SUNNY ISLAND 6.0H-13

(http://www.sma-solar.com)

Edit parameters

Export all parameters

Type Label ()

Inverter ()

Rated active power WMaxOutRtg	4,600 W
Rated active power WMaxInRtg	-4,600 W
Rated active power WMinOutRtg	0 W
Rated active power WMinInRtg	0 W
Rated reactive power VArMaxQ1Rtg	4,600 var
Rated reactive power VArMaxQ2Rtg	0 var
Rated reactive power VArMaxQ3Rtg	0 var
Rated reactive power VArMaxQ4Rtg	-4,600 var
Rated Cos Phi PFMinQ1Rtg	0.0000
Rated Cos Phi PFMinQ2Rtg	1.0000
Rated Cos Phi PFMinQ3Rtg	1.0000
Rated Cos Phi PFMinQ4Rtg	0.0000
Rated apparent power VAMaxOutRtg	4,600 VA
Rated apparent power VAMaxInRtg	4,600 VA

Type Label ()

Device name	SI6.0H-13 977
Device class	Battery Inverter
Device type	Sunny Island 6.0H-13
Software package	3.1.4.R
Serial number	3007120977
MAC address	00:40:AD:A8:23:30
WLAN-MAC address	
Communication version	1.1.1.1

Serial number ()

Slave 1	0
Slave 2	0

Device ()

Country settings ()

Language	English

Cooling system ()

Fan test	-------

Inverter ()

Maximum active power	4,600 W
Reference voltage selection	Nominal voltage
Frequency droop P(f)	-0.199 Hz/kW
Voltage droop Q (U)	-1.729 V/kVAr
Maximum AC charge current	20.000 A
Nominal voltage	230 V
Nominal frequency	60 Hz
Functions for grid/offgrid operation	Functions for grid operation
Nominal voltage and frequency	230V_50Hz
Operation mode	Self-consumption only
Address	Master
AST type	SIAST50-48-12

Cluster ()

Type	Single phase

System	Single-cluster	
Cluster type in multi-cluster	-------	
Address	1	ℹ

Operation ()

General operating mode	-------	
Cluster behaviour when a device fails	Stop all devices	
Reset operating data	-------	
Load parameter	-------	
Maximum start attempts after error	3	ℹ

Time control ()

Activated	No	
Start time	Jan 1, 2011 12:00:00 AM	ℹ
Operating time	0 s	ℹ
Repeat cycle	Once	

System ()

Initiate device restart	-------	

Time settings ()

Automatic time synchronization	No	
Standard/Daylight Saving Time conversion on	No	
Current time is daylight savings time	No	
Time zone	(UTC-03:00) Buenos Aires, Santiago	
NTP server	ntp.sunny-portal.com	

Multifunction relay ()

Operating mode [A]	Off	
Operating mode [B]	Off	
Operating mode slave 1 [A]	Off	
Operating mode slave 1 [B]	Off	
Operating mode slave 2 [A]	Off	
Operating mode slave 2 [B]	Off	
Temperature limit for battery compartment fan	40.0 °C	

Timer ()

Start date [A]	Jan 1, 2011 12:00:00 AM	
Start date [B]	Jan 1, 2011 12:00:00 AM	
Duration in which the relay is activated for timer [A]	0 s	
Duration in which the relay is activated for timer [B]	0 s	
Repeat cycle for timer [A]	Once	
Repeat cycle for timer [B]	Once	

Control of add. loads ()

Minimum time for the use of excess energy	10 min	
Voltage difference for the use of excess energy	0.15 V	

Self-consumption ()

Rise in self-consumption switched on	Yes
Energy saving mode	Yes

Software component ()

Communication Bootloader ()

Software version	2.2.1.R

Version of WebUI ()

Software version	1.5.33.R

Time zone database ()

Software version	1.2.0.R

Load shedding 1 ()

Limit of battery state of charge for start	30 %	
Limit of battery state of charge for stop	50 %	

Additional time range ()

Start time	00:00:00	
End time	00:00:00	
Limit of battery state of charge for start	30 %	
Limit of battery state of charge for stop	50 %	

Load shedding 2 ()

Limit of battery state of charge for start	30 %	
Limit of battery state of charge for stop	50 %	

Additional time range ()

End time	00:00:00	
Start time	00:00:00	
Limit of battery state of charge for start	30 %	
Limit of battery state of charge for stop	50 %	

User Rights ()

Access Control ()

Set user password	••••••••
Set installer password	••••••••

DC Side ()

System ()

Type of additional DC sources	AC sources and DC charge controllers

AC Side ()

Inverter ()

Phase assignment	Phase L1	
Nominal Cos Phi PFMinQ1	0.0000	ⓘ
Nominal Cos Phi PFMinQ2	1.0000	ⓘ
Nominal Cos Phi PFMinQ3	1.0000	ⓘ
Nominal Cos Phi PFMinQ4	0.0000	ⓘ
Maximum active power export	4,600 W	ⓘ
Nominal active power WMaxIn	-4,600 W	ⓘ
Nominal active power WMinOut	0 W	ⓘ
Nominal active power WMinIn	0 W	ⓘ
Nominal apparent power VAMaxOut	4,600 VA	ⓘ
Nominal apparent power VAMaxIn	4,600 VA	ⓘ
Nominal reactive power VArMaxQ1	4,600 var	ⓘ
Nominal reactive power VArMaxQ2	0 var	ⓘ
Nominal reactive power VArMaxQ3	0 var	ⓘ

Nominal reactive power VArMaxQ4	-4,600 var	
Nominal reactive power VArMaxZerWQ1	0 var	
Nominal reactive power VArMaxZerWQ2	0 var	
Nominal reactive power VArMaxZerWQ3	0 var	
Nominal reactive power VArMaxZerWQ4	0 var	

PV system control ()

Nominal system voltage	230 V	
Applicable voltages	Phase voltage	

Cluster ()

Phase assignment device 1	-------
Phase assignment device 2	-------

Measured values ()

Grid measurements ()

Set offset of the supplied energy	-464 kWh	
Set offset of the absorbed energy	-62 kWh	
Selection of mains exchange capacity measurement method	SMA Energy Meter	

Operation ()

External sources	Mains
Grounding type	TT grid
Automatic frequency control	Off
Current control mode	On

System ()

Type of AC distribution	-------

Public electricity mains ()

Manual control	-------
Maximum current of the ext. network interface	26.500 A
Feed-in permitted	Yes

Power monitoring ()

Maximum reverse power	100 W
Maximum reverse power tripping time	10 s

Network request via battery state of charge ()

Activated	No
Switch-on limit	40 %
Switch-off limit	80 %

Additional time range ()

Switch-on limit	40 %
Switch-off limit	80 %
End time	00:00:00
Start time	00:00:00

Network request via charge type ()

Charge type	Equalization charge

Network request via power ()

Activated	No

Switch-on power	4,000 W	
Switch-off power	2,000 W	

Measurements of external power connection ()

Cut-off time until shutdown	20 min	

Energy saving mode ()

Activated	No	
Time until change-over to energy saving mode	3 h 3 s	
Maximum duration of energy saving mode	12 h 12 s	

External network ()

Start feed-in	04:00:00	
Stop feed-in	22:00:00	

Grid Monitoring ()

Grid monitoring ()

Country standard	Special setting	
Set country standard	-------	
Underlying country standard	[EU] EN50549-1:2018 LV	

Country standard ()

Anti-islanding sensitivity	Normal	
Reconnection time after grid fault	1.00 min	
Nominal frequency	60.00 Hz	

Frequency monitoring ()

Upper maximum threshold	66.00 Hz
Upper maximum threshold tripping time	30,000 ms
Median maximum threshold	65.00 Hz
Median maximum threshold tripping time	30,000 ms
Lower maximum threshold	61.00 Hz
Lower maximum threshold tripping time	100 ms
Upper minimum threshold	50.00 Hz
Upper minimum threshold tripping time	100 ms
Median minimum threshold	44.00 Hz
Median minimum threshold tripping time	30,000 ms
Lower minimum threshold	54.00 Hz
Lower minimum threshold tripping time	30,000 ms
Minimum switching frequency	59.50 Hz
Maximum switching frequency	61.00 Hz

Voltage monitoring ()

Enable voltage increase protection	Yes
Upper maximum threshold	1.300 p.u.
Median maximum threshold	1.300 p.u.
Lower maximum threshold	1.250 p.u.
Upper minimum threshold	0.800 p.u.
Median minimum threshold	0.200 p.u.
Lower minimum threshold	0.300 p.u.
Upper maximum threshold tripping time	30,000 ms
Volt. increase prot.	1.900 p.u.
Max. voltage for reconnection	1.140 p.u.
Min. voltage for reconnection	0.800 p.u.
Median maximum threshold tripping time	30,000 ms
Lower maximum threshold tripping time	100 ms

Upper minimum threshold tripping time	3,000 ms
Median minimum threshold tripping time	10,000 ms
Lower minimum threshold tripping time	30,000 ms

Generator ()

Operation ()

Nominal frequency	50.00 Hz
Min. operating time	15 min
Min. idle period	15 min
Cooling time	5 min
Idle period after fault	1 h 1 s
Warm-up time	1 min
Type of current limitation	Fixed limit value for current limitation
Sensitivity of generator failure detection	Normal
Reactive power compensation	On

Generator ()

Automatic start	On
Manual control	-------
Nominal current	16.000 A
Request	Automatic generator start
Current control mode	No

Frequency monitoring ()

Lower minimum threshold	44.64 Hz	
Upper maximum threshold	60.00 Hz	
Hysteresis minimum threshold	0.02 Hz	
Hysteresis maximum threshold	0.02 Hz	

Operation ()

Acknowledge fault	-------	

Voltage monitoring ()

Lower minimum threshold	172.50 V	
Upper maximum threshold	250.00 V	
Hysteresis minimum threshold	2.00 V	
Hysteresis maximum threshold	2.00 V	

Power monitoring ()

Maximum reverse power	100 W	
Maximum reverse power tripping time	30 s	

Generator queries state of charge ()

Switch-on limit	40 %	
Switch-off limit	80 %	

Additional time range ()

Switch-on limit	40 %	
Switch-off limit	80 %	
Start time	00:00:00	
End time	00:00:00	

Generator request via power ()

Activated	No	
Switch-off power	2,000 W	
Switch-on power	4,000 W	
Average time	1 min	

Generator request via charge type ()

Charge type	Equalization charge

Generator request via digital input ()

Reaction to digital input	Off

Time-controlled generator operation ()

Activated	No	
Start time	Jan 1, 2011 12:00:00 AM	
Operating time	0 s	
Repeat cycle	Once	

Battery ()

Battery ()

Rated capacity	5,088 Wh	
Nominal capacity	106 Ah	
Type	Lithium-Ion (Li-Ion)	
Nominal voltage	48 V	
Current sensor type (60mV 50mV)	-------	
Current sensor gain	100 A	

Maximum temperature	40.0 °C	
Switch-on limit after overtemperature shutdown	35.0 °C	
Output resistance DC connection	0.000 Ohm	

Operation ()

Manual equalization charge	-------

Calibration ()

Battery current sensor	-------

Charge ()

Maximum charging current	50.000 A	
Time for boost charge	0 min	
Time for equalization charge	0 h	
Time for full charge	0 h	
Discharge cut-off voltage	35.00 V	
Maximum discharge current	50.000 A	
Cell charge nominal voltage for boost charge	0.00 V	
Cell charge nominal voltage for full charging	0.00 V	
Cell charge nominal voltage for equalization charge	0.00 V	
Cell charge nominal voltage for float charge	0.00 V	
Cycle time full charge	14 d	
Cycle time equalization charge	90 d	
Temperature compensation	0.000 V/°C	
Automatic equalization charge	On	
Voltage setpoint with deactivated BMS	54.00 V	

Battery switch ()

Max. charge capacity	4,600 W
Max. discharge capacity	4,600 W

Battery charge ()

Process specification battery charge current	0.0 A

Battery discharge ()

Process specification battery discharge current	70.0 A

Areas of application ()

Lower lmt deep disch. protect area prior shutdown	3 %
Minimum width of deep discharge protection area	2 %
Minimum width of backup power area	0 %
Area width for conserving battery state of charge	4 %
Minimum width of own consumption area	90 %
Most profitable month	December profitable
Season operation active	Yes

Protection mode ()

Start time [A]	22:00:00
Start time [B]	17:00:00
End time [A]	06:00:00
End time [B]	09:00:00
Limit of battery state of charge [A]	20.0 %

Limit of battery state of charge [B]	15.0 %	
Limit of battery state of charge [C]	10.0 %	

System communication ()

Measured values ()

Meter on Speedwire ()

Serial Number	3006138158	
Serial numbers for usable meters [A]	3006138158	
Serial numbers for usable meters [B]	-------	
Serial numbers for usable meters [C]	-------	

Device update ()

Operating mode	Time-controlled	
Time of the automatic update	05:00:00	

Speedwire ()

Encryption	Unencrypted	
Automatic configuration switched on	Yes	
IP Address	150.162.142.27	
Subnet mask	255.255.255.0	
Gateway IP	150.162.142.254	
DNS server IP	150.162.1.33	
Send IGMP requests	Off	
IGMP query interval	7 h	

WLAN ()

Activated	No
Soft-access-point is turned on	No
Activate WPS	-------
Automatic configuration switched on	No
IP Address	192.168.0.173
Subnet mask	255.255.255.0
Gateway IP	192.168.0.173
DNS server IP	192.168.0.173
Perform scan	-------

Security ()

SSID	
Password	••••••••
Encryption	WPA2-AES

External Communication ()

Modbus ()

TCP server ()

Activated	Yes
Port	502

UDP server ()

Activated	Yes
Port	502

Webconnect ()

Software version	1.5.1.R

Activated	No

Multi-cluster ()

Activation of communication test	-------

CAN ()

Battery and control interface	On

Device Components ()

Type Label ()

Main processor ()

Software version	1.7.3.R
Serial number	3006432195
SUSyID	357

Communication assembly ()

Software version	1.5.22.R
Hardware version	R5
Revision status	0
Serial number	3003729352
SUSyID	370

Logic component ()

Software version	1.7.3.R

WLAN component ()

Software version	1.0.0.R

System and device control ()

Grid monitoring ()

Design of the generation plant	Symmetric

Inverter ()

Power gradient for reconnection after grid fault	10 %/min
Soft start-up P after grid fault	On
Soft start-up rate P	10 %/min

Reactive power mode ()

Reference size for reactive power setting	Maximum active power WMax
Hysteresis active power	0 W
Hysteresis time	0.00 s
Reactive power mode in case of active power output	Off
Reactive power mode in case of active power draw	Off
Reactive power mode in case of zero power output	Off
Fallback behavior in case of active power output	Maintain procedure
Fallback behavior in case of active power draw	Maintain procedure
Fallback behavior in case of zero power output	Maintain procedure

Q(U) characteristic curve ()

Characteristic ()

X value [A]	0.940 p.u.
X value [B]	0.970 p.u.
X value [C]	1.030 p.u.
X value [D]	1.060 p.u.
X value [E]	1.000 p.u.
X value [F]	1.000 p.u.
X value [G]	1.000 p.u.
X value [H]	1.000 p.u.
Y value [A]	44.000 %
Y value [B]	0.000 %
Y value [C]	0.000 %
Y value [D]	-44.000 %
Y value [E]	0.000 %
Y value [F]	0.000 %
Y value [G]	0.000 %
Y value [H]	0.000 %
Number of support points to be used	4

Reference voltage adjustment ()

Operating mode	Off
Setting time for automatic mode	5.00 min

Dynamics ()

Setting time for nominal value filter	10 s	
Nominal value filter	On	
Limitation of change rate	Off	
Increase rate	100.00 %/s	
Decrease rate	100.00 %/s	
Tripping delay	0 s	

Q(P) characteristic curve ()

Characteristic ()

Max. number of support points	8	
Number of support points to be used	4	
X value [A]	50.000 %	
X value [B]	60.000 %	
X value [C]	90.000 %	
X value [D]	100.000 %	
X value [E]	100.000 %	
X value [F]	100.000 %	
X value [G]	100.000 %	
X value [H]	100.000 %	
Y value [A]	0.000 %	
Y value [B]	-5.000 %	
Y value [C]	-33.000 %	
Y value [D]	-33.000 %	
Y value [E]	-33.000 %	
Y value [F]	-33.000 %	
Y value [G]	-33.000 %	
Y value [H]	-33.000 %	

Dynamics ()

Tripping delay	0 s	

Nominal value filter	On	
Setting time for nominal value filter	10.00 s	ℹ
Limitation of change rate	Off	
Increase rate	100.00 %/s	ℹ
Decrease rate	100.00 %/s	ℹ

Trigger ()

Upper deactivation voltage	0.00 p.u.	ℹ
Upper activation voltage	0.00 p.u.	ℹ

Manual Cos Phi specification ()

Cos Phi nominal value in case of active power output	1.0000	ℹ
Excitation type in case of active power output	Underexcited	
Cos Phi nominal value in case of active power draw	1.0000	ℹ
Excitation type in case of active power draw	Underexcited	

Cos Phi(P) charac. curve ()

Characteristic ()

Number of support points to be used	2	ℹ
Excitation type [A]	Underexcited	
Excitation type [B]	Underexcited	
Excitation type [C]	Underexcited	
Excitation type [D]	Underexcited	
cosPhi specification [A]	1.0000	ℹ
cosPhi specification [B]	0.9000	ℹ
cosPhi specification [C]	0.9000	ℹ
cosPhi specification [D]	0.9000	ℹ

Power per phase [A]	50 %	
Power per phase [B]	100 %	
Power per phase [C]	100 %	
Power per phase [D]	100 %	

Dynamics ()

Tripping delay	0 s	
Actual value filter for active power value	Off	
Setting time actual value filter	1.50 s	
Nominal value filter	On	
Setting time for nominal value filter	10.00 s	
Limitation of change rate	Off	
Increase rate	1,200.00 %/s	
Decrease rate	1,200.00 %/s	

Trigger ()

Upper deactivation voltage	0.00 p.u.	
Upper activation voltage	0.00 p.u.	

Manual reactive power setting for active power output ()

Reactive power	0 var	
Reactive power	100.0 %	

Manual reactive power setpoint for zero power output ()

Reactive power	0 var	
Reactive power	100.0 %	

Dynamics of power factor control ()

Dynamics ()

Actual value filter for active power value	Off	
Setting time actual value filter	1.50 s	
Nominal value filter	On	
Setting time for nominal value filter	10.00 s	
Limitation of change rate	Off	
Increase rate	1,200.00 %/s	
Decrease rate	1,200.00 %/s	

Dynamics of the reactive power setpoint specifications ()

Characteristic ()

Activation of the characteristic curve	Off	
X value [A]	0.94 p.u.	
X value [B]	0.96 p.u.	
X value [C]	1.04 p.u.	
X value [D]	1.06 p.u.	
Y value [A]	33.00 %	
Y value [B]	0.00 %	
Y value [C]	0.00 %	
Y value [D]	-33.00 %	

Dynamics ()

Nominal value filter	On	
Setting time for nominal value filter	10.00 s	
Limitation of change rate	Off	
Increase rate	1,200.00 %/s	
Decrease rate	1,200.00 %/s	

Manual reactive power setting in case of active power draw ()

Reactive power	100.0 %	
Reactive power	0 var	

Active power mode ()

Grid disconnection for 0% active power setting	-------
Operating mode active power setting	External setting

External setting ()

Dynamics ()

Setting time for nominal value filter	3.00 s	
Limitation of change rate	Off	
Increase rate	20.00 %/s	
Decrease rate	20.00 %/s	
Nominal value filter	On	

Voltage-dependent reactive power adjustment P(U) ()

Activation	Off	
Nominal value filter	On	
Setting time for nominal value filter	9.00 s	
Limitation of change rate	Off	
Increase rate	20.00 %/s	
Decrease rate	20.00 %/s	
Tripping delay	0 s	
Phase reference of grid nominal voltage	Mean value of phase voltages	
Type of reference voltage	Maximum active power WMax	

Characteristic ()

Max. number of support points	8
Number of support points to be used	2
X value [A]	1.100 p.u.
X value [B]	1.120 p.u.
X value [C]	2.000 p.u.
X value [D]	2.000 p.u.
X value [E]	2.000 p.u.
X value [F]	2.000 p.u.
X value [G]	2.000 p.u.
X value [H]	2.000 p.u.
Y value [A]	100.000 %
Y value [B]	0.000 %
Y value [C]	0.000 %
Y value [D]	0.000 %
Y value [E]	0.000 %
Y value [F]	0.000 %
Y value [G]	0.000 %
Y value [H]	0.000 %

Frequency-dependent active power adapt. P(f) ()

Reference value for active power in case of underfrequency	Maximum active power export
Activation	Off
Reference value for active power in case of overfrequency	Maximum active power export
Setting time for nominal value filter	1.00 s

P(f) characteristic curve ()

Active power change rate after fault end	10 %/min
Lag time	0 s

Tripping delay	0 ms	
Hysteresis in case of overfrequency	Off	
Hysteresis in case of underfrequency	Off	
Buckling overfrequency [A]	52.000 Hz	
Buckling overfrequency [B]	66.000 Hz	
Buckling overfrequency [C]	66.000 Hz	
Active power change per Hz in case of overfrequency [A]	-40.000 %	
Active power change per Hz in case of overfrequency [B]	-40.000 %	
Active power change per Hz in case of overfrequency [C]	-40.000 %	
Buckling underfrequency [A]	47.000 Hz	
Buckling underfrequency [B]	44.000 Hz	
Buckling underfrequency [C]	44.000 Hz	
Active power change per Hz in case of underfrequency [A]	-40.000 %	
Active power change per Hz in case of underfrequency [B]	-40.000 %	
Active power change per Hz in case of underfrequency [C]	-40.000 %	
Reset overfrequency	52.000 Hz	
Reset underfrequency	47.000 Hz	

Dynamic grid support ()

Operating mode of dynamic grid support	Limited dynamic grid support	
Long-term averaging time of the pre-fault voltage	1.00 min	
Averaging for threshold detection	Nominal system voltage	
Overvoltage threshold for zero current	1.20 p.u.	
Undervoltage threshold for zero current	0.50 p.u.	
Hysteresis voltage	0.02 p.u.	

System control and fallback behavior ()

Source of ref. meas. for reactive/active power reduction	Inverter
Phased reactive/act. power specification	-------

Q, external setting ()

Fallback behavior	Apply fallback values	
Timeout	3 s	ℹ
Fallback value of reactive power setting	0.00 %	ℹ

Cos Phi, external setting ()

Fallback behavior	Apply fallback values	
Timeout	5 min	ℹ
Fallback value of Cos Phi in case of active power output	1.0000	ℹ
Fallback value of excitation type in case of active power output	Underexcited	

External setting ()

Fallback behavior	Apply fallback values	
Timeout	5 min	ℹ
Fallback value of maximum active power	6,000.00 W	ℹ

External reference voltage setting ()

Fallback of reference voltage	1.00 p.u.	ℹ

Grid connection point ()

Load unbalance limit	Off

Max. asymmetric load	6,300 W	
Operating mode of active power limitation	Off	
Currently set active power limit	500,000 W	
Set active power limit	100 %	

Self-consumption ()

Mains exch. capac. target value	0 W	

Areas of application ()

Upper state of charge for reactivating feed-in	70 %	
Lower state of charge for locking feed-in	60 %	

Grid connection ()

PV system ()

Nominal power	2,500 W	

To the start of the page

Serial number: 3007120977
Firmware version: 3.1.4.R
Ethernet IP address: 150.162.142.40

User group: Installer
Date: 11/17/20 2:03 PM