

Tracer AN Series - c/w Wireless Communication Options & App

Code	T1206AN	T2206AN	T1210AN	T2210AN	T3210AN	T4210AN
Rated Battery Current	10A	20A	10A	20A	30A	40A
Rated Load Current	10A	20A	10A	20A	30A	40A
Nominal System Voltage	12/24V					
Max PV Open Circuit V	60V			100V		
MPPT Voltage Range	Battery Voltage +2V - 36V			Battery Voltage +2V - 72V		
Peak Conversion Efficiency	98%					
Max PV Input	12V	130W	260W	130W	260W	390W
Power	24V	260W	520W	260W	520W	1040W
Dimensions (mm)	172 x 139 x 44	220 x 154 x 52	172 x 139 x 44	220 x 154 x 52	228 x 164 x 55	252 x 180 x 63

- Advanced MPPT Technology
- Ultra Fast Tracking Speed & wide MPPT Voltage Range
- Programmable Battery Types & Load Control
- Automatic PV Power Limitation Function
- Backlit Multifunction LCD Display
- 3-Stage Battery Charging with temp. compensation
- RS485 Port with Industrial Standard Modbus Open Architecture
- Programmable via Remote Meter, PC or Smart Phone App

Accessories

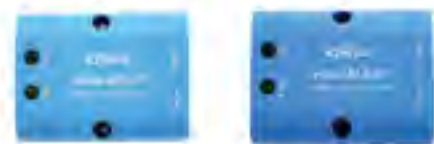
Code	Description
RS485-USB-AN	PC Communication Cable RS485 to USB
MT50	Remote meter with 2m Cable
EBOX-BLE-01	Bluetooth Adaptor
EBOX-WIFI-01	Wifi Adaptor
RTS300R47K3.81A	Remote Temperature Probe



MPPT SOLAR CHARGE REGULATORS



SOL



EBOX-BLE EBOX-WIFI



MT50



RS485-USB

iTracer Series - Now with Expanded Communication / Monitoring Options

Code	IT3415ND-30	IT4415ND-45	IT6415ND-60	
Rated Battery Current	30A	45A	60A	
Rated Load Current	30A	45A	60A	
Nominal System Voltage	12/24/36/48V Auto			
Max PV Open Circuit V	150V			
MPPT Voltage Range	Battery Voltage +2V - 108V			
Peak Conversion Efficiency	98%			
Max PV Input Power	12V	400W	600W	800W
	24V	800W	1200W	1600W
	36V	1200W	1800W	2400W
	48V	1600W	2400W	3200W
Dimensions (mm)	358x219x102	382x231x107	440x231x110	

Accessories

Code	Description
RS485-USB	PC Communication Cable RS485 to USB
MT50	Remote Meter
EBOX-BLE-01	Bluetooth Adaptor
EBOX-WIFI-01	Wifi Adaptor
RS485-RJ45	Communication Cable for Remote Meter and Communication Adaptors

- Advanced MPPT algorithm
- Multi-phase sync rectification technology realizing peak conversion efficiency 98%
- Dual-core (ARM CPU+DSP) control architecture improves the system response speed and optimizes the performance of the system
- Multi-phase control technology, optimizes charging current smoothness, reduces ripple and improves the system efficiency
- Diversified load control mode
- Programmable battery management parameters
- Built-in running data and event logging (Max 15 months)
- Extensive communication capabilities (RS232, RS485 with Modbus protocol, CAN Bus extendable)
- Real time monitoring and parameter setting via software, remote meter or mobile App
- Field upgradable firmware

Note: for iTracer **RS485-RJ45** communication cable must be purchased when using remote meter or communication adaptors

MODIFIED SINE WAVE INVERTERS



Modified Sine



Code 12V	PM-A-0150AH12	PM-A-0300AH12	PM-A-0600AH12	PM-A-1000AH12	PM-A-1200AH12	PM-A-1500AH12	PM-A-2500AH12	PM-A-3000AH12
Code 24V	-	-	PM-A-0600AH24	PM-A-1000AH24	PM-A-1200AH24	PM-A-1500AH24	PM-A-2500AH24	PM-A-3000AH24
Max Cont. Power	150W	300W	600W	1000W	1200W	1500W	2500W	3000W
Peak Power	300W	600W	1200W	2000W	1400W	2000W	4200W	4800W
Output Amps	0.6A	1.25A	2.5A	4.16A	5A	7A	10.4A	10.4A
Size (mm)	115 x 101 x 63	189 x 101 x 63	245 x 176 x 85	360 x 236 x 83	330 x 275 x 110	480 x 275 x 110	510 x 275 x 110	330 x 220 x 140
Code 12V with charger			PM-A-0700CA12	PM-A-1000CA12	PM-A-1200CA12	PM-A-1500CA12	PM-A-2500CA12	-
Code 24V with charger			PM-A-0700CA24	PM-A-1000CA24	PM-A-1200CA24	PM-A-1500CA24	PM-A-2500CA24	-

- AC Output Voltage: 230VAC/50Hz
- Regulation $\pm 0.5\%$
- Low Voltage Shut Down 12 / 24: 9.8V / 19.12V
- Overload protection
- DC Input/ AC Output short circuit protection
- All inverters supplied with cables



PURE SINE WAVE INVERTERS



Pure Sine



Inverters

Code 12V	P300-12-2	P600-12-2	P1000-12-2	P1500-12-2	P2000-12-2	P3000-12-2	-	-	-
Code 24V	P300-24-2	P600-24-2	P1000-24-2	P1500-24-2	P2000-24-2	P3000-24-2	BP4000W-24	BP5000W-24	BP6000W-24
Code 48V	P300-48-2	P600-48-2	P1000-48-2	P1500-48-2	P2000-48-2	P3000-48-2	BP4000W-48	BP5000W-48	BP6000W-48
Rated Power	300W	600W	1000W	1500W	2000W	3000W	4000W	5000W	6000W
Surge Power	600W	1200W	2000W	3000W	4000W	6000W	8000W	10 000W	12 000W
Output	230V 50/60Hz $\pm 3\%$ Pure Sine Wave								
Protection	Battery Low Voltage Alarm & Shutdown, Overload, Over Temperature, Over Voltage, Short Circuit, Reverse Polarity, Earth Leakage								
Dimensions(mm)	260x150x58	260x150x78	293x150x98	405x230x108		460x230x108	465x200x145		518x200x145

Inverter / Charger - With Automatic Changeover

Code 12V	-	CPS600-12-2	CPS1000-12-2	CPS1500-12-2	CPS2000-12-2	BPC3000W-12	-	-	-
Code 24V	-	CPS600-24-2	CPS1000-24-2	CPS1500-24-2	CPS2000-24-2	BPC3000W-24	BPC4000W-24	-	-
Code 48V	-	-	-	-	-	BPC3000W-48	BPC4000W-48	BPC5000W-48	BPC6000W-48
Charger Size	-	12V/10A, 24V/5A		12V/15A, 24V/8A		12V/30A, 24V/15A, 48V/10A			



PRECISION BATTERY MONITORING

Calculate ampere-hours consumed and the state of the charge of a battery. Ampere-hours consumed is calculated by integrating the current flowing in or out of the battery. These Monitors are based on a powerful micro-processors programmed with algorithms for precision monitoring.

Smart Phone monitoring & control						<ul style="list-style-type: none"> • Bluetooth Smart = Use Bluetooth Smart dongle (VED-BT) to enable remote monitoring or easy programming via the Victron Connect BMV App • Programmable visual / audio alarms • Battery Voltage, Current, Power, Ampere hours consumed, state of charge displayed • Remaining time at present rate of discharge • Wide input voltage range • High current measurement resolution 10mA (0.01A) • Low current consumption 2.9Ah per month (4mA @12V AN) • c/w 500A/50mV quick connect PCB current shunt • VE. Direct Communication • Programmable relay to turn off non-critical loads
Code	BMV700	BMV702	BMV712	VWB-BMV	Wall Mounted Display Enclosure	
Input Voltage	6.5 - 95VDC	6.5 - 95VDC	6.5 - 70VDC			
Current Drawn	<4mA	<4mA	<1mA			
Battery Capacity	20 - 9999AH	20 - 9999AH	20 - 9999AH			
Comm Port	Yes	Yes	Yes & Bluetooth			
Potential Free Contacts	60V/1A/(N/O)	60V/1A/(N/O)	60V/1A/(N/O)			
Dimensions	69 x 69mm	69 x 69mm	69 x 69mm			
Additional Features	-	• Input to measure voltage of 2nd battery, mid point voltage or temp.	• As per BMV702 + Built-in Bluetooth connectivity - No dongle required			
Accessories	-	BMV7-TEMP	BMV7-TEMP			

INTELLIGENT BATTERY COMBINER IP22

CBC-12/24-120A



CBC-12/24-230A

Used in 2 battery systems where the charging of one battery must be prioritised eg. Motor Homes or Boats. Micro-processor logic monitors the trend of the battery condition and ignores short high ampere load conditions and low voltage levels due to discharged battery. Time delays depend on the voltage deviation from the trend. Over temperature protection will disconnect the units and reconnect when cooled down.

Code	CBC-12/24-120A	CBC-12/24-230A
LED Status	No	Yes
Continuous Current	120A	230A
Crank Rating (5sec)	180A	500A
Connect Volts	13 - 13.8 / 26 - 27.6VDC	13 - 13.8 / 26 - 27.6VDC
Disconnect Volts	11 - 12.8 / 22 - 25.7VDC	11 - 12.8 / 22 - 25.7VDC
Dimensions (mm)	46 x 46 x 80	65 x 100 x 50

ORION DC TO DC CONVERTER IP43

Orion Isolated DC-DC Converters - 240W



Code	OR-DC/DC-12/24-10	OR-DC/DC-24/12-20	OR-DC/DC-24/48-6	OR-DC/DC-48/12-20	OR-DC/DC-48/24-12
Input Voltage Range	8 - 17V	16 - 35V	16 - 35V	32 - 70V	32 - 70V
Nominal Output Voltage	24.2V	12.2V	48.2V	12.2V	24.2V
Output Voltage adjust range	20 - 30V	10 - 15V	40 - 60V	10 - 15V	20 - 30V
Cont. Output Current at nominal Voltage & 40°C	10A	20A	6A	20A	12A

- Remote on-off • High temperature protected
- Adjustable Output Voltage - can also be used as a battery charger
- All models are short-circuit proof and can be paralleled to increase output current

BATTERY BALANCER IP22



- Designed to overcome the problem of different levels of charge due to internal leakage current in battery banks when connecting batteries in series/parallel combinations thereby extending the life span of batteries
- Equalizes the state of charge of 2 series connected batteries or of several parallel strings of series connected batteries
- If needed, several balancers may be connected in parallel

Code	BB-12/24
Input Voltage Range	Up to 18V / Battery, Max 36V total
Turn on Level	27.3V ± 1%
Turn off Level	26.6V ± 1%
Alarm trigger level	200mV
Alarm reset level	140mV
Alarm relay	60V / 1A
Reset method	Ext N/O Push Button
Overtemp Protection	Yes
Current draw when off	0.7mA
Midpoint deviation trigger level	50mV
Dimensions (mm)	100 x 113 x 47

AUTOMATIC TRANSFER SWITCHES IP54

Automatic Transfer Switches



Code	Power	Voltage	Current			Transfer Time	
			Input 1	Input 2	Output	Closing	Opening
VETS-5KVA	5KVA	200 - 250VAC	20A	20A	20A	10 - 20ms	5 - 10ms
VETS-10KVA	10KVA	200 - 250VAC	40A	40A	40A	10 - 20ms	5 - 10ms

- Designed to automatically switch between different power sources such as
- Mains supply - Generator / Inverter - Generator / Mains supply - Inverter
- Transfer switch has 2 x inputs and 1 x output
- Input 1 has time delay 10 secs adjustable
- 1 x Aux contact 240VAC/20A

NEW

PWM CHARGE CONTROLLER IP20

BlueSolar Charge Controller

- Liquid Crystal Display • Two 5 Volt USB outputs
- Day/Night timing with option for preset On-time after dusk
- Three stage battery charging (bulk, absorption, float), fully programmable
- Load output with low voltage and manual disconnect (programmable)
- Load output protected against overload and short circuit
- Preprogrammed algorithms for AGM, GEL, Flooded or LiFePO4 batteries (with internal BMS only)



Code	CC-5-12/24	CC-10-12/24	CC-20-12/24	CC-30-12/24	CC-10-48	CC-20-48	CC-30-48
Battery Voltage	12/24V with Automatic Voltage Detection				48V		
Rated Charge Current	5A	10A	20A	30A	10A	20A	30A
Charge Voltage Absorption (Factory Sett.)	14.4V / 28.8V				57.6V		
Charge Voltage Float (Factory Sett.)	13.7V / 27.4V				54.8V		
Low Voltage Load Disconnect (Factory Sett.)	11.2V / 22.4V				44.8V		
Low Voltage Reconnect (Factory Sett.)	12.6V / 25.2V				50.4V		
Maximum Solar Voltage	28V / 55V				100V		
Load Output	Manual Control + Low Voltage + Timer						
Outputs	5V/2A (Total) USB x 2 Outputs						
Weight	0.15kg				0.3kg		
Dimensions (mm)	96 x 169 x 36				101 x 184 x 47		

SOLAR CHARGE CONTROLLERS

	PWM Light			PWM Pro		
Code	BLUESOLAR-5	BLUESOLAR-10	BLUESOLAR-20	BS-PRO-10	BS-PRO-20	BS-PRO-30
Rated charge current	5A	10A	20A	10A	20A	30A
Battery Voltage	12/24V (Auto)	12/24V (Auto)	12/24V (Auto)	12/24V (Auto)	12/24V (Auto)	12/24V (Auto)
Max. Solar Voltage	28/55VDC	28/55VDC	28/55VDC	28/55VDC	28/55VDC	28/55VDC
Dimensions (mm)	70 x 133 x 34	70 x 133 x 34	70 x 133 x 34	138 x 70 x 37	160 x 82 x 48	200 x 100 x 57
External Temp Sensor	-	-	-	BS-PRO-TC	BS-PRO-TC	BS-PRO-TC
Communication Cable	-	-	-	BS-PRO-IC	BS-PRO-IC	BS-PRO-IC

Blue Solar MPPT Charge Controllers

Smart Phone monitoring & control. Using Bluetooth Dongle.							
Code	BS-MPPT-75/15	BS-MPPT-100/15	BS-MPPT-100/50	BS-MPPT-150/35	BS-MPPT-150/70	BS-MPPT-150/85	
Rated charge current	15A	15A	50A	35A	70A	85A	
Load Output	15A	15A	-	-	-	-	
Battery Voltage	12/24V (Auto)	12/24V (Auto)	12/24V (Auto)	12/24/48V (Auto)	12/24/36/48V (Auto)	12/24/36/48V (Auto)	
Nom. PV Power 12/24/48V	220/440W	220/440W	700/1400W	500/1000/2000W	1000/2000/4000W	1200/2400/4850W	
Max Solar Voc/Isc	75VDC/15A	100VDC/15A	100VDC/60A	150VDC/40A	150VDC/50A	150VDC/50A	
Comms Protocol	VE.Direct	VE.Direct	VE.Direct	VE.Direct	VE.Can	VE.Can	
Dimensions (mm)	100 x 113 x 40	100 x 113 x 47	130 x 186 x 70	130 x 186 x 70	350 x 160 x 135	350 x 160 x 135	

NEW SMART SOLAR CHARGE CONTROLLERS






Smart Solar MPPT Charge Controllers - c/w Built-in Bluetooth

Smart Phone monitoring & control						
	Code	SS-MPPT-75/15	SS-MPPT-100/20	SS-MPPT-100/50	SS-MPPT-150/35	SS-MPPT-150/60-TR
Rated charge current	15A	20A	50A	35A	60A	80A
Load Output	15A	20A	-	-	-	-
Battery Voltage	12/24V(Auto)	12/24V(Auto)	12/24V(Auto)	12/24/48V (Auto)	12/24/48V (Auto)	12/24/48V (Auto)
Nom. PV Power 12/24/48V	220/440W	290/580W	700/1400W	500/1000/2000W	860/1720/3440W	1200/2400/4900W
Max Solar Voc/Isc	75VDC/15A	100VDC/20A	100V/60A	150V/40A	150V/50A	150V/70A
Comms Protocol	VE.Direct	VE.Direct	VE.Direct	VE.Direct	VE.Direct	VE.Direct
Optional Display	-	-	-	-	SS-MPPT-CD	SS-MPPT-CD
Dimensions (mm)	100 x 113 x 40	100 x 113 x 40	130 x 186 x 70	130 x 186 x 70	185 x 250 x 95	246 x 295 x 103
Smart Phone monitoring & control						
	Code	SS-MPPT-150/85-MC4	SS-MPPT-150/100-TR	SS-MPPT-250/60-TR	SS-MPPT-250/70-TR	SS-MPPT-250/85-TR
Rated charge current	85A	100A	60A	70A	85A	100A
Battery Voltage	12/24/48V (Auto)	12/24/48V (Auto)	12/24/48V (Auto)	12/24/48V (Auto)	12/24/48V (Auto)	12/24/48V (Auto)
Nom. PV Power 12/24/48V	1200/2400/4900W	1450/2900/5800W	860/1720/3440W	1000/2000/4000W	1200/2400/4900W	1450/2900/5800W
Max Solar Voc/Isc	150VDC/70A	150VDC/70A	250VDC/35A	250VDC/35A	250VDC/70A	250VDC/70A
Comms Protocol	VE. Direct	VE. Direct	VE. Direct	VE. Direct	VE. Direct	VE. Direct
Optional Display	SS-MPPT-CD	SS-MPPT-CD	SS-MPPT-CD	SS-MPPT-CD	SS-MPPT-CD	SS-MPPT-CD
Dimensions (mm)	246 x 295 x 103	216 x 295 x 103	185 x 250 x 95	185 x 250 x 95	216 x 295 x 103	216 x 295 x 103
PV Connection	MC4			Terminal		

- Remotely control and monitor the extensive features of your MPPT charger with VE.Direct Communication by using a bluetooth dongle or the built-in bluetooth, and pairing it with your smartphone or other device via VictronConnect. If your installation is connected to the internet Victron Remote Management Portal (VRM) provides access to the full power of your MPPT, anytime, anywhere; both services are free to use.
- Ultra-fast Maximum Power Point Tracking (MPPT)
- Advanced max power point detection in case of partial shading conditions
- Battery Life: intelligent battery management by load shedding
- Automatic battery voltage recognition & flexible 3 stage battery charging with programmable parameters
- Extensive electronic protection & excellent conversion efficiency





NEW PURE SINE WAVE INVERTERS

Phoenix Inverters - VE Direct

Smart Phone monitoring & control					
	Code 12V	GX-12/250	GX-12/375	GX-12/500	GX-12/800
Code 24V	GX-24/250	GX-24/375	GX-24/500	GX-24/800	GX-24/1200
Code 48V	-	GX-48/375	GX-48/500	GX-48/800	GX-48/1200
Cont. Power (25°C)	250VA/200W	375VA/300W	500VA/400W	800VA/650W	1200VA/1000W
Peak Power	400W	700W	900W	1500W	2200W
Input DC Range	9,2-17V VDC / 18,4 - 34VDC / 36,8 - 620VDC				
Output Voltage	230VAC ± 3% 50Hz ± 0.1%				
Dimensions (mm)	86 x 165 x 260	86 x 165 x 260	86 x 172 x 275	105 x 216 x 305	117 x 232 x 327
Features	<ul style="list-style-type: none"> • VE.Direct communication port can be connected to a computer, via USB cable or Apple & Android smartphones, tablets, macbook's and other devices using a bluetooth dongle • Inverter Parameters fully configurable by App • Proven reliability & High start-up power • ECO mode - the inverter will switch to standby when the load decreases below a preset value • See pg 35 for communication accessories • Remote on/off • Output sockets: IEC-320 				




NEW

PURE SINE WAVE INVERTERS

	Phoenix Inverters - Compact Range		Phoenix Inverters 3000 - 5000VA	
				
Code 12V	GX-12/1600	GX-12/2000	GX-12/3000	-
Code 24V	GX-24/1600	GX-24/2000	GX-24/3000	GX-24/5000
Code 48V	-	-	GX-48/3000	GX-48/5000
Cont. Power (25°C)	1600VA/1300W	2000VA/1600W	3000VA/2500W	5000VA/4500W
Peak power	3000	4000	6000W	10000W
Input DC range	9,5-17V VDC / 19-33VDC / 38-66VDC		9.5 - 17VDC / 19 - 33VDC / 33 - 66VDC	
Output voltage	230VAC ±2% 50Hz ± 0,1%		230VAC ± 3% 50Hz or 60Hz ± 0,1%	
No.Load Consump.	8W / 10W	9W / 11W	20W / 20W / 25W	25W / 25W
Battery connection	Battery Cables	M8 Bolts	2+2 M8 Bolts	
Dimensions (mm)	375 x 214 x 110	375 x 214 x 110	362 x 258 x 218	444 x 328 x 240
Features	<ul style="list-style-type: none"> • SinusMax - Superior engineering developed for professional duty suitable for a wide range of applications • Computer interface - All models have a RS-485 port - All you need to connect to your PC is our MK2-USB VE.Bus to USB interface. All parameters of the inverters can be customized. See pg 130 for communication accessories 		<ul style="list-style-type: none"> • Extra start-up power well suited to power up difficult loads such as refrigeration compressors, electric motors and similar appliances • Virtually unlimited power thanks to parallel and 3-phase operation capability • Up to 6 units can operate in parallel • Operation in 3-phase configuration is also possible. 	

NEW

INVERTER / CHARGER WITH AUTOMATIC CHANGEOVER

	Multiplus 500 - 1200VA		
<ul style="list-style-type: none"> • 1 x AC Input • 1 x AC Output • Programmable Relay 			
Code 12V	MPIC-12/500/20	MPIC-12/800/35	MPIC-12/1200/50
Code 24V	MPIC-24/500/10	MPIC-24/800/16	MPIC-24/1200/25
Code 48V	MPIC-48/500/6	MPIC-48/800/9	MPIC-48/1200/13
Cont Power @ 25°	500VA/430W	800VA/700W	1200VA/1000W
Peak Power	900W	1600W	2400W
AC Input Range	185 - 265VAC / 45 - 65Hz		
DC Input Range	9.5 - 17VDC / 19 - 33VDC / 38 - 66VDC		
Power Control	No	Yes	Yes
Power Assist	No	Yes	Yes
Transfer Switch	16A	16A	16A
AC Output	230VAC ± 2% / 50Hz ± 0.1%		
Charger 12/24/48V	20A / 10A / 6A	35A / 16A / 9A	50A / 25A / 13A
Features	<ul style="list-style-type: none"> • Power Control - The MultiPlus will take account of other AC loads and use whatever is extra for charging, thus preventing the generator or shore supply from being overloaded • Power Assist - MultiPlus will make sure that insufficient shore or generator power is immediately compensated for by power from the battery. 		<ul style="list-style-type: none"> • High start-up power - needed to start high inrush loads • Search Mode - the power consumption of the inverter in no-load operation is decreased by approximately 70% • Remote on / off / charger on - Three pole connector • Communication - VE. Bus See pg 35 for communication accessories

EXTENDED RANGE INVERTER / CHARGER WITH AUTOMATIC CHANGEOVER

	Multiplus - Lithium Ion Battery Compatible				Multiplus II - With Ext. Current Sensor	
<ul style="list-style-type: none"> • 1600 - 2000VA: 1 x AC Input, 1 x AC Output • 3000 - 5000VA: 1 x AC Input, 2 x AC Outputs • Programmable Relay • Power Control • Power Assist 						
Code 12V	MPIC-12/1600/70	MPIC-12/2000/80	MPIC-12/3000/120	-	-	-
Code 24V	MPIC-24/1600/40	MPIC-24/2000/50	MPIC-24/3000/70	MPIC-24/5000/120	-	-
Code 48V	-	-	MPIC-48/3000/35	MPIC-48/5000/70	MPIC-II-48/3000/35	MPIC-II-48/5000/70
Cont Power @ 25°	1600VA/1300W	2000VA/1600W	3000VA/2400W	5000VA/4000W	3000VA	5000VA
Peak Power	3000W	4000W	6000W	10000W	5500W	9000W
AC Input Range	187 - 265VAC / 45 - 65Hz				187-265 VAC/45 -65Hz	
DC Input Range	9.5 - 17VDC / 19 - 33VDC / 38 - 66VDC				38-66VDC	
Transfer Switch	16A	30A	12/24V=16A; 48V=50A	100A	32A	50A
AC Output	230VAC ± 2% / 50Hz ± 0.1%				230VAC ± 2% / 50Hz ± 0.1%	
2nd AC Output	No	No	16A	50A	32A	
Charger 12/24/48V	70A / 40A /	80A / 50A / -	120A / 70A / 35A	- / 120A / 70A	- / - / 35A	- / - / 70A
External CT	-	-	-	-	MPIC-II-CT100	

	Quattro - Lithium Ion Battery Compatible				
<ul style="list-style-type: none"> • 2 x AC Inputs • 2 x AC Outputs • Programmable Relay • Power Assist 					
Code 12V	QIC-12/3000/120	QIC-12/5000/200	-	-	-
Code 24V	QIC-24/3000/70	QIC-24/5000/120	QIC-24/8000/200	-	-
Code 48V	-	QIC-48/5000/70	QIC-48/8000/110	QIC-48/10000/140	QIC-48/15000/200
Cont Power @ 25°	3000VA/2400W	5000VA/4000W	8000VA/6500W	10000VA/8000W	15000VA/12000W
Peak Power	6000W	10000W	16000W	20000W	25000W
AC Input Range	187 - 265VAC / 45 - 65Hz				
DC Input Range	9.5 - 17VDC / 19 - 33VDC / 38 - 66VDC				
AC Output	230VAC ± 2% / 50Hz ± 1%				
Charger 12/24/48V	120A / 70A / -	220A / 120A / 70A	- / 200A / 110A	- / - / 140A	- / - / 200A
Max Feedthrough Current	2 x 50A	2 x 100A	2 x 100A	2 x 100A	2 x 100A
Programmable Relay	3	3	3	3	3

Features

- Two AC Outputs (3000VA - 5000VA) - The main output has no break functionality. The MultiPlus takes over the supply to the connected loads in the event of a grid failure or when shore/generator power is disconnected. The second output is live only when AC is available on the input of the MultiPlus.
- Virtually unlimited power thanks to parallel operation. Up to 6 units can operate in parallel to achieve higher power output.
- Three phase capability - Three units of the same model can be configured for three phase output. up to 6 sets of three units can be parallel connected
- Power Control - a maximum generator or shore current can be set. The MultiPlus will then take account of other AC loads and use whatever is extra for charging
- Power Assist - Insufficient shore or generator power is immediately compensated for by power from the battery
- Solar energy - Can be used in off grid as well as grid connected PV and other alternative energy systems.
- System configuration:
 - Stand-alone application settings can be done in a matter of minutes with a DIP switch setting procedure.
 - Parallel and three phase applications can be configured with VE.Bus Quick Configure and VE.Bus System Configurator software.
 - Off grid, grid interactive and self-consumption applications, involving grid-tie inverters and/or MPPT Solar Chargers can be configured with Assistants (dedicated software for specific applications).
- Onsite & Remote Monitoring & Control
- Remote Configuration can be accomplished using a colour control panel (**CCGX** or **VENUS GX**)
- Communication - VE. Bus (See pg 35 for communication accessories)
- MultiPlus II has all the features of MultiPlus plus an external current sensor which enhances power control and power assist. It also includes built-in anti-islanding functionality.

ALL-IN-ONE SOLAR POWER SOLUTION

Easy Solar - Inverter / Charger / MPPT Charge Controller

						
Code 12V	ESIC-12/1600/70	-	-	-	-	-
Code 24V	-	ESIC-24/1600/40	ESIC-24/3000-70	-	-	-
Code 48V	-	-	-	ESIC-48/3000-35	ESIC-48/5000-70	ESIC-II-48/3000-35
Transfer Switch	16A	16A	50A	50A	100A	32A
Controller Type	CCGX					Venus
Inverter						
Input Voltage DC	9.5 - 17V	19 - 33V	19 - 33V	38 - 63V	38 - 66V	38 - 66V
Output Voltage	230VAC ± 2% 50Hz ± 0.1%					
Cont. Power (25°C)	1600VA / 1300W		3000VA / 2500W		5000VA / 4000W	
Peak Power	3000W		6000W		10000W	
Mains Charger						
Input Voltage AC	187 - 265V / 45 - 65Hz			187 - 265V / 45 - 65Hz		
Charger Current	70A	40A	70A	35A	70A	35A
Programmable Relay	Yes	Yes	Yes	Yes	Yes	Yes
Solar Charge Controller - MPPT						
Max PV VOC	100V	100V	150V	150V	150V	250V
Max Output Current	50A	50A	70A	70A	100A	7A
Max PV Power	700W	1400W	2000W	4000W	5800W	4000W
External CT	-					MPIC-II-CT100

- The all-in-one solar power solution - a MPPT solar charge controller, an inverter/charger & AC distribution in one enclosure
- **GX** Controller to be ordered separately for 1600VA models
- 3000VA & 5000VA contains GX Controller - see below for comparison

- AC distribution - RCD (30mA) and AC outputs protected by 2x10A and 2x(1600VA) or 3x(3000/5000VA) 16A circuit breakers. One 16A output is controlled by the AC input: it will switch on only when AC is available.
- Unique solar application software - Several software programs (Assistants) are available to configure the system for various grid interactive or stand-alone applications.



COMMUNICATION & MONITORING ACCESSORIES



CERBO GX



CCGX



VENUS GX



GX TOUCH 50



GX-DIN35



VWB-CCGX/BMV



VWB-CCGX

Intuitive control and monitoring for all Victron products connected to the GX device. Information can also be forwarded to the free remote monitoring website. Visit www.vrm.victronenergy.com to try free demos.

Remote Monitoring & Control Gateways

Code	CERBO GX	CCGX	VENUS GX
Supply Voltage		8 -70VDC	
Display	No (GX Touch 50)	Yes	No
Inputs	4 x Di, 4 x Temp Sense, 4 x Level Inputs	None	2 x Tank Level 2 x Temp Sense
Outputs	2 x Changeover Programmable	1 x No 3A (230VAC/30VDC)	1 x No 7A (230VAC/30VDC)
Comm Ports	3 x VE.Direct Ports, 2 x VE.Bus, 1 x VE.CAN, 2 x USB & 1 power only, 1 x Ethernet	2 x VE.Direct, 2 x VE.Bus RJ45, 2 x VE.CAN RJ45, 2 x USB, 1 x Ethernet	
Other Comms	Bluetooth, BMS-Can port, SDHC max. of 32GB	Modbus + JSON	
WIFI	Yes	No	Yes
Dimensions	78 x 154 x 48mm	130 x 120 x 28mm	45 x 143 x 96mm

Accessories

Code	Description
GX TOUCH 50	Touch Display for Cerbo GX
GX-DIN35	Din Rail Mounting Adapter for Cerbo GX
VWB-CCGX	Wall Mount Enclosure for CCGX
VWB-CCGX/BMV	Wall Mount Enclosure for CCGX & BMV Battery Monitor

Communication Accessories

Code	Description
CAN-USB	VE.Can to USB Interface for computer connection
MK2-USB	VE.Bus to USB Interface for computer connection
MK3-USB	VE.Bus to USB Interface for computer connection
VED-USB	VE.Direct to USB Interface for computer connection
VED-CABLE	VE.Direct cable to connect VE.Direct devices to each other
VED-BT	VE.Direct to Bluetooth Dongle
GX-GSM	GSM 2G and 3G Modem
GSM900200100	Active GPS Antenna for GX-GSM
GSM900100100	Outdoor GSM Antenna for GX-GSM
ET112	100A Direct energy meter for Victron ESS



CAN-USB MK3-USB VED-USB



VED-CABLE VED-BT GX-GSM



GSM900200100 GSM900100100 ET112

GRID-TIE HOME SOLAR SETS



Home Based Grid Tie Solar System

Solar Frontier home based grid tie solar systems are designed with precisely matching components for maximum output and efficiency using the latest CIS thin film technology solar panels and highly efficient Solar Frontier inverters. Grid tie solar systems are designed with the aim of working in conjunction with your utility supply to offset your usage from the utility by making use of solar power before utility power and feeding excess power back into your local grid.



Code	Capacity	Inverters Qty	Module Qty	DC Cable	Connectors	Modules in Series	Roof Area Required
SOLARSET 3.0	3.0kWp	1 x 3kW	18	50m	5 male / 5 female	6	23.4m ²
SOLARSET 4.6	4.6kWp	2 x 3kW	28	50m	10 male / 10 female	7	36.4m ²
SOLARSET 5.9	5.9kWp	2 x 3kW	36	50m	10 male / 10 female	6	46.8m ²

- Mounting brackets not included - for Mounting Systems see page 111 - 112
- Compatible electricity meter required

- South African prepaid meters are not compatible
- Web based monitoring available on requested

SMA ON-GRID INVERTERS IP65

Sunny Boy - Single Phase PV String Inverters

With a broad input voltage range from 80V to 600V, flexibility with a variety of PV module types and makes, and its low weight for easy installation, the Sunny Boy is the perfect for Inverter upgrades and new PV systems.

The Sunny Boy 1.5 / 2.5 is the perfect inverter for customers with small PV systems. The new Sunny Boy 3.0-5.0 is more than just a PV inverter with the integrated SMA Smart Connected service. This automatic inverter monitoring by SMA analyzes operation, reports irregularities and thus minimizes downtime.

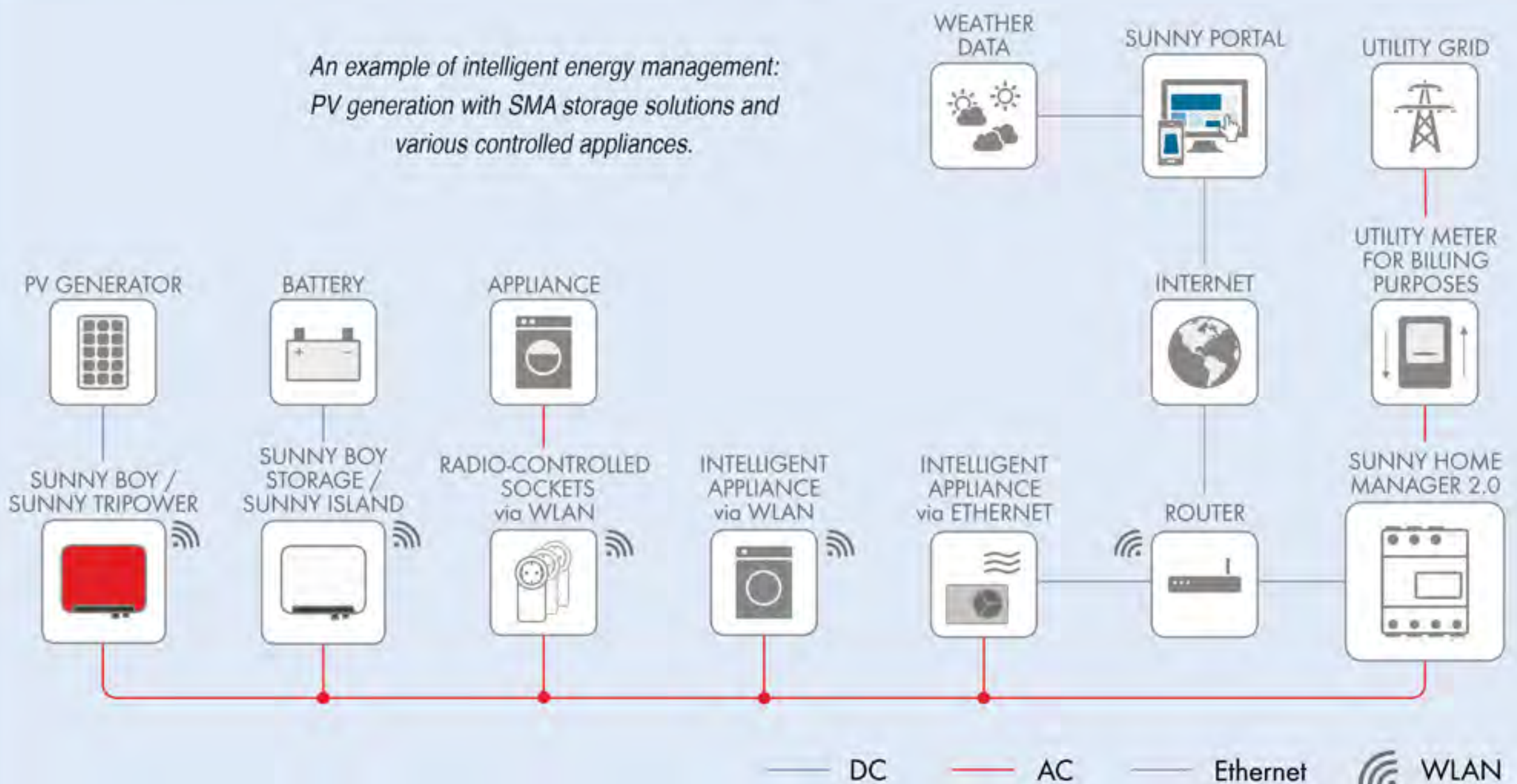
Standard warranty: 5 years (can be extended)



Code	SB1.5-1VL-40	SB2.5-1VL-40	SB3.0-1AV-40	SB3.6-1AV-40	SB4.0-1AV-40	SB5.0-1AV-40
DC Input						
Maximum PV Array Power	3000Wp	5000Wp	5500Wp	5500Wp	7500Wp	7500Wp
Maximum / Rated Input Voltage	600V / 360V		600V / 365V			
MPP Voltage Range	160-500V	260-500V	110-500V	130-500V	140-500V	175-500V
Maximum Input Current per String	10A		15A			
MPP Inputs / Strings / MPP Input	1/1		2/2			
AC Output						
Rated Power (@230V/50 Hz PF=1)	1500W	2500W	3000W	3680W	4000W	5000W
Maximum Apparent AC Power	1500VA	2500VA	3000VA	3680VA	4000VA	5000VA
Nominal AC Voltage	230V (180-280VAC) / 50Hz		230V (180-280VAC) / 50Hz			
Maximum Output Current	7A	11A	16A	16A	22A	22A

- Protection: Ground fault monitoring / Grid Monitoring / DC reverse polarity protection / AC short circuit current capability / All-pole-sensitive residual-current monitoring unit
- Direct connection to Sunny Portal and Sunny Places
- Fast commissioning and Local monitoring by smartphone/tablet
- Shade management OptiTrac Global Peak
- Integrated WLAN and Speedwire interface with Webconnect functionality
- Storage system, intelligent energy management and smart-module technology can be added at any time
- Dynamic feed-in control (via Sunny Home manager or SMA Energy Meter)
- SUNCLIX DC plug-in system for easy installation
- DC-side disconnection point included
- Dimensions (W x H x D): 460 x 357 x 122mm
- Weight: 9.2kg
- Max. Efficiency: 97.2 %

An example of intelligent energy management: PV generation with SMA storage solutions and various controlled appliances.



SMA ON-GRID INVERTERS IP65

Sunny Tripower 6000TL-12000TL

The Sunny Tripower is the optimum product solution – for applications ranging from use in your own home and larger PV rooftop systems to implementation of smaller-scale PV farms. Highly flexible with its proven Optiflex technology and asymmetrical multistring, it delivers maximum yields with a top efficiency rating and OptiTrac Global Peak. In addition to SMA and Sunspec Modbus communication, it also comes standard with a direct Sunny Portal connection via SMA Webconnect. Other standard features include integrated grid management functions, reactive power supply and suitability for operation with a 30mA RCD. Standard Warranty: 5 Years (can be extended).



Code	STP6000TL-20	STP8000TL-20	STP10000TL-20	STP12000TL-20
DC Input				
Maximum PV Array Power	9000Wp	13500Wp	13500Wp	18000Wp
Maximum / Rated Input Voltage	1000V / 580V	1000V / 580V	1000V / 580V	1000V / 580V
MPP Voltage Range	295-800V	330-800V	370-800V	440-800V
Maximum Input Current per Input A/B	11A / 10A	15A / 10A	18A / 10A	18A / 10A
Maximum Short-Circuit Current Input A/B	17A / 15A	25A / 15A	25A / 15A	25A / 15A
MPP Inputs / Strings / MPP Input	2 / A:2,B:2	2 / A:2,B:2	2 / A:2,B:2	2 / A:2,B:2
AC Output				
Rated Power (@230V/50 Hz Pf=1)	6000W	8000W	10000W	12000W
Maximum Apparent AC Power	6000VA	8000VA	10000VA	12000VA
Nominal AC Voltage	230/400VAC (160-280V L-N) / 50 Hz (-5 Hz to +5 Hz)			
Maximum Output Current	8.7A	11.6A	14.5A	17.4A

- Protection: Ground fault monitoring / Grid Monitoring / DC reverse polarity protection / AC short circuit current capability / All-pole-sensitive residual-current monitoring unit
- Active temperature management with OptiCool
- Module-tailored system design with Optiflex
- SMA Bluetooth® and Speedwire/Webconnect communication interface
- Sunny Portal communication
- Simple country configuration
- Multifunction relay comes standard
- SUNCLIX DC plug-in system
- Integrated ESS(Electronic Solar Switch) - DC Disconnect device
- Easy wall mounting
- Dimensions (W x H x D): 470 x 730 x 240mm
- Weight: 37kg
- Max. Efficiency: 98%

Sunny Tripower 15000TL-25000TL

The Sunny Tripower is the ideal inverter for large-scale commercial and industrial plants. Not only does it deliver extraordinary high yields with an efficiency of 98.4%, but it also offers enormous design flexibility and compatibility with many PV modules thanks to its multistring capabilities and wide input voltage range. The Sunny Tripower comes with cutting-edge grid management functions such as Integrated Plant Control, which allows the inverter to regulate reactive power at the point of common coupling. Separate controllers are no longer needed, lowering system costs. Another new feature—Reactive power provision on demand (Q on Demand 24/7). Standard Warranty: 5 Years (can be extended).



Code	STP15000TL-30	STP20000TL-30	STP25000TL-30
DC Input			
Maximum PV Array Power	27000Wp	36000Wp	45000Wp
Maximum / Rated Input Voltage	1000V / 600V	1000V / 600V	1000V / 600V
MPP Voltage Range	240-800V	320-800V	390-800V
Maximum Input Current per Input A/B	33A / 33A	33A / 33A	33A / 33A
MPP Inputs / Strings / MPP Input	2 / A:2,B:2	2 / A:2,B:2	2 / A:2,B:2
AC Output			
Rated Power (@230V/50 Hz PF=1)	15000W	20000W	25000W
Maximum Apparent AC Power	15000VA	20000VA	25000VA
Nominal AC Voltage	230/400VAC (180-280V L-N) / 50Hz (44-55Hz)		
Maximum / Rated Output Current	29A / 21.7A	29A / 29A	36.2A / 36.2A

- Protection: Ground fault monitoring / grid monitoring / DC reverse polarity protection / AC short circuit current capability / All-pole-sensitive residual-current monitoring unit. **Note:** Each inverter must be equipped with **DC-SPD-KIT3-10** Surge protection module to maintain warranty. (To be ordered separately)
- Active temperature management with OptiCool
- Speedwire/Webconnect communication interface
- OptiTrac Global IPeak and Multistring capability for optimum system design
- Sunny Portal communication
- Simple country configuration
- SUNCLIX DC plug-in system
- Off-Grid capable / SMA Fuel Save Controller compatible
- Integrated DC Disconnect device
- Data interface: SMA Modbus / SunSpec Modbus
- Dimensions (W x H x D): 661 x 682 x 264mm
- Weight: 61kg | Max. efficiency: 98.4 %

SMA ON-GRID INVERTERS IP65

Sunny Tripower Core1

The Sunny Tripower CORE1 is the world's first free-standing string inverter for decentralized rooftop and ground-based PV systems as well as covered parking spaces. SMA engineers developed an inverter that combines a unique design with an innovative installation method to significantly reduce installation time. The Sunny Tripower CORE1 generates widespread savings in logistics, labor, materials and services.

Standard warranty: 5 years (can be extended)

Code	STP50-40
DC Input	
Maximum PV Array Power	75000Wp STC
Maximum Rated Input Voltage	1000V / 670V
MPP Voltage Range	500-800V
Maximum Input Current per Input A/B	120A / 20A
Maximum Short-Circuit Current Input A/B	30A
MPP Inputs / Strings/MPP Input	6 / 2
AC Output	
Rated Power (@230V/50 Hz Pf=1)	50000W
Maximum Apparent Ac Power	50000VA
Nominal AC Voltage	230/400VAC (202-305V L-N) / 50 Hz (44-55Hz)
Maximum Output Current	72.5A / 72.5A



- Protection: Ground fault monitoring / grid monitoring / DC reverse polarity protection / AC short circuit current capability / All-pole-sensitive residual-current monitoring unit.
- **Note:** Each inverter must be equipped with **DC-SPD-KIT4-10** and **AC-SPD-KIT1-10** Surge protection modules to maintain warranty. (To be ordered separately)
- Active temperature management with OptiCool
- Speedwire/Webconnect communication interface (2xRJ45 and WLAN)
- Multi-Function relay and 2x Expansion Module Slots included
- Sunny Portal communication
- OptiTrac Global Peak , Integrated Plant Control, Q (reactive power) on Demand 24/7 included.
- SUNCLIX DC plug-in system
- Off-Grid capable / SMA Fuel Save Controller compatible
- Integrated DC Disconnect device
- Data interface: SMA Modbus / SunSpec Modbus
- Dimensions (W x H x D): 621 x 733 x 569mm
- Weight: 84kg
- Max. efficiency: 98.1%

SMA MONITORING & CONTROL IP65

TS4-R Module Technology - IP65

The **TS4-R** module technology is a cost-effective system that fits into any PV module design. **TS4-R** ensures maximum energy yields and configuration flexibility; only fit the modules affected by partial shading or output loss. The **TS4-R** platform offers integrated power electronics with various functions. With the **Monitoring function**, the entire PV system can be monitored at the module level. The **Shutdown function** enables the PV system to be switched off at the module level. Using the **Optimization function**, the power of the PV system can be boosted even in partial shading or with different module configurations.

The **TS4-R** units communicate wirelessly and so are easy to install. Supplied complete with 1m leads and MC4 connectors. Warranty: 25 years



Code	TS4-R-M	TS4-R-S	TS4-R-O
Nominal DC Input Power	375W	475W	475W
Maximum PV VOC @ STC	52V	75V	75V
Maximum Current		12A	
Maximum system voltage		1000V	
Monitoring Function*	Yes	Yes	Yes
Shutdown Function*	No	Yes	Yes
Optimization Function	No	No	Yes

*Requires Cloud Connect Advanced and Gateway accessories

Accessories

Code	Description
SMA-CCA	Cloud Connect Advanced communication unit to connect TS4-R unit to Sunny Portal via the SMA-GTWY . Including WLAN and Ethernet communication for connection to internet and RS485 communication for connection to SMA-GTWY
SMA-GTWY	Gateway to enable wireless communication for up to 120 TS4-R components. 15m range. RS485 wired connection to SMA-CCA

SMA BATTERY INVERTERS IP54

Sunny Island - Battery Inverter

The Sunny Island battery inverter supports a wide range of on- and off-grid installations. Thanks to its integrated web interface and standard interfaces, WLAN and Ethernet, the Sunny Island 4.4M/6.0H/8.0H can be easily configured and monitored via smartphone or tablet. And being a core element in the SMA Flexible Storage System, the Sunny Island temporarily stores self-generated power thus making it possible to use solar power around-the-clock.

Its high protection class, wide temperature range and exceptional overload capacity always provide the kind of reliability needed for off-grid use.

Standard warranty: 5 years or 10 years when registered with SMA



Code	SI4.4M-12	SI6.0H-12	SI8.0H-12
On Grid/Generator Operation			
Rated Grid Voltage / AC Voltage Range	230VAC (172.5-264.5V) / 50Hz (40-70Hz)		
Maximum AC Current for Self-consumption	14.5A	20A	26A
Maximum AC Power for Self-consumption	3.3kVA	4.6kVA	6kVA
Maximum AC Feed through Current	50A		
Maximum AC Feed through Power	11500W		
Stand-alone or Emergency Operation			
Rated Grid Voltage / AC Voltage Range	230VAC (202-253V) / 50Hz (45-65Hz)		
Rated Power (@ Unom, Inom/25°C/cosφ=1)	3300W	4600W	6000W
AC Power at 25°C for 30 min / 5 min / 3 sec	4400/4600/5500W	6000/6800/11000W	8000/9100/11000W
AC Power at 45°C Continuously	3000W	3700W	5430W
Rated / Maximum Output Current (peak)	14.5A / 60A	20A / 120A	26A / 120A
Battery DC Input			
Rated Input Voltage (DC Voltage Range)	48 VDC (41-63V)		
Rated DC Charging / Discharging Current	63A/75A	90A/103A	115A/130A
Battery Type (Capacity Range)	Li-Ion (50-10000Ah), Lead-Acid (100-10000Ah)		

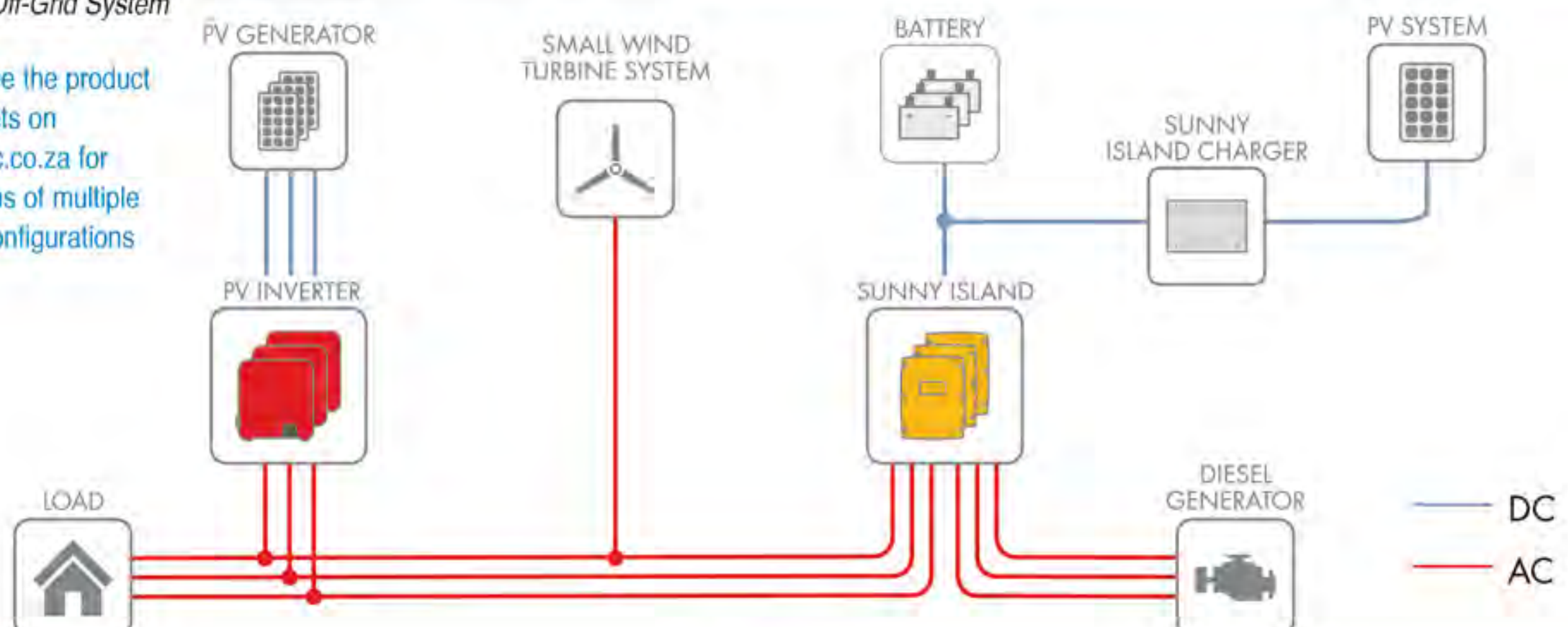
- Protection: AC short-circuit / AC overload / Over temperature / Battery Deep Discharge
- Charge control: Intelligent 3-stage charging
- Multifunction relay: x2
- Integrated WLAN and Speedwire interface with Webconnect functionality
- Optimized data logging using Micro SD card (to be ordered separately)
- SI-SYSCAN communication integrated in 6.0 and 8.0 for parallel and Multiclustler (see page 135) applications
- Particularly high overload capability
- Ideal for retrofits or modular expansions of single-phase and 3-phase systems
- Display via smartphone, tablet, laptop using integrated WLAN
- Automatic rotating magnetic field detection / generator support for off-grid applications
- Dimensions (W x H x D): 467 x 612 x 242mm
- Weight: 44kg (4.4) / 63kg (6.0/8.0)
- Maximum Efficiency: 95.5%

Accessories

Code	Description
SMA-SI-BTS	Battery temperature sensor for Sunny Island

3 Phase Off-Grid System

Please see the product data sheets on www.acdc.co.za for illustrations of multiple system configurations



SOLAR

SMA BATTERY INVERTERS

Multicluster Boxes for Sunny Island Inverters

With the SMA Multicluster-Boxes for the Sunny Island battery inverter, both off-grid systems and grid-connected PV systems can be configured easily and cost-efficiently. In rural regions without grid access, high-performance off-grid and hybrid systems with 2 to 12 three-phase clusters, each consisting of 3 Sunny Island inverters with up to 360 kW of connectable PV power, can be implemented. For systems connected to the utility grid, self-consumption and battery backup applications with up to 138 kilowatt-peaks can be achieved. To simplify installation, all Multicluster-Boxes are completely wired at the factory and have a main connector for generators, the load distribution and PV or wind turbine systems.



Code	MC-BOX-6.3-11	MC-BOX-12.3-20	MC-BOX-36.3-11
Load Connection			
Rated Voltage / AC Voltage Range	230VAC (172.5 - 250V) / 400VAC (300 - 433V) / 50Hz (40 - 70Hz)		
Rated AC Current	3 x 80 A (AC1)	3 x 200 A (AC1)	3 x 435 A (AC1)
Rated AC Power	55kW	138kW	300kW
Protection	LV/HRC size 00	LV/HRC size 1	LV/HRC size 3
Sunny Island Connections			
Maximum number of devices	6	12	36
Protection	6 x MCB 40A	12 x MCB 40A	36 x MCB 40A
Generator Connection			
Rated AC Current	3 x 80 A	3 x 200 A	3 x 435 A
Rated AC Power	55 kW	138 kW	300 kW
Protection	LV/HRC size 00	LV/HRC size 1	LV/HRC size 3
PV System Connection			
Rated AC Current	3 x 80 A	3 x 200 A	3 x 435 A
Rated PV Power	55 kW	138 kW	360 kW
General Data			
Permitted Grid Configuration	TN-S	TN-S / TN-C-S / TT	TN-S
Dimensions (W x H x D)	760 x 760 x 210mm	1200 x 1600 x 435mm	1200 x 2000 x 800mm
Weight	55kg	200kg	400kg
Mounting Type	Wall mount	Base mount	Base mount
Degree of Protection	IP65	IP55	IP54

- Capacities from 20 kW to 300 kW For stand-alone grids
- **MC-BOX-12.3-20** can also be grid-connected for optimum self-consumption and battery backup
- Compatible devices: **SI6.0H-12 / SI8.0H-12**
- Integrated load-shedding contactor
- Automatic bypass for the generator
- Active anti-islanding
- Reverse current monitoring
- 5-year SMA Warranty

SMA MONITORING & CONTROL

Sunny Home Manager 2.0

The Sunny Home Manager 2.0 is SMA's intelligent energy manager and enables the most efficient use of solar energy in the home. It optimizes PV self-consumption and significantly reduces electricity costs. To do this, it measures the power of PV generation, purchased electricity as well as grid feed-in, and gives an overview of all relevant energy flows in the household. By means of local PV generation forecasts and the measured household consumption profile, the self-learning device prompts the user with energy-related action recommendations. Operation of the controlled appliances is coordinated in a way to optimize the use of self-generated solar energy.



See system example on pg 131

Code	Description
HM-20	Energy manager with integrated measuring device for use in SMA systems for measurement of energy consumption, feed-in limitation & control of loads - Wired & wireless communication

- Consumption analysis of individual loads
- Quick plug-and-play installation
- Energy balance and load data shown in interactive diagrams
- PV system monitoring via Sunny Portal and Sunny Places
- Overview of all relevant appliances, PV generation and battery systems
- Integrated weather and PV forecast data
- Appliance connection via standard protocols and compatible radio controlled sockets
- Optimized battery charging in SMA storage systems
- Total number of devices in the system: up to 24 of which up to 12 can be included in active energy management
- Nominal voltage: 230/400VAC 50Hz
- Nominal / Limiting current per line conductor: 5A/63A (>63A connected via CT's)
- Communication: Ethernet 10/100Mbit/s (RJ45) / WLAN / EEBUS, SEMP protocol for communication with smart devices
- Din-Rail Mounting
- Measurement accuracy, measuring cycle: 1%, 1000 ms

SMA MONITORING & CONTROL

SMA Energy Meter

A high-performance measurement solution for intelligent energy management in PV systems with SMA devices. The SMA Energy Meter calculates phase-exact and balanced electrical measured values and communicates these via Ethernet in the local network. In this way, all data on grid feed-in and purchased electricity as well as PV generation by other PV inverters can be communicated to SMA systems.



Code	Description
EMETER-20	Energy meter for use in SMA systems for measurement of energy consumption and feed-in limitation - Wired communication

- Quick plug-and-play installation
- Graphic visualization of current measured values in Sunny Portal and local web UI
- Flexible use in applications > 63A thanks to external current transformers
- Fast three-phase or single-phase, bidirectional reading for effective energy management
- Space-saving, DIN-rail mounting in household distribution board
- Compatible with Sunny Home Manager, Sunny Boy, Sunny Island & SMA Cluster Controller
- Nominal voltage: 230/400VAC 50Hz
- Nominal / Limiting current per line conductor: 5A/63A (>63A connected via CT's)
- Communication: Ethernet 10/100Mbit/s (RJ45)
- Measurement accuracy, measuring cycle: 1%, 1000 ms

SMA Data Manager M - Up to 25 Devices

The Data Manager M optimizes communication, monitoring and control of PV systems with up to 25 SMA devices. With the new ennexOS platform, it is possible to change system and inverter parameters via Sunny Portal. Thanks to its modular design and systematic support of industrial standards such as Modbus/TCP, systems can be expanded to include additional components such as I/O systems or energy meters, from either SMA or other suppliers.



Code	Description
EDMM-10	Communication, monitoring and control device for up to 25 SMA devices in decentralised PV systems

- Quick and intuitive commissioning of all local components & Sunny Portal
- Simple integration of I/O systems and energy meters
- Supply voltage: 10-30VDC
- Network (LAN): 2 x RJ45, switched, 10BaseT/100BaseT
- Complies with international grid integration requirements
- Detailed analytics, alert system and reporting
- Din rail mounted: 9 modules wide
- USB: 1 x USB 2.0, Type A

SMA Cluster Controller - Up to 75 Devices

Combined with highly efficient SMA inverters, the SMA Cluster Controller is the central communication unit for system monitoring, recording data and controlling large-scale PV plants equipped with up to SMA 75 devices.

Through a variety of analog and digital in and outputs as well as fast data exchange via an Ethernet-based data interface (e.g., Modbus TCP), a wide range of applications can be realized, from feed-in management to sensor technology integration.



Code	Description
CLCON-10	Central communication unit for system monitoring, recording data and controlling large-scale PV plants with up to 75 SMA devices. c/w LCD display

- Standardized Modbus interface for use with superior communication devices
- Analog and digital interfaces for active and reactive power setpoints
- Supply voltage: 10-30VDC
- Din-rail mounting
- Communication protocols: Speedwire, Fast Ethernet, HTTP, FTP, Modbus TCP/UDP, SMTP, Sunny Portal
- Network (LAN): 2 x RJ45, switched, 10BaseT/100BaseTX
- Temperature measurement: 2xPT100/PT1000 (-40 to 85°C)
- Complies with national and international requirements for grid integration
- Remote monitoring and maintenance via the integrated user interface and Sunny Portal
- Dimensions (W x H x D): 275 x 133 x 71mm
- Data storage: 2 USB 2.0 high-speed ports, type A
- Digital inputs: 8
- Analog inputs: 3 x 0 - 20mA / 1 x 0-10V
- Digital outputs: 3 x relay outputs (48VDC/30W)
- Analog outputs: 2x 4-20mA

Accessories

Code	Description
CLCON-PSU	SMA Din-rail mounted Power Supply 24VDC / 2.5A

GRID-TIED 3 PHASE HYBRID INVERTERS



Infiniti - 3 Phase Inverter

Code **INFINI-10K-48**

- Combines Grid-tied Inverter, MPPT Solar Charger, AC Battery Charger, UPS
- Programmable supply priority for Grid, PV, Battery
- Programmable battery charging current
- Programmable operating mode: Grid-Tie, Off Grid, Grid-Tie with Backup
- Multiple comms options: USB, RS232, ModBus and SNMP
- Real time status display and control via software
- Built in timer for various modes of ON/OFF operation
- True 3 phase output (230VAC P - N, 400VAC P - P)
- Mains or Generator power
- Short Circuit Protection
- Overload / Over temp protection
- Rated Power: 10kW

Hybrid Operation

PV Input

Nominal DC Voltage	720VDC
Max DC Voltage	900VDC
MPPT Voltage Range	350-850VDC
Number of MPP Trackers	2
Max Input Current	2 x 18.6A

Grid Output AC

Nominal Voltage	
Output Voltage Range	
Nominal Output Current	

AC Input

Input Voltage Range	170 - 280VAC per phase
Max Input Current	40A

Battery Mode AC Output

Nominal Output Voltage	230VAC(P-N) / 400VAC(P-P)
------------------------	---------------------------

Battery & Charger

Nominal DC Voltage	48VDC
Charge Current	10A - 200A adjustable (Factory default 60A)

Off Grid Operation

AC Input

Input Voltage Range	171 - 280VAC per phase
Max AC current input	40A

PV Input

MPPT Voltage Range	350-850VDC
Number of MPP Trackers	2
Max Input Current	2 x 18.6A

Battery Mode AC Output

Nominal Voltage	230VAC(P-N) / 400VAC(P-P)
-----------------	---------------------------

Grid-Tie Operation

PV Input

Max PV Power Input	14.85kW
Nominal DC Voltage	720VDC
MPPT Voltage Range	350 - 850VDC
Number of MPPT	2
Max Input Current	2 x 18.6A

Grid Tie Output

Nominal Output Voltage	230VAC(P-N) / 400VAC(P-P)
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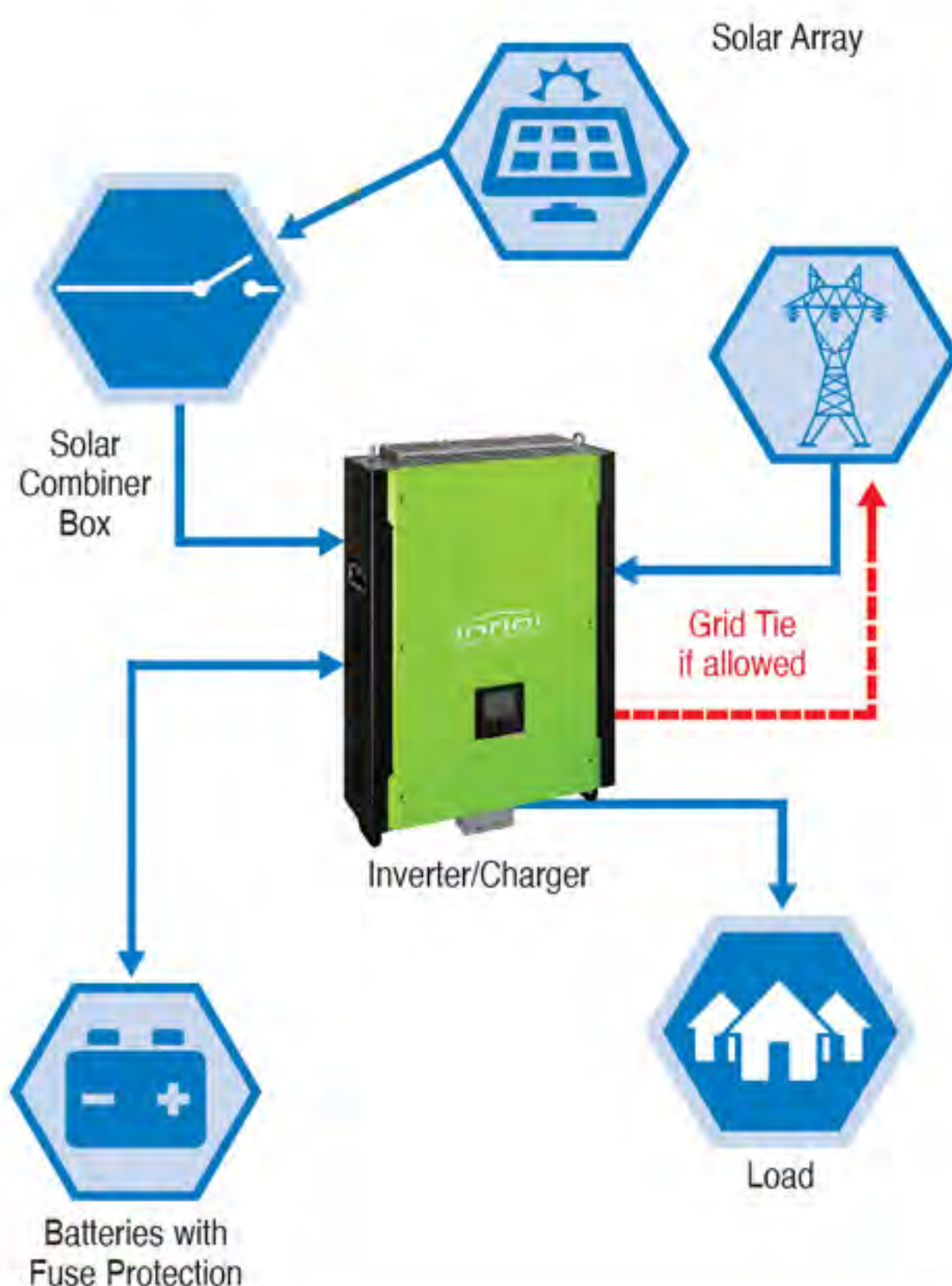
Complete Hybrid Solar Backup System

System Type	3 Phase Grid-Tied Hybrid System	
Kit Only Code	HYBH-10KVA-A	HYBH-10KVA-B
AC Output Voltage	230VAC (P-N) / 400VAC (P-P)	
Max. Continuous Power	10,000W	10,000W
Backup Time@ full load	86 min	115 min
Backup Time@ half load	172 min	230 min
Inverter	INFINI-10K-48	INFINI-10K-48
Solar Panels	SLP290-24 x 16	SLP290-24 x 24
Solar Array Pmax	4,640W	6,960W
Batteries	NSB200-12 x 12	GFM-800 x 24
Battery Bank Capacity	600Ah @ 48VDC	800Ah @ 48VDC

Additional Installation Charge

Installation Code	INST-HYBH-10KVA-A	INST-HYBH-10KVA-B
Kit Includes	<ul style="list-style-type: none"> • Fuse protection for Batteries • Solar Cable & Connectors • Battery Cables & Lugs • Battery Cabinet / Stand 	
<ul style="list-style-type: none"> • Grid-interactive Hybrid Inverter • Solar Panels • Solar Batteries • Solar Combiner Box & Isolator 		

NOTE: The kit contains components required for most installations, but doesn't include site specific items like racking or cable routes - Installation excl. Cable supplied is based on general estimations and additional cables and lugs or connectors may need to be ordered. Installation charge is an estimated charge and will be confirmed after site inspection and confirmation of the location of the site. Estimated pricing is based on a standard installation in the Gauteng Area.



GRID TIE INVERTERS IP54

The Fronius IG Plus generation of inverters represents an evolution of the proven Fronius IG product family. Power categories from 2.6 to 12kW promise suitability for every possible system size.

With a maximum efficiency of 95.9%, the Fronius IG Plus range achieves one of the highest values for transformer inverters.



Fronius Inverters always achieve maximum yield, even when in the partial-load range.



Fronius Transformer Inverters use a high-frequency (HF) transformer. The automatic transformer switchover facility produces three efficiency peaks.



With Fronius Datamanager we offer a WLAN interface in the inverter itself.



Fronius Inverters are ready for the Smart Grid of tomorrow. A series of smart functions, known as Advanced Grid Features, are built into the devices.

Single Phase Inverters

Code	FIGP25V-1	FIGP30V-1	FIGP35V-1	FIGP50V-1	FIGP55V-1	FIGP60V-1
Input Data						
DC Max. Power at COS Ø=1	2740W	3170W	3710W	4260W	5260W	6320W
Max. Input Current (I _{dc max})	11.9A	13.8A	16.2A	18.6A	22.9A	27.5A
Max. Input Voltage (U _{dc,1})	600V					
MPP Voltage Range (U _{mpp min} - U _{mpp max})	230 - 500V					
Number of DC Inputs	6					
Output Data						
AC Nominal Output (P _{ac,r})	2600W	3000W	3500W	4000W	5000W	6000W
Max. Output Power	2600VA	3000VA	3500VA	4000VA	5000VA	6000VA
Max. Output Current (I _{ac max})	11.3A	13.0A	15.2A	17.4A	21.7A	26.1A
Grid Connection (U _{ac,r})	1-NPE 230VAC (180 - 270V) / 50/60Hz					
General Data						
Dimensions (H x W x D)	673 x 434 x 250mm				968 x 434 x 250mm	
Weight	23.8kg				36.9kg	

Three Phase Inverters

Code	FIGP55V-3	FIGP60V-3	FIGP80V-3	FIGP150V-3
Input Data				
DC Max. Power at COS Ø=1	5250W	6300W	7360W	12770W
Max. Input Current (I _{dc max})	22.8A	27.5A	32.0A	55.6A
Max. Input Voltage (U _{dc,1})	600V			
MPP Voltage Range (U _{mpp min} - U _{mpp max})	230 - 500V			
Number of DC Inputs	6			
Output Data				
AC Nominal Output (P _{ac,r})	5000W	6000W	7000W	12000W
Max. Output Power	5000VA	6000VA	7000VA	12000VA
Max. Output Current (I _{ac max})	7.3A	8.7A	10.2A	17.4A
Grid Connection (U _{ac,r})	3-NPE 400/230VAC (180 - 270V L-N) / 50/60Hz			
General Data				
Dimensions (H x W x D)	1263 x 434 x 250mm			
Weight	49.2kg			

Accessories

Code	Description
FRONIUS-DW	Datalogger Web - Datalogging for up to 4096 days and up to 100 inverters (Equipped with Com Card)
FRONIUS-DM	Data Manager Card - Direct Connection of inverter to internet for remote monitoring control. Can connect up to 99 additional inverters equipped with Com Card.
FRONIUS-CC	Com Card for Inverter Data Communication
FRONIUS-PCBOX	Power Control Box for remote controlled power reduction of systems >100kw
FRONIUS-SBOX	Sensor Box for collection of environmental sensor data
FRONIUS-IS	Irradiation Sensor c/w 3m cable ± 70mV@100W/m²



FRONIUS-DW



FRONIUS-DM FRONIUS-CC



FRONIUS-PCBOX



FRONIUS-SBOX



FRONIUS-IS

GRID-TIED SOLUTIONS

Three Phase Inverters

SolarEdge Power Optimizer - DC/DC converter which is connected by installers to each PV module. Increase energy output from PV systems by constantly tracking the maximum power point (MPPT) of each module individually.

SolarEdge PV Inverter - DC-AC PV inverter designed to work with the SolarEdge power optimizers. The fixed string voltage ensures operation at the highest efficiency at all times (>97% weighted efficiency) independent of string length and temperature.

SolarEdge PV Monitoring Portal - A web-based application that provides module-level, string-level and system-wide monitoring. The portal automatically provides alerts for accurate and immediate fault detection, localized on a virtual site map for on-site and remote troubleshooting at the module level. Module performance is communicated across existing power lines, no extra wiring required.



Fixed Voltage Inverter

Code	SE7K	SE9K	SE12.5K	SE15K	SE16K	SE17K
Rated AC Power Output (Max)	7000W	9000W	12500W	15000W	16000W	17000W
AC Output Voltage (Nominal)	400/230VAC (184 - 265V) / 50/60Hz ±5					
Max. Current Output	11.5A	14.5A	20A	23A	25.5A	26A
Recommended Max DC Power (Module STC)	9450W	12150W	16850W	20250W	21600W	22950W
Max Input Voltage	900VDC			950VDC		
Nominal DC Input Voltage	750VDC					
Max Input Current PV	12A	15A	21A	22A	23A	23A
Support Communication Interface	RS485, ETHERNET (Standard), ZIGBEE or GSM (Optional)					

- Design Flexibility
- Higher Power Yield
- Lower O&M Cost, Efficient Monitoring
- Enhanced Safety Solutions



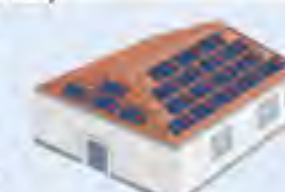
Cloud-based Monitoring Platform



Safe DC when Inverter is shut down



Module Level MPPT Tracking



Multiple orientations, tilts and module types in same string

Extended Warranty

Code*	Description
WE-3H-25	Extended warranty, 3 phase Inverter 15-17kW
WE-3M-25	Extended warranty, 3 phase Inverter 7-12.5kW

Safety Standard Compliance - IEC-62103 (EN50178), IEC-62109

Emissions - IEC61000-6-2, IEC61000-6-3

Grid Connection Standards - VDE 0126-1-1, VDE-AR-N-4105, AS-4777, RD-1663, IEC61000-3-11, IEC61000-3-12, FCC part 15 classB, RoHS Yes

Power Optimisers - Only for use with Solar Edge Inverters



Code	OPA250-RV	OPA300-LV	OPA400-EV	SE-P370	SE-P700
Rated Input DC Power	250W	300W	400W	370W	730W
Absolute max Input Voltage	47VDC	55VDC	130VDC	60VDC	125VDC
MPPT Operating range	5-47VDC	5-55VDC	15-130VDC	8 - 60VDC	12.5 - 105VDC
Max Input Current	10A	10A	7A	11A	11A
Max Output Current	15A				
Operating Output Voltage	5-60VDC				85VDC
Min Nr Optimizers per String	8 (1Ph system)/ 16 (3Ph system)				12 (3Ph Only)
Max Nr Optimizers per String	Module power dependant: Max 25 (1Ph) / 50 (3Ph)				30 (3Ph Only)

Smart Energy Meter- To Enable Feed In Limitation



*Add Amps to Code:
50, 100, 250

Code	Description
SE-WNC-3Y-400-MB-K	Watt Node Meter to enable feed in limitation

Split Core CT for use with Watt Node Meter

Code	Description	Code	Description
SE-ACT-0750-*	50/100/250A Split core CT	SE-CTS-2000-1000	1000A Split core CT

SE1000-GSEG-20E



SE1000-ZB02 SE1000-ZB00-DG2-X

Communication Modules

Code	Description	Functions
SE1000-GSEG-20E	GSM Modem, quad band c/w antenna	GSM Communication Gateway
SE1000-ZB02-MST	1 Digi X-bee-Pro coordinator module, antenna (Master inverter)	Inter-inverter communication
SE1000-ZB02-SLV	1 Digi X-bee-Pro (ZIGBEE) coordinator module, antenna (Slave Inverter)	Inter-inverter communication
SE1000-ZB00-DG2-X	1 Digi Connect Port x 2 gateway, 1 Digi X-bee-Pro router module, antenna	Ethernet Gateway

solar**edge**



Control & Communication Gateway

Code	SE1000-CCG-G
Power Supply	Included, 100-240VAC
Supply Voltage	9 - 140VDC (2W)
Ethernet Interface	10 / 100 - BaseT
Wireless Connection	ZigBee Module (optional)
Power Reduction INT.	4 control pins, 5V, GND
Serial Interface	2 x RS485 1 x RS232
Analogue Input 1 / 2 / 3	0-2V or 0-10V / 0-20mV or 0-2V / -20mA to 20mA

- Supported RS485 Devices: Solar Edge devices, non Solar Edge inverters, revenue meter, environmental sensors, 3rd party dataloggers, power reduction devices
- Logs inverter monitoring data
- Power reduction interface: Enable feed-in limitation
- Wireless connectivity: GSM or Zigbee wireless connection options

NEW SINGLE PHASE HYBRID RESIDENTIAL INVERTERS IP65

Optimal Electricity Cost

- Up to 30% More Energy by Optimizers
- 2 x Power Battery Ready, Plug & Play

Better Experience

- No Fuse & Other Quick-wear Parts, Natural Cooling
- One APP for all access procedure
- Report subscription and real-time alarm push
- Auto-definition of local components
- Module auto-mapping
- Online Smart I-V Curve Diagnosis, Module Touch Free
- Module-level monitoring

Active Safety

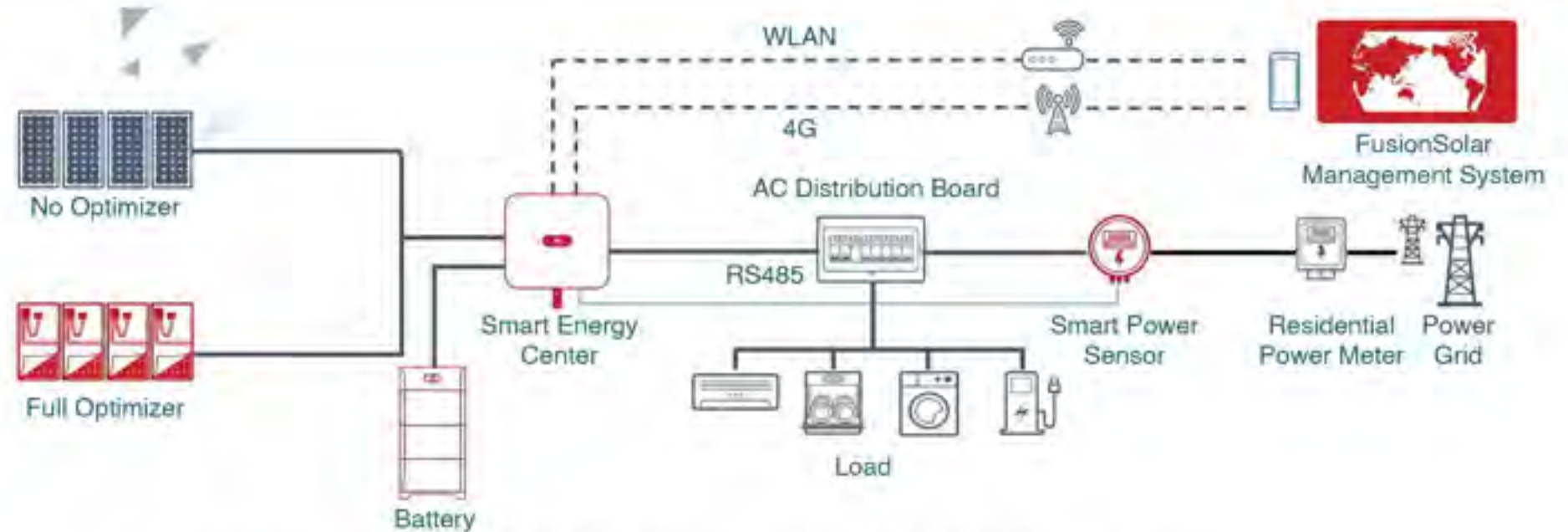
- AI Powered Active Arcing Protection
- Accurate arc fault detection via local neutral network algorithm
- Speedy arc fault protection by fast inverter shutdown



FusionSolar Smart PV Management System

- All in one App monitoring & web monitoring

FusionSolar - Single Phase Inverter



- AI powered arcing protection
- Compatible to **SUN2000-450W-P** optimizer
- Up to 3x **SUN2000 -*-L1** can be cascaded

- Battery ready by direct Plug & Play, no extra device or any retrofit required
- High efficiency inverter topology, Max. Efficiency 98.4%
- Standard Warranty of 10 Years

Code	SUN2000L-2KTL-L1	SUN2000L-3KTL-L1	SUN2000L-3.68KTL-L1	SUN2000L-4KTL-L1	SUN2000L-4.6KTL-L1	SUN2000L-5KTL-L1	SUN2000L-6KTL-L1
Output (On Grid)							
Rated Output Power	2000W	3000W	3680W	4000W	4600W	5000W	6000W
Max. Apparent Power	2200VA	3300VA	3680VA	4400VA	5000VA	5500VA	6600VA
Rated Output Voltage	230VAC / 50Hz						
Max. Output Current	10A	15A	16A	20A	23A	25A	27.3A
Output (Off Grid)							
Backup Box (Optional)	Backup Box – B0						
Maximum Apparent Power	2000VA	3000VA	3680VA	3000VA	4600VA	5000VA	5000VA
Rated Output Voltage	230VAC / 50Hz						
Maximum Output Current	9.1A	13.6A	16.7 A	18.2A	20.9A	22.7A	22.7A
PV Input							
Max. PV Power	3000Wp	4500Wp	5520Wp	6000Wp	6900Wp	7500Wp	9000Wp
Max. Input Voltage (Voc)	600V						
Start-Up Voltage	100V						
MPPT Operating Voltage Range	90V – 560V						
Rated Input Voltage	360V						
Max. Input Current Per MPPT	12.5A						
Max. Short-Circuit Current (Isc)	18A						
MPPT Trackers/Max. Input Per Tracker	2 / 1						
Optimizer Compatibility	DC MBUS compatible optimizer (SUN2000-450W-P,SUN2000-600W-P)						
Input (DC Battery)							
Compatible Battery	LUNA2000 ESS Battery 5kWh – 30kWh						
Operating Voltage Range	350 - 560VDC						
Max Operating Current	15A						
Max Charge Power	5000W						
Max Discharge Power	2200W	3300W	3680W	4400W	4600W	5000W	5000W
General Data							
Max. Efficiency	98,20%	98,30%	98,40%	98,40%	98,40%	98,40%	98,40%
Display	LED indicators, integrated WLAN + FusionSolar APP						
Communication	RS485; Built WLAN; Fast Ethernet via SDONGLEA-05 (optional); 4G/3G/2G via SDONGLEA-03-EU (optional)						
Weight	12.0 kg (Incl. Mounting Bracket)						
Dimensions	365 x 365 x 156mm (Incl. Mounting Bracket)						

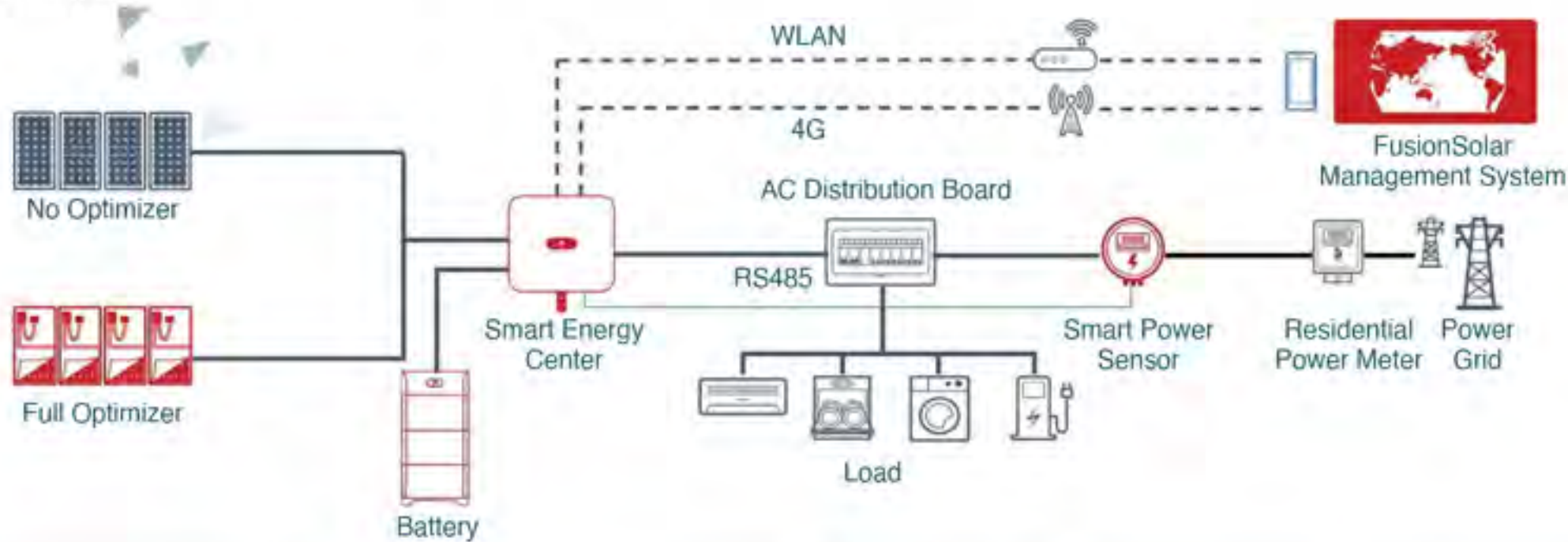
NEW **THREE PHASE HYBRID RESIDENTIAL INVERTERS IP65**

Fusion Solar-Three Phase Inverters

Two PV strings connect to the SUN2000, and their maximum power points are tracked by two maximum power point tracking (MPPT) circuits. The SUN2000 converts DC power into three-phase AC power through an inverter circuit.

Features

- Support PID recovery function for better mode performance
- Compatible to SUN2000-450W-P optimizer
- AI powered arcing protection
- Battery ready by direct Plug & Play, no extra device or any retrofit required
- A 10KTL inverter allows 10KW full power AC output plus 10KW full power battery charge
- High efficiency inverter topology, Max. Efficiency 98.6%
- Standard Warranty of 10 years



Code	SUN2000-3KTL-M1	SUN2000-4KTL-M1	SUN2000-5KTL-M1	SUN2000-6KTL-M1	SUN2000-8KTL-M1	SUN2000-10KTL-M1
Output (On Grid)						
Rated Output Power	3000W	4000W	5000W	6000W	8000W	10000W
Max. Apparent Power	3300VA	4400VA	5500VA	6600VA	8800VA	11000VA
Rated Output Voltage	230VAC / 400VAC, 3W/N+PE					
Max. Output Current	5.1 A	6.8 A	8.5 A	10.1A	13.5A	16.9A
Output (Off Grid)						
Backup Box (Optional)	Backup Box – B1					
Maximum Apparent Power	3000VA	3300VA	3300VA	3300VA	3300VA	3300VA
Rated Output Voltage	230VAC / 50Hz					
Maximum Output Current	13.6A	15A	15A	15A	15A	15A
PV Input						
Recommended Max. PV Power	4500 Wp	6000 Wp	7500 Wp	9000 Wp	12000 Wp	15000 Wp
Max. Input Voltage (Voc)	1100V					
Start-Up Voltage	140V - 980V					
MPPT Operating Voltage Range	200V					
Rated Input Voltage	600V					
Max. Input Current Per MPPT	11A					
Max. Short-Circuit Current (Isc)	15A					
MPP Trackers/Max. Input Per Tracker	2 / 1					
Optimizer Compatibility	DC MBUS compatible optimizer (SUN2000-450W-P & SUN2000-600W-P)					
Input (DC Battery)						
Compatible Battery	LUNA2000 Smart String ESS, 5kWh – 30kWh					
Operating Voltage Range	600V - 980V					
Max Operating Current	16.7 A					
Max Charge Power	10000W					
Max Discharge Power	3300W	4400W	5500W	6600W	8800W	10000W
General Data						
Max. Efficiency	98,20%	98,30%	98,40%	98,60%	98,60%	98,60%
Display	LED indicators; integrated WLAN + FusionSolar APP					
Communication	RS485, Built in WLAN; fast Ethernet via SDONGLE-05(optional); 4G/3G/2G via Smart SDONGLEEA-03-EU(optional)					
Weight (Incl. Mounting Bracket)	17.0 kg					
Dimension (Incl. Mounting Bracket)	525 x 470 x 146.5 mm					

NEW FUSION SOLAR RESIDENTIAL ENERGY STORAGE SYSTEM IP66

Smart String Energy Storage System

High voltage lithium battery compatible with Fusion Solar residential inverters **SUN2000-(2-6) KTL-L1** and **SUN2000-(3-10KTL)-M1**. Supports mainly grid tied mode and other multiple working modes such as , grid-tied and off-grid, pure off-grid multi-scenario, self-consumption, time-of-use, and full fed to the grid modes. The modular system consists of a "Power Control Module" block on top and battery modules which are stackable together. This allows for easy and quick installation. Each battery pack has a built-in energy optimizer and supports independent charge and discharge management. The optimization system allows new and old battery modules to be mixed in one system and still operate at their optimum capacity.



Power Modules

Code	LUNA2000-5-C0
Description	Interfaces battery modules to the inverter
Max Battery Module Support	3(15KWh)
Power Module weight	12 kg
Module Dimension	670 x 150 x 240mm

Battery Module - Lithium-iron phosphate (LiFePO4)

Code	LUNA2000-5kW-E0
Module energy	5 kWh
Max. Output Power/ Peak	2.5 KW / 3.5KW
Module Weight	50 kg
Module Dimension	670 x 150 x 360mm

Battery Strings

The battery supports power and capacity expansion. One power control module supports a maximum of three battery expansion modules , scalable from 5kWh to 15kWh and two power control modules can be connected in parallel to give up-to 30KWh

- 100% depth of discharge (DoD)
- More usable energy with pack level energy optimization
- Safe & reliable performance with Lithium Iron Phosphate (LFP) cell
- Auto detected by App
- Compatible with both single & three phase inverter
- Faulty battery module auto isolates to keep system operating
- Standard guaranty 10 years



Code	LUNA2000-5-S0	LUNA2000-10-S0	LUNA2000-15-S0
String Rating			
Number of Battery Modules	1	2	3
Battery Usable Energy	5kWh	10kWh	15kWh
Max. Output Power	2.5kW	5kW	5kW
Peak Output Power	3.5kW	7kW	7kW
Nominal Voltage (Single Phase)	450V		
Operating Voltage Range (Single Phase)	350 – 560V		
Nominal Voltage (Three Phase System)	600V		
Operating Voltage Range (Three Phase System)	600 – 980V		
Scalability	Max. 2 systems in parallel operation		
Compatible Inverters	SUN2000-(2KTL6KTL)-L1; SUN2000-(3KTL-10KTL)-M1		
Communication			
Display	State of charge status indicator, LED indicator		
Communication	RS485 / CAN (only for parallel operation)		
General Data			
Dimension (W*D*H)	670 x 150 x 600mm	670 x 150 x 960mm	670 x 150 x 1320mm
Weight (Floor Stand Toolkit Included)	63.8kg	113.8kg	163.8kg
Installation	Floor stand (standard), Wall mount (optional)		

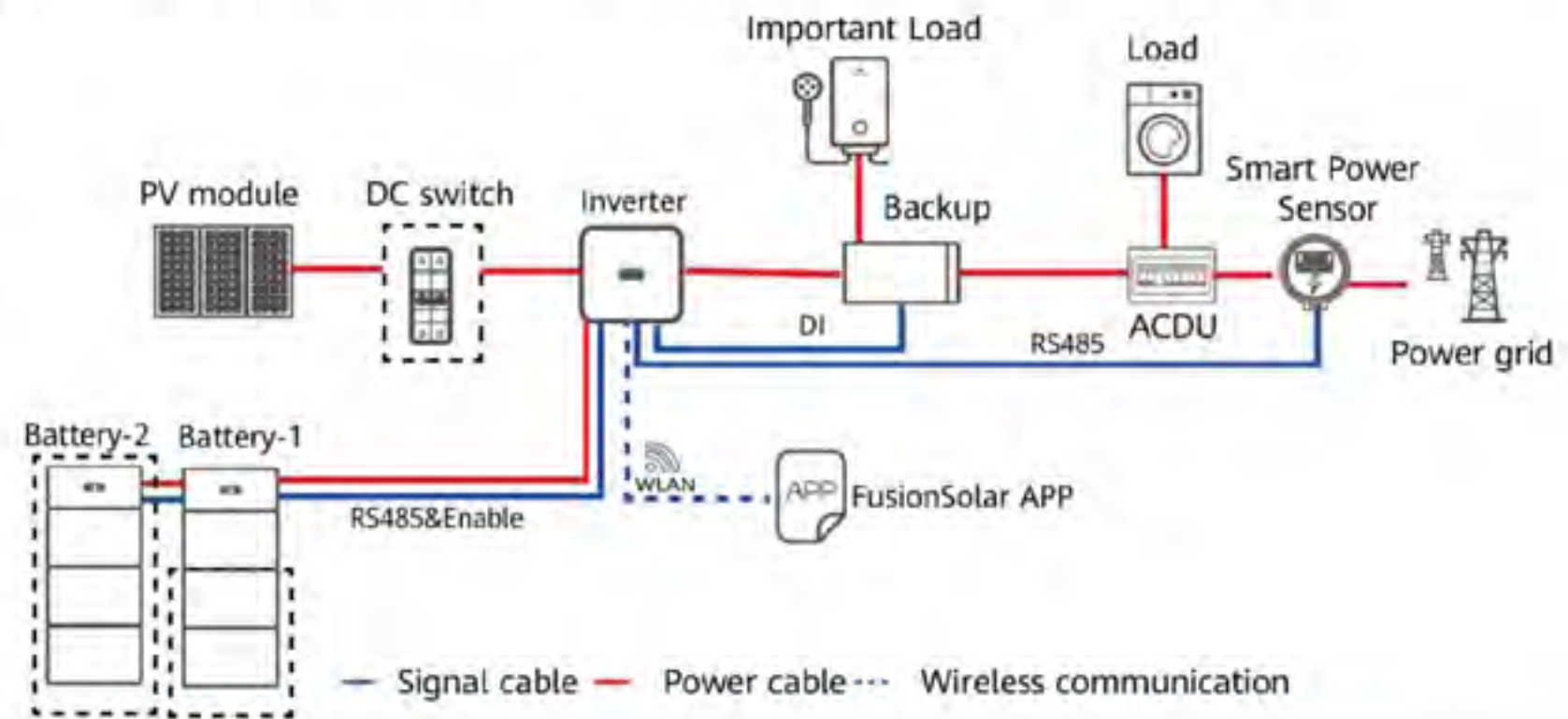
SOLAR

NEW

BACK-UP BOX

Fusion Solar - Backup Box IP65 - Automatic detection & switchover to provide backup power to critical loads

The Backup Box is used in a residential rooftop PV plant system to control the inverter grid-tied or off-grid state. When the grid fails, the inverter switches to the off-grid state and supplies power to off-grid loads in backup mode. When the grid recovers, the inverter switches back to the grid-tied state.



Code	BACKUPBOX-B0	BACKUPBOX-B1
AC Output (On Grid)		
Grid Connection	Single Phase	Three Phase
Rated Voltage	230VAC	400VAC
AC Output (Backup)		
Load Connection	Single Phase	Single Phase
Rated Voltage	230VAC / 50Hz	
Maximum Apparent Power	5000VA	3300VA
Maximum Output Current	22.7A	15.2 A
Switchover Time	< 3s	
AC Input (Inverter)		
Rated Voltage	230VAC / 50Hz	400VAC / 50Hz
Compatible Inverter	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1	SUN2000-3/4/5/6/8/10KTL-M1
General Specification		
Dimensions (W x H x D)	400 x 350 x 130mm	
Weight	11kg	

SMART PV OPTIMIZERS



Fusion Solar - Smart PV Optimizer IP68

Code	SUN2000-450W-P	SUN2000-600W-P
Input		
Rated Input DC Power	450W	600W
MPPT Operating Voltage Range	8 - 80V	-
Maximum Short Circuit Current (Isc)	13A	14A
Output		
Max. Output Voltage	80V	80V
Max. Output Current	15	-
Shutdown Output Voltage/Impedance	0V / 1kΩ ± 10 %	
General Data		
Dimensions (W x H x D)	71 x 138 x 25mm	-
Weight (Including Cables)	0.55kg	0,6kg

COMING SOON

- One optimizer fits all application scenarios
- Up to 30% more energy by optimizing each module's performance
- Lower BoS cost & higher oversizing with long string design
- Standard warranty 10 years

Note: Sun 2000 - 450 - P and Sun 2000 - 600W - P are able to mix in use

Long String Design (Full Optimizer)

Inverter Codes	SUN2000-2-6KTL-L1	SUN2000-3-10KTL-M1	SUN2000-12KTL-20KTL-M2	SUN2000-30-40KTL-M3
Min optimizer per string	4	6	6	6
Min optimizer per string	25	50	50	26
Max DC power per string	5000W	10 000 W	10 000 W	10 000 W

SMART METERS

NEW

Fusion Solar - Smart Power Sensor

- Measurement accuracy > class 1 with full temperature range
- Power export limitation control
- LCD display, convenient for users to set and check
- Overall power consumption ≤ 1W
- DIN35 Rail mounting



Single Phase



Three Phase

Code	DDSU666-H-1PH	DTSU666-H-3PH
Power Supply		
Power Grid Type	Single Phase (2 wire)	Three phase (4 wire)
Input Voltage (Phase Voltage)		230VAC
Measurement Range		
Line Voltage	-	304 - 499VAC
Phase Voltage		176 - 288VAC
Current	0 - 100A	0 - 100A
Communication		
Interface		RS485
Communication Protocol		Modbus-RTU
General Data		
Dimensions (H x W x D)	100 x 36 x 65.5mm	100 x 72 x 65.5mm
Weight (Including Cables)	1.2kg	1.5kg
Accessories (Included)	1 x CT 100A / 40mA (5m), RS485 Cable (10m)	3 x CT 250A / 50mA (5m), RS485 Cable (10 m)

NEW

FUSION SOLAR COMMUNICATION MODULES

- Plug & Play connection to inverter
- WLAN/Fast Ethernet communication via Smart Dongle-FE
- 4G communication via Smart Dongle-4G
- Support max 10 inverters communication



WLAN Dongle



4G-Dongle



WLAN/Bluetooth

Code	SDONGLEA-05	SDONGLEA-03-EU	USB-AD2000-*
Function	Remote monitoring		Local commissioning
Communication Standards	WLAN & Fast Ethernet	4G: FDD-LTE, TDD-LTE 3G: WCDMA, HSDPA, HSUPA, HSPA+ 2G: GSM, GPRS, EDGE	WLAN/Bluetooth
Compatibility	SUN2000-*KTL-L1; SUN2000-3 to 10KTL-M1; SUN2000-12 to 20KTL-M2; SUN2000-12 to 20KTL-M3	SUN2000-*KTL-L1; SUN2000-3 to 10KTL-M1; SUN2000-12 to 20KTL-M2; SUN2000-12 to 20KTL-M3 SUN2000-50/60KTL-M0; SUN2000-100KTL-M1	SUN2000-50/60KTL-M0; SUN2000-100KTL-M1
Dimensions (W x H x D)	146 x 48 x 33mm	130 x 48 x 33mm	30 x 14 x 94mm
Weight	90g	90g	20g

Add * B Bluetooth and C WLAN



Note: **Smart I-V Curve Diagnosis** - to be ordered separately
 • Please note that I-V Curve Diagnosis is not supported when inverter is connected with power Optimizer

NEW ENERGY STORAGE SYSTEM IP65

iSitePower-M Hybrid Solution

Small-scale hybrid power solution that integrates Grid Supply, Backup Power, and Power Management. It's widely used in off-grid and unreliable grid areas to replace environmentally unfriendly Diesel Generators (DGs), providing reliable and stable backup power for apartments, shops, and emergency scenarios. It is a Compact and lightweight high-density design.



5kW/15kWh



Power Module

Code	ISP-M-MAP05A1
AC Output	
Rated Power Output	6 kVA / 5 kW
Output Voltage	230 VAC/50Hz
Max. Output Current	25.8A
Max. Bypass Input Power	6kW
AC Input	
AC Input Voltage	230VAC/50Hz
Surge Protection	3 kVA/5 kVA, 8/20 μs
Max. Input Current	30 A
PV Input	
Start-up Voltage	100VDC
MPPT Voltage	90-420VDC
Max. Input Voltage (Voc)	435VDC
Max. Input Current (Isc)	2 x 15 A
Recommended PV Power	5000 Wp
No. PV Strings/MPPT Routes	2/1
Optimizer Compatibility	DC Mbus Compatible
DC Surge Protection	10 kA, 8/20 μs, criterion C
Max. Input Current per Strings	15 A
General	
Communication	Wi-Fi
Display	LED's, NetEco
Dimensions (W x H x D)	700 x 246 x 152mm
Module Weight	Approx. 17 kg

Battery Module

Code	ISP-M-MAB05B1
Battery Module Capacity	5 kWh per module
Max. Output Power	2.5kW per Module, 5kW per ESS
Output/Input Voltage	370-480VDC
Cycle Life	6000 cycles @ 25°C, 80% DOD
Dimensions (W x H x D)	700 x 390 x 158mm
Module Weight	50kg

Single System Scenario

Max. support 6pcs batteries, 5 kW output (5Kw@30kWh)

Parallel System Scenarios

Max. 3power modules can be paralleled. Each power module supports max. 3batteries (15kW@45kWh)



Floor Mounting Base

Accessories

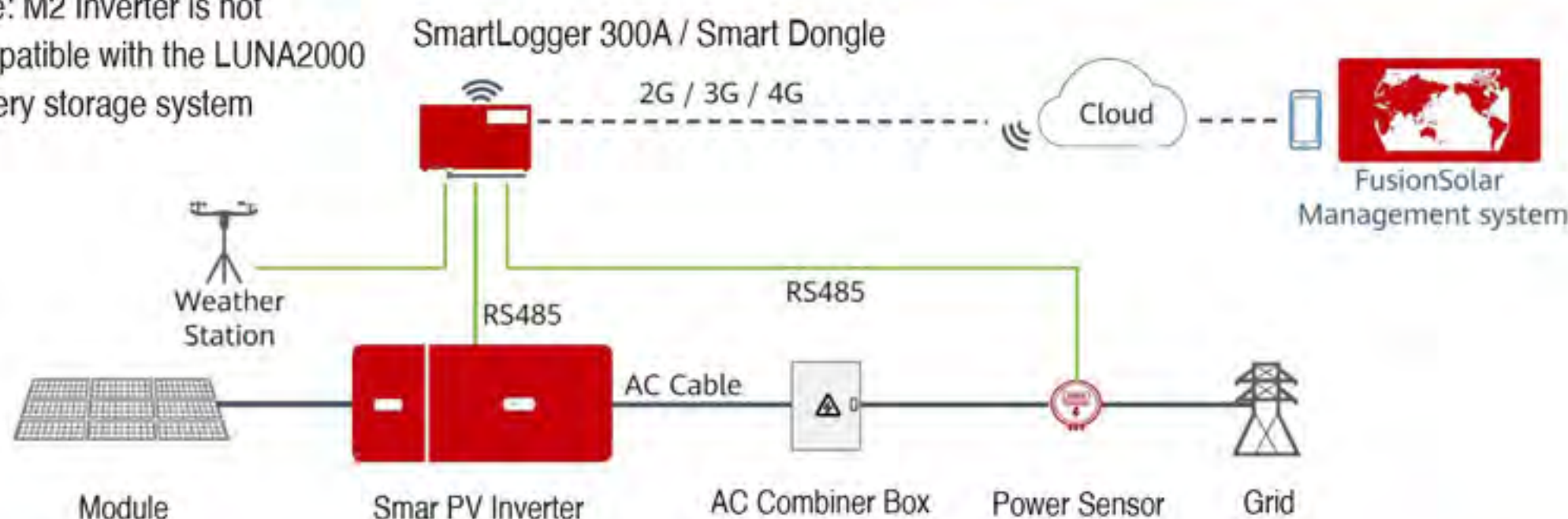
Code	Description
ISP-M-MAP15A11	Mounting base/bracket
IIOT-WAC0411	4G Wireless backhaul module. It can report alarms and signals to the NetEco in wireless mode
ISP-M-MAP15A12	Wall Mounting Bracket/Cover
ISP-M-MAP15A13	Battery Expansion Top Cover
ECC-01	Cascading Cables

- **High Protection** - An integrated design with IP65-rated protection helps ensure power generation and power consumption security.
- **Intelligent and simple operation** - Mobile app and an integrated management system
- **Scalability** - The system supports both power expansion and energy storage capacity expansion.
- **Quiet** - An efficient natural heat dissipation design eliminates the need for cooling fans and lowers operating noise to less than 29 dB.
- **24/7 Uninterrupted Power** - Compatible with multiple energy sources, including solar and grid, with multi-energy scheduling and intelligent priority management.
- **Easy installation** - Applies to indoor and outdoor environments and can be mounted on walls or ground. Modular design for energy storage.

NEW **THREE PHASE PURE ON-GRID INVERTERS**



Note: M2 Inverter is not compatible with the LUNA2000 battery storage system

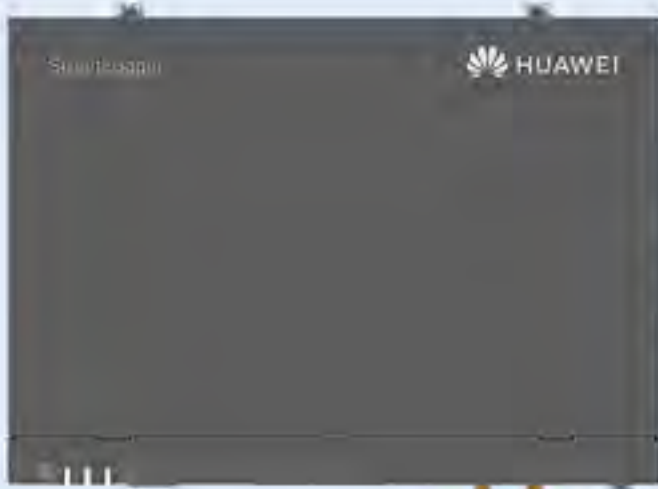


Fusion Solar - Three Phase Inverter

Code	SUN2000-12KTL-M2	SUN2000-15KTL-M2	SUN2000-17KTL-M2	SUN2000-20KTL-M2
Input				
Recommended Max. PV Power	18000Wp	22500Wp	25500Wp	30000Wp
Max. Input Voltage	1080V			
Start-Up Voltage	160V - 950V			
Rated Input Voltage	600V			
Max. Input Current Per MPPT	22 A			
Max. Short-Circuit Current	30 A			
MPP Trackers/Max. Input Per Tracker	2/2			
Output (On Grid)				
Rated Output Power	12000W	15000W	17000W	20000W
Max. Apparent Power	13200VA	16500VA	18700VA	22000VA
Rated Output Voltage	230 VAC / 400 VAC @50Hz			
Max. Output Current	20A	25.2A	28.5A	33.5A
General Data				
Max. Efficiency	98,50%	98,50%	98,50%	98,50%
Display	LED indicators; integrated WLAN + FusionSolar APP			
Communication	RS485; WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional)			
Weight (Incl. Mounting Bracket)	25 kg			
Dimension (Incl. Mounting Bracket)	525 x 470 x 262 mm			
Optimizer Compatibility	DC MBUS compatible optimizer (SUN2000-450W-P)			

- AI Powered AFCI to proactively mitigate fire risk
- Up to 30% higher yields contributed by optimizing each panel performance
- Integrated PID recovery function
- Inverter with no quick wear parts, low failure rate

NEW **FUSION SOLAR SMART LOGGER IP20**



Network Application Supports

- Huawei devices such as solar inverters and PID modules
- Power meters that use the DL/T645 protocol
- Third-party solar inverters, environment monitoring instruments (EMIs), transformer stations, and power meters that use the Modbus-RTU protocol
- Local operations on the SmartLogger using the mobile phone app through the built-in WLAN
- Connects to a management system that uses the Modbus TCP protocol over a wired or wireless network
- Connects to a management system that uses the IEC104 protocol in the LAN over a wired network

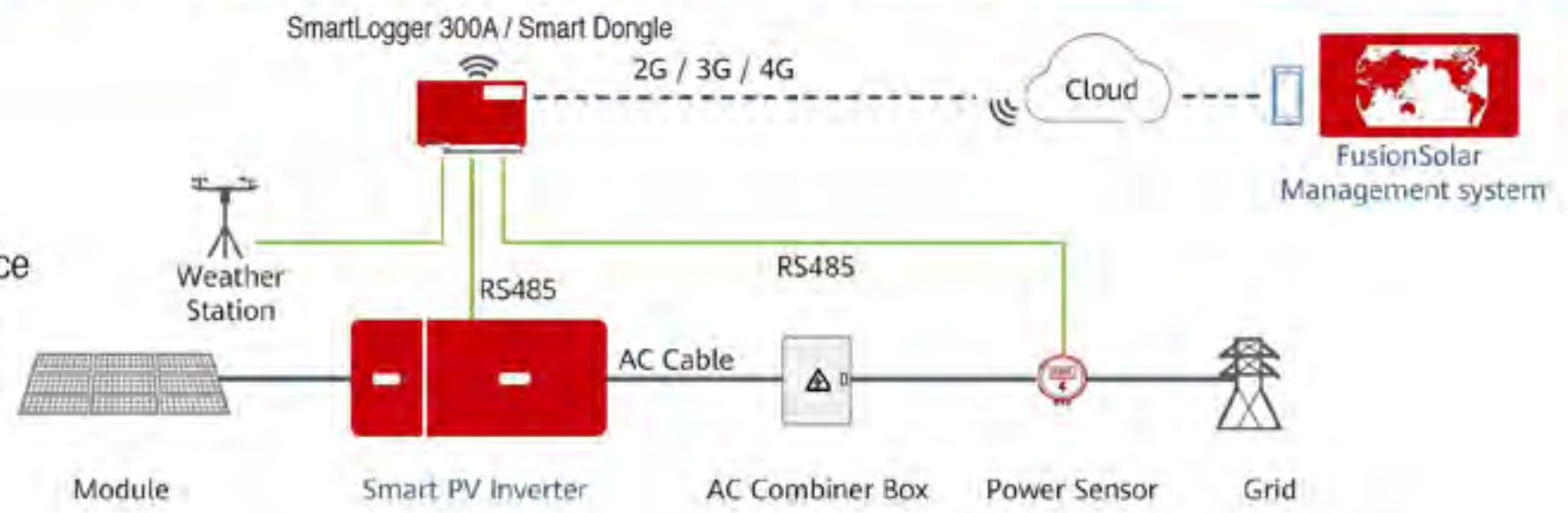
The SmartLogger is a device dedicated for monitoring and managing the PV power system. It converges ports, converts protocols, collects and stores data, and centrally monitors and maintains devices in the PV power system.

Code	SL-3000A
Max Number of Supported Devices	80
Communication Interface	WAN, LAN, RS485, 2G / 3G / 4G
Digital / Analog Input / Output	DI x 4, DO x 2, AI x 4, Active DO @12V, 100mA (connection with relay, sensor)
AC Power Supply	100V - 240VAC, 50 Hz
DC Power Supply	12V/ 24VDC
Power Consumption	Typical 8W, Max. 15W
Communication Protocol	Modbus-TCP (Ethernet), Modbus-RTU (RS485)
Display	LED Indicators, Embedded Web, USB 2.0 WLAN for Commissioning
Compatibility	Power Meters (250A/50mA) DTSU666-H-3PH
Dimensions (W * H * D)	225 x 160 x 44mm
Weight	2 kg

GRID-TIED COMMERCIAL INVERTERS

Fusion Solar - Three Phase Inverters

- AI Powered Active Arcing Protection
- C&I Tailored Enhanced Arcing Protection
- 2 Strings per MPPT, More Energy Yields
- Built-in PID Recovery, Secure Better Module Performance
- No Fuse & Other Quick-wear Parts, Inverter Touch Free
- Online Smart I-V Curve Diagnosis, Module Touch Free



Code	SUN2000-30KTL-M3	SUN2000-36KTL-M3	SUN2000-40KTL-M3	SUN2000-50KTL-M0	SUN2000-60KTL-M0	SUN2000-100KTL-M1
Output (On Grid)						
Rated AC Output Power	30000W	36000W	40000W	50000W	60000W	100000W
Max. AC Apparent Power	33000VA	40000VA	44000VA	55000VA	66000VA	110000VA
Rated Output Voltage	230VAC / 400VAC, 3W/N+PE @50Hz					
Rated Output Current	43.3A	52.0A	57.8A	72.2A@400VAC	86.7A@400VAC	144.4A@400VAC
Max. Output Current	47.9A	58.0A	63.8A	79.4A@400VAC	95.3A@400VAC	160.4A@400VAC
PV Input						
Rated Input Voltage	1100V					
Start-Up Voltage	200V					
MPPT Operating Voltage Range	200V - 1000V					
Rated Input Voltage	600V					
Max. Input Current Per MPPT	26A			22A		22A
Max. Short-Circuit Current(Isc)	40A			30A		40A
MPPT Trackers/Max. Input Per Optimizer Compatibility	4/2			6/2		10/2
	SUN2000-450W-P ; SUN2000-600W-P					
General Data						
Max. Efficiency	98,70%			98,70%		98,70%
Display	LED Indicators, WLAN Adaptor + FusionSolar APP			LED indicators, Bluetooth / WLAN + App		
Communication	RS485;Built in WLAN; fast Ethernet via SDONGLE-05 (optional); 4G Smart SDONGLEEA-03-EU(optional), MBUS(Isolation Transformer required)			RS485; Bluetooth/ WLAN via USB2000-Adapter-C; 4G Smart SDONGLEEA-03-EU(optional), MBUS(Isolation Transformer required)		
Cooling Method	Natural Convection			Natural Convection		Smart Air Cooling
Weight (Incl. Mounting Bracket)	43kg			47 kg		90kg
Dimension (Incl. Mounting Bracket)	640 x 530 x 270mm			1075 x 555 x 300mm		1035 x 700 x 365mm

Inverters SUN2000-50/60KTL-M0 & SUN2000-100KTL-M1 :

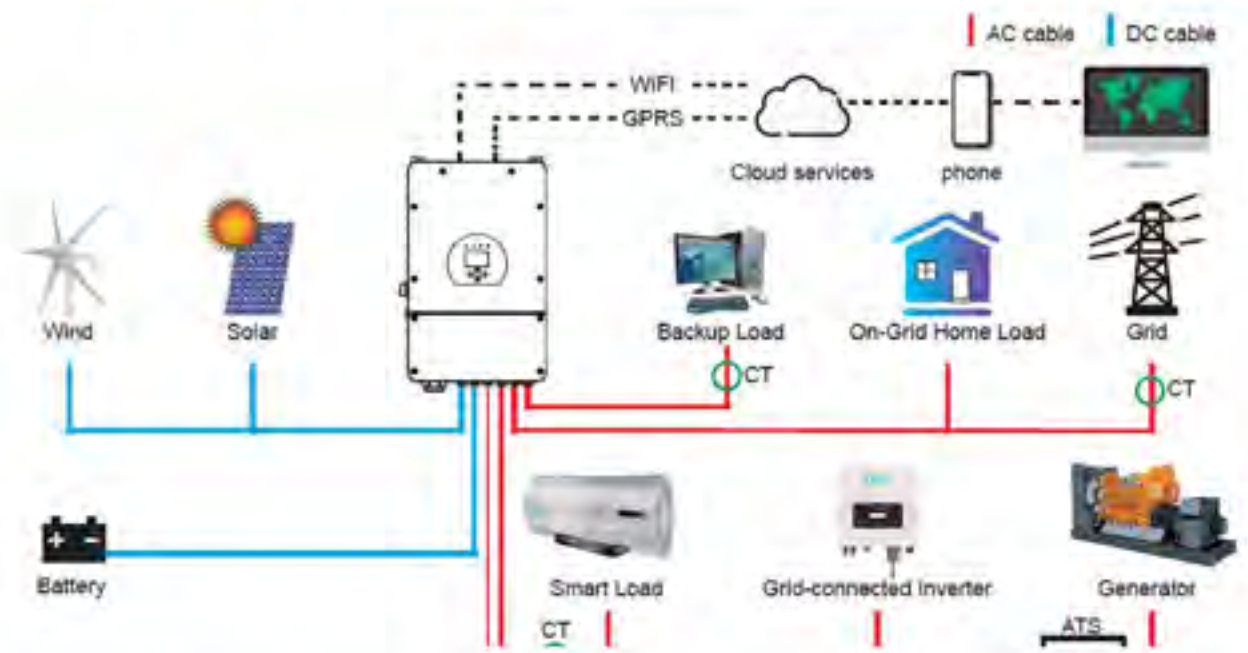
- Come with communication module **US2000Adapter-C** used for local commissioning
- Do not support Arc Fault Circuit Interruption
- Not compatible with Smart PV Optimizers
- No built-in PID recovery function
- **SUN2000-100KTL-M1** Pro which supports the AFCI to be soon available

NEW

HYBRID GRID TIED INVERTERS

Hybrid Inverter with Energy Storage

- Colourful touch LCD, IP65 protection degree
- Max. charging/discharging current of 120A
- Frequency droop control, Max.16pcs parallel
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator
- DC couple and AC couple to retrofit existing solar system
- Comes with WiFi module for remote monitoring
- Programmable multiple operation modes: On-Grid, Off-Grid and UPS
- Smart load function



	Single Phase			Three Phase
Code	DEYE-H-5K 48VDC	DEYE-H-8K 48VDC	DEYE-H-16K 48VDC	DEYE-H-12K-3P 48VDC
AC Data				
Rated AC Output and UPS Power	5000W	8000W	16000W / 14000W	12000W
AC Output Rated Current	27.7A	35A	69.6A / 60.9A	18,2A
Max. AC Passthrough Current	35A	50A	100A	45A
Input/Output Voltage	230VAC @50Hz			230/400VAC@50Hz
PV String Input				
Max. DC Input Power	6500W	10400W	20800W	15600W
PV Input Voltage	370VDC (100-500VDC)			550VDC(160-800VDC)
MPPT Range	150-425VDC			200-650VDC
PV Input Current per MPPT	13A + 13A	22A + 22A	26A + 26A + 26A	22A + 22A
No. of MPPT Trackers	2	2	3	2
No. of Strings Per MPPT Tracker	1 + 1	2 + 2	2 + 2 + 2	2 + 2
Battery Data				
Battery Type	Lead-acid or Lithium-ion			
Battery Voltage Range	40-60VDC			
Max. Charging Current	120A	190A	290A	240A
Max. Discharging Current	120A	190A	290A	240A
External Temperature Sensor	Yes			
General Data				
Communication with BMS	RS485; CAN			
Accessories Included	WiFi Communication Dongle & CT			
Weight	20.5kg	32kg	48.5kg	33.6kg
Dimensions (WxHxD)	330 x 580 x 232mm	420 x 670 x 233mm	464 x 799 x 300mm	422 x 700 x 279mm

NEW

HYBRID GRID INTERACTIVE INVERTER



- Intelligent Offgrid & Hybrid Modes
- PV & AC Power Loads Simultaneously
- Wide PV Input Voltage Range
- Advanced Parallel, up to 50kW

Code	LUX-SNA-5K 48VDC
AC Output	
Rated Input Voltage	230VAC
Input Voltage Range	110-280VAC
AC Input	
Rated Power	5000W/5000VA
Output Voltage	230VAC @50Hz
Surge Power	10000VA
Battery	
Nominal Voltage	51.2/48VDC
Battery Type	Lead-acid or Lithium
Maximum AC Charge Current	60A
PV Input	
Maximum PV Input Power	3200W/3200W
Number of MPPT Trackers	2
Max. PV Voc	480VDC
MPPT Range	100-385VDC
Max PV Current	13A /13A
General Specifications	
Communication with BMS	RS485/CAN
Accessories included	Wifi communication dongle
Weight	14kg
Dimensions (WxHxD)	330 x 504 x 135mm

NEW

GRID INTERACTIVE INVERTERS



- Pure sine wave solar inverter
- Output power factor 1
- Built-in MPPT solar charger
- Supports WIFI remote monitoring
- Mains or Generator power
- Configurable AC/Solar charger priority via LCD setting

Grid Interactive Inverters

Code	PV18-1K 12VDC	PV18-3K 24VDC	PV18-5K 48VDC
AC Input			
Rated Input Voltage	230VAC		
Input Voltage Range	170-280VAC (UPS Mode) / 90-280VAC (Appliance Mode)		
AC Output			
Rated Output	1000VA/1000W	3000VA/3000W	5000VA/5000W
AC Voltage	230VAC @50Hz		
Surge Power	2000VA	6000VA	10000VA
Battery			
Nominal Voltage	12VDC	24VDC	48VDC
Battery Type	Lead-Acid or Lithium		
Maximum AC Charge Current	10/20A	20/30A	60A
PV Input			
Maximun PV Input Power	625W	1500W	4000W
Number of MPPT Trackers	1	1	1
Max. PV Voc	75VDC	145VDC	145VDC
MPPT Range	15-75VDC	30-120VDC	60-130VDC
Max Solar Charge Current	60A	60A	80A
General Specifications			
Weight	5kg	7.4kg	14kg
Dimensions (WxHxD)	225 x 355 x 92mm	272 x 355 x 100mm	298 x 468 x 125mm



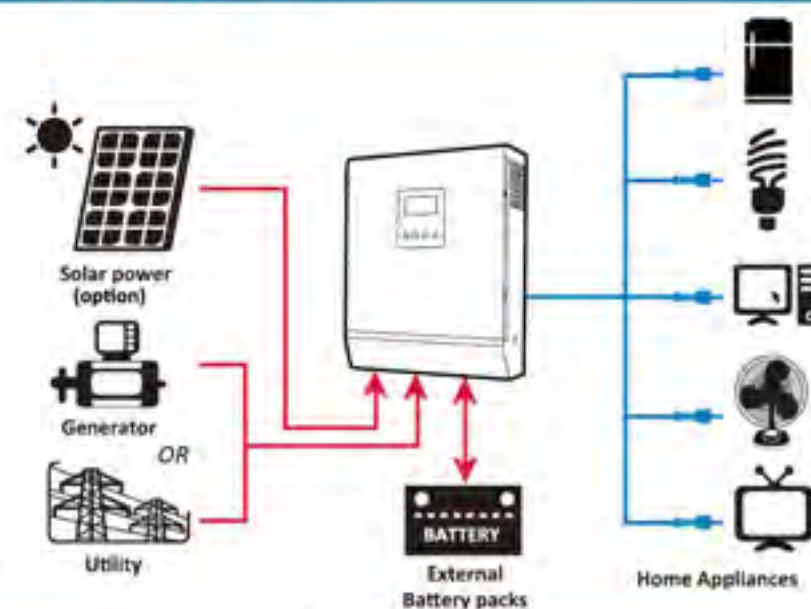
Communication Accessories

Code	Description
PV18-WIFI	Wi-Fi module for PV18-3K 24VDC

HYBRID GRID-INTERACTIVE INVERTERS



- Combines the functions of Inverter, MPPT Solar Charger, AC Battery Charger, UPS
- **MKS-4K** and **MKS-5K** can be connected in parallel and/or 3Phase configuration
- Pure Sine Wave Inverter
- Built in MPPT Controller
- Selectable Input Voltage
- Cold Start Function
- Short Circuit Protection
- Input Voltage Selection
- Selectable Charger Current
- Configurable AC / Solar Charge Priority
- Mains or Generator Power
- Overload / Over Temp Protection
- Smart Charge for Optimized Performance



Code	MKS-1K 24VDC	MKS-1K 48VDC	MKS-4K 48VDC	MKS-5K 48VDC
Rated Power	1kVA / 800W	1kVA / 1000W	4kVA / 3.2kW	5kVA / 4kW
Surge Power	2kVA		8kVA	10kVA
Input Volts	230VAC			
Output Volts	230VAC			
AC Charger / Battery				
Battery Volts	24VDC	48VDC	48VDC	48VDC
Max Charge Amps	20A	15A	60A	60A
Solar Charger				
Max PV Power	600W	900W	4KW	4KW
MPPT Volt Range	30 - 66VDC	60 - 88VDC	60 - 115VDC	60 - 115VDC
Max PV VOC Volts	75VDC	102VDC	145VDC	145VDC
Max Charge Amps	25A	18A	80A	80A



MKS-WIFI



MKS-WEB



MKS-BMS-BOX

Communication Accessories

Code	Description
MKS-WEB	Web Server to monitor & manage MKS inverters in a wired Network
MKS-WIFI	Wifi Card for remote monitoring and management of MKS Inverters with built in web server
MKS-PAK-4/5	Parallel connection Kit for MKS-4K/5K inverters
MKS-BMS-BOX	External Inverter to lithium battery communication box, supports 3KW,4KW, 5KW & 5.5KW hybrid inverters

SOLAR HYBRID EASY INSTALL KITS



MKS-CK-03

Easily consolidate all connections to your solar system in one attractive wall mounting enclosure. Simply connect the incoming cables to the marked terminals.

Connections:

- AC input • PV input
- AC output • Battery +/-

Consolidated Solar Inverter Distribution Board - Hybrid Grid Interactive

Code c/w Inverter	MKS-CK-03	MKS-CK-05	HYLH-CK-5K
Inverter (Included)	PV18-3K 24VDC	PV18-5K 48VDC	LUX-SNA-5K 48VDC

Kit includes:

- AC Isolators (input/output)
- PV Isolator & Fuse Protection
- Class 2 PV Surge Protection
- Battery Fuse Protection
- Change Over Switch (inverter/off/bypass)
- Earth Leakage Protection for On-Board AC Outlets



DEYE-CK-5K

Easily consolidate all connections to your solar system in one attractive wall mounting enclosure. Simply connect the incoming cables to the marked terminals.

Connections:

- AC input • PV input
- AC output • Battery +/-

Consolidated Solar Inverter Distribution Board - Hybrid On-Grid

Code c/w Inverter	DEYE-CK-5K	DEYE-CK-8K
Inverter (Included)	DEYE-H-5K 48VDC	DEYE-H-8K 48VDC

Kit includes:

- AC Isolators (input/output)
- PV Isolator & Fuse Protection
- Class 2 PV Surge Protection
- Battery Fuse Protection
- Change Over Switch (inverter/off/bypass)
- Earth Leakage Protection for On-Board AC Outlets

SOLAR HYBRID EASY INSTALL KITS

Compact Home Easy Install Kit - with Lithium Battery

Easily consolidate all connections to your solar system in one attractive wall mounting enclosure. Simply connect the incoming cables to the marked terminals.



Code	HYLH-CK-1K-1280WH	HYLH-CK-3K-2560WH
AC Output Voltage	230VAC	
Max Continuous Power	1000W / 1000VA	3000W / 3000VA
Back up Time @ Full Load	69min	45min
Back up Time @ Half Load	138min	90min
Inverter	PV18-1K 12VDC	PV18-3K 24VDC
Lithium Battery	BN13V-108-1.4K	BN13V-108-1.4K x 2
Useable Battery Capacity	1120Wh	2240Wh

Does not include: PV Panels, PV Mounting Structure, Installation

Kit includes:

- AC Circuit Breakers
- Earth Leakage Protection
- Battery Fuse Protection / Isolation
- South African Socket Outlet
- Class 2 PV Surge Arrestor
- PV Isolator & Fuse Protection

Connections:

- AC input • PV input
- AC output • Battery +/-

5kVA Home Easy Install Kit with Pylontech Lithium Batteries



Code	HYLH-5K-2.4KWH	HYLH-5K-4.8KWH
AC Output Voltage	230VAC	
Max Continuous Power	5000W / 5000VA	
Back up Time @ Full Load	25min	45min
Back up Time @ Half Load	50min	90min
Easy Install Kit	HYLH-CK-5K	
Lithium Battery	US2000B-PLUS x 1	US2000B-PLUS x 2
Useable Battery Capacity	2200Wh	4400Wh
Includes	Stacking Bracket and Battery Input Cable Set	

Does not include: PV Panels, PV Mounting Structure, Installation

SOLAR HYBRID EASY INSTALL KITS



BP: Suitable for Back-up Applications
DU: Suitable for Daily Cycling

5kVA Home Easy Install Kit with BlueNova Lithium Battery

Code	HYLH-5K-5KWH-BP	HYLH-5K-5KWH-DU
AC Output Voltage	230VAC	
Max Continuous Power	5000W / 5000VA	
Back up Time @ Full Load	50min	
Back up Time @ Half Load	100min	
Easy Install Kit	HYLH-CK-5K	
Lithium Battery	BN52V-100-5.2K-BP x 1	BN52V-100-5.2K-DU x 1
Useable Battery Capacity	4096Wh	4096Wh
Includes	Battery wall mounting brackets BN52-DU-1-BRKT	

Does not include: PV Panels, PV Mounting Structure, Installation



Battery Cabinet

5kVA Home Easy Install Kit with Gel/AGM Batteries

Code	HYBH-3K-6KWH	HYBH-5K-9.6KWH
AC Output Voltage	230VAC	
Max Continuous Power	3000W / 3000VA	5000W / 5000VA
Back up Time of Full Load @50% DoD, @C5	60mins	56mins
Back up Time of Half Load @50% DoD, @C5	120mins	115mins
Easy Install Kit	MKS-CK-03	MKS-CK-05
Lead-Acid Battery	NSB250 x 2	NSB200-12 x 4
Recommended Useable Battery Capacity Wh@C20	3000Wh	4800Wh
Includes	Kit includes battery cabinet C-20	

Does not include: PV Panels, PV Mounting Structure, Installation

GRID INTERACTIVE SOLAR HYBRID SYSTEM

5KVA Complete Home Hybrid Kit

Kit Includes:

- Inverter
- Lithium Battery
- PV Panels
- Combiner box with Class 2 Surge Protection
- Fuse Protection for Batteries
- Solar Cables (50m)
- PV connectors
- Battery Cables (5m)
- Battery Cabinet



Does not include: PV Mounting Structure, Installation

Code	HYLH-5K-2.4KWH-3KWP	HYLH-5K-4.8KWH-3KWP	HYLH-5K-9.6KWH-3KWP
AC Output Voltage	230VAC		
Max Continuous Power	5000W / 5000VA		
Back up Time @ Full Load	25min	45min	90min
Back up Time @ Half Load	50min	90min	180min
Inverter	LUX-SNA-5K 48VDC		
Solar Panels	T1-SLP-144-415		
Solar Array Pmax	2905W		
Lithium Battery	US2000B-PLUS x 1	US2000B-PLUS x 2	US2000B-PLUS x 4
Useable Battery Capacity	2200Wh	4400Wh	8800Wh

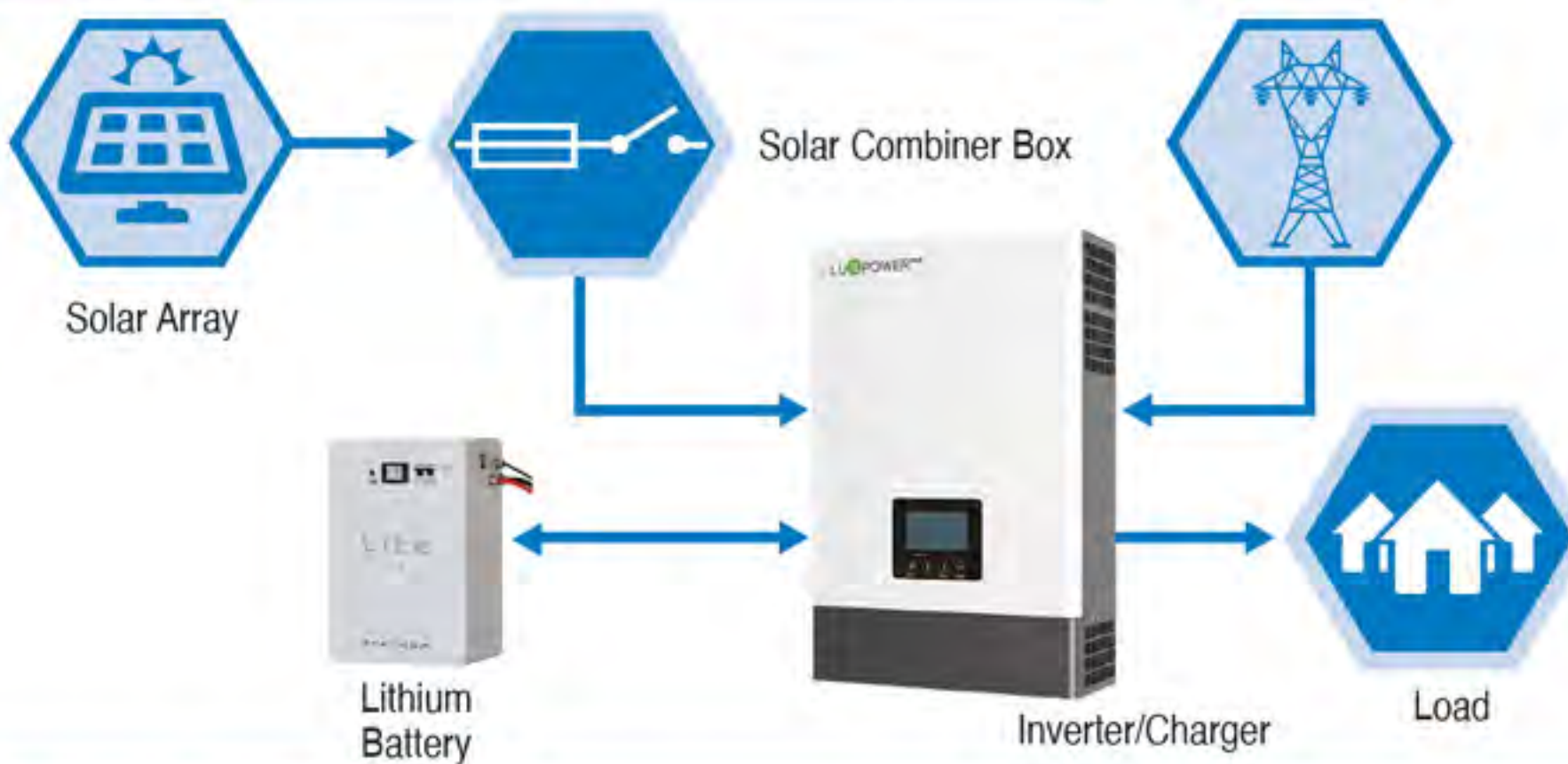
COMPLETE HYBRID SOLAR BACKUP SYSTEMS



Roof Mounting Kit to be ordered separately

System Type	Single Phase Grid-Interactive Hybrid System			Grid-Interactive Hybrid System with Short Backup	
Kit Only Code	HYBH-1KVA	HYBH-3KVA	HYBH-5KVA	HYBH-3KVA-SB	HYBH-5KVA-SB
AC Output Voltage		230VAC		230VAC	
Max. Continuous Power	800W	2400W	4000W	2400W	4000W
Backup Time@ full load	180 min	150 min	144 min	75 min	72 min
Backup Time@ half load	360 min	300 min	288 min	150 min	144 min
Inverter	MKS-1K 24VDC	MKS-3K-PLUS 48VDC	MKS-5K 48VDC	MKS-3K-PLUS 24VDC	MKS-5K 48VDC
Solar Panels	SLP240-24 x 2	SLP240-24 x 6	SLP290-24 x 9	SLP240-24 x 6	SLP290-24 x 9
Solar Array Pmax	480W	1,440W	2,610W	1440W	2610W
Batteries	NSB200-12 x 2	NSB250-12 x 4	NSB200-12 x 8	NSB250-12 x 2	NSB200-12 x 4
Battery Bank Capacity	200Ah @ 24VDC	250Ah @ 48VDC	400Ah @ 48VDC	250Ah @ 24VDC	200Ah @ 48VDC

Inverter/Charger with Auto Change Over - Turnkey Solar Kits



Single Phase Grid - Interactive with Lithium Battery

Code	HYLH-5KVA
AC Output Voltage	230VAC
Max. Continuous Power	4000W
Backup Time @ Full Load	52min
Backup Time @ Half Load	26min
Inverter	LUX-SNA-5K 48VDC
Solar Panels	SLP290-24 x 9
Solar Array Pmax	2610W
Lithium Battery	FLHOME-5/4 x 1
Battery Capacity	100Ah@52VDC

Additional Installation Charge

Installation Code	INST-HYBH-1KVA	INST-HYBH-3KVA	INST-HYBH-5KVA	INST-HYBH-3KVA-SB	INST-HYBH-5KVA-SB
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Kit Includes

- Grid-interactive Hybrid Inverter
- Solar Panels
- Solar Batteries
- Solar Combiner Box & Isolator
- Fuse protection for Batteries
- Solar Cable & Connectors
- Battery Cables & Lugs
- Battery Cabinet / Stand (if required)

NOTE: The kit contains the components required for most installations, but does not include site specific items like racking or cable routes. Installation Excluded. Cable supplied is based on general estimations and additional cables and lugs or connectors may need to be ordered. Installation charge is an estimated charge and will be confirmed after site inspection and confirmation of the location of the site. Estimated pricing is based on a standard installation in the Gauteng area.

Solar Roof Mounting Kits - order separately

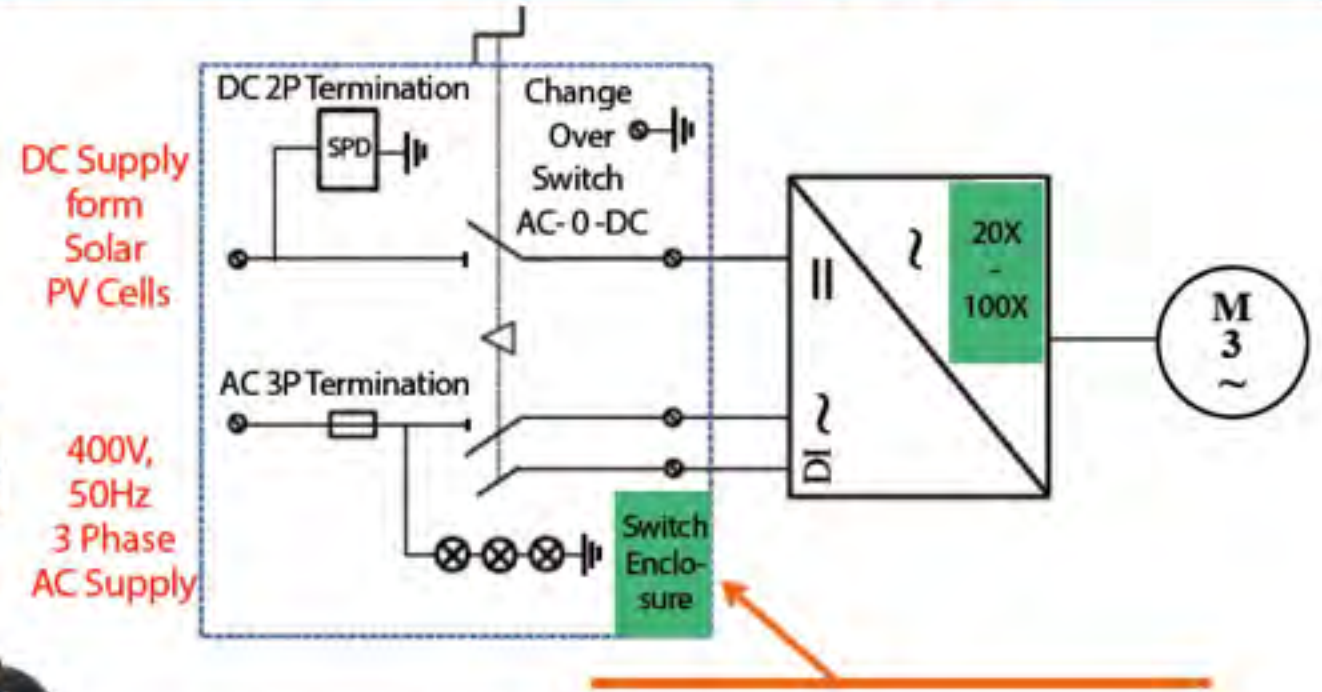
Kit Only Code	HYBH-1KVA	HYBH-3KVA	HYBH-5KVA	HYBH-3KVA-SB	HYBH-5KVA-SB
Domestic Tile Roof	V2PKIT-TILE	V2PKIT-TILE V4PKIT-TILE	V2PKIT-TILE V4PKIT-TILE x 2	V2PKIT-TILE V4PKIT-TILE	V2PKIT-TILE V4PKIT-TILE x 2
Domestic Corrugated Roof	V2PKIT-COR	V2PKIT-COR V4PKIT-COR	V2PKIT-COR V4PKIT-COR x 2	V2PKIT-COR V4PKIT-COR	V2PKIT-COR V4PKIT-COR x 2
IBR Roof	V2PKIT-IBR	V2PKIT-IBR V4PKIT-IBR	V2PKIT-IBR V4PKIT-IBR x 2	V2PKIT-IBR V4PKIT-IBR	V2PKIT-IBR V4PKIT-IBR x 2
Kliplock Roof	V2PKIT-KL	V2PKIT-KL V4PKIT-KL	V2PKIT-KL V4PKIT-KL x 2	V2PKIT-KL V4PKIT-KL	V2PKIT-KL V4PKIT-KL x 2

See page 18 for more details

SOLAR SUPPLY KIT FOR 3PH 400VAC PUMP / MOTORS

Solar Pump Kits

Supplied to ensure correct sizing of PV array to user selected pump. The kits consist of PV panels, Solar cable, solar connectors and solar pump control box. The solar pump box contains a Vacon Solar drive controller, String box, Switchgear and protection.



Solar Pump Drive Kit Connection Example - Solar panel or Grid connection mode: With an external changeover switch, Inverter can be supplied either from mains or solar panels. This will enable night time pumping or panel maintenance operations. The Vacon 20X-100X series include "Hot Commutation" from the grid to PV and vice-versa.

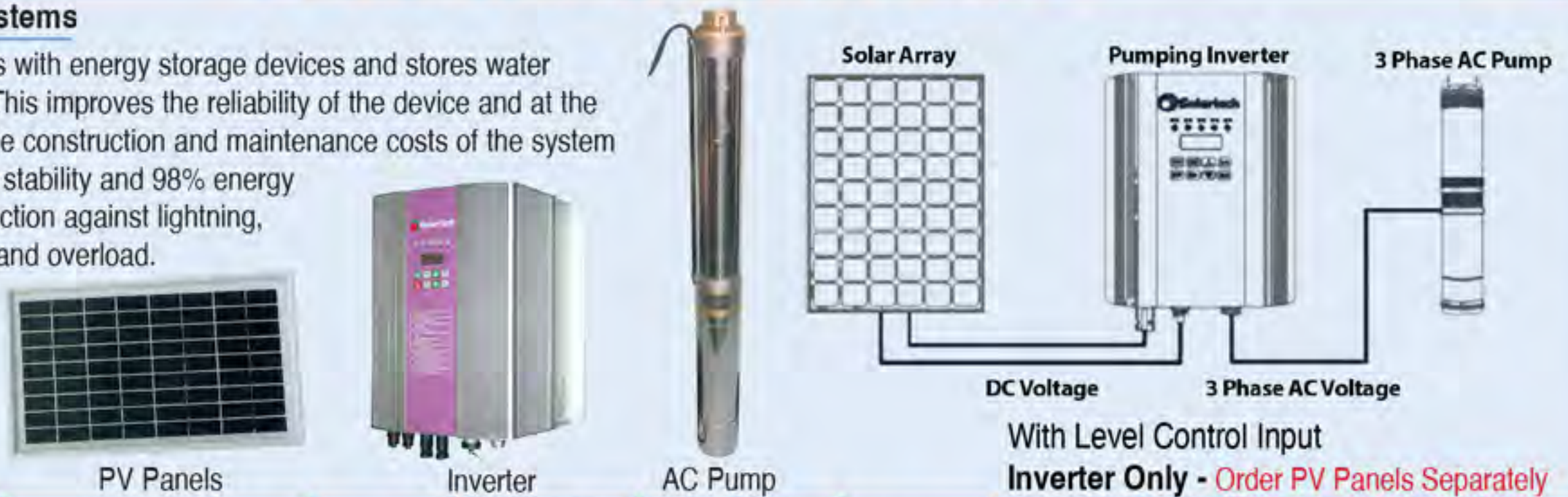
Kit Code	380VAC Motor kW	Motor Voltage	PV Array Power	PV Panels Required	Control Box	Solar Cables	Solar Connectors
SOL1040W-0.37KW	0.37kW	230V 3PH	1040W	4 x RHV260	SPD-07	1 x SW102/10m 1 x SW104/10m	1 x PV-ST101/F2 1 x PV-ST101/M2
SOL1040W-0.55KW	0.55kW	230V 3PH	1040W	4 x RHV260	SPD-07		
SOL1040W-0.75KW	0.75kW	230V 3PH	1040W	4 x RHV260	SPD-07		
SOL1800W-1.1KW	1.1kW	400V 3PH	1800W	6 x RHV300	SPD-11		
SOL2100W-1.5KW	1.5kW	400V 3PH	2100W	7 x RHV300	SPD-15		
SOL3600W-2.2KW	2.2kW	400V 3PH	3600W	12 x RHV300	SPD-22		
SOL7200W-5.5KW	5.5kW	400V 3PH	7200W	24 x RHV300	SPD-55		

SOLAR PUMPING SYSTEMS

Solar Pumping Systems

The system dispenses with energy storage devices and stores water instead of electricity. This improves the reliability of the device and at the same time it lowers the construction and maintenance costs of the system dramatically. Excellent stability and 98% energy conversion ratio. Protection against lightning, dry running, blocking and overload.

System include
Inverter, Pump
+ 30 m Cable & Connections



With Level Control Input
Inverter Only - Order PV Panels Separately

Code	kW	Description	Head (m)	Flow Water (m³/day)	No. of PV Panels	Code	Code	Rated Output		MPP Voltage
								Current	KW	
PS370-1	0.37kW	Solar Pumping System	27 - 35m	10-7.5m³/day	4 x 260W HV	RHV-260	PB400L	3A	0.25-0.4	280-350V
PS550-1	0.55kW	Solar Pumping System	37 - 52m	10-7.5m³/day	4 x 260W HV	RHV-260	PB750L	5A	0.55-0.75	280-350V
PS750-1	0.75kW	Solar Pumping System	45 - 61m	10-7.5m³/day	4 x 260W HV	RHV-260	PB1500L	7A	1.1-1.5	280-350V
PS1100-2	1.10kW	Solar Pumping System	54 - 73m	10-7.5m³/day	8 x 260W HV	RHV-260	PB2200L	11A	2.2	280-350V
PS1500-2	1.50kW	Solar Pumping System	68 - 95m	10-7.5m³/day	10 x 260W HV	RHV-260	PB3700H	9A	3-3.7	500-600V
PS2200-1	2.20kW	Solar Pumping System	91 - 133m	10-7.5m³/day	12 x 300W HV	RHV-300	PB5500H	13A	4-4.5	500-600V
PS3000-1	3.7kW	Solar Pumping System	118 - 169m	15-10m³/day	18 x 260W HV	RHV-260				
PS4000-1	5.5kW	Solar Pumping System	155 - 207m	15-10m³/day	27 x 260W HV	RHV-260				

Features

- Solar pumping inverter converts DC voltage from the solar array into AC voltage to drive the pump.
- With the function of MPPT (maximum power point tracking), it regulates the output frequency according to irradiation in real time to achieve the maximum power.

Advantages

- To drive pumps equipped with 3-phase induction motors
- Optimized SPWM (Sinusoidal pulse width modulation)
- Various operation modes & MPPT algorithms are available
- Option of water-level detection and control is available on stand-alone inverters
- Adjustable speed range of pump based on the actual situation (available solar power) of the system.
- Protection functions: lightning, over/low input voltage, over current and overload protection, etc.

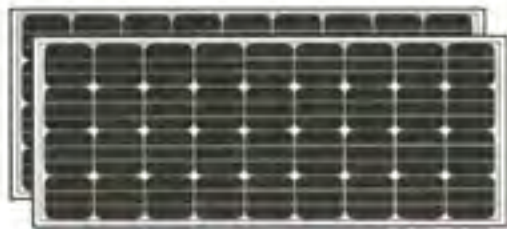
Applications

- Desert control
- Sea water desalination
- Agricultural irrigation
- Daily water supply
- Forest irrigation
- Remote watering troughs for animals
- Waste water treatment

DC SOLAR PUMPS



TSSP



Order PV Panels Separately



TSQB

Pool Pumps

Code	Voltage	Power	Max Flow Rate	Max Head	I/O Size	Required PV Panels
TSSP18-8-96/750	96VDC	750W	18m ³ /h	8m	3" x 3"	80W x 14
TSSP18-12-72/750	72VDC	750W	18m ³ /h	12m	2" x 2"	80W x 14
TSSP25-15-110/1000	110VDC	1000W	25m ³ /h	15m	2½" x 2½"	100W x 16
TSSP25-15-110/1200	110VDC	1200W	25m ³ /h	15m	2½" x 2½"	100W x 16
TSSP30-20-110/1500	110VDC	1500W	30m ³ /h	20m	3" x 3"	100W x 16

Pool Pump With Built in Controller

Code	Voltage	Power	Max Flow Rate	Max Head	I/O Size	Required PV Panels
TSSP12-14-48/500	48VDC	500W	12m ³ /h	14m	2" x 2"	170W x 4

Fountain Pumps

Code	Voltage	Power	Max Flow Rate	Max Head	I/O Size	Required PV Panels
TSQB2.0-25-24/120	24VDC	120W	2.0m ³ /h	15m	1" x 1"	80W x 2
TSSGJ3.2-18-24/120	24VDC	120W	3.2m ³ /h	18m	1" x 1"	80W x 2
TSQB2.2-37-36/210	36VDC	210W	2.2m ³ /h	37m	1" x 1"	90W x 2

Accessories

- Pump Controller
- Cable Connector
- Cable for Solar Panel
- Brass Impeller
- Water Level Sensor
- Solar Flash Light

DC SUBMERSIBLE PUMPS



Normal Plastic Impeller

Code	Voltage	Power	Max Flow Rate	Max Head	Pump Size	Required PV Panels	Outlet
3TSC-1.9-23-36/210	36VDC	210W	1.9m ³ /h	23m	3"	90W x 3	3/4"
3TSC-2-80-48/500	48VDC	500W	2.0m ³ /h	70m	3"	140W x 4	3/4"
3TSC-3.5-50-48/500	48VDC	500W	3.5m ³ /h	34m	3"	140W x 4	3/4"
4TSC-4-57-48/500	48VDC	500W	4.0m ³ /h	57m	4"	170W x 4	1¼"
4TSC-12.5-44-110/1000	110VDC	1000W	12.5m ³ /h	44m	4"	100W x 14	2"

Screw Type Impeller

Code	Voltage	Power	Max Flow Rate	Max Head	Pump Size	Required PV Panels	Outlet
3TSS-0.5-28-12/80	12VDC	80W	0.5m ³ /h	28m	3"	100W x 1	3/4"
3TSS-0.76-55-24/120	24VDC	120W	0.76m ³ /h	55m	3"	90W x 2	3/4"
3TSS-1.25-80-36/210	36VDC	210W	1.25m ³ /h	90m	3"	90W x 3	3/4"
4TSS-2.5-70-48/500	48VDC	500W	2.5m ³ /h	80m	4"	170W x 4	1"
4TSS-2.5-140-110/1000	110VDC	1000W	2.5m ³ /h	140m	4"	140W x 14	1"
5TSS-5-80-110/1200	110VDC	1200W	5m ³ /h	80m	5"	100W x 16	1½"

Applications

- Domestic & Municipal Water Supply
- Irrigation Systems
- Industrial & Mining Applications
- Ponds & Garden Water Supply

Features

- Floating impeller design prevents sand blockages
- Highly durable
- Can handle upthrust load

Accessories

- Liquid Level Sensor
- Torch light
- Water Level Sensor
- Order PV Panels Separately



DC PV PUMP SYSTEM CONTROLLER

Solar Pump System Controllers

Code	Description
TSPC-12-24V	12 - 24VDC Solar Pump System Controller
TSPC-36-48V	36 - 48VDC Solar Pump System Controller
TSPC-72-110V	72 - 110VDC Solar Pump System Controller

- MPPT and DSP control features provide a stable clean DC to the batteries extending battery life and system reliability
- For use with the above TAIFU Solar Pumping Systems
- Select controller to match system voltage



NEW

EMS THERMAL LOW PRESSURE INTEGRATED HEAT PUMP



Energy Efficient Low Pressure Water Heating Solution

Code	EMS-TH200DT	EMS-TH200DT-NW
Communication		
Protocol	Wi-Fi	No Wi-Fi
Heat Pump		
Rated Input Power	0.765kW	
Rated Heating Capacity	3kW	
Rated Current	3.5A	
Element		
Rated Input Power	2KW	
Rated Heating Capacity	1.8kW	
Rated Current	9.1A	
Auxiliary Heater	2KW	
Heat Pump & Element		
Rated Input Power	2,765	
Rated Heating Capacity	4.8 kW	
Rated Current	12.6A	
Tank		
Water Tank Volume	220L	
Water Inlet/Outlet Connection	3/4" BSP	
Height of Water Inlet & Outlet	1335mm	
Water Heating Coil Pressure Rating	1000kPa	
Water Heating Coil Material	Grade 304 Stainless Steel	
Tank Pressure	Atmospheric	
Water Max Temperature	60°	
Air Duct Size	180mm	
General		
Power Supply	220-240V/50Hz	
Refrigerant	R-410A	
Solar Compatible	Yes	
Overall Dimensions (LxBxH)	798mm x 659mm x 1781mm	
Weight	92kg	



- Primary heating by heat pump reduces overall energy consumption
- Proprietary Coil Heat Exchanger prevents limescale build up
- Integrated connection points for optional solar panel BACK-UP
- Wi-Fi connectivity for remote monitoring and setting of unit
- 2kW traditional heating element can be used to boost the system in case of high demand or in the unlikely event that the heat pump should fail.

Three heating modes available:

1. Heat pump only
2. Conventional Element only
3. Mixed Mode (Heat pump & Conventional element)



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