

API Interface Documentation

Version	Updated	Update description
0.0.1	2016-08-26	Document publishing
0.0.2	2016-08-30	Document updates, a new user name and collector verification interface example, improve the document structure
0.0.3	2016-11-21	Document update, http request header inside the only token need to contact Growatt New Energy Co. to obtain, obtain the accessToken interface to stop using
0.0.4	2016-11-30	Document update, remove the API interface that is no longer in use
1.0.1	2016-12-20	Document update, new energy storage machine detailed data, alarm data acquisition interface, parameter setting interface

1 Contents

1	Contents.....	1
2	Fixed parameters	4
3	Address header:	4
4	Interface example	4
4.1	User	4
4.1.1	User registration (POST mode)	4

4.1.2	Verify that the user name is unique (POST).....	4
4.1.3	User update (POST).....	5
4.1.4	Get the list of end users for the business (GET mode)	5
4.2	Power station	6
4.2.1	Obtain a list of all users' power stations (GET mode).....	6
4.2.2	Update the power station (POST).....	7
4.2.3	Delete the power station (POST)	7
4.2.4	Get the basic information of a power plant (GET).....	7
4.2.5	Obtain an overview of the data for a plant (GET mode).....	8
4.2.6	Obtain the historical power generation of a power plant (GET)	9
4.2.7	To obtain a power plant a day of power data (GET).....	9
4.2.8	Add the power plant (POST)	10
4.2.9	Get a list of plants under a user (POST mode).....	11
4.3	Equipment	11
4.3.1	Obtain a list of collectors for a plant (GET).....	11
4.3.2	Add a collector (POST)	12
4.3.3	Delete a collector (POST)	12
4.3.4	Obtain a list of devices for a plant (GET).....	13
4.3.5	Obtains the historical data of an inverter (GET)	14
4.3.6	Obtains the alarm data of a certain inverter (GET)	15
4.3.7	Inverter parameter setting (POST).....	16
4.3.8	Access to the latest real-time data inverter (GET).....	16
4.3.9	Batch access to the latest real-time data inverter (POST)	19

4.3.10	Check whether the SN format of the collector meets the requirements and check code is correct (POST)	23
4.3.11	Access to a storage energy of the alarm data (POST).....	23
4.3.12	Energy storage machine parameter setting (POST).....	24
4.3.13	Access to the latest energy storage machine real-time data (POST).....	25
4.3.14	Obtain historical data of an energy storage machine (POST).....	28
4.3.15	Get the inverter basic information	32

2 Fixed parameters

token: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX (Token is generally defined as 32-bit verification code)

Test the token used: 6eb6f069523055a339d71e5b1f6c88cc

Need token authentication please contact Growatt New Energy Co. to obtain the only token

3 Address header:

<http://test.growatt.com/v1/>

4 Interface example

4.1 User

4.1.1 User registration (POST mode)

Interface address:

http://test.growatt.com/v1/user/user_register

The interface requires parameters:

```
user_name:"qtuser3"
user_password:"123456"
user_email:"770988255@qq.com"
user_tel:"13525653256"
user_country:"China"
user_type:1
```

Examples:

```
{
  "data": {
    "c_user_id":12
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.1.2 Verify that the user name is unique (POST)

Interface address:

http://test.growatt.com/v1/user/check_user

The interface requires parameters:

`user_name:"admin"`

Examples :

```
{
  "data": {
    ""
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.1.3 User update (POST)

Interface address:

<http://test.growatt.com/v1/user/modify>

The interface requires parameters:

`c_user_id:3`

`mobile:"13525653256"`

Examples :

```
{
  "data": {
    ""
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.1.4 Get the list of end users for the business (GET mode)

Interface address:

http://test.growatt.com/v1/user/c_user_list

The interface requires parameters:

`page:1`

`perpage:10`

Examples :

```
{
  "data": {
    "count": 4,
    "c_user": [
```

```

    {
      "c_user_email": "770988255@qq.com",
      "c_user_id": "8",
      "c_user_name": "tt",
      "c_user_regtime": "2016-02-25",
      "c_user_tel": "13875214562"
    }
  ]
},
"error_code": 0,
"error_msg": ""
}

```

4.2 Power station

4.2.1 Obtain a list of all users' power stations (GET mode)

Interface address:

<http://test.growatt.com/v1/plant/list>

The interface requires parameters:

`C_user_id:1`

`search_type:"PlantName"`

`search_keyword:"test"`

`page:1`

`perpage:10`

Examples :

```

{
  "data": {
    "count": 1,
    "plants": [
      {
        "plant_id": 1,
        "name": "Name of Plant1",
        "user_id": 1,
        ...
      }
    ]
  },
  "error_code": 0,
  "error_msg": ""
}

```

4.2.2 Update the power station (POST)

Interface address:

<http://test.growatt.com/v1/plant/modify>

The interface requires parameters:

`c_user_id:141`

`plant_id:2`

`name:"qtPlantName1"`

`peak_power:300`

`longitude:"120"`

`latitude:"30"`

`timezone_id:8`

`currency:"RMB"`

Examples :

```
{
  "data": {
    ""
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.2.3 Delete the power station (POST)

Interface address:

<http://test.growatt.com/v1/plant/delete>

The interface requires parameters:

`plant_id:2`

Examples :

```
{
  "data": {
    ""
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.2.4 Get the basic information of a power plant (GET)

Interface address:

<http://test.growatt.com/v1/plant/details>

The interface requires parameters:

`plant_id:2`

Examples :

```
{
  "data": {
    "locale": "en-US",
    "name": "test_plant",
    "user_id": 1,
    "description": "",
    ...
    "arrays": [
      {
        "num_modules": 1,
        "module_man": "Growatt "
        ...
      }
    ],
    "inverters": [
      {
        "inverter_man": "",
        "inverter_num": 1
        ...
      }
    ]
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.2.5 Obtain an overview of the data for a plant (GET mode)

Interface address:

<http://test.growatt.com/v1/plant/data>

The interface requires parameters:

[plant_id:2](#)

Examples :

```
{
  "data": {
    "peak_power": 341.42,
    "efficiency": 4.52,
    "current_power": 17.42,
    "today_energy": 44.12,
    ...
  }
}
```



```
    },  
    "error_code": 0,  
    "error_msg": ""  
  }  
}
```

4.2.6 Obtain the historical power generation of a power plant (GET)

Interface address:

<http://test.growatt.com/v1/plant/energy>

The interface requires parameters:

`plant_id:2`

`start_date:"2015-05-03"`

`end_date:"2015-05-06"`

`time_unit:year`

`page:1`

`perpage:10`

Examples :

```
{  
  "data": {  
    "count": 3,  
    "time_unit": "day",  
    "energys": [  
      {  
        "date": "2015-11-01",  
        "energy": 323.12  
      },  
      {  
        "date": "2015-11-02",  
        "energy": 57.14  
      },  
      {  
        "date": "2015-11-03",  
        "energy": 612.52  
      }  
    ]  
  },  
  "error_code": 0,  
  "error_msg": ""  
}
```

4.2.7 To obtain a power plant a day of power data (GET)

Interface address:

<http://test.growatt.com/v1/plant/power>

The interface requires parameters:

`plant_id:2`

`date:"2015-05-03"`

`timezone_id:8`

Examples :

```
{
  "data": {
    "count": 3,
    "powers": [
      {
        "time": "2015-11-01T00:00:00Z",
        "power": 323.12
      },
      {
        "time": "2015-11-01T00:05:00Z",
        "power": 57.14
      },
      {
        "time": "2015-11-01T00:10:00Z",
        "power": 612.52
      }
    ]
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.2.8 Add the power plant (POST)

Interface address:

<http://test.growatt.com/v1/plant/add>

The interface requires parameters:

`c_user_id:141`

`name:"qtPlantName1"`

`peak_power:300`

`currency:"RMB"`

`longitude:"120"`

`latitude:"30"`

`timezone_id:8`

Examples :

```
{
  "data": {
    "plant_id":8
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.2.9 Get a list of plants under a user (POST mode)

Interface address:

http://test.growatt.com/v1/plant/user_plant_list

The interface requires parameters:

`user_name:"user1"`

`page:1`

`perpage:10`

Examples :

```
{
  "data": {
    "count": 1,
    "plants": [
      {
        "plant_id": 1,
        "name": "Name of Plant 1",
        "user_id": 1,
        ...
      }
    ]
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.3 Equipment

4.3.1 Obtain a list of collectors for a plant (GET)

Interface address:

<http://test.growatt.com/v1/device/datalogger/list>

The interface requires parameters:

`plant_id:2`

`page:1`

`perpage:10`

Examples :

```
{
  "data": {
    "count": 2,
    "dataLoggers": [
      {
        "sn": "601000000",
        "type": 1,
        "manufacturer": "igen",
        "model": "",
        "last_update_time": "2015-12-08T11:00:00Z"
      },
      {
        "sn": "401000000",
        "type": 2,
        "manufacturer": "igen",
        "model": "",
        "last_update_time": "2015-11-01T12:00:00Z"
      }
    ]
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.3.2 Add a collector (POST)

Interface address:

<http://test.growatt.com/v1/device/datalogger/add>

The interface requires parameters:

`c_user_id:33`

`plant_id:2`

`sn:"AH13140005"`

Examples :

```
{
  "error_code": 0,
  "error_msg": ""
}
```

4.3.3 Delete a collector (POST)

Interface address:

<http://test.growatt.com/v1/device/datalogger/delete>

The interface requires parameters:

`plant_id:2`

`sn:"AH13140005"`

Examples :

```
{
  "error_code": 0,
  "error_msg": ""
}
```

4.3.4 Obtain a list of devices for a plant (GET)

Interface address:

<http://test.growatt.com/v1/device/list>

The interface requires parameters:

`plant_id:2`

`page:1`

`perpage:10`

Examples :

```
{
  "data": {
    "count": 2,
    "devices": [
      {
        "device_id": 100010001,
        "datalogger_sn": "601000000",
        "device_sn": "YINGZHENTEST001",
        "type": 1,
        "manufacturer ":"igen",
        "model": "",
        "last_update_time": "2015-12-08T11:00:00Z"
      },
      {
        "device_id": 100010002,
        "datalogger_sn": "401000000",
        "device_sn": "YINGZHENTEST002",
        "type": 1,
        "manufacturer ":"igen",
        "model": "",
        "last_update_time": "2015-12-01T12:00:00Z"
      }
    ]
  }
}
```

```
    ]
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.3.5 Obtains the historical data of an inverter (GET)

Interface address:

<http://test.growatt.com/v1/device/inverter/data>

The interface requires parameters:

`device_sn:"INV035C003"`

`start_date:"2015-05-05"`

`end_date:"2015-05-06"`

`page:1`

`perpage:10`

`timezone_id:8`

Examples :

```
{
  "data": {
    "dataLogger_sn": "401000001",
    "sn": "YINGZHEN1",
    "next_page_start_id": "1000101_12313",
    "datas": [
      {
        "ipv1": 0.2,
        "ipv2": 0.1,
        "ipv3": 0.1,
        "vpv1": 481.2,
        "vpv2": 481.2,
        "vpv3": 481.2,
        "iac1": 1.8,
        "iac2": 1.8,
        "iac3": 1.8,
        "vac1": 238.2,
        "vac2": 238.2,
        "vac3": 238.2,
        "power": 185,
        "today_energy": 24.2,
        "total_energy": 157.54,
        "temperature": 45.8,
        "fac": 50.04,

```

```

        "power_factor": 0.6,
        "time": "2015-12-08T11:00:00Z"
    },
    {
        "ipv1": 0.2,
        "ipv2": 0.1,
        "ipv3": 0.1,
        "vpv1": 481.2,
        "vpv2": 481.2,
        "vpv3": 481.2,
        "iac1": 1.8,
        "iac2": 1.8,
        "iac3": 1.8,
        "vac1": 238.2,
        "vac2": 238.2,
        "vac3": 238.2,
        "power": 185,
        "today_energy": 24.2,
        "total_energy": 157.54,
        "temperature": 45.8,
        "fac": 50.04,
        "power_factor": 0.6,
        "time": "2015-12-08T11:05:00Z"
    }
]
},
"error_code": 0,
"error_msg": ""
}

```

4.3.6 Obtains the alarm data of a certain inverter (GET)

Interface address:

<http://test.growatt.com/v1/device/inverter/alarm>

The interface requires parameters:

`device_sn:"INV035C003"`

`page:1`

`perpage:10`

Examples :

```

{
  "data": {
    "count": "102",

```

```

    "sn": "YINGZHEN1",
    "alarms": [
      {
        "alarm_code": "bit1",
        "alarm_message": "Low Current",
        "start_time": "2015-12-08T11:05:00Z",
        "end_time": "2015-12-08T11:05:00Z",
        "status": 0
      }
    ]
  },
  "error_code": 0,
  "error_msg": ""
}

```

4.3.7 Inverter parameter setting (POST)

Interface address:

<http://test.growatt.com/v1/inverterSet>

The interface requires parameters:

`device_sn:"INV3140005"`

`paramId:"pv_on_off"`

`command_1:"0000"`

`command_2:""`

Examples :

```

{
  "data": {
    "", ""
  },
  "error_code": "0",
  "error_msg": ""
}

```

4.3.8 Access to the latest real-time data inverter (GET)

Interface address:

http://test.growatt.com/v1/device/inverter/last_new_data

The interface requires parameters:

`device_sn:"INV3140005"`

Examples :

```

{
  "dataLoggerSn": "AH13140003",

```



```
"device_sn": "2033022963",
"data": {
  "powerToday": 883.799987792969,
  "realOPPercent": 0,
  "eRacTotal": 0,
  "epv1Total": 0,
  "wStringStatusValue": 0,
  "vPidPvape": 0,
  "warningValue1": 0,
  "warningValue2": 0,
  "temperature": 52.5999984741211,
  "bigDevice": false,
  "warnCode": 0,
  "time": "2016-06-16 19:24:46",
  "iPidPvbpe": 0,
  "inverterId": "2033022963",
  "epv2Total": 0,
  "timeCalendar": {
    "minimalDaysInFirstWeek": 1,
    "weekYear": 2016,
    "time": {
      "time": 1466076286000,
      "minutes": 24,
      "seconds": 46,
      "hours": 19,
      "month": 5,
      "year": 116,
      "timezoneOffset": -480,
      "day": 4,
      "date": 16
    },
    "weeksInWeekYear": 53,
    "gregorianChange": {
      "time": -12219292800000,
      "minutes": 0,
      "seconds": 0,
      "hours": 8,
      "month": 9,
      "year": -318,
      "timezoneOffset": -480,
      "day": 5,

```

```
    "date": 15
  },
  "timeZone": {
    "lastRuleInstance": null,
    "rawOffset": 28800000,
    "DSTSavings": 0,
    "dirty": false,
    "ID": "Asia/Shanghai",
    "displayName": "China Standard Time "
  },
  "timeInMillis": 1466076286000,
  "lenient": true,
  "firstDayOfWeek": 1,
  "weekDateSupported": true
},
"pBusVoltage": 358.899993896484,
"currentString5": 0,
"strFault": 0,
"currentString4": 0,
"currentString3": 0,
"currentString2": 0,
"currentString8": 0,
"status": 1,
"currentString7": 0,
"currentString6": 0,
"nBusVoltage": 0,
"again": false,
"currentString1": 0,
"ipmTemperature": 0,
"ppv": 2922.69995117188,
"pacr": 0,
"pacr": 2835.10009765625,
"pf": -1,
"pact": 0,
"vpv1": 244,
"iPidPvape": 0,
"vpv2": 0,
"fac": 50.0099983215332,
"vPidPvbpe": 0,
"powerTotal": 46287.5,
"epv2Today": 0,
```

```

    "ipv2": 0,
    "ipv1": 11.6999998092651,
    "statusText": "Normal",
    "timeTotal": 16706.5566666667,
    "epv1Today": 0,
    "id": 575,
    "timeTotalText": "16706.6",
    "dwStringWarningValue1": 0,
    "epvTotal": 0,
    "pac": 2835.10009765625,
    "vact": 0,
    "vacr": 229.600006103516,
    "vacs": 0,
    "vString1": 0,
    "vString2": 0,
    "vString3": 0,
    "vString4": 0,
    "faultType": 0,
    "vString5": 0,
    "vString6": 0,
    "vString8": 0,
    "iacs": 0,
    "opFullWatt": 0,
    "pidStatus": 0,
    "vString7": 0,
    "iact": 0,
    "eRacToday": 0,
    "wPIDFaultValue": 0,
    "ppv2": 0,
    "ppv1": 2922.69995117188,
    "iacr": 12.1000003814697,
    "rac": 0
  },
  "error_code": 0,
  "error_msg": ""
}

```

4.3.9 Batch access to the latest real-time data inverter (POST)

Interface address:

http://test.growatt.com/v1/device/inverter/invs_data

The interface requires parameters:

pageNum:1

inverters:["2033022963","TL15300005"] array type

Examples :

```
{
  "inverters": [
    "2033022963",
    "a65d4f6sd4",
    "2033022917",
    "6767676767",
    "TL15300005",
    "TL15300005"
  ],
  "data": {
    "2033022963": {
      "dataLoggerSn": "AH13140003",
      "2033022963": {
        "powerToday": 883.799987792969,
        "realOPPercent": 0,
        "eRacTotal": 0,
        "epv1Total": 0,
        "wStringValue": 0,
        "vPidPvape": 0,
        "warningValue1": 0,
        "warningValue2": 0,
        "temperature": 52.5999984741211,
        "bigDevice": false,
        "warnCode": 0,
        "time": "2016-06-16 19:24:46",
        "iPidPvbpe": 0,
        "inverterId": "2033022963",
        "epv2Total": 0,
        "timeCalendar": {
          "minimalDaysInFirstWeek": 1,
          "weekYear": 2016,
          "time": {
            "time": 1466076286000,
            "minutes": 24,
            "seconds": 46,
            "hours": 19,
            "month": 5,
            "year": 116,

```

```
    "timezoneOffset": -480,
    "day": 4,
    "date": 16
  },
  "weeksInWeekYear": 53,
  "gregorianChange": {
    "time": -12219292800000,
    "minutes": 0,
    "seconds": 0,
    "hours": 8,
    "month": 9,
    "year": -318,
    "timezoneOffset": -480,
    "day": 5,
    "date": 15
  },
  "timeZone": {
    "lastRuleInstance": null,
    "rawOffset": 28800000,
    "DSTSavings": 0,
    "dirty": false,
    "ID": "Asia/Shanghai",
    "displayName": "China Standard Time"
  },
  "timeInMillis": 1466076286000,
  "Lenient": true,
  "firstDayOfWeek": 1,
  "weekDateSupported": true
},
"pBusVoltage": 358.899993896484,
"currentString5": 0,
"strFault": 0,
"currentString4": 0,
"currentString3": 0,
"currentString2": 0,
"currentString8": 0,
"status": 1,
"currentString7": 0,
"currentString6": 0,
"nBusVoltage": 0,
"again": false,
```

"currentString1": 0,
"ipmTemperature": 0,
"ppv": 2922.69995117188,
"pacs": 0,
"pacr": 2835.10009765625,
"pf": -1,
"pact": 0,
"vpv1": 244,
"iPidPvape": 0,
"vpv2": 0,
"fac": 50.0099983215332,
"vPidPvbpe": 0,
"powerTotal": 46287.5,
"epv2Today": 0,
"ipv2": 0,
"ipv1": 11.6999998092651,
"statusText": "Normal",
"timeTotal": 16706.5566666667,
"epv1Today": 0,
"id": 575,
"timeTotalText": "16706.6",
"dwStringWarningValue1": 0,
"epvTotal": 0,
"pac": 2835.10009765625,
"vact": 0,
"vacr": 229.600006103516,
"vacs": 0,
"vString1": 0,
"vString2": 0,
"vString3": 0,
"vString4": 0,
"faultType": 0,
"vString5": 0,
"vString6": 0,
"vString8": 0,
"iacs": 0,
"opFullwatt": 0,
"pidStatus": 0,
"vString7": 0,
"iact": 0,
"eRacToday": 0,

```

        "wPIDFaultValue": 0,
        "ppv2": 0,
        "ppv1": 2922.69995117188,
        "iacr": 12.1000003814697,
        "rac": 0
    }
}
},
"error_code": 0,
"error_msg": ""
}

```

4.3.10 Check whether the SN format of the collector meets the requirements and check code is correct (POST)

Interface address:

<http://test.growatt.com/v1/device/datalogger/validate>

The interface requires parameters:

`datalogSn:"AH13140005"`

`valiCode:"45117"`

Examples :

```

{
  "dataLoggerSn": "AH13140005",
  "valiCode": "45117",
  {
    "data": {
      "plant_id": 107,
      "user_id": 105,
      "dataLogger_sn": "4KZ262840D"
    },
    "error_code": 10003,
    "error_msg": "error_snIsExist"
  }
}

```

4.3.11 Access to a storage energy of the alarm data (POST)

Interface address:

http://test.growatt.com/v1/device/storage/alarm_data

The interface requires parameters:

`storage_sn:"Y87035C003"`

`date:"2016-01-25"`

`page:1`

`perpage:10`

Examples:

```
{
  "data": {
    "count": 26,
    "storage_sn": "I435100018",
    "alarms": [
      {
        "alarm_code": 201,
        "status": 1,
        "end_time": "2016-04-28 18:41:40.0",
        "start_time": "2016-04-28 18:41:40.0",
        "alarm_message": "Firmware version mismatch(when: Firmware version mismatch; suggestion: Update FW with right
version)"
      },
      {
        "alarm_code": 0,
        "status": 1,
        "end_time": "2016-04-28 18:41:40.0",
        "start_time": "2016-04-28 18:41:40.0",
        "alarm_message": "undown error"
      }
    ]
  },
  "error_code": 0,
  "error_msg": ""
}
```

4.3.12 Energy storage machine parameter setting (POST)

Interface address:

<http://test.growatt.com/v1/storageSet>

The interface requires parameters:

`storage_sn:"Y873140005"`

`paramId:" storage_cmd_on_off"`

`param1:"0000"`

`param2:" "`

`param3:" "`

`param4:" "`

Examples:

```
{
```



```
"data": {
  "": ""
},
"error_code": "0",
"error_msg": ""
}
```

4.3.13 Access to the latest energy storage machine real-time data (POST)

Interface address:

http://test.growatt.com/v1/device/storage/storage_last_data

The interface requires parameters:

`storage_sn:"Y873140005"`

Examples:

```
{
  "device_sn": "I435100018",
  "dataLoggerSn": "YU34130371",
  "data": {
    "vBuckText": "379.1 V",
    "gaugeRM1": 0,
    "gaugeRM2": 0,
    "eDischargeToday": 0.2,
    "epvToday": 0,
    "temperature": 31.7000007629395,
    "errorText": "Unknown",
    "eDischargeTotal2": 0,
    "time": "2015-03-16 18:15:13",
    "eChargeToday2": 0,
    "pCharge2": 0,
    "gaugePackStatus": 0,
    "pDischarge": 595.2,
    "bmsCurrent": 0,
    "cycleCount": 0,
    "maxChargeOrDischargeCurrent": 0,
    "pDischarge2": 0,
    "chargeToStandbyReason": 0,
    "again": false,
    "ipmTemperature": 32.5,
    "ppv": 0.1,
    "iacToUserText": "1.5 A",
    "iacToGrid": 0,
    "pacToUserText": "8.9 W",
  }
}
```

"vpv2": 0,
"eChargeToday": 0,
"remoteCntLEn": 0,
"eDischargeTodayText": "0.2 kWh",
"eToUserToday": 0,
"vpvText": "1.4 V",
"gaugeBattteryStatus": 0,
"normalPower": 0,
"iDischarge": 1.7000004768372,
"pacToUser": 8.9,
"deviceType": 0,
"eDischargeTotal": 8.3,
"capacity": 82,
"ipvText": "0.1 A",
"epvTotal": 12.5,
"bmsError": 0,
"dataLogSn": "",
"dischargeToStandbyReason": 0,
"pacToGrid": 0,
"remoteCntLFailReason": 0,
"eChargeTotal2": 0,
"batTemp": 0,
"eChargeTodayText": "0.0 kWh",
"iacToUser": 1.5,
"bmsStatus": 0,
"iChargeText": "0.0 A",
"pCharge": 0,
"pDischargeText": "595.2 W",
"errorCode": 0,
"vacText": "228.4 V",
"eChargeTotal": 0,
"eToGridTotal": 0,
"ipv": 0.10000001490116,
"vBus": 0,
"bmsTemperature": 0,
"eToUserTotal": 0,
"warnCode": 0,
"iDischargeText": "1.7 A",
"vBatText": "56.0 V",
"dischargeToStandbyReasonText": "Unknown",
"eDischargeTotalText": "8.3 kWh",

```
"gaugeOperationStatus": 0,
"epvToday2": 0,
"serialNum": "I435100018",
"vBuck2": 0,
"pacToGridText": "0.0 W",
"status": 2,
"storageBean": null,
"epvTotal2": 0,
"pChargeText": "0.0 W",
"eDischargeToday2": 0,
"chargeToStandbyReasonText": "Unknown",
"faultCode": 0,
"day": "",
"gaugeICCurrent": 0,
"lost": true,
"statusText": "Discharge",
"eChargeTotalText": "0.0 kWh",
"warnText": "Unknown",
"vBat": 56,
"withTime": false,
"ppvText": "0.1 W",
"iCharge": 0,
"calendar": {
  "minimalDaysInFirstWeek": 1,
  "weekYear": 2015,
  "time": {
    "time": 1426500913000,
    "minutes": 15,
    "seconds": 13,
    "hours": 18,
    "month": 2,
    "year": 115,
    "timezoneOffset": -480,
    "day": 1,
    "date": 16
  },
  "weeksInWeekYear": 52,
  "gregorianChange": {
    "time": -12219292800000,
    "minutes": 0,
    "seconds": 0,
  }
}
```

```

        "hours": 8,
        "month": 9,
        "year": -318,
        "timezoneOffset": -480,
        "day": 5,
        "date": 15
    },
    "timeZone": {
        "lastRuleInstance": null,
        "rawOffset": 2880000,
        "DSTSavings": 0,
        "dirty": false,
        "ID": "Asia/Shanghai",
        "displayName": "中国标准时间"
    },
    "timeInMillis": 1426500913000,
    "lenient": true,
    "firstDayOfWeek": 1,
    "weekDateSupported": true
},
"iactoGridText": "0.0 A",
"alias": "",
"vBuck": 379.100006103516,
"etoGridToday": 0,
"capacityText": "82 %",
"address": 0,
"vac": 228.399993896484,
"ppv2": 0,
"vpv": 1.39999997615814
},
"error_code": 0,
"error_msg": ""
}

```

4.3.14 Obtain historical data of an energy storage machine (POST)

Interface address:

http://test.growatt.com/v1/device/storage/storage_data

The interface requires parameters:

`storage_sn:"Y873140005"`

`start_date:"2015-05-05"`

`end_date:"2015-05-06"`

page:1
perpage:10
timezone_id:8

Examples:

```
{
  "data": {
    "datas": [
      {
        "eChargeTotal": 0,
        "eToGridTotal": 0,
        "vBuckText": "377.3 V",
        "gaugeRM1": 0,
        "vBus": 0,
        "ipv": 0.10000001490116,
        "bmsTemperature": 0,
        "gaugeRM2": 0,
        "eDischargeToday": 1.2,
        "eToUserTotal": 0,
        "epvToday": 0,
        "temperature": 35.700007629395,
        "errorText": "Unknown",
        "warnCode": 0,
        "eDischargeTotal2": 0,
        "time": "2015-03-16 19:56:09",
        "iDischargeText": "1.7 A",
        "vBatText": "56.0 V",
        "dischargeToStandbyReasonText": "Unknown",
        "eDischargeTotalText": "9.3 kWh",
        "eChargeToday2": 0,
        "pCharge2": 0,
        "epvToday2": 0,
        "gaugeOperationStatus": 0,
        "gaugePackStatus": 0,
        "serialNum": "I435100018",
        "pDischarge": 591.9,
        "vBuck2": 0,
        "bmsCurrent": 0,
        "pacToGridText": "0.0 W",
        "status": 2,
        "cycleCount": 0,
        "pDischarge2": 0,
      }
    ]
  }
}
```

```
"maxChargeOrDischargeCurrent": 0,
"storageBean": null,
"again": false,
"chargeToStandbyReason": 0,
"ipmTemperature": 37.2000007629395,
"ppv": 0.1,
"iacToUserText": "1.5 A",
"iacToGrid": 0,
"pChargeText": "0.0 W",
"epvTotal2": 0,
"eDischargeToday2": 0,
"pacToUserText": "12.6 W",
"vpv2": 0,
"chargeToStandbyReasonText": "Unknown",
"eChargeToday": 0,
"remoteCntLen": 0,
"day": "",
"faultCode": 0,
"gaugeICCurrent": 0,
"lost": true,
"eDischargeTodayText": "1.2 kWh",
"eToUserToday": 0,
"statusText": "Discharge",
"vpvText": "1.6 V",
"eChargeTotalText": "0.0 kWh",
"gaugeBatteryStatus": 0,
"normalPower": 0,
"warnText": "Unknown",
"vBat": 56,
"iDischarge": 1.70000004768372,
"pacToUser": 12.6,
"deviceType": 0,
"eDischargeTotal": 9.3,
"capacity": 82,
"ppvText": "0.1 W",
"withTime": false,
"ipvText": "0.1 A",
"epvTotal": 12.5,
"bmsError": 0,
"dataLogSn": "",
"iCharge": 0,
```

```
"calendar": {
  "minimalDaysInFirstWeek": 1,
  "time": {
    "time": 1426506969000,
    "minutes": 56,
    "seconds": 9,
    "hours": 19,
    "month": 2,
    "timezoneOffset": -480,
    "year": 115,
    "day": 1,
    "date": 16
  },
  "weekYear": 2015,
  "weeksInWeekYear": 52,
  "gregorianChange": {
    "time": -12219292800000,
    "minutes": 0,
    "seconds": 0,
    "hours": 8,
    "month": 9,
    "timezoneOffset": -480,
    "year": -318,
    "day": 5,
    "date": 15
  },
  "timeZone": {
    "lastRuleInstance": null,
    "DSTSavings": 0,
    "rawOffset": 28800000,
    "ID": "Asia/Shanghai",
    "dirty": false,
    "displayName": "中国标准时间"
  },
  "Lenient": true,
  "timeInMillis": 1426506969000,
  "firstDayOfWeek": 1,
  "weekDateSupported": true
},
"dischargeToStandbyReason": 0,
"pacToGrid": 0,
```

```

        "remoteCntlFailReason": 0,
        "iacToGridText": "0.0 A",
        "alias": "",
        "eChargeTotal2": 0,
        "batTemp": 0,
        "eChargeTodayText": "0.0 kWh",
        "iacToUser": 1.5,
        "bmsStatus": 0,
        "iChargeText": "0.0 A",
        "vBuck": 377.299987792969,
        "eToGridToday": 0,
        "pCharge": 0,
        "pDischargeText": "591.9 W",
        "address": 0,
        "capacityText": "82 %",
        "vacText": "229.4 V",
        "errorCode": 0,
        "vac": 229.399993896484,
        "ppv2": 0,
        "vpv": 1.6000002384186
    }
},
"next_page_start_id": 3,
"count": 967,
"storage_sn": "I435100018",
"dataLogger_sn": "YU34130371"
},
"error_code": 0,
"error_msg": ""
}

```

4.3.15 Get the inverter basic information

Interface address:

http://domain/v1/device/inverter/inv_data_info

The interface requires parameters:

`device_sn:" 2033022963"`

Examples:

```

{
    "device_sn": "2033022963",
    "dataLoggerSn": "GT25290025",
    "data": {

```



```
"model": 33079,
"fwVersion": "G.2.0",
"treeName": "杨帆",
"lost": true,
"location": "null",
"updateExist": false,
"treeID": "2033022963",
"powerMaxTime": "",
"lastUpdateTime": {
  "time": 1466076277000,
  "minutes": 24,
  "seconds": 37,
  "hours": 19,
  "month": 5,
  "year": 116,
  "timezoneOffset": -480,
  "day": 4,
  "date": 16
},
"children": [],
"statusText": "inverter.status.lost",
"inverterInfoStatusCss": "vsts_table_ash",
"energyMonthText": "0",
"nominalPower": 2870,
"bigDevice": false,
"id": 643,
"groupID": 0,
"level": 4,
"imgPath": "./css/img/status_gray.gif",
"energyDay": 0,
"power": 0,
"serialNum": "2033022963",
"dataLogSn": "GT25290025",
"createDate": null,
"innerVersion": "0G240000",
"energyMonth": 0,
"powerMax": "",
"modelText": "A0B0D0T0P8U1M3S7",
"energyDayMap": {},
"status": -1,
"eToday": 0,
```

```
"alias": "杨帆",
"powerMaxText": "",
"eTotal": 0,
"loadText": "0%",
"tcpServerIp": "",
"userID": 0,
"lastUpdateTimeText": "2016-06-16 19:24:37",
"rfStick": null,
"parentID": "LIST_GT25290025_0",
"address": 2
},
"error_code": 0,
"error_msg": ""
}
```