

# Package ‘microinverterdata’

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**Type** Package

**Title** Collect your Microinverter Data

**Version** 0.4.0

**Description** Collect and normalize local microinverter energy and power production data through off-cloud API requests. Currently supports 'APSystems', 'Enphase', and 'Fronius' microinverters.

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**BugReports** <https://github.com/CamembR/microinverterdata/issues>

**URL** <https://camembr.github.io/microinverterdata/>,  
<https://github.com/CamembR/microinverterdata>

**Encoding** UTF-8

**Depends** R (>= 4.1.0)

**Imports** cli, dplyr, glue, httr2 (>= 1.0.0), purrr, rlang, tidyr, units

**RoxygenNote** 7.3.2

**Suggests** httpptest2, knitr, lubridate, pins, rmarkdown, tibble,  
tsibble, imputeTS, testthat (>= 3.0.0)

**Config/testthat/edition** 3

**VignetteBuilder** knitr

**NeedsCompilation** no

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**Repository** CRAN

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get_alarm	<i>Get inverter device alarms</i>
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### Description

Get inverter device alarms

### Usage

```
get_alarm(device_ip, model = "APSystems")
```

### Arguments

device_ip	list or vector of devices IP address
model	the inverter device model. Currently only "APSystems" is supported.

### Value

a dataframe with one row of device information per 'device\_id' answering the query.

### Examples

```
## Not run:
get_alarm(c("192.168.0.12", "192.168.0.230"))

## End(Not run)
```

---

get_device_info	<i>Get inverter device information</i>
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### Description

Get inverter device information

### Usage

```
get_device_info(device_ip, model = "APSystems")
```

**Arguments**

device\_ip      list or vector of devices IP address  
 model          the inverter device model. Currently only "APSystems" is supported.

**Value**

a data-frame with one row of device information per 'device\_id' answering the query.

**Examples**

```
## Not run:
get_device_info(c("192.168.0.12", "192.168.0.230"))

## End(Not run)
```

---

get_output_data	<i>Get inverter output data</i>
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**Description**

Get inverter output data

**Usage**

```
get_output_data(device_ip, model = "APSystems", ...)
```

**Arguments**

device\_ip      list or vector of devices IP address  
 model          the inverter device model. Currently only "APSystems" "Enphase-Envoy", "Enphase-Energy" and "Fronius" are supported.  
 ...            additional parameters passed to the inverter if needed.

**Value**

a dataframe with one row of device output power and energy per 'device\_id' / 'inverter' combination.

**Examples**

```
## Not run:
get_output_data(c("192.168.0.12", "192.168.0.230"))

## End(Not run)
```

---

query_ap_device	<i>AP System single device query</i>
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**Description**

AP System single device query

**Usage**

```
query_ap_device(device_ip, query)
```

**Arguments**

device_ip	IP address or name of the device
query	the API query string

**Value**

a data-frame with a 'device\_id' column and the '\$data' turned into as many columns as expected

**See Also**

Other device queries: [query\\_ap\\_devices\(\)](#), [query\\_enphaseenergy\\_device\(\)](#), [query\\_enphaseenvoy\\_device\(\)](#), [query\\_fronius\\_device\(\)](#), [query\\_fronius\\_devices\(\)](#)

**Examples**

```
## Not run:
query_ap_device(device_ip = "192.168.0.234", query = "getDeviceInfo")

## End(Not run)
```

---

query_ap_devices	<i>AP System multi-device query</i>
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---

**Description**

AP System multi-device query

**Usage**

```
query_ap_devices(device_ip, query)
```

**Arguments**

device_ip	list or vector of each device IP address or name
query	the API query string

**Value**

a data-frame with a 'device\_id' column and the '\$Body\$Data' turned into as many columns as expected

**See Also**

Other device queries: [query\\_ap\\_device\(\)](#), [query\\_enphaseenergy\\_device\(\)](#), [query\\_enphaseenvoy\\_device\(\)](#), [query\\_fronius\\_device\(\)](#), [query\\_fronius\\_devices\(\)](#)

**Examples**

```
## Not run:
query_ap_devices(device_ip = c("192.168.0.234", "192.168.0.235"),
                 query = "getDeviceInfo"
                 )

## End(Not run)
```

---

```
query_enphaseenergy_device
```

*Enphase Energy single device query*

---

**Description**

as a port of <https://github.com/sarnau/EnphaseEnergy/blob/main/enphaseStreamMeter.py>

**Usage**

```
query_enphaseenergy_device(
  device_ip = "enphase.local",
  query,
  username = Sys.getenv("ENPHASE_USERNAME"),
  password = Sys.getenv("ENPHASE_PASSWORD")
)
```

**Arguments**

device_ip	IP address or name of the device
query	the API query string
username	the username needed to authenticate to the inverter. Defaults to the 'ENPHASE_USERNAME' environment variable.
password	the password needed to authenticate to the inverter. Defaults to the 'ENPHASE_PASSWORD' environment variable.

**Value**

a data-frame with a 'device\_id' column and the '\$Body\$Data' turned into as many columns as expected

**See Also**

Other device queries: [query\\_ap\\_device\(\)](#), [query\\_ap\\_devices\(\)](#), [query\\_enphaseenvoy\\_device\(\)](#), [query\\_fronius\\_device\(\)](#), [query\\_fronius\\_devices\(\)](#)

**Examples**

```
## Not run:
query_enphaseenergy_device(query = "stream/meter")

## End(Not run)
```

---

```
query_enphaseenvoy_device
```

```
    Enphase Envoy single device query
```

---

**Description**

as a port of [https://github.com/Matthew1471/Enphase-API/blob/main/Documentation/IQ Gateway API/IVP/Meters/Reports/Production.adoc](https://github.com/Matthew1471/Enphase-API/blob/main/Documentation/IQ%20Gateway%20API/IVP/Meters/Reports/Production.adoc)

**Usage**

```
query_enphaseenvoy_device(
  device_ip = "enphase.local",
  query,
  username = Sys.getenv("ENPHASE_USERNAME"),
  password = Sys.getenv("ENPHASE_PASSWORD")
)
```

**Arguments**

device_ip	IP address or name of the device
query	the API query string
username	the username needed to authenticate to the inverter. Defaults to the ‘ENPHASE_USERNAME’ environment variable.
password	the password needed to authenticate to the inverter. Defaults to the ‘ENPHASE_PASSWORD’ environment variable.

**Value**

a data-frame with a ‘device\_id’ column and the ‘\$Body\$Data’ turned into as many columns as expected

**See Also**

Other device queries: [query\\_ap\\_device\(\)](#), [query\\_ap\\_devices\(\)](#), [query\\_enphaseenergy\\_device\(\)](#), [query\\_fronius\\_device\(\)](#), [query\\_fronius\\_devices\(\)](#)

## Examples

```
## Not run:  
query_enphaseenvoy_device(query = "reports/production")  
  
## End(Not run)
```

---

query\_fronius\_device *Fronius single device query*

---

## Description

as a port of <https://github.com/friissoren/pyfronius>

## Usage

```
query_fronius_device(  
  device_ip = "fronius.local",  
  query,  
  username = Sys.getenv("FRONIUS_USERNAME"),  
  password = Sys.getenv("FRONIUS_PASSWORD")  
)
```

## Arguments

device_ip	IP address or name of the device
query	the API query string
username	the username needed to authenticate to the inverter. Defaults to the 'FRONIUS_USERNAME' environment variable.
password	the password needed to authenticate to the inverter. Defaults to the 'FRONIUS_PASSWORD' environment variable.

## Value

a data-frame with a 'device\_id' column and the '\$Body\$Data' turned into as many columns as expected

## See Also

Other device queries: [query\\_ap\\_device\(\)](#), [query\\_ap\\_devices\(\)](#), [query\\_enphaseenergy\\_device\(\)](#), [query\\_enphaseenvoy\\_device\(\)](#), [query\\_fronius\\_devices\(\)](#)

## Examples

```
## Not run:  
query_fronius_device(query = "GetInverterRealtimeData.cgi?Scope=System")  
  
## End(Not run)
```

---

query\_fronius\_devices *Fronius multi-device query*

---

### Description

as a port of <https://github.com/friissoren/pyfronius>

### Usage

```
query_fronius_devices(  
    device_ip = c("fronius.local"),  
    query,  
    username = Sys.getenv("FRONIUS_USERNAME"),  
    password = Sys.getenv("FRONIUS_PASSWORD")  
)
```

### Arguments

device_ip	list or vector of each device IP address or name
query	the API query string
username	the username needed to authenticate to the inverter. Defaults to the 'FRONIUS_USERNAME' environment variable.
password	the password needed to authenticate to the inverter. Defaults to the 'FRONIUS_PASSWORD' environment variable.

### Value

a data-frame with a 'device\_id' column and the '\$Body\$Data' turned into as many columns as expected

### See Also

Other device queries: [query\\_ap\\_device\(\)](#), [query\\_ap\\_devices\(\)](#), [query\\_enphaseenergy\\_device\(\)](#), [query\\_enphaseenvoy\\_device\(\)](#), [query\\_fronius\\_device\(\)](#)

### Examples

```
## Not run:  
query_fronius_device(query = "GetInverterRealtimeData.cgi?Scope=System")  
  
## End(Not run)
```



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