

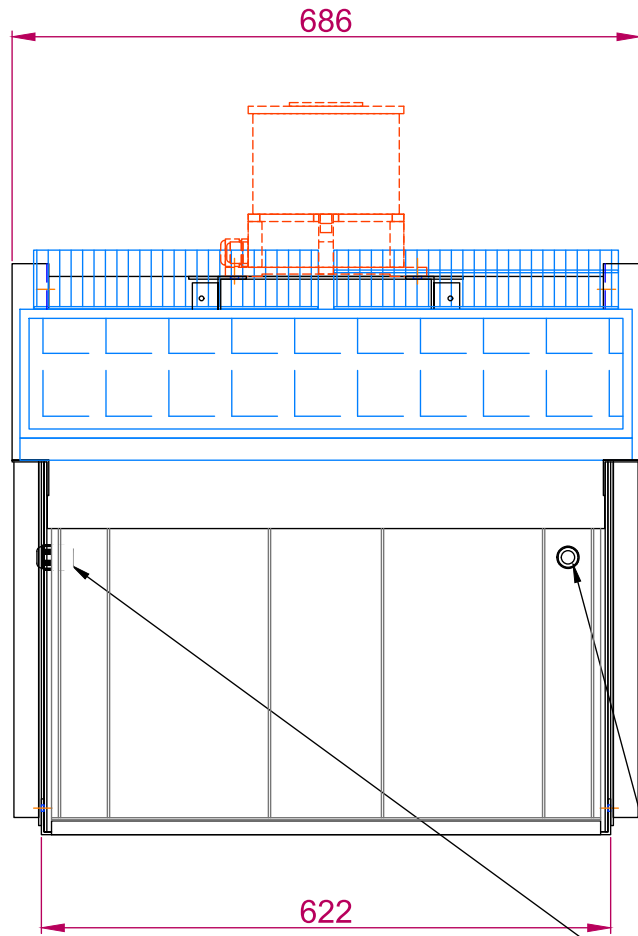


**KIT SOLAIRE 50Wc / 12Vdc  
(Balise Mi Rouge)**

*50Wp / 12Vdc SOLAR KIT  
(Mi Red Beacon)*

GS 12 1987  
25.10187

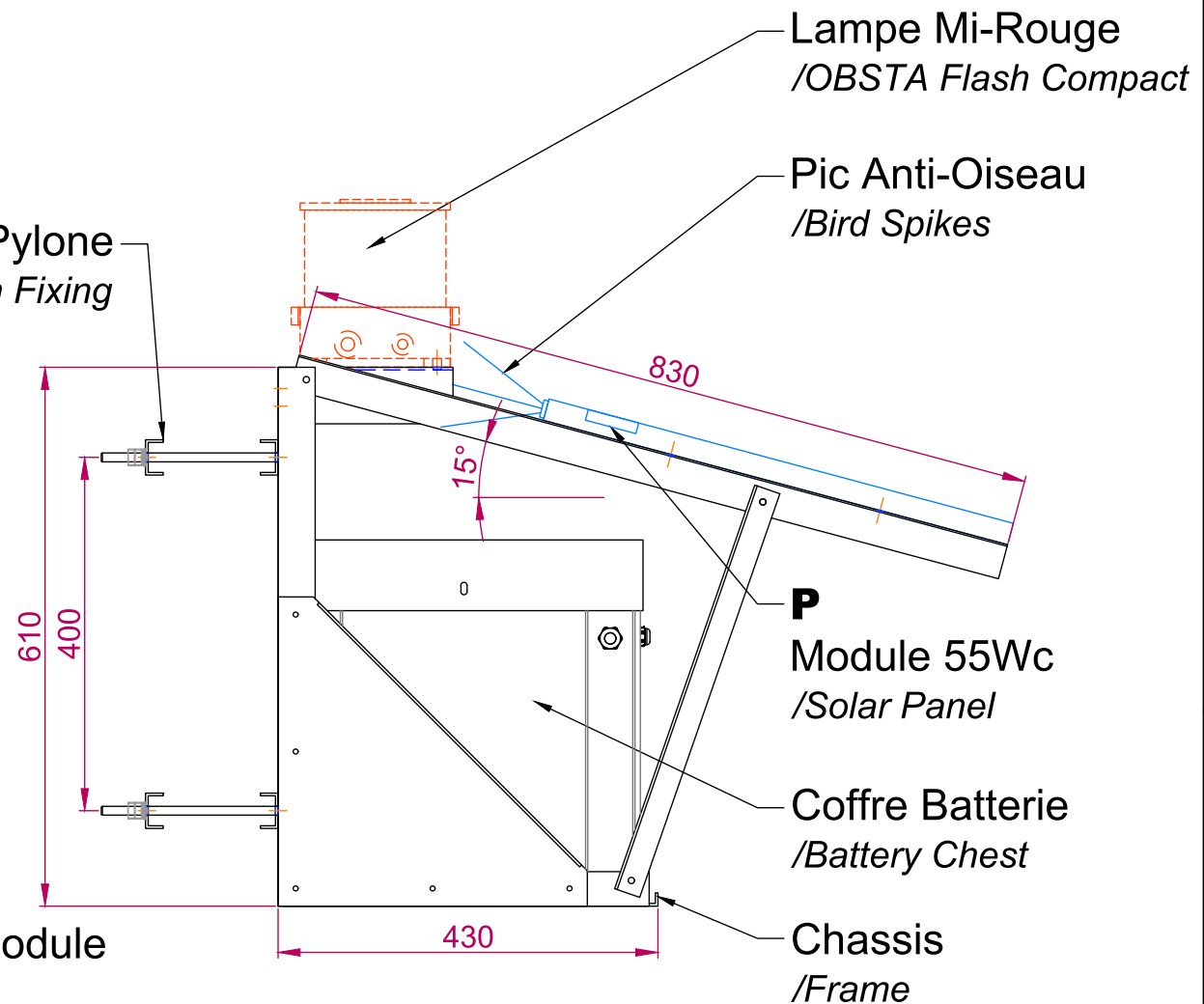
OBSTA  
29 Bd Edgar Quinet  
75014 Paris  
France  
<http://www.obsta.com>



Fixation Pylone  
/Pylon Fixing

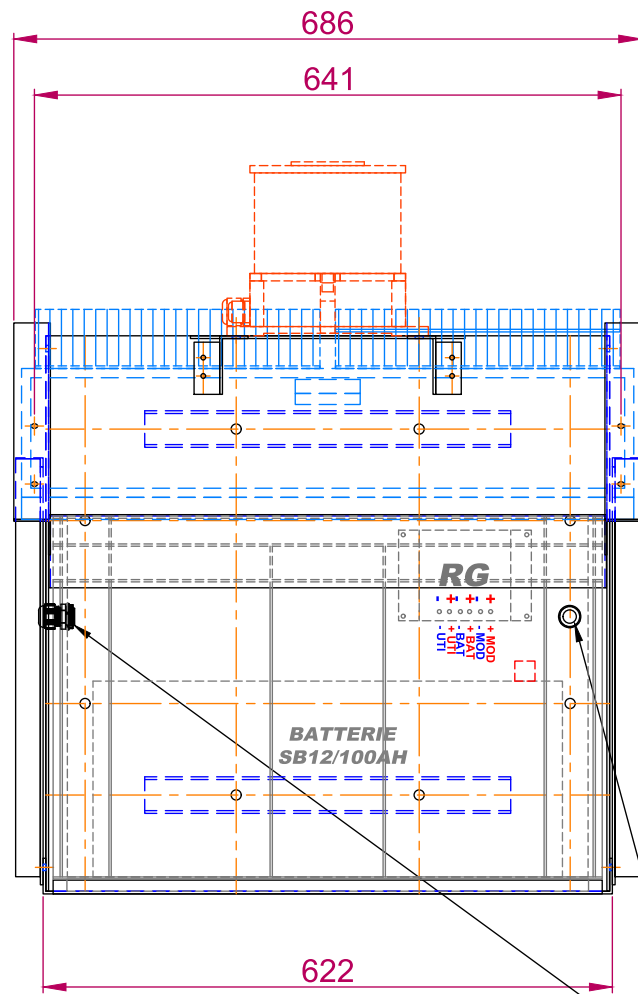
Entrées Module  
/Pannel In

Sortie Utilisation  
/Load Out



	Ed.1:	Ed.2:	Ed.3:	Ed.4:	Ed.5:	E.S:	<b>ECHELLE / SCALE:</b> 1:4 EN A4		
<b>NISE A JOUR:</b> <b>UPDATE:</b>	13.06.25						<b>TOLERANCE:</b> ISO 2768-M	<b>FORMAT:</b> A3-H	
<b>DESSINE PAR:</b> <b>DRAW BY:</b>	S.SANTOS						<b>TOLERANCE:</b>		
<b>VERIFIE PAR:</b> <b>APPROVED BY:</b>	JM.FOSSE					FOLIO 1/1			
<b>STATION SOLAIRE 12Vdc 50Wc</b> <b>SOLAR STATION 12Vdc 50Wp</b>							<b>GS 12 1987 PE1</b> 25.10187		

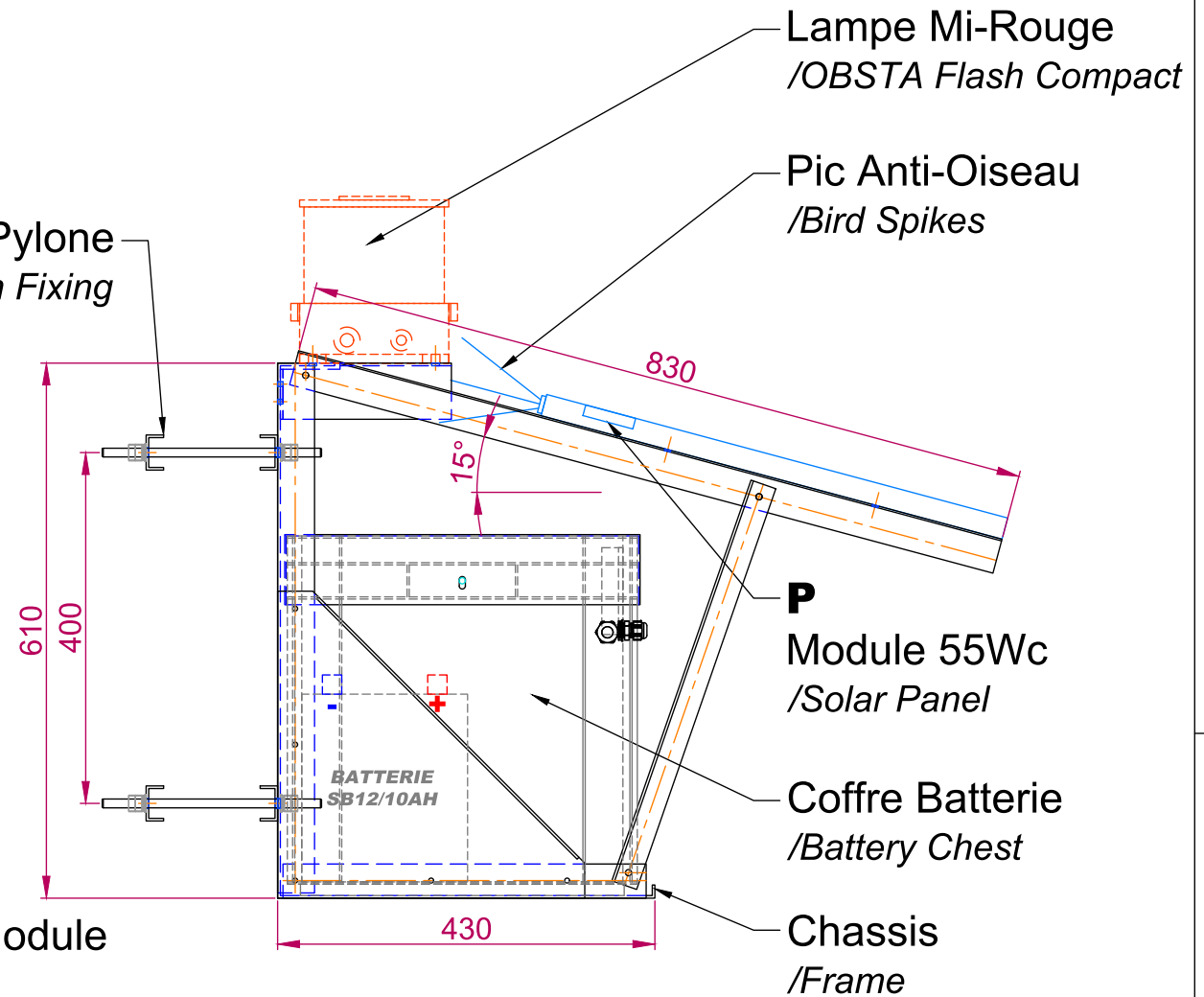




Fixation Pylone  
/Pylon Fixing

Entrées Module  
/Panel In

Sortie Utilisation  
/Load Out



Lampe Mi-Rouge  
/OBSTA Flash Compact

Pic Anti-Oiseau  
/Bird Spikes

**P**  
Module 55Wc  
/Solar Panel

Coffre Batterie  
/Battery Chest

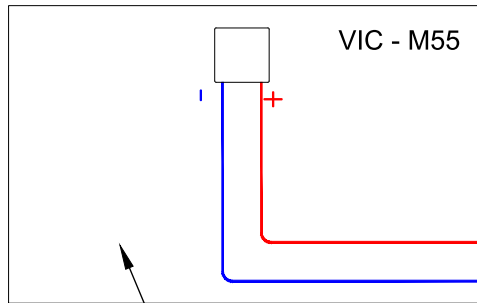
Chassis  
/Frame

NISE A JOUR: UPDATE:	Ed.1:	Ed.2:	Ed.3:	Ed.4:	Ed.5:	E.S:	TOLERANCE: ISO 2768-M TOLERANCE:	ECHELLE / SCALE: 1:4 EN A4	FORMAT: A3-H SIZE:	
DESSINE PAR: DRAW BY:	S.SANTOS					FOLIO				
VERIFIE PAR: APPROVED BY:	JM.FOSSE					1/1				
STATION SOLAIRE 12Vdc 50Wc SOLAR STATION 12Vdc 50Wp								<b>GS 12 1987 PE2</b> 25.10187		

**RG**

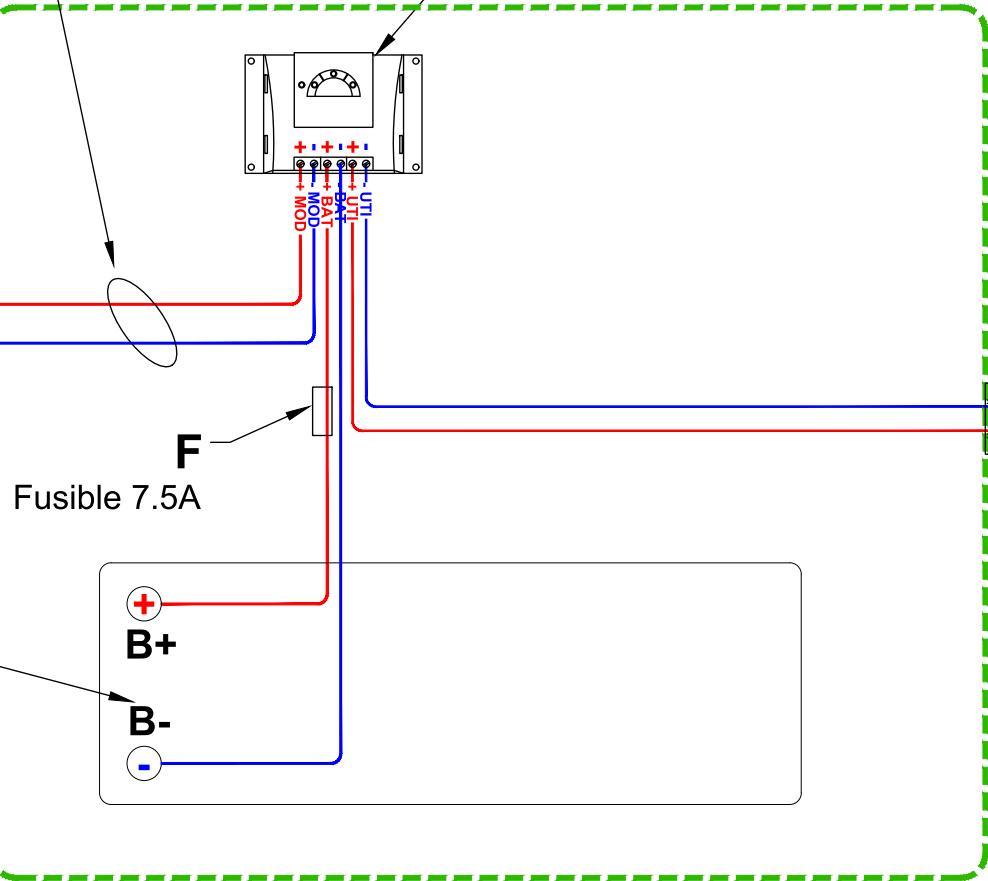
Régulateur Solsum  
06.06F 12V 6A  
Fonctionnement de Nuit  
/Regulator Solsum 06.06F 12V 6A  
Night Operation

Cables HO7VK 2X1.5mm<sup>2</sup>



**P**  
Panneau Solaire  
/Solar Panel

PE1



**F**  
Fusible 7.5A

**B**

Batterie SB12 / 100  
/ Battery SB12 / 100

PE2

-U  
+U  
Utilisation  
/Use

Coffre Batterie 600 x 400 x 400  
/Battery Chest

MISE A JOUR: UPDATE:	Ed.1:	Ed.2:	Ed.3:	Ed.4:	Ed.5:	E.S:	TOLERANCE: ISO 2768-M TOLERANCE:	ECHELLE / SCALE: 1:4 EN A4
DESSINE PAR: DRAW BY:	S.SANTOS					FOLIO 1/1	FORMAT: A3-H SIZE:	
VERIFIE PAR: APPROVED BY:	T.LOISELLE					STATION SOLAIRE 12Vdc 50Wc SOLAR STATION 12Vdc 50Wp		<b>GS 12 1987 P</b> 25.10187





## CHRONOLOGIE DE BRANCHEMENT MICRO STATION SOLAIRE *BRANCHING TIMELINE MICRO SOLAR STATION*

**Une exposition de la face avant du régulateur solaire SOLSUM à la lumière directe du soleil peut provoquer une déprogrammation du régulateur.  
(Clignotement rapide de la LED rouge info).**

**Ce qui nécessite un retour en usine pour la reprogrammation du microcontrôleur du régulateur.**

**Il est impératif de ne pas exposer la face avant du contrôleur à la lumière directe du soleil.**

*/ Exposing the front face of the SOLSUM solar regulator to direct sunlight can cause deprogramming of the regulator.*

*(Quick flashing of the red info LED).*

*This requires a return to the factory for the reprogramming of the regulator microcontroller.*

*It is imperative not to expose the front panel of the controller to direct sunlight.*

**Il est impératif de suivre cette chronologie de Démarrage afin de ne pas détériorer le régulateur solaire !**

*/ It is imperative to follow this Start-up chronology in order not to damage the solar regulator!*

**1<sup>er</sup> : Raccorder la batterie au régulateur. / Connect the battery to the regulator.**

**Fil bleu au - et Fil rouge au + / Blue wire to - and Red wire to +**

**2<sup>ème</sup> : Raccorder le module au régulateur. / Connect the module to the regulator.**

**Fil bleu au - et Fil brun au +. / Blue wire to - and Brown wire to +.**

**3<sup>ème</sup> : Raccorder l'utilisation au régulateur. / Connect the Use to the regulator.**

**VEILLER A NE PAS INVERSER LES POLARITES**

**/ BE CAREFUL NOT TO REVERSE THE POLARITIES**

**Pour une opération de démontage ou de maintenance du kit solaire, effectuer la chronologie à l'inverse.**

*/ For a solar kit dismantling or maintenance operation, perform the chronology in reverse.*

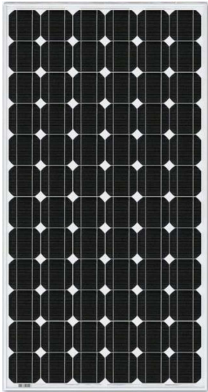
**1<sup>er</sup> : Déconnecter l'utilisation du régulateur. / Disconnect the Use to the regulator.**

**2<sup>ème</sup> : Déconnecter le module du régulateur. / Disconnect the module to the regulator.**

**3<sup>ème</sup> : Déconnecter la batterie du régulateur. / Disconnect the battery to the regulator.**

# BlueSolar Monocrystalline Panels

www.victronenergy.com



- Low voltage-temperature coefficient enhances high-temperature operation.
- Exceptional low-light performance and high sensitivity to light across the entire solar spectrum.
- 25-Year limited warranty on power output and performance.
- 5-Year limited warranty on materials and workmanship.
- Sealed, waterproof, multi-functional junction box gives high level of safety.
- High performance bypass diodes minimize the power drop caused by shade.
- Advanced EVA (Ethylene Vinyl Acetate) encapsulation system with triple-layer back sheet meets the most stringent safety requirements for high-voltage operation.
- A sturdy, anodized aluminium frame allows modules to be easily roof-mounted with a variety of standard mounting systems.
- Highest quality, high-transmission tempered glass provides enhanced stiffness and impact resistance.
- High power models with pre-wired quick-connect system with MC4 (PV-ST01) connectors.

## BlueSolar Monocrystalline 305W

Article Number	Description	Net Weight	Electrical data under STC <sup>1)</sup>				
			Nominal Power	Max-Power Voltage	Max-Power Current	Open-Circuit Voltage	Short-Circuit Current
			P <sub>MPP</sub>	V <sub>MPP</sub>	I <sub>MPP</sub>	V <sub>oc</sub>	I <sub>sc</sub>
		Kg	W	V	A	V	A
SPM040201200	20W-12V Mono 440 x 350 x 25mm series 4a	1.9	20	18.5	1.09	22.6	1.19
SPM040301200	30W-12V Mono 560 x 350 x 25mm series 4a	2.2	30	18.7	1.61	22.87	1.76
SPM040401200	40W-12V Mono 425 x 668 x 25mm series 4a	3.1	40	18.3	2.19	22.45	2.40
SPM040551200	55W-12V Mono 545 x 668 x 25mm series 4a	4	55	18.8	2.94	22.9	3.22
SPM040901200	90W-12V Mono 780 x 668 x 30mm series 4a	6.1	90	19.6	4.59	24.06	5.03
SPM041151202*	115W-12V Mono 1030 x 668 x 30mm series 4b	8	115	19.0	6.04	23.32	6.61
SPM041301200	130W-12V Mono 1200 x 668 x 30mm series 4a	9.1	130	18.64	6.98	22.83	7.35
SPM041401200	140W-12V Mono 1250 x 668 x 30mm series 4a	9	140	19.4	7.22	23.6	8.05
SPM041501200	150W-12V Mono 1485 x 668 x 30mm series 4a	11	150	18.2	8.25	22.3	8.69
SPM041751200	175W-12V Mono 1485 x 668 x 30mm series 4a	11	175	19.4	9.03	23.7	9.89
SPM041851200	185W-12V Mono 1485 x 668 x 30mm series 4a	11	185	19.68	9.41	24.11	9.91
SPM042152400	215W-24V Mono 1580 x 808 x 35mm series 4a	15	215	37.4	5.75	45.82	6.30
SPM042152402*	215W-24V Mono 1580 x 705 x 35mm series 4b	11,7	215	40.1	5.36	46.01	5.65
SPM043052000	305W-20V Mono 1640 x 992 x 35mm series 4a	18	305	32.5	9.38	39.7	10.27
SPM043052002*	305W-20V Mono 1658 x 1002 x 35mm series 4b	19	305	32.5	9.38	39.7	10.27
SPM043602400	360W-24V Mono 1956 x 992 x 40mm series 4a	22	360	38.4	9.38	47.4	10.24
SPM043602402*	360W-24V Mono 1980 x 1002 x 40mm series 4b	23	360	38.4	9.38	47.4	10.24

Module	SPM 040201200	SPM 040301200	SPM 04040120	SPM 040551200	SPM 040901200	SPM 041151202	SPM 041301200	SPM 04140120	SPM 041501200	SPM 041751200	SPM 041851200	SPM 042152400	SPM 042152402	SPM 043052000	SPM 043052002	SPM 043602400	SPM 043602402		
Nominal Power (±3% tolerance)	20W	30W	40W	55W	90W	115W	130W	140W	150W	175W	185W	215W	215W	305W	305W	360W	360W		
Cell type	Monocrystalline																		
Number of cells in series	36										72		60		72				
Maximum system voltage	1000V																		
Temperature coefficient of MPP (%)	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C	-0.45/°C		
Temperature coefficient of Voc (%)	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C	-0.35/°C		
Temperature coefficient of Isc (%)	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C	+0.04/°C		
Temperature Range	-40°C to +85°C																		
Surface Maximum Load Capacity	200 kg/m <sup>2</sup>																		
Allowable Hail Load	23 m/s, 7.53 g																		
Junction Box Type	PV-LH0805		PV-LH0806		PV-LH0801		PV-LH0808		PV-LH0808-1		PV-LH0701		PV-LH0808		PV-LH0701			PV-JB002	
Length of Cables / Connector Type	No cable						900 mm MC4												
Output tolerance	+/-3%																		
Frame	Aluminium																		
Product warranty	5 years																		
Warranty on electrical performance	10 years 90% + 25 years 80% of power output																		
Smallest packaging unit	1 panel																		
Quantity per pallet	380	260	200	140	72	72	36	48	48	42	48	42	42	42	42	37	37		

\*New dimensions: will replace 4a model

1) STC (Standard Test Conditions): 1000 W/m<sup>2</sup>, 25°C, AM (Air Mass) 1.5

## Steca Solsum

### 0606, 0808, 1010

The Steca Solsum continues the huge success of one of the most used SHS controllers. With a power range of up to 10 A at automatically recognized 12 V or 24 V it fits to a system sizes of maximum 240 W.

Full circuit board protection with LED display for simple recognition of battery status. Various connections make it possible to connect easily to solar panels, battery and load. The Steca Solsum F works on PWM as a low loss series controller.

#### Product features

- Serial topology with MOSFETs
- Automatic detection of voltage
- Voltage regulation
- PWM control
- Multistage charging technology
- Current compensated load disconnection
- Automatic load reconnection
- Temperature compensation
- Negative earthing of one or positive earthing of several terminals possible
- Monthly equalisation charge

#### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of module ( $\leq 36$  V), load and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Load disconnection on battery overvoltage

#### Displays

- Multifunction LED display
- Multi-coloured LED
- 4 LEDs show operating states
- for operation, state of charge, fault messages

#### Options

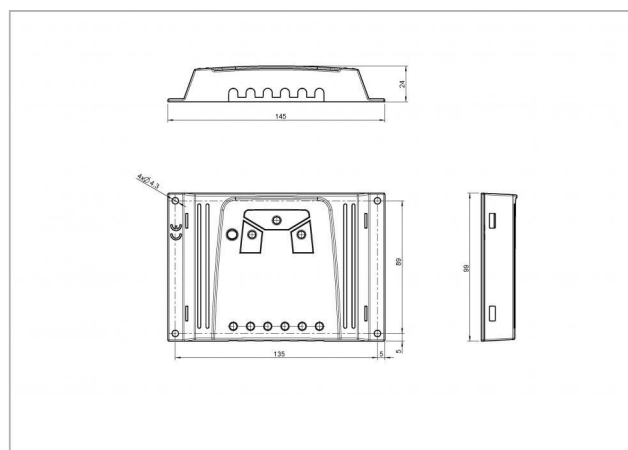
- Evening or night light function pre-set in the factory or adjustable via Steca PA RC 100
- Parameterisation of function values via Steca PA RC 100

#### Certificates

- Compliant with European Standards (CE)
- RoHS compliant
- Made in EU
- Manufactured according to ISO 9001 and ISO 14001

#### Accessories

- Steca PA RC100



	0606	0808	1010
<b>Characterisation of the operating performance</b>			
System voltage	12 V (24 V)		
Own consumption	< 4 mA		
<b>DC input side</b>			
Open circuit voltage solar module (at minimum operating temperature)	< 47 V		
Module current	6 A	8 A	10 A
<b>DC output side</b>			
Load current	6 A	8 A	10 A
Reconnection voltage (LVR)	12.4 V ... 12.7 V (24.8 V ... 25.4 V)		
Deep discharge protection (LVD)	11.2 V ... 11.6 V (22.4 V ... 23.2 V)		
<b>Battery side</b>			
End-of-charge voltage	13.9 V (27.8 V)		
Boost charge voltage	14.4 V (28.8 V)		
Set battery type	gel		
<b>Operating conditions</b>			
Ambient temperature	-25 °C ... +50 °C		
<b>Fitting and construction</b>			
Terminal (fine / single wire)	4 mm <sup>2</sup> / 6 mm <sup>2</sup> - AWG 12 / 9		
Degree of protection	IP 31		
Dimensions (X x Y x Z)	145 x 100 x 30 mm		
Weight	ca. 150 g		

- Technical data at 25 °C / 77 °F
- adjustable via Steca PA RC100: reconnection voltage, deep discharge protection, end of charge voltage, boost charge voltage, battery type
- Inverters must not be connected to the load output.



Industrial Batteries / Network Power

**Sonnenschein SOLAR**

dryfit<sup>®</sup>  
 ✦ inside



»Premium quality for renewable energy«



# Industrial Batteries

## The powerful range of Network Power

GNB® Industrial Power offers reliable energy storage solutions for critical systems requiring uninterrupted power supply. With a comprehensive product range based on state-of-the-art technologies, GNB delivers the right battery for every application.

The below table is only indicative and depends on the specific customer application. For more information please ask a GNB sales representative.

Applications	Battery ranges																			
	Sonnenschein							Marathon		Sprinter		Absolyte	Powerfit	Classic						
	A400/A600	A400 FT	A500	A700	SOLAR	RAIL	Power Cycle	M-FT	L/XL	P/XP	XP-FT	GP/GX	S100/S300	GroE	OCSM	OPzS	Energy Bloc/OGi	Solar	rail	
Telecom	●	●	●	●			●	●	●	●	●	●	●		●	●	●			
UPS	●	●	●	●			●	●	●	●	●	●	●		●		●			
Emergency lighting	●	●	●	●			●	●	●	●	●	●	●			●	●			
Security	●		●	●						●	●		●		●	●				
EVU	●	●		●			●	●				●	●	●	●	●	●			
Utility	●	●	●	●		●	●	●				●	●		●		●			●
Photovoltaic					●		●					●	●						●	
Universal	●	●	●	●			●	●	●	●	●	●	●		●	●	●			

### Powerful product brands



- > VRLA batteries (Valve Regulated Lead Acid) in which the electrolyte is fixed in an Absorbent Glass Mat (AGM)
- > Excellent high current capability
- > Very economical
- > Maintenance-free (no topping up)



- > VRLA batteries (Valve Regulated Lead Acid) in which the electrolyte is fixed in a gel (dryfit® technology)
- > Inventor of Gel technology
- > Highest reliability, even in non-optimal conditions
- > Particularly suitable for cyclic applications
- > Maintenance-free (no topping up)



- > Conventional lead-acid batteries with liquid electrolyte
- > Extreme reliability, proven over decades
- > Low maintenance

## Sonnenschein SOLAR BLOCK

### Safe power supply for medium performance

The Sonnenschein SOLAR BLOCK battery range is very powerful and reliable in rough application conditions. This range is the ideal energy source for medium industrial solar systems, holiday and weekend houses, wind powerstations, as well as for other safety equipment power supplies.

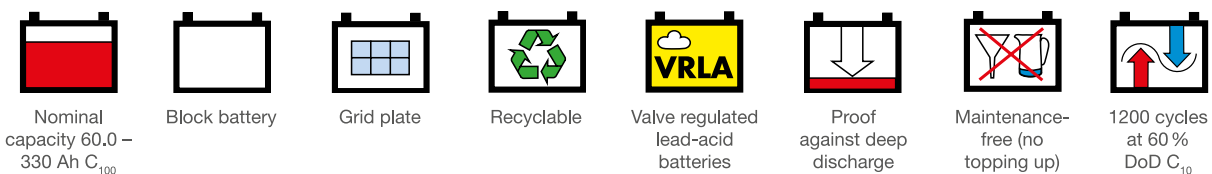
#### Your benefits:

- > **Excellent cycling performance** – 1200 cycles at 60% Depth of Discharge  $C_{10}$  (at 20 °C)
- > **dryfit Gel** – VRLA technology
- > **Lowest energy consumption** – saving costs
- > **Robust design** – resilient in harsh conditions
- > **Proof against deep discharge** – greater long-term energy delivery
- > **Completely recyclable** – low CO<sub>2</sub> footprint



#### Specifications:

- > Nominal capacity 60.0 – 330 Ah  $C_{100}$  (20 °C)
- > Long shelf life up to 17 months at 20 °C without recharge due to the very low self discharge rate
- > Designed in accordance with IEC 61427 and IEC 60896-21/22
- > Manufactured in Europe in our ISO 9001 certified production plants
- > Trouble-free transport of operational blocks, no restrictions for rail, road, sea and air transportation (IATA, DGR, clause A67)
- > Approval: UL (Underwriter Laboratories), DNV GL (Germanischer Lloyd)



# Sonnenschein SOLAR BLOCK

## Technical data

### Technical characteristics and data

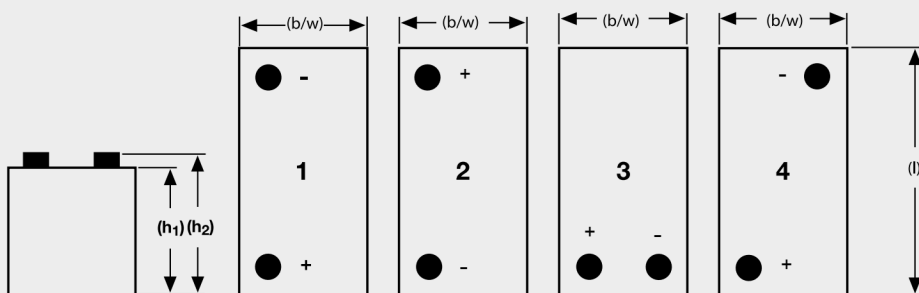
Type	Part number	Nom. voltage	Nominal capacity	Discharge current	Length (l) max. mm	Width (b/w) max. mm	Height up to top of cover (h1)	Height including connectors (h2)	Weight* approx. kg	Terminal	Terminal position
		V	$C_{100}$ 1.80 Vpc 20 °C Ah	$I_{100}$ A			max. mm	max. mm			
SB 6/200 A	NGSB060200HSOCA	6	200	2.00	246	192	254	275	28.0	A-Terminal	4
SB 6/330 A	NGSB060330HSOCA	6	330	3.30	312	182	337	359	46.5	A-Terminal	4
SB12/60 A	NGSB120060HSOCA	12	60.0	0.60	278	175	-	190	18.0	A-Terminal	1
SB12/75 A	NGSB120075HSOCA	12	75.0	0.75	330	171	214	236	27.7	A-Terminal	2
SB12/100 A	NGSB120100HSOCA	12	100	1.00	513	189	195	219	36.0	A-Terminal	3
SB12/130 A	NGSB120130HSOCA	12	130	1.30	513	223	195	219	44.5	A-Terminal	3
SB12/185 A	NGSB120185HSOCA	12	185	1.85	518	274	216	238	60.5	A-Terminal	3

\* Actual weight may differ by ±5%

### Capacities $C_1 - C_{100}$ (20 °C) in Ah

Type	$C_1$ 1.70 Vpc	$C_5$ 1.70 Vpc	$C_{10}$ 1.70 Vpc	$C_{20}$ 1.75 Vpc	$C_{100}$ 1.80 Vpc
SB 6/200 A	104	153	162	180	200
SB 6/330 A	150	235	260	280	330
SB12/60 A	34.0	45.0	52.0	56.0	60.0
SB12/75 A	48.0	60.0	66.0	70.0	75.0
SB12/100 A	57.0	84.0	89.0	90.0	100
SB12/130 A	78.0	101	105	116	130
SB12/185 A	103	150	155	165	185

### Drawings with terminal position, terminal and torque



Not to scale!



8 Nm

**ENTRETIEN**  
**MAINTENANCE**

**STATION SOLAIRE / SOLAR STATION**

- Maintenir le module propre avec de l'eau et un chiffon (sans détergent)  
*Clean the module with rag and water (without any detergent)*
- Vérifier les câblages  
*Check the wiring*
- Nettoyer les bornes batterie s'il y a apparition d'oxyde (pas de graisse)  
*Clean the battery terminal to avoid oxide (no grease)*
- Vérifier les serrages  
*- Check the tightenings*