



SolisCloud Monitoring API

V1.1.1

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V1.1.1	Add NMI related parameters	Hang Yang	20220216
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1. Introduction

This document describes the interface definitions for third-party access to SolisCloud. Third parties can obtain relevant information of photovoltaic power plants through the following interfaces provided.

1.1. Interface Access Method

All interfaces involved in this document use HTTP POST method, and message transmission is in JSON format. Different capabilities support different access protocols and message formats. External systems need to select the corresponding access protocols and message formats when accessing the SolisCloud platform. If you use JAVA language, please try to run Authorization.java. It is a complete demo. Use the key code in it to skip chapters 1.2-2.2

1.2. Request URL

Please contact Solis Service Team

1.3. User authorization information

Please provide your account registered on SolisCloud platform to Solis Service Team to obtain the following key information

KeyID: Visitor ID .

KeySecret: Represents the key required for signature, which must be kept strictly confidential to prevent leakage.

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1.4 Public HTTP Header Definition

1.4.1 Public Request Header

Some public request headers are used in the interface. These request headers can be used by all requests and are defined in detail as follows

Name	Type	Default	Note
Authorization	String	-	Authentication information used to verify the validity of the request.
Content-MD5	String	-	Represents the MD5 value of the requested content data, calculates the MD5 value of the message content (excluding the header) to obtain a 128-bit number, and then base64 encodes the number.
Content-Type	String	application/json;charset=UTF-8	HTTP request content type. Only support application/json
Date	String	-	The GMT time specified in the HTTP 1.1 protocol, for example: Wed, 05 Sep. 2019 23:00:00 GMT

1.4.2 Public Response Header

Some public request headers are used in the interface. These request headers can be used by all requests and are defined in detail as follows

Name	Type	Default	Note
Content-Type	String	application/json	HTTP request content type. Only support application/json
Date	String	-	The GMT time specified in the HTTP 1.1 protocol, for



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			example: Wed, 05 Sep. 2019 23:00:00 GMT
--	--	--	--

1.5. Return Data

If the code in the return parameter is 0, the call is successful. If the call is successful, the result content of the business side is returned in the data.

Return parameter format:

```
{
  "success": true,
  "code": "0",
  "msg": "Successful",
  "data": { },
}
```

Name	Type	Length	Note	Description
success	Boolean		Success	
code	String		Response code	0 is success
msg	String		Description	code 0 is success, Others are error messages
data	Group		Return Data	See the API interface for details



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2. User Signature Authentication

2.1. Authorization Field calculation method

```
Authorization = "API " + KeyId + ":" + Sign
Sign = base64(HmacSHA1(KeySecret,
    VERB + "\n"
    + Content-MD5 + "\n"
    + Content-Type + "\n"
    + Date + "\n"
    + CanonicalizedResource))
```

KeyId Visitor ID. (Contact technical support to obtain)

KeySecret It means that the key required for signature must be kept strictly confidential to prevent leakage. (Contact technical support to obtain)

VERB Represents the method of the HTTP request, this protocol is POST.

\n Represents a line break

Content-MD5 Represents the MD5 value of the requested content data, calculates the MD5 value of the message content (excluding the header) to obtain a 128-bit number, and then base64 encodes the number. When the message content is empty, the string is empty.

Content-Type Indicates the type of request content, here is "application/json"

Date Indicates the time of this operation, and must be in GMT format, such as " Fri, 26 Jul 2019 06:00:46 GMT "

CanonicalizedResource Indicates the API interface you want to access, such as
"/v1/api/userStationList"



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sign Represents digital signature, HmacSHA1 key encryption and base64 encoding

2.2. Authorization Field calculation example

If the KeyId is: 2424 and the KeySecret is: 6680182547, the following method can be used to calculate the signature sign

2.2.1 Request:

```
POST /v1/api/userStationList
Content-MD5: kxdxk7rbAsrzSIWgEwhH4w==
Content-Type: application/json
Date: Fri, 26 Jul 2019 06:00:46 GMT
Authorization: API_2424: nBYQWeuzy3Y+gp67BN8zXTmvSDk=
Body: {"pageNo":1,"pageSize":10}
```

Note: There is no "Body:" in the post content sent

2.2.2 Date Time

Date time is the GMT time specified in the HTTP 1.1 protocol, you can refer to the following JAVA code to obtain:

```
/**
 * Description: to getGMTTime
 * @return 将当前 Time 转换为 GMT 时区后的 String
 */
public static String getGMTTime(){

    Calendar cd = Calendar.getInstance();
    SimpleDateFormat sdf = new SimpleDateFormat("EEE, d MMM yyyy HH:mm:ss
'GMT'", Locale.US);
    sdf.setTimeZone(TimeZone.getTimeZone("GMT")); // 设置时区为 GMT
    String str = sdf.format(cd.getTime());
    return str;
}
```

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2.2.3 Content-MD5 Encryption

The JAVA sample code for Content-MD5 encryption of Post content is as follows:

```
/**
 * 1. 先计算 MD5 加密的二进制数组 (128 位)。
 * 2. 再对这个二进制进行 base64 编码 (而不是对 32 位字符串编码)
 * @param plainText 加密明文
 * @return 加密密文
 */
public static String getDigest(String test) {
    String result = "";
    try {
        MessageDigest md = MessageDigest.getInstance("MD5");
        md.update(test.getBytes());
        byte[] b = md.digest();
        result = Base64.encodeBytes(b);
    } catch (NoSuchAlgorithmException e) {
        e.printStackTrace();
    }
    return result;
}
```

The calculation result of Content-MD5 of "{"pageNo":1,"pageSize":10}" in the example is:

kxdxk7rbAsrzSIWgEwhH4w==

2.2.4. The signature string is:

```
"POST\nkxdxk7rbAsrzSIWgEwhH4w==\napplication/json\nFri, 26 Jul 2019
06:00:46 GMT\n/v1/api/userStationList"
```

The JAVA sample code for signature sign is as follows:

```
public static String HmacSHA1Encrypt(String encryptText, String
keySecret) throws Exception
{
    byte[] data= keySecret.getBytes("UTF-8");
    //根据给定的字节数组构造一个密钥,第二参数指定一个密钥算法的 Name
    SecretKey secretKey = new SecretKeySpec(data, "HmacSHA1");
    //生成一个指定 Mac 算法 的 Mac 对象
```



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```
Mac mac = Mac.getInstance("HmacSHA1");
//用给定密钥初始化 Mac 对象
mac.init(secretKey);
byte[] text = encryptText.getBytes("UTF-8");
//完成 Mac 操作
byte[] result = mac.doFinal(text);
return Base64.encodeBase64String(result);
}
```

The signature (Sign) calculation result should be /2Np3q5h846q9cWEFUNtbL+G7H8= ,

2.2.5. Authorization Calculation

Because Authorization = "API " + KeyId + ":" + Signa, the final Authorization is "API 2424:

nBYQWeuzy3Y+gp67BN8zXTmvSDk="

Then add the Authorization header to form the final message that needs to be sent:

```
POST
kxdxk7rbAsrzSIWgEwhH4w==
application/json
Fri, 26 Jul 2019 06:00:46 GMT
/v1/api/userStationList
```

2.3. Encryption Reference Examples

<https://dinochiesa.github.io/hmacsha1/index.html>

①Content-MD5 Calculation example {"pageNo":1,"pageSize":10}



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Calculate a SHA or MD5

function:

hmac?: ☐

message:

Encoded result: (Computation is automatic)

Base16:

☐

Base64:

☐

Base64Url:

☐

② Authorization Calculation example

POST

kxdxk7rbAsrzSIWgEwhH4w==

application/json

Fri, 26 Jul 2019 06:00:46 GMT

/v1/api/userStationList



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Calculate an HMAC with SHA or MD5

function:	<input type="text" value="sha-1"/>
hmac?:	<input checked="" type="checkbox"/>
secret key:	<input type="text" value="6680182547"/>
key coding:	<input type="text" value="UTF-8"/>
message:	<pre>POST kxdxk7rbAsrzSIWgEwhH4w== application/json Fri, 26 Jul 2019 06:00:46 GMT /v1/api/userStationList</pre>

Encoded result: (Computation is automatic)

Base16:

Base64:

Base64Url:

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3. API Interface

Note: The calling frequency of all interfaces is limited to three times every five seconds for the same IP

3.1. /v1/api/userStationList (Power Station List)

3.1.1. Input parameters

Name	Type	Description	Note
pageNo	Int	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	Int	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
userId	Long	User id	If send the value, check the user's plant, if not send, check all plants
NmiCode	String	NMI Code(AU Only)	

3.1.2. Output parameters

Name	Type	Description	Note
page	-	Result list	
stationStatusVo	-	Number of results	
total	Long	Total list	
records	List<>	List	
all	Int	Total number of power stations	
normal	Int	Number of normal power stations	
offline	Int	Number of offline stations	
fault	Int	Number of failed power stations	
id	Long	Power station id	
stationName	String	Power station name	
addr	String	Power station	

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		address	
userId	Long	Owner Id	
userName	String	Owner's name	
mobile	String	phone number	
capacity	String	Installed capacity	
capacityStr	String	Installed capacity unit	
dayEnergy		Today Generation	
dayEnergyStr		Today Generation unit	
allEnergy		Total Generation	
allEnergyStr		Total Generation Unit	
fullHour		Peak Hours	
picName		Picture	
power		Power	
powerStr		Power Unit	
latitude	String	latitude	
longitude	String	longitude	
installerId		Main account id	
installer		Main account	
state		Power station status	1: Online 2: Offline 3: Alarm
dataTimestamp	Long	Power station update time	Timestamp
inverterPower	String	Sum of Inverter rated AC power	
nmiCode	String	Nmi Code	

3.2. /v1/api/stationDetail (Power Station Details)

3.2.1. Input parameters

Name	Type	Description	Note
id	Long	Power Station id	
nmiCode	String	nmi Code	

3.2.2. Output parameters



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Name	Type	Description	Note
id	Long	Power Station id	
stationName	String	Power Station Name	
addr	String	Power Station Address	
userId	Long	Owner ID	
userName	String	Owner Name	
usermobile	String	Phone Number	
userEmail	String	Email Address	
capacity	String	Installed Capacity	
capacityStr	String	Installed Capacity Unit	
dayEnergy		Today Generation	
dayEnergyStr		Today Generation Unit	
monthEnergy		Month Generation	
monthEnergyStr		Month Generation Unit	
yearEnergy		Year Generation	
yearEnergyStr		Year Generation Unit	
allEnergy		Total Generation	
allEnergyStr		Total Generation Unit	
dayInCome		Today Revenue	
dayInComeUnit		Today Revenue Unit	
monthInCome		Month Revenue	
monthInComeUnit		Month Revenue Unit	
yearInCome		Year Revenue	
yearInComeUnit		Year Revenue Unit	
allInCome		Total Revenue	
allInComeUnit		Total Revenue Unit	
fullHour		Peak Hours	
picName		Pictures	
power		Power	
powerStr		Power Unit	
latitude	String	latitude	
longitude	String	longitude	
dip		Tilt Angle	
azimuth		Azimuth Angle	
price		Revenue per kilowatt hour	
state		Power station status	1: Online 2: Offline 3: Alarm



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dataTimestamp		Power station update time	Timestamp
money		Currency	
brand		Brand	
countryStr		Country	
regionStr		Area	
cityStr		City	
condTxtN		Night Weather	
condTxtD		Daytime Weather	
tmpMax		Max Temperature	
tmpMin		Lowest Temperature	
tmpUnit		Temperature Unit	
powerStationNumTree		Tree	
powerStationNumTreeUnit		Tree Unit	
powerStationAvoidedCo2		CO2 reduction	
powerStationAvoidedCo2Unit		CO2 reduction unit	
module	Long	Module Number	
mobile	Long	Plant Contact	
installerEmail	String	Installer Email	
installerMobile	Long	Installer Mobile	
batteryPower		Battery Power	
batteryPowerStr		Battery Power unit	
batteryPowerPec		Battery Power percentage	
batteryDischargeEnergy		Battery discharg energy	
batteryDischargeEnergyStr		Battery discharg energy unit	
batteryChargeEnergy		Battery charge energy	
batteryChargeEnergyStr		Battery charge energy unit	
batteryPercent		Battery SOC	
psum		Meter power	
psumStr		Meter power unit	
psumPec		Meter powerPercentage	
gridPurchasedDayEnergy		Meter today purchase energy	
gridPurchasedDayEnergyStr		Meter today purchase energy unit	

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gridPurchasedMonthEnergy		Meter this month purchase energy	
gridPurchasedMonthEnergyStr		Meter this month purchase energy unit	
gridPurchasedYearEnergy		Meter this year purchase energy	
gridPurchasedYearEnergyStr		Meter this year purchase energy unit	
gridPurchasedTotalEnergy		Meter total purchase energy	
gridPurchasedTotalEnergyStr		Meter total purchase energy unit	
gridSellDayEnergy		Meter today sell energy	
gridSellDayEnergyStr		Meter today sell energy unit	
gridSellMonthEnergy		Meter this month sell energy	
gridSellMonthEnergyStr		Meter this month sell energy unit	
gridSellYearEnergy		Meter this year sell energy	
gridSellYearEnergyStr		Meter this year sell energy unit	
gridSellTotalEnergy		Meter total sell energy	
gridSellTotalEnergyStr		Meter total sell energy unit	
familyLoadPower		Load power	
familyLoadPowerStr		Load power unit	
familyLoadPowerPec		Load powerPercentage	
homeLoadEnergy		Today load energy	
homeLoadEnergyStr		Today load energy unit	
inverterPower	String	Sum of Inverter rated AC power	
nmiCode	String	Nmi Code	

3.3. /v1/api/collectorList (Datalogger List)

3.3.1. Input parameters

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Name	Type	Description	Note
pageNo	String	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	String	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
stationId	Long	Plant id	Without: Check all under the installer. With: Check the indicated plant
nmiCode	String	Nmi Code	

3.3.2. Output parameters

Name	Type	Description	Note
page	-	Result list	
collectionStatusVo	-	Number of results	
total	Long	Total list	
records	List<>	List	
all	Int	Total Number	
normal	Int	Normal number	
offline	Int	Offline number	
fault	Int	Number of failures	
id	Long	Collector id	
stationName	String	Plant name	
stationId	Long	Power Station Id	
userId	Long	Owner Id	
sn	String	Collector SN	
model	String	Model	GPRS,WiFi
name	String	Collector name	
rsiLevel	String	Collector signal strength	
runingTime		Cumulative working time	
gprsBeginTime		Data Package start time	
gprsEndTime		Data Package end time	
state		Collector status	1: Online 2: Offline 3: Alarm
dataTimestamp		Collector update time	Timestamp

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3.4. /v1/api/collectorDetail (Datalogger Details)

3.4.1. Input parameters

Name	Type	Description	Note
id	Long	Collector id	id and sn must send one
sn	String	Collector sn	id and sn must send one

3.4.2. Output parameters

Name	Type	Description	Note
id	Long	Collector id	
stationId	Long	Power Station Id	
stationName	String	Plant name	
addr	String	Plant address	
userId	Long	Owner Id	
state		Power station status	1: Online 2: Offline 3: Alarm
dataTimestamp		Power station update time	Timestamp
totalWorkingTime		Cumulative working time	
sn	String	Collector SN	
model	String	model	GPRS,WiFi
name	String	Collector name	
rsiLevel	String	Collector signal strength	
lac	String	Positioning lac	
lanIp		LAN ip	
mac		Mac address	
maximumNumber		Maximum number of connected units	
actualNumber		Actual number of connected units	
connectedSsid		Connected ssid	
connectionOperator		Operator	
currentWorkingTime		Working time of this power-on	
totalWorkingTime		Cumulative working time	

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dataUpload Cycle		Data Upload interval	
factoryTime		Factory time	
gprsEndTime		Package end time	

3.5. /v1/api/inveterList (Inverter List)

3.5.1. Input parameters

Name	Type	Description	Note
pageNo	String	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	String	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
stationId	Long	Power station id	Without: Check all under the installer. With: Check the indicated plant
nmiCode	String	Nmi Code	

3.5.2. Output parameters

Name	Type	Description	Note
page	-	Result list	
inverterStatusVo	-	Number of results	
total	Long	Total list	
records	List<>	List	
all	Int	Total number of power stations	
normal	Int	Number of normal power stations	
offline	Int	Number of offline stations	
fault	Int	Number of failed power stations	
id	Long	Inverter id	
sn	String	Inverter SN	
stationId	Long	Power station id	
stationName	String	Plant name	

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userId	Long	Owner Id	
power	String	Installed capacity	
powerStr	String	Installed capacity unit	
etoday		Energy of the day	
etodayStr		Energy unit of the day	
etotal		Total energy	
etotalStr		Total energy unit	
fullHour		Peak Hours	
picName		image	
pac		power	
pacStr		Power unit	
state		Power station status	1: Online 2: Offline 3: Alarm
dataTimestamp		Power station update time	Timestamp

3.6. /v1/api/inverterDetail (Inverter Details)

3.6.1. Input parameters

Name	Type	Description	Note
id	Long	Inverter id	d and sn must send one
sn	String	Inverter sn	id and sn must send one

3.6.2. Output parameters

Name	Type	Description	Note
id	Long	Inverter id	
sn	String	Inverter SN	
stationId	Long	Power station id	
stationName	String	Plant name	
userId	Long	Owner Id	
collectorId	Long	Collector id	
collectorName	String	Collector name	
collectorsn	String	Collector SN	
currentState		Current state	
eToday		Energy of the day	
eTodayStr		Energy unit of the	



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File: Soliscloud API		Classification: Secret	
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		day	
eMonth		Energy of the month	
eMonthStr		Energy unit of the month	
eYear		Energy of the year	
eYearStr		Energy unit of the year	
eTotal		Total energy	
eTotalStr		Total energy unit	
fac		Grid frequency	
facStr		Grid frequency unit	
pac		Real-time power	
pacStr		Real-time power unit	
pacPec		Power percentage	
fullHour		Peak hours	
picName		image	
power		Installed capacity	
powerStr		Installed capacity unit	
iAc1		AC current R	
iAc2		AC current S	
iAc3		AC current T	
uAc1		AC voltage R	
uAc2		AC voltage S	
uAc3		AC voltage T	
iPv1		DC current 1	
iPv2		DC current 2	
iPv3		DC current 3	
iPv4		DC current 4	
uPv1		DC voltage 1	
uPv2		DC voltage 2	
uPv3		DC voltage 3	
uPv4		DC voltage 4	
.....		
iPv32		DC current 32	
uPv32		DC voltage 32	
state		Power station status	1: Online 2: Offline 3: Alarm

File: Soliscloud API		Classification: Secret	
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dataTimestamp		Power station update time	Timestamp
inverterTemperature		Inverter temperature	
nationalStandardstr		National standard	
acOutputType		AC output type	0: 1 phase Rest are 3 phase
dcInputtype		Dc input type	Num+1
powerFactor		Power factor	
batteryPower		Battery power	
batteryPowerStr		Battery power unit	
batteryPowerPec		Battery powerPercentage	
batteryCapacitySoc		Battery SOC	
batteryHealthSoh		Battery SOH	
socDischargeSet		Overdischarge SOC	
socChargingSet		Forcecharge SOC	
batteryType		Current operating battery model	
batteryVoltage		Battery voltage	
batteryVoltageStr		Battery voltage unit	
bstteryCurrent		Battery current	
bstteryCurrentStr		Battery current unit	
batteryPower		Battery power	
batteryPowerStr		Battery power unit	
batteryPowerPec		Battery powerPercentage	
batteryFailureInformation01		Battery alarm01	
batteryFailureInformation02		Battery alarm02	
batteryTodayChargeEnergy		Today battery charge energy	
batteryTodayChargeEnergyStr		Today battery charge energy unit	
batteryMonthChargeEnergy		This month battery charge energy	
batteryMonthCharge		This month battery	

File: Soliscloud API		Classification: Secret	
File No: XX-XXX-XXX	Ver: V1.1.1	Page: 27 / 58	Eff Date: 2022.02.18

EnergyStr		charge energy unit	
batteryYearChargeEnergy		This year battery charge energy	
batteryYearChargeEnergyStr		This year battery charge energy unit	
batteryTotalChargeEnergy		Total battery charge energy	
batteryTotalChargeEnergyStr		Total battery charge energy unit	
batteryTodayDischargeEnergy		Today battery discharge energy	
batteryTodayDischargeEnergyStr		Today battery discharge energy unit	
batteryMonthDischargeEnergy		This month battery discharge energy	
batteryMonthDischargeEnergyStr		This month battery discharge energy unit	
batteryYearDischargeEnergy		This year battery discharge energy	
batteryYearDischargeEnergyStr		This year battery discharge energy unit	
batteryTotalDischargeEnergy		Total battery discharge energy	
batteryTotalDischargeEnergyStr		Total battery discharge energy unit	
gridPurchasedTodayEnergy		Today meter purchase energy	

File: Soliscloud API		Classification: Secret	
File No: XX-XXX-XXX	Ver: V1.1.1	Page: 28 / 58	Eff Date: 2022.02.18

gridPurchasedTodayEnergyStr		Today meter purchase energy unit	
gridPurchasedMonthEnergy		This month meter purchase energy	
gridPurchasedMonthEnergyStr		This month meter purchase energy unit	
gridPurchasedYearEnergy		This year meter purchase energy	
gridPurchasedYearEnergyStr		This year meter purchase energy unit	
gridPurchasedTotalEnergy		Total meter purchase energy	
gridPurchasedTotalEnergyStr		Total meter purchase energy unit	
gridSellTodayEnergy		Today meter sell energy	
gridSellTodayEnergyStr		Today meter sell energy unit	
gridSellMonthEnergy		This month meter sell energy	
gridSellMonthEnergyStr		This month meter sell energy unit	
gridSellYearEnergy		This year meter sell energy	
gridSellYearEnergyStr		This year meter sell energy unit	
gridSellTotalEnergy		Total meter sell energy	
gridSellTotalEnergyStr		Total meter sell energy unit	
familyLoadPower		HouseLoad power	
familyLoadPowerStr		HouseLoad power unit	
bypassLoadPower		BackUpload power	

File: Soliscloud API		Classification: Secret	
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bypassLoadPowerStr		BackUpload power unit	
pSum		Grid total active power	
pSumStr		Grid total active power unit	
psumPec		Grid total active powerPercentage	
homeLoadTodayEnergy		Today load energy	
homeLoadTodayEnergyStr		Today load energy unit	
homeLoadTotalEnergy		Total load energy	
homeLoadTotalEnergyStr		Total load energy unit	
model	string	model	Note: 5100,5101,5102,5103 is off grid hybrid inverter
type	integer	1.PV inverter .2Energy Storage Inverter	

3.7. /v1/api/addUser (Add User, Create if not exists; if exists, return userId)

3.7.1. Input parameters

Name	Type	Description	Note
userName	String	username	
password	String	password	
email	String	mailbox	Can be empty
mobile	String	phone number	Can be empty
userType	Integer	user level	Ordinary users pass 0

3.7.2. Output parameters

Name	Type	Description	Note
userId	Long	User ID	

File: Soliscloud API		Classification: Secret	
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3.8. /v1/api/ addStation (Add Plant)

3.8.1. Input parameters

Name	Type	Description	Note
inverterSn	String	Inverter SN	Fill in the new power station to bind
stationName	String	Plant name	Required
userId	Long	Owner Id	User (don't fill in the default operation installer)
mobile	String	phone number	User phone number (don't fill in the default operation installer)
capacity	String	Installed capacity	Required (unit kWp)
picName		image	
latitude	String	latitude	
longitude	String	longitude	
dip		inclination	
azimuth		Azimuth	
money		Currency	
addr	String	Plant detailed address	Required
<u>Gaode Map:</u>			
gdAreaCode	Integer	Gaode Address Code	Obtain from calling Gaode API
country	Integer	Country	No need if "Gaode Address Code" is available
region	Integer	Region	No need if "Gaode Address Code" is available
city	Integer	city	No need if "Gaode Address Code" is available
<u>Other Map:</u>			
countryStr	String	Country	Country
regionStr	String	Region	Region
cityStr	String	city	city
price		Revenue per kilowatt hour	Required
offset		Time zone offset	

File: Soliscloud API		Classification: Secret	
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module	Long	Module Number	
mobile	Long	Plant Contact	
installerEmail	String	Installer Email	
installerMobile	Long	Installer Mobile	
nmiCode	String	Nmi code	Unique, not allow duplication

3.8.2. Output parameters

Name	Type	Description	Note
stationId	Long	Plant ID	

3.9. /v1/api/stationDay (Plant Daily Graph)

3.9.1. Input parameters

Name	Type	Description	Note
id	Long	Power station id	
money	String	Power plant currency unit	
time	String	time	time: "2019-07-26"
timeZone	Integer	Power plant time zone	
nmiCode	String	nmicode	

3.9.2. Output parameters

Name	Type	Description	Note
power	Long	power	
powerStr	String	Power unit	
time	Long	Timestamp	1564088700000
money	Long	income	
moneyStr	String	Income unit	

3.10. /v1/api/stationMonth (Plant Monthly Graph)

3.10.1. Input parameters

Name	Type	Description	Note
id	Long	Power station id	
money	String	Power plant currency unit	

File: Soliscloud API		Classification: Secret	
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month	String	time	month: "2019-07"
nmiCode	String	nmicode	

3.10.2. Output parameters

Name	Type	Description	Note
energy	Long	Power generation	
energyStr	String	Power generation unit	
date	Long	Timestamp	1564088700000
money	Long	income	
moneyStr	String	Income unit	
batteryDischargeEnergy		Battery discharge energy	
batteryChargeEnergy		Battery charge energy	
gridPurchasedEnergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

3.11. /v1/api/stationYear (Plant Yearly Graph)

3.11.1. Input parameters

Name	Type	Description	Note
id	Long	Power station id	
money	String	Power plant currency unit	
year	String	time	year: "2019"
nmiCode	String	nmicode	

3.11.2. Output parameters

Name	Type	Description	Note
energy	Long	Power generation	
energyStr	String	Power generation unit	
date	Long	Timestamp	1564088700000
money	Long	income	

File: Soliscloud API		Classification: Secret	
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moneyStr	String	Income unit	
batteryDischarge Energy		Battery discharge energy	
batteryChargeEn ergy		Battery charge energy	
gridPurchasedEn ergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

3.12. /v1/api/stationAll (Plant cumulative graph)

3.12.1. Input parameters

Name	Type	Description	Note
id	Long	Power station id	
money	String	Power plant currency unit	
nmiCode	String	nmicode	

3.12.2. Output parameters

Name	Type	Description	Note
energy	Long	Power generation	
energyStr	String	Power generation unit	
date	Long	Timestamp	1564088700000
money	Long	income	
moneyStr	String	Income unit	
batteryDischarge Energy		Battery discharge energy	
batteryChargeEn ergy		Battery charge energy	
gridPurchasedEn ergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

File: Soliscloud API		Classification: Secret	
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3.13. /v1/api/addDevice (Add device)

3.13.1. Input parameters

Name	Type	Description	Note
id	Long	Power station id	
sn	String	Inverter sn	Multiple inverters separated by comma
nmiCode	String	nmicode	

3.14. /v1/api/inverterDay (Inverter Daily Graph)

3.14.1. Input parameters

Name	Type	Description	Note
id	Long	Inverter id	Id or sn
sn	String	Inverter sn	Id or sn
money	String	Power plant currency unit	
time	String	time	time: "2019-07-26"
timeZone	Integer	Power plant time zone	

3.14.2. Output parameters

Name	Type	Description	Note
dataTimestamp	Long	Timestamp	
timeStr	String	Update time conversion string based on plant time zone	
eToday		Energy of the day	
eTotal		Total energy	
fac		Grid frequency	
pac		Real-time power	
pacStr		Real-time power unit	
pacPec		Power percentage	

File: Soliscloud API		Classification: Secret	
File No: XX-XXX-XXX	Ver: V1.1.1	Page: 35 / 58	Eff Date: 2022.02.18

power		Installed capacity	
iAc1		AC current R	
iAc2		AC current S	
iAc3		AC current T	
uAc1		AC voltage R	
uAc2		AC voltage S	
uAc3		AC voltage T	
iPv1		DC current 1	
iPv2		DC current 2	
iPv3		DC current 3	
iPv4		DC current 4	
uPv1		DC voltage 1	
uPv2		DC voltage 2	
uPv3		DC voltage 3	
uPv4		DC voltage 4	
inverterTemperature		Inverter temperature	
acOutputType		AC output type	0:1 phase, rest are 3 phase
dcInputtype		Dc input type	NUM+1
powerFactor		PF	
batteryCapacitySoc		Battery SOC	
batteryHealthSoh		Battery SOH	
socDischargeSet		Overdischarge SOC	
socChargingSet		Forcecharge SOC	
batteryVoltage		Battery Voltage	
bstteryCurrent		Battery Current	
batteryPower		Battery Power	
batteryTodayCharge Energy		Today Battery Charge Energy	
batteryTotalChargeE nergy		Total Battery Charge Energy	
batteryTodayDischar geEnergy		Today Battery Discharge Energy	
batteryTotalDischarg eEnergy		Total Battery Discharge Energy	
gridPurchasedToday Energy		Today Meter Purchase Energy	
gridPurchasedT otalEnergy		Total Meter Purchase Energy	

File: Soliscloud API		Classification: Secret	
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gridSellTodayEnergy		Today Meter Sell Energy	
gridSellTotalEnergy		Total Meter Sell Energy	
familyLoadPower		Home Load Power	
bypassLoadPower		Backup Load Power	
pSum		Grid Total Active Power	
homeLoadTodayEnergy		Today Load consumption energy	
homeLoadTotalEnergy		Total Load consumption energy	

3.15. /v1/api/inverterMonth (Inverter Monthly Graph)

3.15.1. Input parameters

Name	Type	Description	Note
id	Long	Inverter id	Id or SN
sn	String	Inverter sn	Id or SN
money	String	Power plant currency unit	
month	String	time	time: "2019-07"

3.15.2. Output parameters

Name	Type	Description	Note
energy	Long	Power generation	
energyStr	String	Power generation unit	
date	Long	Timestamp	1564088700000
money	Long	income	
moneyStr	String	Income unit	
batteryDischargeEnergy		Battery discharge energy	
batteryChargeEnergy		Battery charge energy	

File: Soliscloud API		Classification: Secret	
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gridPurchasedEnergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

3.16. /v1/api/inverterYear (Inverter yearly graph)

3.16.1. Input parameters

Name	Type	Description	Note
id	Long	Inverter id	Id or SN
sn	String	Inverter sn	Id or SN
money	String	Power plant currency unit	
year	String	time	time: "2019"

3.16.2. Output parameters

Name	Type	Description	Note
energy	Long	Power generation	
energyStr	String	Power generation unit	
date	Long	Timestamp	1564088700000
money	Long	income	
moneyStr	String	Income unit	
batteryDischargeEnergy		Battery discharge energy	
batteryChargeEnergy		Battery charge energy	
gridPurchasedEnergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

3.17. /v1/api/inverterAll (Inverter Cumulative Graph)

File: Soliscloud API		Classification: Secret	
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3.17.1. Input parameters

Name	Type	Description	Note
id	Long	Inverter id	Id or SN
sn	String	Inverter sn	Id or SN
money	String	Power plant currency unit	

3.17.2. Output parameters

Name	Type	Description	Note
year	Int	year	
energy	Long	Power generation	
energyStr	String	Power generation unit	
money	Long	income	
moneyStr	String	Income unit	
batteryDischarge Energy		Battery discharge energy	
batteryChargeEn ergy		Battery charge energy	
gridPurchasedEn ergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

3.18. /v1/api/stationUpdate (Plant modification)

3.18.1. Input parameters

元素名称	类型	描述	取值说明
id	Long	Plant id	Required
stationName	String	Plant name	Required
mobile	String	phone number	User phone number (don't fill in the default operation installer)
capacity	String	Installed capacity	Required (unit kWp)
latitude	String	latitude	
longitude	String	longitude	
dip		inclination	
azimuth		Azimuth	

File: Soliscloud API		Classification: Secret	
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money	String	Currency	
price		Revenue per kilowatt hour	Required
addr	String	Plant detailed address	Required
<u>Gaode Map:</u>			
gdAreaCode	Integer	Gaode Address Code	Obtain from calling Gaode API
country	Integer	Country	No need if “Gaode Address Code” is available
region	Integer	Region	No need if “Gaode Address Code” is available
city	Integer	city	No need if “Gaode Address Code” is available
<u>Other Map:</u>			
countryStr	String	Country	Country
regionStr	String	Region	Region
cityStr	String	city	city
module	Long	Module Number	
mobile	Long	Plant Contact	
installerEmail	String	Installer Email	
installerMobile	Long	Installer Mobile	
nmiCode	String	Nmi code	

3.19. ~~/v1/api/updateInstaller~~ (Plant sub-account Modification)

3.19.1. ~~Input parameters~~

Name	Type	Description	Note
id	Long	Power station id	Required
installerId	String	Sub account id	Multiple separated by commas
installer	String	Sub account name	Multiple separated by commas

3.20. ~~/v1/api/userList~~ (User List)

3.20.1. ~~Input parameters~~

File: Soliscloud API		Classification: Secret	
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Name	Type	Description	Note
pageNo	Integer	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	Integer	Number per page	Specify the number of records returned in each response page. The default value is 20
userType	Integer	user level	Query ordinary account send 1 Query sub-account send 4

3.20.2. Output parameters

Name	Type	Description	Note
id	Integer	User id	
userName	Integer	user name	
userType	Integer	user level	
password	Integer	password	
stationNum	Integer	Number of power stations	
mobile	String	User phone number	Can be used to log in
mobile1	String	User phone number	Cannot be used to log in
email	String	mailbox	
capacity	String	Total installed capacity	

3.21. /v1/api/addStationBindCollector (Add plant to bind logger)

3.21.1. Input parameters (Method One: Newly Create Plant)

Name	Type	Description	Note
sn	String	Datalogger SN	For new plant, write to bind (multiple SN use comma to separate)
stationName	String	Plant name	Must fill in
addr	String	Plant address	Must fill in
userId	Long	User ID	User (Empty indicates installer)
capacity	String	Installed capacity	Must fill in (unitkWp)
picName		Picture	
latitude	String	Latitude	

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longitude	String	Longitude	
dip		Tilte angle	
azimuth		Azimuth angle	
money		Currency	
addr	String	Plant detailed address	Required
<u>Gaode Map:</u>			
gdAreaCode	Integer	Gaode Address Code	Obtain from calling Gaode API
country	Integer	Country	No need if “Gaode Address Code” is available
region	Integer	Region	No need if “Gaode Address Code” is available
city	Integer	city	No need if “Gaode Address Code” is available
<u>Other Map:</u>			
countryStr	String	Country	Country
regionStr	String	Region	Region
cityStr	String	city	city
price		Earning per kwh	Must fill in
offset		Time zone offset	
type	Integer	Plant type	0 residential, 1 commercial , 2 utility, 3, poverty relief
contribution	Integer	Investment type	0 owener full investment, 1 owener loan , 2 self-investment, 3, joint investment with owner
synchronizationType	Integer	Grid connection type	0 full on grid, 1 self consumption , 2 off grid
installTime	String	Installation time	yyyy-MM-dd HH:mm:ss
module	Long	Module Number	
mobile	Long	Plant Contact	
installerEmail	String	Installer Email	
installerMobile	Long	Installer Mobile	
nmiCode	String	nmicode	

3.21.2. Input parameters (Method Two: Already Exist Plant)

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Name	Type	Description	Note
stationId	Long	Plant ID	Must fill in
sn	String	Datalogger SN	Multiple separated by commas

3.22. /v1/api/delCollector (Plant unbind Datalogger)

3.22.1. Input parameters

Name	Type	Description	Note
sn	String	Datalogger SN	
deleteInvert	Integer	If delete inverter?	1.delete all inverters, 0. not delete inverter, default 0

3.23. /v1/api/alarmList (Alarm info check)

3.23.1. Input parameters

Name	Type	Description	Note
pageNo	String	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	String	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
stationId	Long	Plant ID	Without: Check all under the installer. With: Check the indicated plant
alarmDeviceSn	String	InverterSN	Without: Check all under the installer. With: Check the indicated plant
alarmBeginTime	String	Alarm startTime	yyyy-MM-dd, Without: check all
alarmEndTime	String	Alarm stopTime	yyyy-MM-dd, Without: check all
nmiCode	String	nmicode	

3.23.2. Output parameters

Name	Type	Description	Note
stationId	Long	Plant ID	
stationName	String	Plant name	

File: Soliscloud API		Classification: Secret	
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alarmDeviceSn	String	InverterSN	
alarmCode	String	Alarm code	
alarmLevel	String	Alarm level	1Reminder 2ordinary 3Emergency
alarmBeginTime	Long	Alarm startTime	
alarmEndTime	Long	Alarm stopTime	
alarmMsg	String	Alarm content	
advice	String	Alarm suggestion	
state	String	Alarm status	0 Pending 1Solved 2Recover

3.24. /v1/api/stationDetailList (Batch acquire plant details)

3.24.1. Input parameters

Name	Type	Description	Note
pageNo	Integer	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	Integer	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100

3.24.2. Output parameters

Name	Type	Description	Note
id	Long	Plant ID	
stationName	String	Plant name	
addr	String	Plant address	
userId	Long	User ID	
userName	String	Owner name	
userMobile	Long	Owner mobile	
userEmail	String	Owner email	
capacity	String	Installed capacity	
capacityStr	String	Installed capacity unit	
dayEnergy		Today energy	
dayEnergyStr		Today energy unit	
monthEnergy		This month energy	
monthEnergyStr		This month energy unit	
yearEnergy		This year energy	
yearEnergyStr		This year energy unit	



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allEnergy		Total energy	
allEnergyStr		Total energy unit	
dayInCome		Today income	
dayInComeUnit		Today income unit	
monthInCome		This month income	
monthInComeUnit		This month income unit	
yearInCome		This year income	
yearInComeUnit		This year income unit	
allInCome		Total income	
allInComeUnit		Total income unit	
fullHour		Peak hours	
picName		Picture	
power		Poower	
powerStr		Poower unit	
latitude	String	Latitude	
longitude	String	Longitude	
dip		Tilte angle	
azimuth		Azimuth angle	
price		Earning per kwh	
state		Plant status	1: Online 2: Offline 3: Alarm
dataTimestamp		Plant update time	Time Stamp
money		Currency	
brand		Brand	
countryStr		Country	
regionStr		Region	
cityStr		City	
condTxtN		Night weather	
condTxtD		Day time weather	
tmpMax		Highest Temperature	
tmpMin		Lowest Temperature	
tmpUnit		Temperature unit	
powerStationNumTree		Plant tree	
powerStationNumTreeUnit		Plant tree unit	
powerStationAvoidedCo2		CO2 reduction	
powerStationAvoidedCo2Unit		CO2 reduction unit	
module	Long	Module Number	
mobile	Long	Plant Contact	

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installerEmail	String	Installer Email	
installerMobile	Long	Installer Mobile	
batteryPower		Battery Power	
batteryPowerStr		Battery Power unit	
batteryPowerPec		Battery PowerPercentage	
batteryDischargeEnergy		Battery discharg energy	
batteryDischargeEnergyStr		Battery discharg energy unit	
batteryChargeEnergy		Battery charge energy	
batteryChargeEnergyStr		Battery charge energy unit	
batteryPercent		Battery SOC	
psum		Meter power	
psumStr		Meter power unit	
psumPec		Meter powerPercentage	
gridPurchasedDayEnergy		Meter today purchase energy	
gridPurchasedDayEnergyStr		Meter today purchase energy unit	
gridPurchasedMonthEnergy		Meter this month purchase energy	
gridPurchasedMonthEnergyStr		Meter this month purchase energy unit	
gridPurchasedYearEnergy		Meter this year purchase energy	
gridPurchasedYearEnergyStr		Meter this year purchase energy unit	
gridPurchasedTotalEnergy		Meter total purchase energy	
gridPurchasedTotalEnergyStr		Meter total purchase energy unit	
gridSellDayEnergy		Meter today sell energy	
gridSellDayEnergyStr		Meter today sell energy unit	
gridSellMonthEnergy		Meter this month sell energy	
gridSellMonthEnergyStr		Meter this month sell	

File: Soliscloud API		Classification: Secret	
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		energy unit	
gridSellYearEnergy		Meter this year sell energy	
gridSellYearEnergyStr		Meter this year sell energy unit	
gridSellTotalEnergy		Meter total sell energy	
gridSellTotalEnergyStr		Meter total sell energy unit	
familyLoadPower		Load power	
familyLoadPowerStr		Load power unit	
familyLoadPowerPec		Load powerPercentage	
homeLoadEnergy		Today load energy	
homeLoadEnergyStr		Today load energy unit	

3.25. /v1/api/inverterDetailList (Batch acquire Inverter details)

3.25.1. Input parameters

Name	Type	Description	Note
pageNo	Integer	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	Integer	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100

3.25.2. Output parameters

Name	Type	Description	Note
id	Long	Inverterid	
sn	String	InverterSN	
stationId	Long	Plant ID	
stationName	String	Plant name	
userId	Long	User ID	
collectorId	Long	Dataloggerid	
collectorName	String	DataloggerName	
collectorsn	String	Datalogger SN	
currentState		Current status	
eToday		Today energy	

File: Soliscloud API		Classification: Secret	
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eTodayStr		Today energy unit	
eMonth		This month energy	
eMonthStr		This month energy unit	
eYear		This year energy	
eYearStr		This year energy unit	
eTotal		Total energy	
eTotalStr		Total energy unit	
fac		Grid frequency	
facStr		Grid frequency unit	
pac		Real timePoower	
pacStr		Real timePoower unit	
pacPec		PoowerPercentage	
fullHour		Peak hours	
picName		Picture	
power		Installed capacity	
powerStr		Installed capacity unit	
iAc1		AC CurrentR	
iAc2		AC CurrentS	
iAc3		AC CurrentT	
uAc1		AC VoltageR	
uAc2		AC VoltageS	
uAc3		AC VoltageT	
iPv1		DC Current1	
iPv2		DC Current2	
iPv3		DC Current3	
iPv4		DC Current4	
uPv1		DC Voltage1	
uPv2		DC Voltage2	
uPv3		DC Voltage3	
uPv4		DC Voltage4	
state		Plant status	1: Online 2: Offline 3: Alarm
dataTimestamp		Plant update time	Time Stamp
inverterTemperature		InverterTemperature	
nationalStandardstr		CountryStandard	

File: Soliscloud API		Classification: Secret	
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acOutputType		AC output type	0: 1ph rest: 3ph
dcInputtype		DC input type	num+1
powerFactor		Power factor	
batteryPower		Battery power	
batteryPowerStr		Battery power unit	
batteryPowerPec		Battery powerPercentage	
batteryCapacitySoc		Battery SOC	
batteryHealthSoh		Battery SOH	
socDischargeSet		Overdischarge SOC	
socChargingSet		Forcecharge SOC	
batteryType		Current operating battery model	
batteryVoltage		Battery voltage	
batteryVoltageStr		Battery voltage unit	
bstteryCurrent		Battery current	
bstteryCurrentStr		Battery current unit	
batteryPower		Battery power	
batteryPowerStr		Battery power unit	
batteryPowerPec		Battery powerPercentage	
batteryFailureInformation01		Battery alarm01	
batteryFailureInformation02		Battery alarm02	
batteryTodayChargeEnergy		Today battery charge energy	
batteryTodayChargeEnergyStr		Today battery charge energy unit	
batteryMonthChargeEnergy		This month battery charge energy	
batteryMonthChargeEnergyStr		This month battery charge energy unit	
batteryYearChargeEnergy		This year battery charge energy	

File: Soliscloud API		Classification: Secret	
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batteryYearChargeEnergyStr		This year battery charge energy unit	
batteryTotalChargeEnergy		Total battery charge energy	
batteryTotalChargeEnergyStr		Total battery charge energy unit	
batteryTodayDischargeEnergy		Today battery discharge energy	
batteryTodayDischargeEnergyStr		Today battery discharge energy unit	
batteryMonthDischargeEnergy		This month battery discharge energy	
batteryMonthDischargeEnergyStr		This month battery discharge energy unit	
batteryYearDischargeEnergy		This year battery discharge energy	
batteryYearDischargeEnergyStr		This year battery discharge energy unit	
batteryTotalDischargeEnergy		Total battery discharge energy	
batteryTotalDischargeEnergyStr		Total battery discharge energy unit	
gridPurchasedTodayEnergy		Today meter purchase energy	
gridPurchasedTodayEnergyStr		Today meter purchase energy unit	
gridPurchasedMonthEnergy		This month meter purchase energy	

File: Soliscloud API		Classification: Secret	
File No: XX-XXX-XXX	Ver: V1.1.1	Page: 50 / 58	Eff Date: 2022.02.18

gridPurchasedMonthEnergyStr		This month meter purchase energy unit	
gridPurchasedYearEnergy		This year meter purchase energy	
gridPurchasedYearEnergyStr		This year meter purchase energy unit	
gridPurchasedTotalEnergy		Total meter purchase energy	
gridPurchasedTotalEnergyStr		Total meter purchase energy unit	
gridSellTodayEnergy		Today meter sell energy	
gridSellTodayEnergyStr		Today meter sell energy unit	
gridSellMonthEnergy		This month meter sell energy	
gridSellMonthEnergyStr		This month meter sell energy unit	
gridSellYearEnergy		This year meter sell energy	
gridSellYearEnergyStr		This year meter sell energy unit	
gridSellTotalEnergy		Total meter sell energy	
gridSellTotalEnergyStr		Total meter sell energy unit	
familyLoadPower		HouseLoad power	
familyLoadPowerStr		HouseLoad power unit	
bypassLoadPower		BackUpload power	
bypassLoadPowerStr		BackUpload power unit	
pSum		Grid total active power	

File: Soliscloud API		Classification: Secret	
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pSumStr		Grid total active power unit	
psumPec		Grid total active powerPercentage	
homeLoadTodayEnergy		Today load energy	
homeLoadTodayEnergyStr		Today load energy unit	
homeLoadTotalEnergy		Total load energy	
homeLoadTotalEnergyStr		Total load energy unit	

3.26. /v1/api/stationDayEnergyList (Batch acquire plant daily Generation)

3.26.1. Input parameters

Name	Type	Description	Note
pageNo	Integer	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	Integer	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
time	String	Time	time: "2019-07-26"

3.26.2. Output parameters

Name	Type	Description	Note
id	Long	Plant ID	
energy		Generation	
energyStr	String	Generation unit	
date	Long	Time Stamp	1564088700000
money		Income	
moneyStr	String	Income unit	
batteryDischargeEnergy		Battery discharge energy	

File: Soliscloud API		Classification: Secret	
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batteryChargeEnergy		Battery charge energy	
gridPurchasedEnergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

3.27. /v1/api/stationMonthEnergyList (Batch acquire plant monthly Generation)

3.27.1. Input parameters

Name	Type	Description	Note
pageNo	Integer	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	Integer	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
time	String	Time	time: "2019-07"
nmiCode	String	nmicode	

3.27.2. Output parameters

Name	Type	Description	Note
id	Long	Plant ID	
energy		Generation	
energyStr	String	Generation unit	
date	Long	Time Stamp	1564088700000
money		Income	
moneyStr	String	Income unit	
batteryDischargeEnergy		Battery discharge energy	
batteryChargeEnergy		Battery charge energy	
gridPurchasedEnergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

File: Soliscloud API		Classification: Secret	
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3.28. /v1/api/stationYearEnergyList (Batch acquire plant yearly Generation)

3.28.1. Input parameters

Name	Type	Description	Note
pageNo	Integer	Current page number	Specify the number of response pages to be returned. The value defaults to 1
pageSize	Integer	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
time	String	Time	time: "2019"

3.28.2. Output parameters

Name	Type	Description	Note
id	Long	Plant ID	
energy		Generation	
energyStr	String	Generation unit	
date	Long	Time Stamp	1564088700000
money		Income	
moneyStr	String	Income unit	
batteryDischargeEnergy		Battery discharge energy	
batteryChargeEnergy		Battery charge energy	
gridPurchasedEnergy		Meter purchase energy	
gridSellEnergy		Meter sell energy	

3.29. /v1/api/epmList (EPM List)

3.29.1. Input parameters

Name	Type	Description	Note
pageNo	String	Current page number	Specify the number of response pages to be returned. The value defaults to 1

File: Soliscloud API		Classification: Secret	
File No: XX-XXX-XXX	Ver: V1.1.1	Page: 54 / 58	Eff Date: 2022.02.18

pageSize	String	Number per page	Specify the number of records returned in each response page. The default value is 20, max 100
stationId	Long	Plant ID	Without: Check all under the installer. With: Check the indicated plant

3.29.2. Output parameters

Name	Type	Description	Note
sn	String	EPM-SN	
collectorId	Long	Datalogger id	
collectorSn	String	Datalogger id	
userId	Long	User id	
stationId	Long	Plant id	
stationName	String	Plant Name	
state	Integer	Device Status	1 Online 2 Offline
dataTimestamp	Long	Plant Update Time	Time stamp
failSafe	String	FailSafe switch	0 OFF 1 ON
pEpmTotal	Double	EPM Total Power	
pEpmTotalStr	String	EPM Total Power Unit	
eTotalBuy	Double	Total Purchase Energy	
eTotalBuyStr	String	Total Purchase Energy Unit	
eTotalSell	Double	Total Sell Energy	
eTotalSellStr	String	Total Sell Energy Unit	

3.30. /v1/api/epmDetail (EPM Details)

3.30.1. Input parameters

Name	Type	Description	Note
sn	String	EPM sn	Must send

3.30.2. Output parameters

Name	Type	Description	Note
sn	String	EPM-SN	
collectorId	Long	Datalogger id	
collectorSn	String	Datalogger id	

File: Soliscloud API		Classification: Secret	
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userId	Long	User id	
stationId	String	Plant id	
stationName	String	Plant Name	
state	Integer	Device Status	1 Online 2 Offline
dataTimestamp	Long	Plant Update Time	Time stamp
failSafe	String	FailSafe switch	0 OFF 1 ON
empSoftwareVersion	String	EPM Software Version	
pLimit	Double	Power Limit Percentage	
ctRatio	Double	CT Ratio	
pSet	Double	Backflow Power Setting	
pSetStr	String	Backflow Power Setting Unit	
pInverterTotal	Double	Inverter total power	
pInverterTotalStr	String	Inverter total power unit	
eToaalInverter	Double	Inverter total generation	
eToaalInverterStr	String	Inverter total generation unit	
pLoad	Double	Total Consumption Power	
pLoadStr	String	Total Consumption Power Unit	
eTotalLoad	Double	Total Consumption Energy	
eTotalLoadStr	String	Total Consumption Energy Unit	
pEpmTotal	Double	EPM Total Power	
pEpmTotalStr	String	EPM Total Power Unit	
eTotalBuy	Double	Total Purchase Energy	
eTotalBuyStr	String	Total Purchase Energy Unit	
eTotalSell	Double	Total Sell Energy	
eTotalSellStr	String	Total Sell Energy Unit	

File: Soliscloud API		Classification: Secret	
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iAc1	Double	Current U	Unit A
iAc2	Double	Current V	Unit A
iAc3	Double	Current W	Unit A
uAc1	Double	Voltage U	Unit V
uAc2	Double	Voltage V	Unit V
uAc3	Double	Voltage W	Unit V
pAc1	Double	Power U	Unit W
pAc2	Double	Power V	Unit W
pAc3	Double	Power W	Unit W
powerFactor	Double	PF	
facMeter	Double	Grid Frequency	

3.31. /v1/api/epm/day (EPM Daily Graph)

3.31.1. Input parameters

Name	Type	Description	Note
searchinfo	String	Query field, multiple fields are separated by commas	u_ac1 -voltage U u_ac2 -voltage V u_ac3 -voltage W i_ac1 -current U i_ac2 -current V i_ac3 -current W p_ac1 -power U p_ac2 -power V p_ac3 -power W power_factor -grid power factor fac_meter -grid frequency (Meter) p_load -total load power e_toaal_inverter -Total inverter power generation e_total_load -load total electricity consumption e_total_buy e_total_sell
sn	String	EPM SN	Must Send
time	String	2020-09-24	
timeZone	Integer	Plant Time Zone	

File: Soliscloud API		Classification: Secret	
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3.31.2. Output parameters

Name	Type	Description	Note
dataTimestamp	Long	Update time (8 time zone)	data_timestamp
timeStr	String	String with the update time converted according to the time zone of the plant	
pEpmTotal	Long	EPM total power (total grid power) Negative - buy electricity, positive - sell electricity	p_epm_total
pEpmTotalStr	String	EPM total power unit	When the unit is rounded, the power generation should be * percentage
pEpmTotalPec	String	EPM total power percentage	When the unit is rounded, the power generation should be * percentage
eTotalBuy	Long	Total active energy taken from the grid	Upload e_total_buy to get
eTotalSell	Long	Total active energy export to grid	Upload e_total_sell to get
uAc1	Long	EPM AC voltage U	Upload u_ac1 to get
iAc1	Long	EPM AC current U	Upload i_ac1 to get
pAc1	Long	EPM active power U	Upload p_ac1 to get
uAc2	Long	EPM AC voltage V	Upload u_ac2 to get
iAc2	Long	EPM AC current V	Upload i_ac2 to get
pAc2	Long	EPM active power V	Upload p_ac2 to get
uAc3	Long	EPM AC voltage W	Upload u_ac3 to get
iAc3	Long	EPM AC current W	Upload i_ac3 to get
pAc3	Long	EPM active power W	Upload p_ac3 to get
pInverterTotal	Long	Inverter total power	Upload p_inverter_total to get
pLimit	Long	Power Limit Percentage	Upload p_limit to get
ctRatio	Long	CT ratio	Upload ct_ratio to get
powerFactor	Long	Grid PF	Upload power_factor to get

File: Soliscloud API		Classification: Secret	
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facMeter	Long	Grid Frequency	Upload fac_meter to get
pLoad	Long	Load total consumption power	Upload p_load to get
eToaalInverter	Long	Inverter total generation	Upload e_toaal_inverter to get
eTotalLoad	Long	Load total consumption energy	Upload e_total_load to get

3.32. /v1/api/epm/month (EPM Monthly Graph)

3.32.1. Input parameters

Name	Type	Description	Note
sn	String	EPM SN	Must Send
month	String	Time	month: "2019-07"

3.32.2. Output parameters

Name	Type	Description	Note
date	Long	timestamp	millisecond
dateStr	String	time string	2019-07-01
energy	Double	power generation	
energyStr	String	power generation unit	
epmSellEnergy		buy electricity	Unit kWh
epmBuyEnergy		selling electricity	Unit kWh

3.33. /v1/api/epm/year (EPM Yearly Graph)

3.33.1. Input parameters

Name	Type	Description	Note
sn	String	EPM SN	Must Send
year	String	Time	year: "2019"

3.33.2. Output parameters

Name	Type	Description	Note
date	Long	timestamp	millisecond
dateStr	String	time string	2019-07
energy	Double	power generation	

File: Soliscloud API		Classification: Secret	
File No: XX-XXX-XXX	Ver: V1.1.1	Page: 59 / 58	Eff Date: 2022.02.18

energyStr	String	power generation unit	
epmSellEnergy		buy electricity	Unit kWh
epmBuyEnergy		selling electricity	Unit kWh

3.34. /v1/api/epm/all (EPM Cumulative Graph)

3.34.1. Input parameters

Name	Type	Description	Note
sn	String	EPM SN	必 Upload

3.34.2. Output parameters

Name	Type	Description	Note
year	Integer	Year	2020
energy	Double	power generation	
energyStr	String	power generation unit	
epmSellEnergy		buy electricity	Unit kWh
epmBuyEnergy		selling electricity	Unit kWh