APsystems EZ1 Local API
User Manual

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Version List：

Version	Author	Date	Description
V1.0	APsystems	2023/10/23	First Document
V1.1	APsystems	2023/11/07	Add Local API Interface device ON/OFF status

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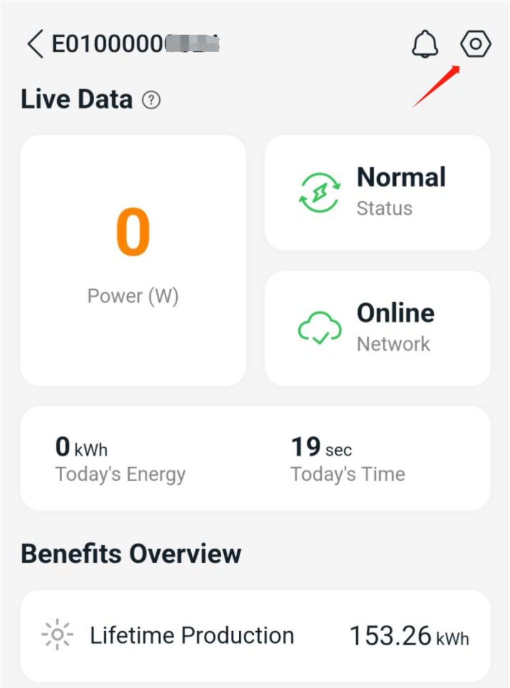
1. Overview

Welcome to EZ1 Local API for developer portal.
EZ1 could switch to Http Server mode, and user cloud request device data by Local API by http.

2. How to request Local API

- Use AP EasyPower APP to switch EZ1 Device to Local Mode.
  1. Connect to the EZ1 device by Bluetooth
  2. Into Setting Page



E0100000[redacted]

Live Data

0
Power (W)

Normal
Status

Online
Network

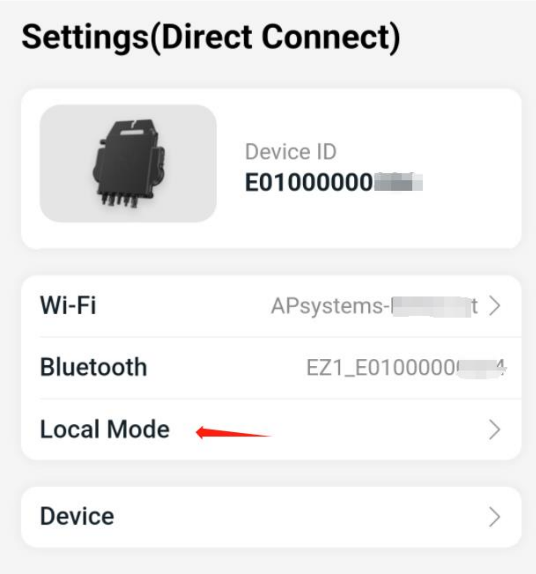
0 kWh
Today's Energy

19 sec
Today's Time

Benefits Overview

Lifetime Production 153.26 kWh

  3. Into “ Local Mode” Page



Settings(Direct Connect)

Device ID
E01000000[redacted]

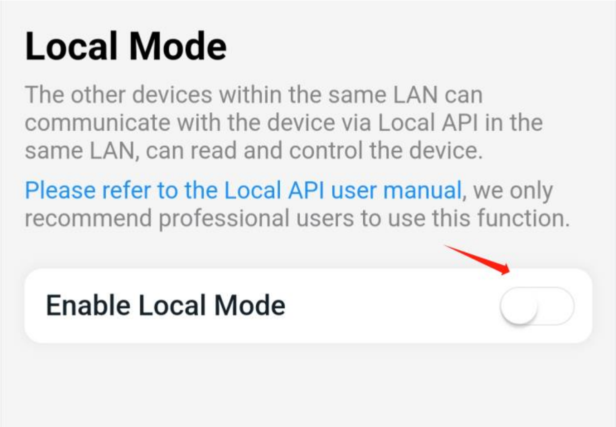
Wi-Fi APsystems-[redacted]t >

Bluetooth EZ1_E0100000[redacted]

Local Mode >

Device >

4. Enable “Local Mode”



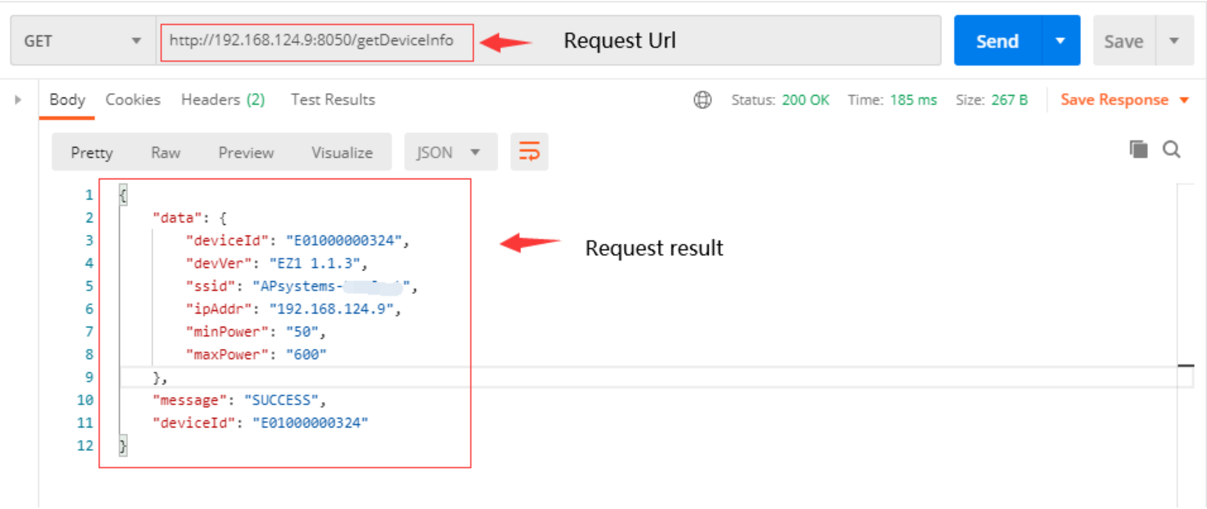
Local Mode

The other devices within the same LAN can communicate with the device via Local API in the same LAN, can read and control the device.

Please refer to the Local API user manual, we only recommend professional users to use this function.

Enable Local Mode ○

- After EZ1 device switch to Local Mode, EZ1 device will start up the internal Http Server, the PC, mobile phone or gateway which are in the same LAN cloud request device data by Local API .
- The IP address of Http Server is the EZ1 device’s IP, and the Port is 8050. Below is the example to request Local API by Postman:


GET
Send
Save
Body
Cookies
Headers (2)
Test Results
Status: 200 OK
Time: 185 ms
Size: 267 B
Save Response
Pretty
Raw
Preview
Visualize
JSON
Request Url
Request result

http://192.168.124.9:8050/getDeviceInfo

```
{
    "data": {
        "deviceId": "E01000000324",
        "devVer": "EZ1 1.1.3",
        "ssid": "APsystems-[redacted]",
        "ipAddr": "192.168.124.9",
        "minPower": "50",
        "maxPower": "600"
    },
    "message": "SUCCESS",
    "deviceId": "E01000000324"
}
```

3. API

3.1 Get EZ1 Device Information

- **URL**

http://{ip}:8050/getDeviceInfo

- **Method**

GET

- **Description**

The request will return the EZ1 Device Information.

- **Response**

Code	Example	Model Description
0		- **data**(*object*) * **deviceId**(*string*) * **devVer**(*string*) Device Version * **ssid**(*string*) The SSID that device connected * **ipAddr**(*string*) The IP address of device * **minPower**(*string*)

```
{
  "data": {
            "deviceId":"E07000000001",
            "devVer":" EZ1 1.0.0",
             "ssid":"ssidName",
              "ipAddr":"192.168.1.2",
              "minPower":"30",
              "maxPower":"800"
         }
   },
```

		The minimum power that device could set.Unit W. * **maxPower**(*String*) The maximum power that device could set .Unit W. - **message(*string*)** SUCCESS or FAILED - **deviceId(*String*)**

```
  "message": "SUCCESS",
  "deviceId":"E07000000001"
}
```

3.2 Get Current Output Data of EZ1 Inverter Device

- **URL**

http://{ip}:8050/getOutputData

- **Method**

GET

- **Description**

The request will return the current real -time output data of an EZ1 device .Such as Power and Output Energy.

- **Response**

Code	Example	Model Description
0		- **data (*object*)** * **p1(*float*)** Power-Channel1. Unit W. * **e1(*float*)** Energy generation after startup - Channel1. Unit kWh. * **te1**(*float*) Energy generation lifetime-Channel1. Unit kWh. * **p2(*float*)** Power-Channel2. Unit W. * **e2(*float*)** Energy generation after startup-Channel2. Unit kWh. * **te2(*float*)**

```
{
  "data": {
            "p1": 0,
            "e1": 0,
            "te1": 0,
            "p2": 0,
            "e2": 0,
            "te2": 0,
          },
   "message": "SUCCESS",
   "deviceId":"E07000000001"
}
```

		Energy generation lifetime-Channel2. Unit kWh. - **message(*string*)** SUCCESS or FAILED **- deviceId(*String*)**

3.3 Get Max Power of EZ1 Inverter Device

- **URL**

http://{ip}:8050/getMaxPower

- **Method**

GET

- **Description**

This request will return the device max power

- **Response**

<table>
<tr><th>Code</th><th>Example</th><th>Model Description</th></tr>
<tr><td>0</td><td><pre>{
  "data": {
          "maxPower": "600"
    },
    "message": "SUCCESS",
    "deviceId":"E07000000001"
}</pre></td><td>- data (<i>object</i>)
* maxPower (<i>string</i>)
The Max Power of the device .Unit W.
- message(<i>string</i>)
SUCCESS or FAILED
- deviceId(<i>String</i>)</td></tr>
</table>

3.4 Set Max Power of EZ1 Inverter Device

- **URL**

http://{ip}:8050/setMaxPower?p=600

- **Method**

GET

- **Description**

This request will set the device max power

- **Parameters**

Parameter	Required	Type	Description
p	Y	string	The device max power to be set

- **Response**

<table>
<tr><th>Code</th><th>Example</th><th>Model Description</th></tr>
<tr><td>0</td><td><pre>{
 "data": {
        "maxPower": "600"
   },
  "message": "SUCCESS",
  "deviceId":"E07000000001"
}</pre></td><td>- data(<i>object</i>)
  * MaxPower (<i>string</i>)
    The Max Power of the device to be set .Unit W.
- message(<i>string</i>)
  SUCCESS or FAILED
- deviceId(<i>String</i>)</td></tr>
</table>

3.5 Get Alarm Information of EZ1 Inverter Device

- **URL**

http://{ip}:8050/getAlarm

- **Method**

GET

- **Description**

The request will return Alarm Information of EZ1 device.

- **Response**

<table>
<tr><th>Code</th><th>Example</th><th>Model Description</th></tr>
<tr><td>0</td><td><pre>{
 "data": {
        "og": "0",
        "isce1": "0",
        "isce2": "0",
        "oe": "0",</pre></td><td>- data(<i>object</i>)
  * og(<i>string</i>)
    Off grid.
    0: normal
    1: alarm
  * oe(<i>string</i>)</td></tr>
</table>

```
   },
   "message": "SUCCESS",
   "deviceId":"E07000000001"
}
```

Output fault.
0: normal
1: alarm
* isce1(*string*)
DC 1 Short Circuit Error
0: normal
1: alarm
* isce2(*string*)
DC 2 Short Circuit Error
0: normal
1: alarm
- message(*string*)
SUCCESS or FAILED
- deviceId(*String*)

- **Alarm processing suggestions**

Off grid : Check whether the AC connection of the inverter is normal.
Output fault : Check whether the AC connection is normal.
isce1 :Check whether DC 1 connection is properly connected,especially that using extension line or swap with the normal channel to confirm the working status.
isce2 :Check whether DC 2 connection is properly connected,especially that using extension line or swap with the normal channel to confirm the working status.

3.6 Get device On/Off status

- **URL**

http://{ip}:8050/getOnOff

- **Method**

GET

- **Description**

The request will return the On / Off of EZ1 device.

When set off to the device, the device will stop outputting power, but the Local API is still working

- **Response**

Code	**Example**	**Model Description**
0		- data(*object*) * status(*string*) 0: On 1: Off - message(*string*) SUCCESS or FAILED - deviceId(*String*)

```
{
  "data": {
          "status": "0"
    },
    "message": "SUCCESS",
    "deviceId":"E07000000001"
}
```

3.7 Set device On/Off status

- **URL**

http://{ip}:8050/setOnOff?status=1

- **Method**

GET

- **Description**

The request will set On / Off of EZ1 device.
When set off to the device, the device will stop outputting power, but the Local API is still working

- **Response**

Code	**Example**	**Model Description**
0		- data(*object*) * status(*string*) 0: On 1: Off - message(*string*) SUCCESS or FAILED - deviceId(*String*)

```
{
  "data": {
          "status": "0"
    },
    "message": "SUCCESS",
    "deviceId":"E07000000001"
}
```