



# Solar Catalogue

## Sollatek Solar Systems

A comprehensive range of solar modules, charge controllers, solar batteries, solar lights, telecommunication power supplies, and complete system installation



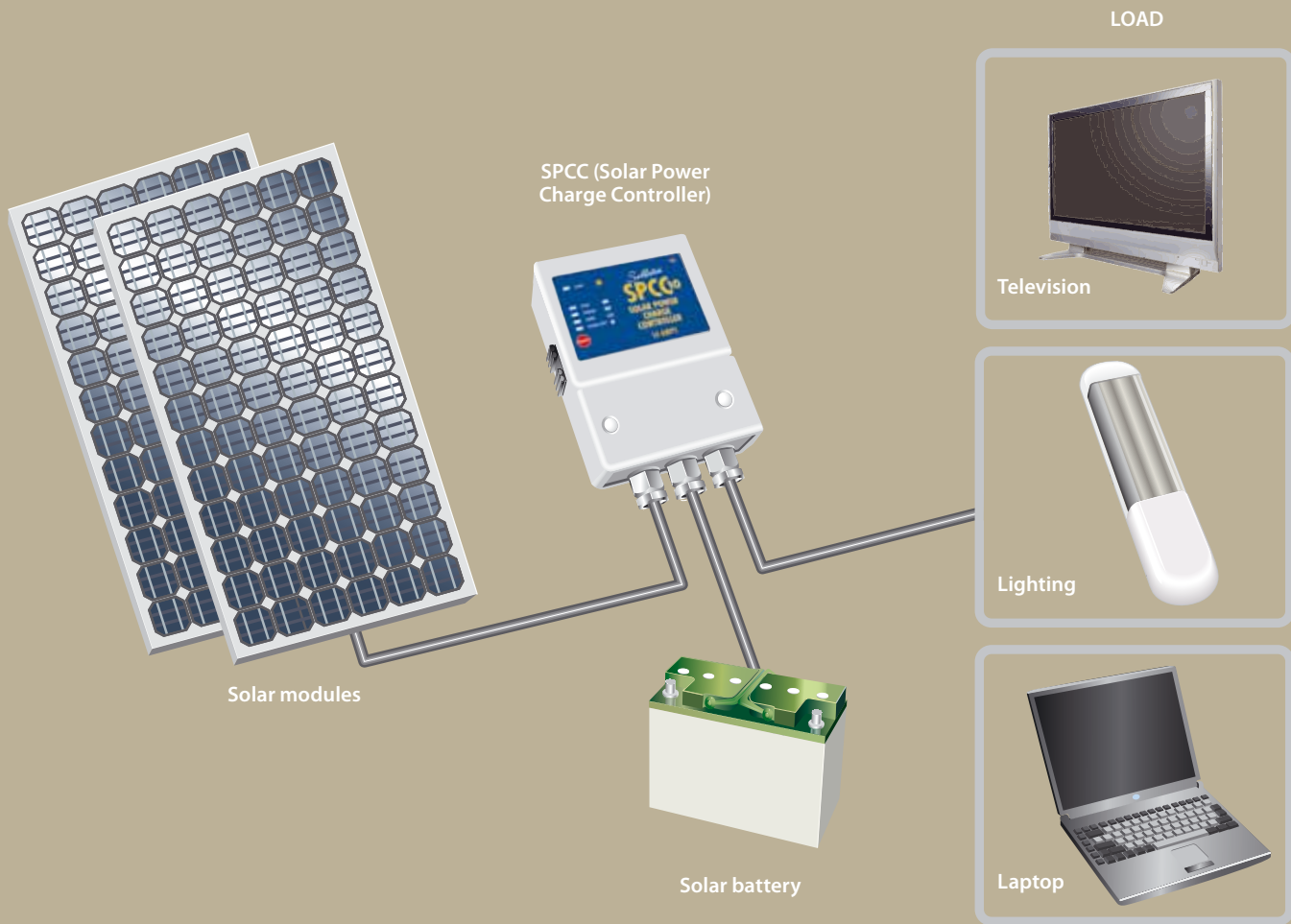
harnessing the power of the sun

Edition 2

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Modules utilising monocrystalline and multicrystalline technologies, from 10W to 280Wp.		Glowstar GS5 (5 Watts) and Glowstar GS7 (7 Watts) for portable solar powered lighting.	
<b>Charge Controllers</b>	10	<b>Solar Lighting Kit (SLK4)</b>	24
Units ranging in size from 6A to 960A for 12V, 24V and 48V applications.		Complete ready-to-use kit for indoor and outdoor domestic lighting.	
Sunpower6, 10, 30, 60, 90 SPCC10, 10E, 16E Solar Control Centre (SCC)		<b>Solar Water Pumping</b>	25
<b>Batteries</b>	14	Specially designed for water supply and irrigation in remote areas where no reliable electricity supply is available.	
Gelled, wet and tubular plate batteries ranging from 20Ah to 15600Ah.		<b>Solar Systems Installations</b>	26
STW range STG range SFG range SGM range		Small, medium and large scale complete systems to provide energy for domestic and commercial applications.	
<b>Solar Lights</b>	18	<b>Cathodic Protection</b>	27
Lights for indoor, outdoor and street lighting applications, for 12V, 24V and 48V DC input.		Provides DC current to metal pipelines, storage tanks, bridges, or other exposed equipment to cancel the effects of natural chemical corrosion.	
Lumina Ecolite Outlite SOX, PL street light LED street light Glowstar		<b>Solar Telecom</b>	28
<b>Street Lighting</b>	22	Complete customised solar systems for telecommunication installations in remote areas.	
Complete self contained system with column, lantern, battery, module and controller.			

# The heart of the system



**THE SOLAR MODULE** is a number of solar cells connected together and encapsulated to give an electrical output. For larger systems, the modules can be connected in series and parallel to form a solar array.

**THE CHARGE CONTROLLER** is at the heart of every solar power system, and is required to monitor and control the power going into and coming out of the battery. It must also manage the power generated by the solar panel to ensure it does not overcharge the battery. The charge controller must also ensure that the connected loads don't over-discharge the battery, thereby damaging it.

**THE SOLAR BATTERY** stores the electricity from the solar module via the charge controller. This electricity can then be used at night or in periods of bad weather. Gel, AGM and wet types are available.

**THE LOAD** covers any equipment which requires power to operate. Examples include lights, televisions, water pumps and radio transmitters.

# Introduction



A GLOBAL PLAYER IN PHOTOVOLTAIC PRODUCTS, Sollatek designs, manufactures and supports a wide variety of solar related products and systems.

Since 1987, Sollatek Solar has designed, supplied, and installed numerous turnkey projects around the world, especially in lighting solutions, solar street lighting, solar power generators for the telecommunication industry, and off-grid electrifications. Sollatek Solar products have been installed around the world, many for large developments supported and financed by the World Bank.

Sollatek's award winning Glowstar (solar lantern) and DC Lighting products are the preferred choice in specifying rural lighting and solar lighting home systems. Their design, durability and reliability makes them the first choice for installations in harsh environments and remote areas.

Sollatek UK has been approved by Lloyd's Register Quality Assurance to the ISO9001:2008 Quality Management Systems Standard.

Our name is your assurance of design expertise and manufacturing quality.

# Solar modules



## General information on solar cell technology

Solar cells directly convert sunlight into electricity by means of the photovoltaic effect. This occurs when photons are absorbed by a solar cell which generates a voltage across its terminals. Cells are connected in series within a solar module to provide sufficient voltage to operate a system. Modules can be connected in series and parallel to increase the system power. This solid state process provides a clean, silent, non polluting and reliable source of electrical energy.

Sollatek supplies two photovoltaic (PV) technologies:

- **Multicrystalline** (also called polycrystalline)  
Made from cells cut from several silicon crystals
- **Monocrystalline**  
Made from cells cut from single silicon crystals

A crystal is a regular geometric state taken up by a material's constituent elements in certain conditions. Mono and multicrystalline cells are silicon wafers sliced from cylindrical silicon crystals. These wafers are then chemically treated in furnaces to enhance their electrical properties, after which an anti-reflection coating is applied to the cell surface to help it absorb radiation more effectively.

Thin metal wires are soldered to the front of the cell. These "ribbons" of metal on the cell act as the positive contact, while a solid layer of metal on the back of the cell acts as the negative contact.

Monocrystalline and multicrystalline materials are chemically stable, making them durable and extremely long-lasting, if properly protected. They provide the ideal technology for making small, and medium to large solar modules.

Monocrystalline cells have a single colour tone, whereas multicrystalline cell surfaces have multi patterns. Multicrystalline cells have an efficiency of 9-13%, compared to 11-16% for monocrystalline cells. (i.e. if solar radiation is striking the cells at a perpendicular angle with an intensity of 1000W/M<sup>2</sup>, then 90 to 130 Watts of power per m<sup>2</sup> of solar cell is converted to electricity).

## Sollatek multicrystalline and monocrystalline solar modules

Sollatek's high efficiency solar modules are constructed from 36 or 72 crystalline cells connected in series to raise the system voltage to 12V or 24V.

The cells are individually tested and matched for optimum performance before being built into a protective module structure. A Tedlar® base is used with ethylene vinyl acetate as an encapsulant. High transmission tempered glass protects the cells from the front with a high strength polymer sheet at the rear.

A reinforced aluminium frame completes the laminate structure which is fully sealed against moisture and protected from environmental and mechanical damage.



Monocrystalline

Multicrystalline



# Solar modules multicrystalline

## Specifications

### Sollatek multicrystalline (polycrystalline) range

Model		SP10-PS	SP20-PS	SP30-PS	SP40-PS	SP60-PS
Size of cells	mm	78 x 26	125 x 32	159 x 39	156 x 52	158 x 78
Number of cells	pcs	36	36	36	36	36
Typical power	Wp	10	20	30	40	60
Open circuit voltage	V	21.4	21.2	21.6	21.6	21.6
Optimum operating voltage	V	16.8	16.8	17.2	17.2	17.2
Short circuit current	A	0.54	1.32	1.93	2.62	3.85
Optimum operating current	A	0.48	1.19	1.74	2.32	3.49
Noct (0.8kW/m_ 20°C 1m/s)	°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C
Frame dimensions (LxWxD)	mm	310 x 368 x 18	656 x 306 x 18	426 x 680 x 30	537 x 665 x 30	771 x 665 x 30
Depth with junction box	mm	30	30	30	30	45
Weight (net)	Kg	1.5	2.5	3.2	4.5	6.2
Warranty	years	25	25	25	25	25
Certificate						

These are the most popular sizes. Other sizes available on request.

Model		SP155-PS	SP160-PS	SP165-PS	SP170-PS	SP175-PS
Size of cells	mm	125 x 125	125 x 125	125 x 125	125 x 125	125 x 125
Number of cells	pcs	72	72	72	72	72
Typical power	Wp	155	160	165	170	175
Open circuit voltage	V	42.2	42.4	42.6	42.8	43.2
Optimum operating voltage	V	33.3	33.5	33.8	34.1	34.2
Short circuit current	A	5.08	5.12	5.23	5.32	5.4
Optimum operating current	A	4.65	4.78	4.88	4.99	
Noct (0.8kW/m_ 20°C 1m/s)	°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C
Frame dimensions (LxWxD)	mm	1580 x 808 x 35	1580 x 808 x 35	1580 x 808 x 35	1580 x 808 x 35	1580 x 808 x 35
Depth with junction box	mm	45	45	45	45	45
Weight (net)	Kg	15.5	15.5	15.5	15.5	15.5
Warranty	years	25	25	25	25	25
Certificate						

These are the most popular sizes. Other sizes available on request.



SP65-PS	SP70-PS	SP75-PS	SP80-PS	SP85-PS	SP120-PS	SP130-PS	SP140-PS
158 x 78	158 x 78	125 x125	125 x125	125 x125	156 x156	156 x156	156 x156
36	36	36	36	36	36	36	36
65	70	75	80	85	120	130	140
21.8	22.1	21	21.2	21.4	21.6	21.8	22.1
17.2	17.6	16.6	16.8	17.1	17.2	17.2	17.6
3.93	4.05	5	5.12	5.32	7.7	7.85	8.1
3.78	3.98	4.52	4.76	4.97	6.98	7.56	7.95
48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C
771 x 665 x 30	771 x 665 x 30	1195 x 541 x 30	1195 x 541 x 30	1195 x 541 x 30	1482 x 676 x 35	1482 x 676 x 35	1482 x 676 x 35
45	45	45	45	45	45	45	45
6.2	6.2	8	8	8	12	12	12
25	25	25	25	25	25	25	25
		IEC61215	IEC61215	IEC61215		IEC61215	IEC61215

SP220-PS	SP230-PS	SP240-PS	SP250-PS	SP260-PS	SP270-PS	SP280-PS
156 x 156	156 x 156	156 x 156	156 x 156	156 x 156	156 x 156	156 x 156
72	72	72	72	72	72	72
220	230	240	250	260	270	280
42.2	42.4	43.2	43.2	43.6	43.8	43.8
34	34	34.4	34.4	34.8	35.2	35.2
7.48	7.6	7.7	7.82	7.9	8.1	8.3
6.47	6.76	6.98	7.27	7.47	7.67	7.95
48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C	48°C ± 2°C
1956 x 992 x 50	1956 x 992 x 50	1956 x 992 x 50	1956 x 992 x 50	1956 x 992 x 50	1956 x 992 x 50	1956 x 992 x 50
45	45	45	45	45	45	45
23	23	23	23	23	23	23
25	25	25	25	25	25	25
		IEC61215	IEC61215	IEC61215	IEC61215	IEC61215

# Solar modules **monocrystalline**

## Specifications

### Sollatek monocrystalline range

Model		SP10-MH	SP20-MH	SP30-MH	SP40-MH	SP45-MH
Size of cells	mm	125x14	125x32	125x42	125x63	125x42
Number of cells	pcs	36	36	36	18	18
Typical power	Wp	10	20	30	40	45
Open circuit voltage	V	21.6	21.6	21.6	21.6	21.6
Optimum operating voltage	V	17.8	17.8	17.8	17.8	17.8
Shorting circuit current	A	0.6	1.25	1.88	2.5	2.82
Optimum operating current	A	0.56	1.12	1.69	2.25	2.53
Noct (0.8kW/m_20°C 1m/s)	°C	46°C	46°C	46°C	46°C	46°C
Depth with junction box	mm	25	25	25	25	25
Frame dimensions (LxWxD)	mm	350 x 290 x 35	643 x 282 x 35	445 x 536 x 35	633 x 536 x 35	830 x 536 x 35
Net weight	Kg	1.35	2.4	3.2	4.5	5.4
Warranty	yrs	25	25	25	25	25
Certificate						

These are the most popular sizes. Other sizes available on request.

Model		SP115-MH	SP120-MH	SP125-MH	SP130-MH	SP135-MH
Size of cells	mm	125x62	125x62	125x62	125x62	125x62
Number of cells	pcs	54	54	54	54	54
Typical power	Wp	115	120	125	130	135
Open circuit voltage	V	21.6	21.6	21.6	21.6	21.8
Optimum operating voltage	V	17.8	17.8	17.8	17.8	18
Shorting circuit current	A	7.19	6.74	6.74	8.2	8.6
Optimum operating current	A	6.46	7.51	7.82	7.3	7.5
Noct (0.8kW/m_20°C 1m/s)	°C	46°C	46°C	46°C	46°C	46°C
Depth with junction box	mm	34	34	34	34	34
Frame dimensions (LxWxD)	mm	1209 x 808 x 50	1209 x 808 x 50	1209 x 808 x 50	1209 x 808 x 50	1209 x 808 x 50
Net weight	Kg	12.4	12.4	12.4	12.4	12.4
Warranty	yrs	25	25	25	25	25
Certificate						

These are the most popular sizes. Other sizes available on request.

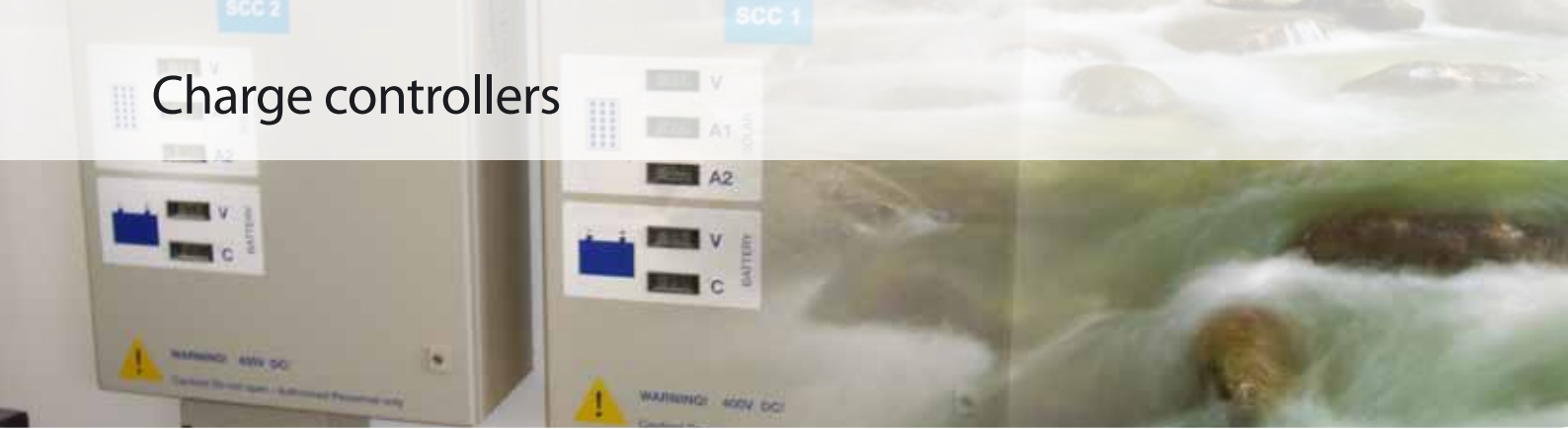




SP50-MH	SP55-MH	SP60-MH	SP65-MH	SP70-MH	SP75-MH	SP80-MH	SP85-MH	SP100-MH
125x42	125x42	125x42	125x125	125x125	125x125	125x125	125x125	125x62
24	24	24	36	36	36	36	36	108
50	55	60	65	70	75	80	85	100
21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
3.13	3.4	3.75	4.04	4.37	4.69	5.01	5.32	6.26
2.81	3.09	3.37	3.65	3.93	4.21	4.49	4.78	5.62
46°C	46°C	46°C	46°C	46°C	46°C	46°C	46°C	46°C
25	25	25	25	25	25	25	25	34
633 x 536 x 35	633 x 536 x 35	633 x 536 x 35	830 x 536 x 35	1195 x 542 x 35	1195 x 542 x 35	1195 x 542 x 35	1195 x 542 x 35	1195 x 808 x 50
5.4	5.4	5.4	8.6	8.6	8.6	8.6	8.6	8.6
25	25	25	25	25	25	25	25	25

SP150-MH	SP155-MH	SP160-MH	SP165-MH	SP170-MH	SP175-MH	SP180-MH	SP185-MH	SP195-MH
125x125	125x125	125x125	125x125	125x125	125x125	125x125	125x125	125x125
72	72	72	72	72	72	72	72	72
150	155	160	165	170	175	180	185	195
43.4	43.6	44	44.2	44.5	44.8	45.2	45.4	45
35.6	35.6	35.6	35.6	35.6	35.8	36.3	36.5	37.5
4.66	4.79	4.85	5.03	5.15	5.26	5.4	5.49	5.56
4.21	4.35	4.49	4.64	4.78	4.88	4.96	5.05	5.21
46°C	46°C	46°C	46°C	46°C	46°C	46°C	46°C	48°C
34	34	34	34	34	34	34	34	34
1580 x 808 x 50	1580 x 808 x 50	1580 x 808 x 50	1580 x 808 x 50	1580 x 808 x 50	1580 x 808 x 50	1580 x 808 x 50	1580 x 808 x 50	1580 x 808 x 50
16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
25	25	25	25	25	25	25	25	25
	IEC61215	IEC61215		IEC61215	IEC61215	IEC61215	IEC61215	IEC61215

# Charge controllers



**Charge controllers** The charge controller is at the heart of every solar system, and is required to monitor and control the power going into and coming out of the battery. It must also manage the power generated by the solar panel to ensure it does not overcharge the battery. The charge controller must also ensure that the connected loads don't over-discharge the battery, thereby damaging it. Sollatek charge controllers are state of the art microprocessor controlled and range from 6 to 960 Amps at 12V or 24V, or 48V and up to hundreds of amps for professional solar generation systems.

**KEY**

- 10A** power rating
- 8mA @12V** max. current consumption
- IP 54** IP rating
- Lightning protection** lightning protection
- Timer function** timer function
- Temperature compensation** temperature compensation



**SUNPOWER 6 SUNPOWER 10**  
Small lighting systems, telemetry and small power generation systems

8.5mA @12V    8mA @24V  
6A    10A    Lightning protection

SunPower 6    SunPower 10

**Features:**

- 12 & 24 volt versions available
- Tamper-proof fixed voltage thresholds (options available)
- Lightning protection
- Reverse polarity protected
- Overload protection with automatic reconnection
- Reverse discharge prevention
- Low power consumption
- Pulse width modulation (PWM) charging technique
- Solid state MOSFET technology
- Microprocessor controlled
- Status indication by 5 LEDs

**Applications:**

- Small lighting and power systems
- Billboard lighting
- Rural electrification
- Solar home systems
- Telemetry
- Remote monitoring and control
- Animal feeding and supervision systems

Model	Stock No.
Sunpower6 - 12V	94061205
Sunpower6 - 24V	94062405
Sunpower10 - 12V	94101215
Sunpower10 - 24V	94102415



**SPCC10 and SPCC10E**  
Small to medium applications, home lighting systems, street lighting and remote telemetry

18mA @24V    Timer function    8mA @12/24V    IP 54    Lightning protection

10A    35mA @12V

SPCC10    SPCC10E

**Features:**

- 12 & 24 volt field selectable (10E)
- Microprocessor controlled
- Field adjustable voltage threshold
- In-built street lighting timer (10E)
- Reverse polarity protected
- Lightning protection
- Overload protection
- Low power consumption
- Status indication by 4 (10) or 5 LEDs (10E)
- Remote battery sense (10E)
- Remote temperature compensation (10E)
- Test/reset/LVD break switch (10E)

**Applications:**

- Street lighting
- Small/medium sized applications
- Rural electrification
- Home lighting systems
- Beacons
- Remote telemetry

Model	Stock No.
SPCC10 - 12V	94100000
SPCC10 - 24V	94100100
SPCC10E- 12/24V	94105000



### SPCC16E

Medium applications, home lighting systems & remote telemetry



#### Features:

- Field adjustable voltage thresholds (four)
- Two stage charging (linear & boost)
- 12V, 24V field selectable
- Reverse polarity protected
- Lightning protection
- Overload protection (fuse)
- Remote battery sense
- Temperature compensated battery charging
- LVD break switch
- Status indication by 5 LEDs
- High efficiency solar diode by-pass system

#### Applications:

- Medium sized applications
- Rural electrification
- Home lighting systems
- Billboard lighting
- Beacons
- Remote telemetry

Model	Stock No.
SPCC16E - 12/24V	94160000



### SUNPOWER 30

Medium to large system, street lighting & commercial lighting (e.g. billboards)



#### Features:

- Two stage charging (boost & PWM)
- 12, 24 and 48V models available
- Reverse polarity protected
- Lightning protection
- Remote battery sense
- Temperature compensated battery charging
- LVD break/reset/test switch
- Status indication by 5 LEDs
- Microprocessor controlled
- High efficiency diode-less discharge protection
- Optional digital LCD to display battery voltage
- Street light timer

#### Applications:

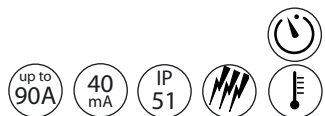
- Medium to large sized applications
- Larger power generation systems
- Unattended telecoms relay stations
- Commercial lighting
- Street lighting
- Billboard lighting

Model	Stock No.
Sunpower30 - 12V	94301200
Sunpower30 - 24V	94302400



### SUNPOWER 60, 90

Designed for the telecommunications industry with negative or positive earthing  
*Under development*



#### Features:

- Two stage charging (bulk and PWM)
- 12V, 24V and 48V versions available
- Reverse polarity protected
- Lightning protected
- Open circuit protection
- Over load protection.
- Short circuit protection
- LVD to protect battery from excess discharge
- HVD to protect battery from excess charge
- Adjustable voltage thresholds.
- Low power consumption
- Solid state PWM float charging
- 4-wire battery voltage sense
- Suitable for flooded, stationary, maintenance-free and gel battery types
- Fully automatic operation

- Temperature compensated battery charging with optional external probe
- Switch for LVD break/reset/test
- Day/night timer
- Status indication by five LEDs
- Digital LCD displays of voltage and current.
- Microprocessor controlled
- High efficiency diode-less discharge protection
- GenSet enabled

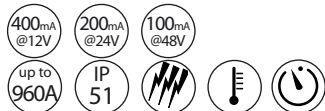
#### Applications

- Medium and large sized power systems
- Security systems
- Rural electrification
- Larger home power systems
- Commercial lighting
- Billboards
- Cathodic protection



### SOLAR CONTROL CENTRE

For large professional systems. Modular in design and suitable as part of hybrid power stations



#### Features:

- Available in 12V, 24V and 48V versions
- Unique solid state switching technique for high efficiency and high reliability
- Microprocessor controlled
- Modular, configurable system construction
- Fully adjustable voltage thresholds, locked by maintenance switch
- Multi-tier charging algorithm to accurately match solar current with load and battery charging requirements for optimum battery management
- Temperature compensation and lightning protection
- True 4-terminal battery voltage sensing
- RS232 remote communication

#### Applications:

- Designed for professional systems such as microwave repeaters, cell sites and large scale rural electrification
- Suitable for use as part of hybrid power systems
- Cathodic protection
- Large power generation plants
- Large scale remote commercial lighting

# Charge controllers



## Specifications



Model	SunPower 6		SunPower 10		SPCC10		SPCC10E		SPCC16E
	12V	24V	12V	24V	12V	24V	12V	24V	12V
Version	12V	24V	12V	24V	12V	24V	12V	24V	12V
Solar current	6A		10A		10A		10A		16A
Load current	6A		10A		10A		10A		16A
Nominal voltage	12V	24V	12V	24V	12V	24V	12	24V	12
System voltage	fixed		fixed		fixed		field selectable		field
Voltage thresholds	fixed		fixed		fixed		adjustable		adjustable
LVD	11.3V	22.6V	11.2V	22.4V	10 - 12V	20 - 24V	10 - 12V	20 - 24V	10 - 12V
LV hysteresis	1.2V	2.4V	1.2V	2.4V	1.2V	2.4V	0.5 - 1.0V	1.0 - 2.0V	0.5 - 1.0V
HVD	13.9V	PWM 27.8V	14.4V	PWM 28.8V	13 - 15V	PWM 26 - 30V	13 - 15V	26 - 30V	13 - 15V
HV hysteresis	N/A	N/A	N/A	N/A	1.5V	3.0V	0.5 - 2.0V	1.0 - 4.0V	0.5 - 2.0V
Max. current consumption	8.5 mA	8 mA	8.5mA	8mA	35 mA	18 mA	8 mA		12mA
Temperature compensation <sup>1</sup>	optional		optional		no		optional		optional
External battery sense	no		no		no		yes		yes
System status Indication	5 x LEDs		5 x LEDs		4 x LEDs		5 x LEDs		5 x LEDs
Timer (dusk/dawn or 2-10 hrs)	optional (fixed)		optional (fixed)		no		yes		no
Connection type	screw		screw		screw		screw		screw
Maximum wire gauge	6 mm <sup>2</sup>		6 mm <sup>2</sup>		4 mm <sup>2</sup>		6 mm <sup>2</sup>		6 mm <sup>2</sup>
Enclosure protection rating	encapsulated		encapsulated		IP54		IP54		IP54
Open circuit protected	yes		yes		yes		yes		yes
Overload protected	yes		yes		yes		yes		yes
Short circuit protected	yes		yes		yes		yes		yes
Lightning protection	MOV on all terminals		MOV on all terminals		MOV on all terminals		MOV on all terminals		MOV on all
Reverse polarity protected	yes		yes		yes		yes		yes
Operating temperature range	0°C - 70°C		0°C - 70°C		-10°C to 50°C		-10°C to 50°C		-10°C to 50°C
Warranty period	two years		two years		two years		two years		two years
Packaging	50 per carton		50 per carton		full colour retail		full colour retail		full colour
Unit packed dimensions	90 x 72 x 37mm		90 x 72 x 37mm		230 x 135 x 55mm		230 x 135 x 55mm		230 x 135 x
Unit weight	0.2 kg		0.2 kg		0.6 kg		0.6 kg		0.6 kg
Carton quantity	50		50		40		40		40
Carton weight	10kg		10kg		25.5kg		25.5kg		25.5kg
Order code	94061205	94062405	94101215	94102415	94100000	94100100	94100000	94100100	94160000
Order number + temp comp	94061200	94062400	94101200	94102400	94100000	94100100	94100000	94100100	94160000
<sup>1</sup> Temp comp probe	94900000		94900000		94900000		94900000		contact



	SunPower30			SunPower60			SunPower90			Solar Control Centre (SCC)		
24V	12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V
	30A			60A			90A			Up to 960A depending on model		
24V	12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V
selectable	fixed			fixed			fixed			fixed		
	adjustable			adjustable			field selectable			field selectable		
20 - 24V	10 - 12V	20 - 24V	40-48V	10 - 12V	20 - 24V	40 -48V	10 - 12V	20 - 24V	40 -48V	10 - 12V	20 - 24V	40 - 48V
1.0 - 2.0V	0.5 - 1.0V	1.0 - 2.0V	2.0 - 4V	0.5 - 1.0V	1 - 2V	2 - 4V	0.5 - 1.0V	1 - 2V	2 - 4V	0.5 - 1.0V	1 - 2V	2 - 4V
26 - 30V	13 - 15V	26 - 30V	52 - 60V	13 - 15V	26 - 30V	52 - 60V	13 - 15V	26 - 30V	52 - 60V	13 - 15V	26 - 30V	52 - 60V
2.0 - 1.0V	0.5 - 1.0V	1.0 - 2.0V	2.0 - 4.0V	0.5V - 2.0V	1 - 4V	2 - 8V	0.5 - 2.0V	1 - 4V	2 - 8V	0.5 - 2.0V	1 - 4V	2 - 8V
	110mA	61mA	33mA	40mA (<2W)			40mA (<2W)			0.4A	0.2A	0.1A
	optional			optional			optional			yes		
	yes			yes			yes			yes		
	5 x LEDs (LCD Option)			5 x LEDs plus 2 x LCDs			5 x LEDs plus 2 x LCDs			26 LEDs plus 5 LCD displays		
	yes			yes			yes			yes - up to 5 fully programmable		
	screw			screw terminals			screw terminals			large screw terminals		
	16 mm <sup>2</sup>			16 mm <sup>2</sup>			16 mm <sup>2</sup> (power) 2.5mm <sup>2</sup> (signal)			depends on system size & configuration		
	IP54			IP51			IP51			IP51		
	yes			yes			yes			yes		
	yes			yes			yes			yes		
	yes			yes			yes			yes		
terminals	MOV on all terminals			MOV on all terminals			MOV on all terminals			Transorbs on all terminals		
	yes			yes			yes			yes		
	-10°C to 50°C			0°C to 70°C			0°C to 70°C			0°C to 70°C		
	two years			two years			two years			two years		
retail	full colour retail			individual			individual			individual		
55mm	230 x 135 x 55mm			300 x 250 x 150mm			300 x 250 x 150mm			720 x 420 x 920mm (180a unit)		
	0.6 kg			5.5kg			6.0kg			35 kg (180a unit)		
	40			1			1			1		
	25.5kg			10kg			10kg			61.5kg (180A unit)		
	94301200	94302400	94304805	contact Sollatek			contact Sollatek			contact Sollatek		
	94301200	94302400	94302400	contact Sollatek			contact Sollatek			contact Sollatek		
Sollatek	94900000			contact Sollatek			contact Sollatek			contact Sollatek		

# Solar batteries



**Solar batteries** Designed for professional applications, the range encompasses VRLA and wet technology with both tubular and flat plates, and a capacity range from 20Ah to 15600Ah.

Solar systems are the most demanding applications for batteries and the correct choice of battery is fundamental to the integrity of the entire system. Batteries are subjected to high and low temperatures, unpredictable charging, daily cycling as well as potentially partial states of discharge.

Therefore it is of utmost importance to choose the right battery for the right application in order to maximise battery life.

Sollatek not only offers the complete range of solar batteries available in the market but also provides expert advice on the choice of battery to suit a customer's particular application.

In an ideal world the first choice for any solar application would be a wet (also known as flooded or vented) battery with tubular positive plates which would maximise the number of cycles available. These types are ideal for deep discharges.

## Specifications



manufacturer's model	STW	STW (large)	STW (block)
Type Range	wet/flooded/vented	wet/flooded/vented	wet/flooded/vented
Standards	DIN 40736 P1 IEC 60896 P11	DIN 40736 P2 IEC 60896 P11	DIN 40737-3 IEC 60896 P11
Capacity range (C100)	130Ah - 4550Ah	4550Ah - 15600Ah	33Ah - 390Ah
Nominal voltage	2V	2V	6V, 12V
Container material	SAN, clear	PP	PP, high translucent
Positive plate tech	tubular	tubular	tubular
Negative plate tech	grid/flat	grid/flat	grid/flat
Electrolyte	liquid	liquid	liquid
Design life	15 years	20 years	18 years
Cycle life (80% DOD)	1200	1600	1100
Operating temp range °C	-20 to +60	-20 to +60	-20 to +60



However, many solar sites are in remote areas where access is difficult and maintenance is at a premium. Here Sollatek can advise on three different technologies for Valve Regulated Lead Acid (VRLA) batteries (often referred to as maintenance-free batteries).

The first type with the highest number of cycles and the best suitability for long discharge is the VRLA Tubular Gel battery.

The second type of VRLA battery is the gel battery with flat positive plates. However its cycle life will be slightly less. A final option would be the AGM (Absorbed Glass Mat) flat plate battery which has specially designed thick positive plates that makes it suitable for cyclic use.



STG	STG (bloc)	SFG	SFG (bloc)	SGM
gel	gel	gel	gel	absorbed glass matt
DIN 40742 IEC 896-21/22	DIN 40744 IEC 896-21/22	IEC 896-21/22	IEC 896-21/22 MH25860	IEC 896-21/22
260Ah - 3900Ah	65Ah- 390Ah	260Ah - 3900Ah	36Ah - 265Ah	32Ah - 240Ah
2V	6V, 12V	2V	12V	12V
SAN	PP, talcum	ABS	PP or ABS	ABS
tubular	tubular	grid/flat	grid/flat	grid/flat
grid/flat	grid/flat	grid/flat	grid/flat	grid/flat
gel	gel	gel	gel	absorbed liquid
15-20 years	15 years	15 years	8-10 years	8-10 years
1200	1000	600	700	400
-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60

**KEY**

- SAN - Styrene Acrylonitile
- PP - Polypropylene
- ABS - Acrylonitrile Butadiene Styrene
- Talcum - Hydrated magnesium silicate material which is used as an additive

# Solar batteries



## Specifications

### STW 2V TUBULAR WET BATTERIES



DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C10	C100	Length	Width	Height	
STW130	2	100	130	103	206	420	14
STW195	2	150	195	103	206	420	16
STW260	2	200	260	103	206	420	17.5
STW325	2	250	325	124	206	420	21
STW390	2	300	390	145	206	420	24.5
STW455	2	350	455	124	206	536	28.5
STW546	2	420	546	145	206	536	32.5
STW637	2	490	637	166	206	536	38.5
STW780	2	600	780	145	206	711	45
STW910	2	700	910	210	191	711	60
STW1040	2	800	1040	210	191	711	61.5
STW1170	2	900	1170	210	233	711	74
STW1300	2	1000	1300	210	233	711	77.5
STW1560	2	1200	1560	210	275	711	90
STW1950	2	1500	1950	210	275	861	112
STW2275	2	1750	2275	212	399	837	138
STW2438	2	1875	2438	212	399	837	148
STW2600	2	2000	2600	212	399	837	154
STW2925	2	2250	2925	212	487	837	188
STW3250	2	2500	3250	212	487	837	196
STW3900	2	3000	3900	212	576	837	228
STW4550	2	3500	4550	212	576	837	245

### STW LARGE 2V TUBULAR WET BATTERIES



DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C10	C100	Length	Width	Height	
STW4550	2	3500	4550	440	422	885	359
STW5200	2	4000	5200	440	466	885	378
STW5850	2	4500	5850	440	510	885	440
STW6500	2	5000	6500	440	568	885	470
STW7150	2	5500	7150	440	612	885	530
STW7800	2	6000	7800	440	656	885	565
STW9100	2	7000	9100	440	890	885	710
STW10400	2	8000	10400	440	890	885	755
STW11700	2	9000	11700	440	1090	885	890
STW13000	2	10000	13000	440	1090	885	935
STW14300	2	11000	14300	440	1266	885	1060
STW15600	2	12000	15600	440	1266	885	1110

### STW BLOC 6V/12V TUBULAR WET BATTERIES BLOC



DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C10	C100	Length	Width	Height	
STW33-12	12	25	33	260	175	240	15
STW65-12	12	50	65	310	178	240	23
STW98-12	12	75	98	510	175	245	33
STW130-12	12	100	130	510	216	245	44
STW163-12	12	125	163	510	278	256	54
STW195-12	12	150	195	510	278	256	58
STW260-6	6	200	260	510	216	245	43
STW325-6	6	250	325	510	278	256	53
STW390-6	6	300	390	510	278	256	59

### STG 2V TUBULAR GEL BATTERIES




DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C10	C100	Length	Width	Height	
STG260	2	200	260	103	206	406	17
STG325	2	250	325	124	206	406	21
STG390	2	300	390	145	206	406	24
STG455	2	350	455	124	206	523	26
STG546	2	420	546	145	206	523	32
STG637	2	490	637	166	206	523	36
STG780	2	600	780	145	206	698	45
STG1040	2	800	1040	210	191	698	63
STG1300	2	1000	1300	210	233	698	78
STG1560	2	1200	1560	210	275	698	88
STG1950	2	1500	1950	210	275	848	104
STG2600	2	2000	2600	214	399	824	140
STG3250	2	2500	3250	214	497	824	176
STG3900	2	3000	3900	214	576	824	205






**STG BLOC**  
**6V/12V TUBULAR GEL BATTERIES BLOC**




DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C10	C100	Length	Width	Height	
STG65-12	12	50	65	272	205	383	38
STG130-12	12	100	130	272	205	383	52
STG195-12	12	150	195	380	205	383	74
STG260-6	6	200	260	272	205	383	51
STG325-6	6	250	325	380	205	383	66
STG390-6	6	300	390	380	205	383	73

**SFG BLOC**  
**12V FLAT PLATE GEL BATTERIES**




DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C10	C100	Length	Width	Height	
SFGM36-12	12	28	36	197	130	184	11
SFG40-12	12	32	40	197	165	170	13.8
SFGM48-12	12	37	48	197	168	175	14.4
SFGM57-12	12	44	57	236	140	235	17
SFG55-12	12	42	55	229	138	208	19.5
SFGM70-12	12	53	70	259	169	178	19.3
SFG65-12	12	55	65	350	167	179	22.2
SFGM84-12	12	68	84	276	171	251	24.3
SFGM100-12	12	80	100	324	171	251	28.7
SFGM110-12	12	90	110	329	171	251	32.5
SFG90-12	12	72	90	306	169	208	30
SFG100-12	12	85	100	330	171	214	32
SFG120-12	12	100	120	410	176	227	38
SFGM210-12	12	170	210	527	216	254	59
SFG150-12	12	120	150	485	172	240	47
SFG200-12	12	160	200	522	238	218	65
SFG230-12	12	200	230	520	269	203	72.6
SFGM265-12	12	210	265	527	279	254	73

**SFG**  
**2V FLAT PLATE GEL BATTERIES**

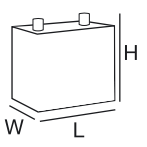


DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C10	C100	Length	Width	Height	
SFG2-260	2	200	260	173	111	330	15
SFG2-390	2	300	390	171	151	330	21
SFG2-520	2	400	520	210	176	330	28
SFG2-650	2	500	650	241	175	330	33
SFG2-780	2	600	780	302	175	330	42
SFG2-1040	2	800	1040	410	175	330	57
SFG2-1300	2	1000	1300	475	175	330	66.5
SFG2-1560	2	1200	1560	400	350	345	82
SFG2-1950	2	1500	1950	400	350	345	98
SFG2-2600	2	2000	2600	490	350	345	123
SFG2-3250	2	2500	3250	710	350	345	175
SFG2-3900	2	3000	3900	710	350	345	186

**SGM**  
**12V FLAT PLATE AGM GEL BATTERIES**



DIN Name	Voltage	Nominal		Dimensions			Weight KG
		C20	C100	Length	Width	Height	
SGM32-12	12	27	32	166	175	125	8.5
SGM50-12	12	42	50	196	163	174	13.8
SGM66-12	12	55	66	229	138	212	18.5
SGM78-12	12	65	78	271	166	190	23.2
SGM84-12	12	70	84	350	166	174	22.6
SGM96-12	12	80	96	260	169	212	27.2
SGM120-12	12	100	120	329	172	214	32.8
SGM144-12	12	120	144	407	173	215	38
SGM180-12	12	150	180	485	170	231	46.8
SGM240-12	12	200	240	520	260	204	68



Figures given for height include battery terminals

# Solar lights

**Solar lights** Sollatek designs, manufactures and supports a wide variety of high efficiency lights for indoor, outdoor and street lighting applications in 12V, 24V and 48V versions. Sollatek's award winning Glowstar (solar lantern) and DC Lights products are always the preferred choice when specifying rural lighting and solar lighting home systems.



**LUMINA**  
High efficiency compact fluorescent lamp (4 pin)

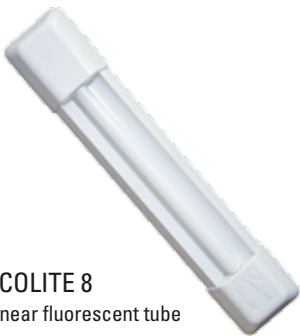


**Features:**

- High efficiency compact fluorescent lamps (4 pin)
- Available in 7, 9, 11 and 18 watt versions
- 12, 24 or 48 volt DC versions
- Low current consumption
- Push switch

**Applications:**

- Boats
- Recreational vehicles
- Caravans
- Wind power systems
- Low voltage DC lighting systems



**ECOLITE 8**  
Linear fluorescent tube



**Features:**

- Linear fluorescent tube
- 8 watt
- 12 or 24 volt DC versions
- Low current consumption
- Optional switch

**Applications:**

- Boats
- Recreational vehicles
- Caravans
- Wind power systems
- Low voltage DC lighting systems
- Indoor domestic use
- Hospitals
- Communal areas



**ECOLITE 18**  
Linear fluorescent tube



**Features:**

- Linear fluorescent tube
- 18 watt
- 12 or 24 volt DC versions
- Low current consumption
- Optional switch

**Applications:**

- Boats
- Recreational vehicles
- Caravans
- Wind power systems
- Low voltage DC lighting systems
- Indoor domestic use
- Hospitals
- Communal areas



**OUTLITE**  
High efficiency compact fluorescent lamp - 18W



**Features:**

- High efficiency compact fluorescent lamp - 18W
- Available in 12, 24 or 48 Volt DC versions
- Vandal resistant Polycarbonate construction
- Weatherproof to IP65
- Low current consumption

**Applications:**

- Streets
- Markets, squares
- Car parks, bus stops
- Security lighting
- Communal areas
- Camp sites
- Beaches



**SOX/PL STREET LIGHTING**  
*See also page 22*



**Features:**

- IP65, Weatherproof bulkhead (GRP)
- 18 and 36 watt fluorescent, 18 and 26 watt low pressure sodium (SOX-E)
- 12 or 24 or 48 volt DC versions
- Inverter / ballasts are tropicalised
- Side entry 35mm spigot

**Applications:**

- Streets
- Markets, squares
- Car parks, bus stops
- Rural roads
- Roundabouts
- Crossings
- Footpaths
- Camp sites, beaches
- Service stations



**LED STREET LIGHTING**  
*See also page 22*



**Features:**

- Available in any size between 10W to 60W.
- Long life. Estimated 50,000+ hours operation (more than 11 years at 12 hours a day).
- Reduced maintenance cost due to long life (compared with the need to change lamp every 2 to 3 years for a SOX lamp).
- Robust; can withstand vibration from transport and rough weather.
- Attractive cool and natural white light.

- Good efficiency, comparable with fluorescent lamps.
- Small compared with other lamps of same output.

**Applications:**

- Streets • Markets, squares • Car parks, bus stops
- Rural roads • Roundabouts • Crossings
- Footpaths • Camp sites, beaches
- Service stations



**GLOWSTAR LANTERN**  
Portable solar powered lighting



*See also page 23*

**Glowstar lantern** Portable solar powered lighting. Eight hours of truly bright light for hundreds of applications. Charge it from the sun, charge it in the car or charge it from the mains.

**Features:**

- 8 hours running time from full charge
- Fast charge - full charge in 2-3 hrs from mains
- Fully portable and waterproof
- Versatile - charge from sun, vehicle or mains
- Very bright light - equivalent to 60W
- Automatic emergency function
- Charge your mobile from it

**Applications:**

- Household activities
- Schoolwork & studying
- Recreational activities
- Emergency & medical work
- Site inspection
- Use by security staff

**KEY**

Compact fluorescent	Linear fluorescent	Low pressure sodium	Light emitting diode	Power rating	IP rating	Switch

# Solar lights

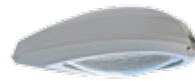


## Specifications



Model	Lumina 7	Lumina 9	Lumina 11	Lumina 18	Ecolite 8	Ecolite 18
Lamp wattage	7 W	9 W	11 W	18 W	8 W	18 W
Nominal voltage	12 or 24 VDC	12 or 24 VDC	12 or 24 VDC	12, 24, 48 VDC	12 or 24 VDC	12 or 24 VDC
Current consumption at 12V	0.5 A	0.6 A	0.89 A	1.3 A	0.75 A	1.3 A
Current consumption at 24V	0.25 A	0.3 A	0.45 A	0.65 A	0.37 A	0.65 A
Current consumption at 48V	N/A	N/A	N/A	0.33 A	N/A	N/A
Type of tube	Compact Fluorescent	Compact Fluorescent	Compact Fluorescent	Compact Fluorescent	Linear Fluorescent	Linear Fluorescent
Tube lumen output (up to)	400	600	900	1200	410	1150
Colour of light emitted	White	White	White	White	White	White
Inverter frequency (kHz)	>30 kHz	>30 kHz	>30 kHz	>30 kHz	>30 kHz	>30 kHz
Inverter waveform	Pure sinewave	Pure sinewave	Pure sinewave	Pure sinewave	Pure sinewave	Pure sinewave
Inverter efficiency	>90%	>90%	>90%	>90%	>90%	>90%
Operating temperature range	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C
Open circuit protected	Yes	Yes	Yes	Yes	Yes	Yes
Short circuit protected	Yes	Yes	Yes	Yes	Yes	Yes
Reverse polarity protected	Yes	Yes	Yes	Yes	Yes	Yes
Switch	Push switch	Push switch	Push switch	Push switch	No	Pull cord
Warranty period*	Two years	Two years	Two years	Two years	Two years	Two years
Packaging	Full colour retail carton	Full colour retail carton	Full colour retail carton	Full colour retail carton	Plain carton	Protective Wrap
Packed dimensions (mm)	350 x 80 x 50	350 x 80 x 50	350 x 80 x 50	350 x 80 x 50	440 x 90 x 40	675 x 75 x 40
Weight (Kg)	0.3	0.3	0.3	0.3	0.32	0.6
Order multiple	50	50	50	50	100	50
Replacement lamp specifications	Sollatek 68507806	Sollatek 68509807	Sollatek 68511808	Sollatek 68518602	Sollatek 68708802	Sollatek 68718802
CFLs are 4 pin	Philips 7PLS84	Philips 9PLS84	Philips 11PLS84	Philips 18PLL84	Philips TL833	Philips TLD1833
	Osram DSE784	Osram DSE984	Osram DSE1184	Osram DL1884	Osram L820	Osram L1820
	GE F7BX/840		GE F9BX/840	GE F11BX/840	GE F18BX/840	GE F8W/33
	Sylvania SE7W/840	Sylvania SE9W/840	Sylvania SE11W/840	Sylvania L18W/840	Sylvania F8W/133	Sylvania F18W/133

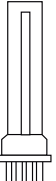
\* excludes lamp




Different watt sizes (10W-60W) available on request

Outlite	SLB18PL	SLB36PL	SLB18SX	SLB26SX	SLB20LED	SLB40LED	SLB60LED
18 W	18 W	36 W	18 W	26 W	20 W	40 W	60 W
12, 24, 48 VDC	12, 24, 48 VDC	12 or 24 VDC	12 or 24 VDC	12 or 24 VDC	12 or 24 VDC	12 or 24 VDC	12 or 24 VDC
1.3 A	1.3 A	2.5 A	1.5 A	2.3 A	1.95A	3.9 A	5.85 A
0.65 A	0.65 A	1.25 A	0.75 A	1.15 A	0.97 A	1.95 A	2.9 A
0.33 A	0.33 A	N/A	N/A	N/A	N/A	N/A	N/A
Compact Fluorescent	Compact Fluorescent	Compact Fluorescent	Sodium SOX-E	Sodium SOX-E	LED	LED	LED
1200	1200	2400	1800	3700	2000	4000	6000
White	White	White	Yellow	Yellow	White	White	White
>30 kHz	>30 kHz	>30 kHz	>30 kHz	>30 kHz	N/A	N/A	N/A
Pure sinewave	Pure sinewave	Pure sinewave	Pure sinewave	Pure sinewave	N/A	N/A	N/A
>90%	>90%	>90%	>90%	>90%	>90%	>90%	>90%
-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Two years	Two years	Two years	Two years	Two years	Two years	Two years	Two years
Plain carton	Plain carton	Plain carton	Plain carton	Plain carton	Plain carton	Plain carton	Plain carton
260 x 140 x 130	420 x 160 x 170	420 x 160 x 170	420 x 160 x 170	420 x 160 x 170	880 x 310 x 210	880 x 310 x 210	880 x 310 x 210
0.9	2	2	2	2	4.6	5.3	6.0
10	2	2	2	2	1	1	1
Sollatek 68518604	Sollatek 68518602	Sollatek 68536802	Sollatek 68518610	Sollatek 68526610	N/A	N/A	N/A
Philips 18PLC84	Philips 18PLL84	Osram DF3684	Philips 18SOXE	Philips 26S OXE			
Osram DDE 184	Osram DL1884	Sylvania F36W/840		Osram SXE26			
GE F18W/33	GE F18DBX/840	GE F18BX1840		GE SOX26E			
Sylvania DE18W/840	Sylvania L18W/840						


**KEY**




Compact Fluorescent



Linear Fluorescent



Sodium SOX-E



Light Emitting Diode (LED)

# Solar street lights



**Solar Street Lights** The Sollatek range of street lighting systems is completely self contained, requiring no electricity line extensions. Also maintenance-free, making them ideal for locations where utility power is unavailable or uneconomic. Sollatek designs and manufactures complete outdoor lighting systems inclusive of various lights, bulk heads, solar modules, solar charge controllers, batteries, and columns.

## High Power LED Lighting (Light Emitting Diodes)

Sollatek designs and manufactures LED lights primarily intended for solar power applications that can also be used for AC grid power sites.

### Benefits of LED Street Light

- Long life. 50,000+ hours operation (**more than 11 years** at 12 hours a day).
- Reduced maintenance costs due to long life.
- Robust; can withstand vibration from transport and rough weather.
- Attractive white light.
- Very efficient.
- Small size compared with other lamps of same output.
- Instant start (no warming up period).

## Efficient PL Lighting

High power fluorescent lamps suitable for both indoor and outdoor lighting. Sollatek's high efficiency PL based lighting has a bright white light with over 2400 lumens output.

## Economic SOX Lighting

SOX lamps are a common form of lighting employed in street lighting applications due to their efficiency. This means that they deliver more lumens of light for each watt of power than any other type of lamp. SOX installations therefore have the lowest energy consumption costs which is of crucial importance when thousands of miles of roads must be lit. SOX lamps generate an orange/yellow light.



### Features:

- No utility line extensions
- No utility bills
- Fast and simple installation
- Location flexibility
- Maintenance-free
- Automatic operation
- High reliability
- Long lifetime
- 2 year warranty on systems
- 25 year warranty on solar module

### Applications:

- Lighting of streets
- Markets
- Squares
- Car parks
- Bus stops
- Rural roads
- Roundabouts
- Crossings
- Footpaths
- Camp sites
- Beaches
- Service stations
- Highways and motorways



# Glowstar solar lantern



**Sollatek Glowstar Lantern** provides simple, inexpensive solar-powered lighting for up to 10 hours. It is perfect for rural households and farms, schools and colleges, hospitals, health clinics and community centres. The Glowstar's self-contained operation and rugged construction make it ideal for all agencies, NGOs, emergency and relief works. It is also ideal for recreational use such as caravanning, camping, trekking and yachting. In fact, Glowstar is designed for virtually any environment where the local electricity supply is inconsistent, unreliable or unavailable.



*Glowstar, solar module SP10, AC charger, cigar socket, and car socket*

	Glowstar GS5	Glowstar GS7
Lamp	5W	7W
Battery	4.4Ah	7.2Ah
Operating temp	-10 °C to + 45 °C	-10 °C to + 45 °C
Running time from full charge	5.5 hours	8 hours
Charge technology	PWM MOSFET	PWM MOSFET
Auxiliary output	-	12V, 0.5A
Auto function	-	Yes
Dimensions	Height : 420mm Diameter: 135mm	Height : 420mm Diameter: 135mm
Max charge current	1.2A (20W)	1.8A (30W)
Weight	2.4kg	3.3kg
<b>LAMP (AND EQUIVALENT OUTPUT)*</b>		
5W (25W GLS)	6 hours	10 hours
7W (40W GLS)	5.5 hours	8 hours
9W (60W GLS)	4 hours	6 hours
Lamp life (any wattage)	10,000 hours	10,000 hours
Stock No.	96207060	96207160

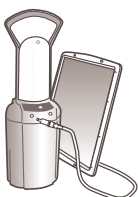
### Features:

- Solar lantern rechargeable from the sun, mains or car socket
- A truly bright portable light equivalent to 60 watts domestic light
- Long-life compact fluorescent tube
- Provides up to 10 hours running time depending on lamp and battery conditions
- Auto-on option turns glowstar into emergency or security lamp
- Four LED indication showing state of battery
- Portable, robust and easy to carry
- Charge your mobile phone, MP3 player and other small electrical items from it

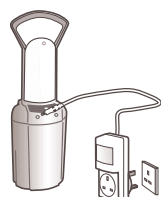
### Applications:

- Household usage
- Schoolwork & studying
- Outdoor / recreational activities
- Emergency & medical work
- Site inspection
- Use by security staff

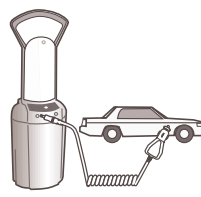
### CHARGING MODES



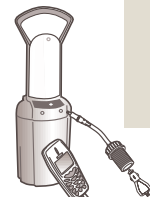
CHARGE FROM SOLAR MODULE



CHARGE FROM MAINS



CHARGE FROM VEHICLE



CHARGE YOUR MOBILE

# Solar Lighting Kit SLK4



**Solar lighting kit SLK4** Complete\* and ready to install self assembly 4 light solar lighting kit (40Wp system) for home or small office use.



A robust, fully self contained solar lighting kit, the Sollatek SLK4 provides over 8 hours\* of lighting provided by its four lights. The two solar modules generate electricity during the day which is stored in the battery ready to power the lights.

Central to this kit is the Sollatek SPCC (Solar Power Charge Controller); it manages the charge from the two supplied solar modules (SP20) and protects the battery from harmful over charge and over discharge, which ensures a long battery lifetime and provides overall system reliability.

The kit is fully expandable. The user can simply add further solar modules, batteries and lights, up to a total maximum of 150Wp of solar modules, in order to increase power to household appliances such as TV, radio, fans and others. The kit comes complete with tools, cables, mounting brackets and fixings.

Simple to install with step-by step instructions, the system provides a low cost reliable and expandable solar system, suitable for many applications.

\*depending on location

†Battery supplied separately



## System components

### Solar modules (SP20-PS)

#### Features:

- Two 20 watt solar modules
- Complete weather protection
- Easily mounted
- Protection from damage
- Crystalline technology
- Repetitive thermal cycling between -40°C and +90°C
- Repetitive cycling between -40°C and +85°C at 85% humidity
- Wind loading exceeding 255Km/h
- Impact of 25mm hail at terminal velocity (52mph)
- 25 years efficiency warranty

### Solar Power Charge Controller (SPCC10)

#### Features:

- 12 Volt
- Lightning protection
- Reverse polarity protected
- Battery overload protection
- Reverse discharge prevention
- Low power consumption
- Status indication 4 LED
- Reset switch

### Lights (Lumina)

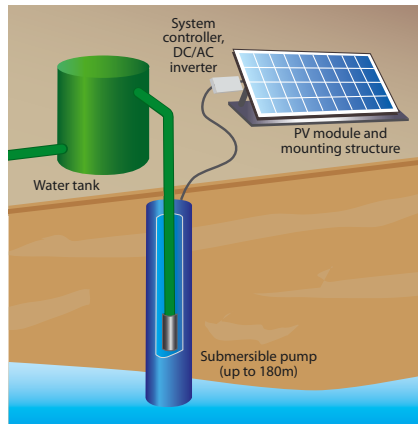
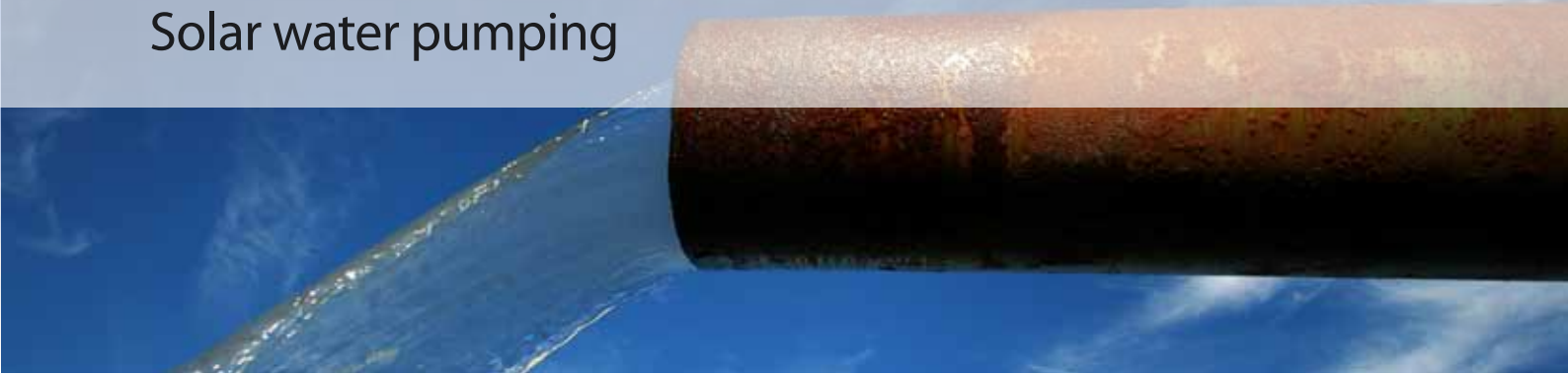
#### Features:

- Four high efficiency compact fluorescent lamps (4 pin)
- 12 DC input
- Low current
- Integral switch
- Supplied with 9watt lamp, will operate 7, 9 or 11watt lamps
- Attractive design

Stock No. 9K401100



# Solar water pumping



**DCSP and ACSP solar pumping systems** are specially designed for water supply and irrigation in remote areas where no reliable electricity supply is available.

Factors such as extremely long life, unattended operation, easy installation and very low maintenance requirements are important in pumping systems, and solar systems are preferred over diesel generators for these reasons.

The solar modules use the free and abundant energy of the sun to directly power the water pump during daylight hours without the need for batteries, fuel, or constant maintenance. The water is normally stored in a nearby water tank ensuring the availability of good quality water 24 hours a day.

The Sollatek water pumping systems have an operational range of 2m<sup>3</sup> to 208m<sup>3</sup> per day, with pumping depths of up to 180 metres (590 feet).

Upon confirmation of water requirements and systems locations/layout from the customers, Sollatek can provide accurate computer assisted design tailored to clients' requirements.

**The DCSP & ACSP pumping systems include:**

- Solar module
- Solar module mounting structure
- DC/AC three phase inverter
- Submersible, multi-stage centrifugal type pump and motor combined in a stainless steel monobloc
- All necessary cabling, piping, junction boxes and fixings

Features:	Applications:
• Extremely long life	• Crop irrigation
• Unattended operation	• Water for human consumption
• Easy installation	• Water for livestock consumption
• Very low maintenance	
• Good quality water 24 hours a day	



# Solar systems installations



**Complete solar systems installations** In remote locations, where the sun's energy is abundant, solar power generation can be the ideal solution as an alternative source of energy to power applications such as telecom stations (mobile and land systems), TV transmitters and whole village electrification. Sollatek provides not only expertise in consultation, design and implementation of such systems, but also manufactures and supplies the majority of the elements required for these installations.

Drawing on over 20 years expertise from our experienced team of engineers, Sollatek Solar designs, produces and implements bespoke, custom-made solar systems for small domestic (home) environments, as well as large commercial environments.

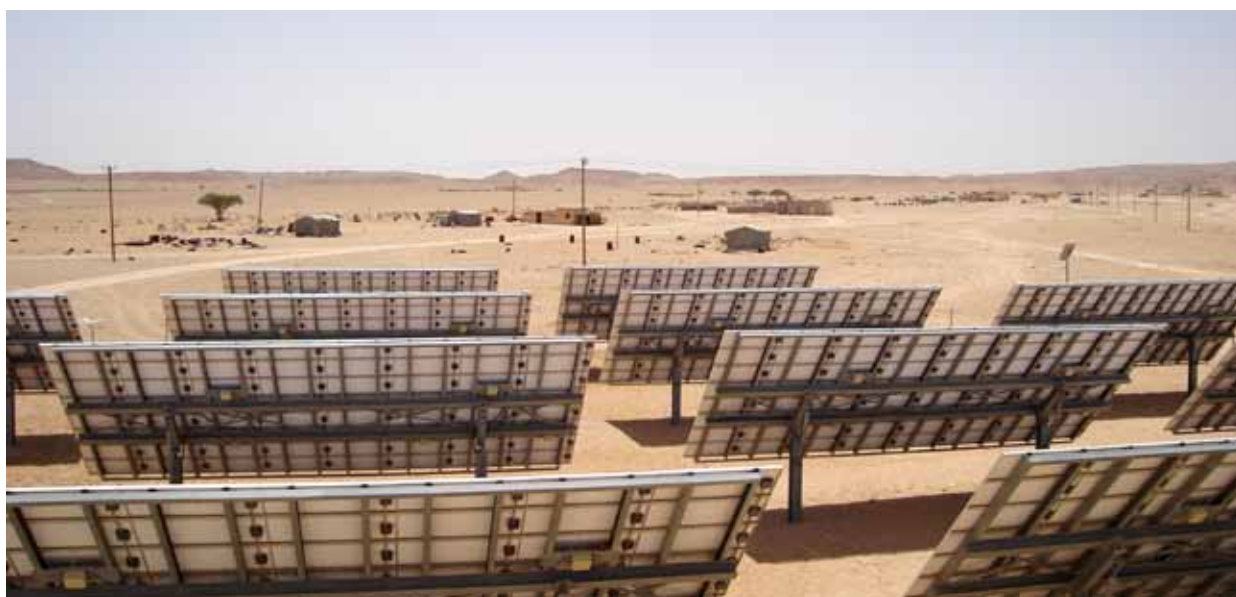
Sollatek can provide a complete service, such as load requirement analysis, solar array sizing, battery selection, charge controller selection, solar support structure design, systemisation, cabling, and fixtures and fitting. In addition, Sollatek can supply and install all components for the system from the ground up to system commissioning, monitoring and maintenance.

#### Complete solar installation for:

- Remote and hard to reach locations
- Telecom and microwave repeaters
- TV and VSAT transmitters
- Whole village/town electrification



*Sollatek technician at an installation site in the Libyan desert*



*Village electrification project in the Libyan desert*

# Solar cathodic protection



**Cathodic Protection Unit (CP)** The Sollatek CP Unit is a specialised power converter which provides DC current to metal pipelines, storage tanks, bridges, or other exposed equipment to cancel the effects of natural chemical corrosion. The CP operates directly from storage batteries common to photovoltaic systems and is equipped with a low voltage shut-down feature to prevent battery damage. It is suitable for use in systems of either positive or negative ground.

The Solar Cathodic Protection Controller is designed for trouble-free service in all environments and includes many special features which make it easy to operate and maintain in the field.

Power consumption and heat generation are minimised in the CP since efficient solid state circuitry is used instead of ballast resistors typical of earlier cathodic protection units.

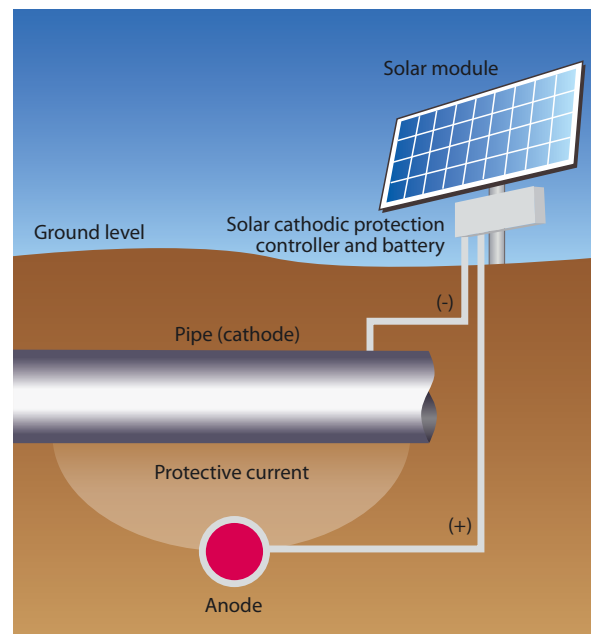
The power circuit contains no moving parts to wear out or break down. Quality digital voltage and current meters provide output monitoring which facilitates field adjustment. Recalibration can be performed in minutes without special tools or meter equipment.

Since corrosion protection systems normally operate in remote, unattended sites, they need to be protected from common events that make them fail such as: lightning exposure, battery damage, and short circuit. That's why every Sollatek CP Unit includes lightning transient suppression, a low battery shut-down circuit and output overload protection.

Our dual transient protection network will suppress electrical spikes and surges that normally damage field equipment. If the storage batteries become discharged due to cloudy days or photovoltaic system failure, the CP Unit will automatically shut down, preventing excessive discharge whilst protecting the battery from permanent damage and costly replacement.

Our built-in circuit breaker prevents damage to the CP and other components, should the output leads become shorted to one another. To help reduce overall system cost, the CP includes adjustable current and voltage outputs.

Standard photovoltaic modules can be used and the CP output adjusted to the desired level.



#### Features:

- Complete weather protection
- Easily mounted
- Protection from damage
- Solid state
- Easy calibration

#### Applications:

- Metal pipelines
- Storage tanks
- Bridges
- Exposed metal structures

# Solar telecom systems



The **Telecommunication industry** is the perfect application for solar systems, where telecom equipment must be installed in the harshest of environments and remote areas, where no electricity is available. Sollatek provides a complete turnkey solution to the telecom industry for the design, supply and installation of solar power systems tailored to customers' individual requirements.



## Solar Modules

Sollatek solar modules utilise the latest high efficiency crystalline solar cells. The solar cells are connected in series and are laminated between layers of tempered glass, EVA encapsulant and a Tedlar/ polyester backing, ensuring complete protection against the harshest of weather conditions.

*Please refer to page 5 for more details.*

### Features:

- Extra strong aluminium frame
- Easily mountable
- Easy field wiring (rear conjunction box)
- By-pass diodes for protection against damaging hotspots
- Qualified to IEC 61215, TÜV and CE approvals

## Photovoltaic Storage Batteries

The Sollatek STW and STG series of batteries are specifically designed for solar and telecommunication applications that require long lifetimes and reliability in cyclic operation. Sollatek batteries, when installed within a Sollatek approved system have a design life of over 15 years. *Please refer to page 15 for more information.*



## Solar Control Centre (SCC)

The Sollatek Solar Control Centre (SCC) is the latest state of the art controller specifically developed and produced for professional applications requiring the highest levels of performance. Fully expandable, enabling the SCC to grow in size in line with customers' expansion requirements.

This is achieved through the addition of solid-state power switching modules depending on the solar/ load requirements.

The microprocessor controlled charge controller will also provide comprehensive metering, logging and communications designed to provide the user with accurate digital information, clearly indicating the state of the solar modules and the battery.



*DSN system distributed via the SCC*

## Dual Splitter Networks (redundancy)

The SDS (Solar Diode Splitter) and LDS (Load Diode Splitter) are used in systems with two SCCs and two battery banks to offer complete redundancy as a dual splitter network.

## Solar Diode Splitter - SDS

The incoming solar feeds are taken to the Solar Diode Splitter. This incorporates a high power diode network, which allows current to flow to both SCCs and allows the output from the solar array to be used by both solar controllers. This system has the advantage of simplicity, and therefore reliability. There are no electromechanical parts to fail due to wear and tear, facilitating optimum battery life and system reliability.



### Load Diode Splitter - LDS

The load outputs from both SCCs are taken to the Load Diode Splitter. This connects both SCCs to the load via a network of high power diodes. Load sharing is self-regulating between the SCCs. The system is simple and reliable, with no moving parts.

### SiteWatch –internet based solar power monitoring system with remote access – a dramatic reduction in site visits.



Sollatek SiteWatch is a remote monitoring and data logging system which allows near real time monitoring of all remote solar power sites for every customer, regardless of where they are. It gives a constant indication of the status of all sites at a glance and highlights any warnings or problems as soon as they are detected.

Provided you have a higher level of permission for the system control, you can also make adjustments and control certain aspects of the remote solar power system so as to make further tests and take preventative action. You can access the data from any computer with internet connection with the added assurance of advanced security.

Sollatek’s SiteWatch also has a data logging feature. This enables collection, recording, analysis and display of information from the remote sites. This allows the site controller to check all systems are working at peak efficiency, calculating the return on investment, as well as predicting preventative maintenance plans.

### Weather monitoring

Sollatek can design and supply a complete weather monitoring station. This can also include electrical and temperature measurements from a solar power system. The inputs are connected to a data logger for recording and building up records of weather patterns in remote locations. It can be used to verify performance of solar power systems and for future system design.



### Support Structures

Sollatek’s solar module structure provides the best economic solution. The ST ranges of support mounting structures can be designed to provide shading for positive cooling system or battery shelter and to secure the solar modules in position under extreme weather conditions. Both fixed angles and adjustable types are available.

The mounting structures are fabricated from hot rolled steel, hot dip galvanised to British Standard BS EN ISO 1461. The structures are designed to withstand wind speeds up to 200 km/h. This proven design is in operation around the world.



*Sollatek weather monitoring station*

#### Features:

- Ideal for remote locations
- Low maintenance
- Expandable system
- Bespoke design
- Extreme temperature tolerant

#### Applications:

- Satellite communication and satellite internet terminals: VSATS
- Microwave repeaters • GSM sites • Fibre optics repeaters
- TV/FM stations • Rural communications

# Sollatek's other activities include:

## Voltage Protection

**The Sollatek VP range** encompasses a wide range of power protection products for use in many different industries and businesses, where clean regulated mains power is critical to their continued function.



SWITCHERS



SUPPRESSORS



STABILISERS



REGULATORS



UPS

## Refrigeration Solutions

**The Sollatek Freorange** offers a comprehensive suite of temperature control, energy saving, voltage protection and voltage stabilisation products for all types of refrigeration equipment including A/C plants and coolers etc.



FREOCOM FCA



FREOCOM FCV



FREOCOM FCM



FREOTEC FTD



FREOTEC FTA

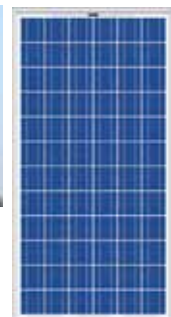


FREOSAVE

## Telecommunication Solutions

**The Sollatek Telecom range** consists of bespoke system integration, solar power provision, voltage protection and stabilisation providing reliable power with a dramatic reduction in diesel generator costs or their removal altogether. For:

- Microwave repeaters
- GSM sites
- Satellite and VSAT
- Fibre optic repeaters
- TV and radio transmitters.





## Sollatek worldwide companies and agents



### Distributors in over 50 countries including:

Algeria	Egypt	Jordan	Nigeria	Sweden	USA
Angola	Finland	Kenya	Norway	Sudan	Venezuela
Australia	Ghana	Kazakhstan	Pakistan	Taiwan	Yemen
Azerbaijan	Greece	Libya	Philippines	Turkey	Zambia
Benin	Holland	Malawi	Qatar	Tanzania	Zimbabwe
Cameroon	Hong Kong	Mexico	Saudi Arabia	UAE	
Croatia	India	Mozambique	Sierra Leone	Uganda	
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Sollatek provides you with full back up support and a two year worldwide warranty on all products, with local support in  over twenty countries worldwide.

**Sollatek**<sup>™</sup>  
 solar systems

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