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2. INFORMATION ON THIS DOCUMENT

2.1. Target Group

This document is intended for "[Qualified Persons](#)" only.

Tasks marked with a warning symbol and the caption "[Qualified Persons](#)" require associated skills to avoid and deal with the dangers and risks in installing and using the product and tools described in this document.

2.1.1. Qualified Persons



QUALIFIED PERSONS

Qualified Persons required

Qualified persons are required to be familiar, understand and capable of following all applicable regulations, directives and laws, and are aware of the potential risks to perform the activities marked in this document.

The following knowledge and skills are required for qualified persons:

- Knowledge and training of the installation and configuration of IT systems
- Knowledge of all applicable standards and directives, including country-specific grid conditions and regulatory guidelines
- Knowledge and training of how to minimize and deal with dangers and risks associated with using, installing, and repairing electrical devices and installations
- Knowledge and training in the installation and commissioning of electrical devices, especially those associated with PV systems
- Knowledge and training of and compliance with this document and all safety information
- Knowledge of warranty terms and conditions associated with the product described in this document



INFORMATION

"Qualified Person" means he/she is validly licensed from the local authority in:

- Safely and properly installing electrical equipment and PV power systems
- Safely and properly applying all applicable installation codes in practice
- Properly analyzing and minimizing the hazards in performing electrical work and finished works for all persons and properties involved
- Properly selecting and using Personal Protective Equipment (PPE)

2.2. Content and Structure

This document describes the unpacking, mounting, installation, commissioning, startup, operation, troubleshooting, and disconnection of the product as well as the operation of the user interface (including without limitation to, communication, monitoring products and applications).

Applicable product models are listed below:

- HiManager

This document, as well as any data, images and illustrations included herein, are reduced to the essential information for the user's guidance, and therefore deviate from the real product. Update of this document may not be announced.

For the latest version of this document and further information on the described product, please visit website at www.hypontech.com.

For technical problems concerning the products in this document and requiring assistance, please refer to [CONTACT](#).

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2.3. Warning Messages

The following warning messages are used in this document, and should be familiarized before installation or operation of the product.

Failure to follow may result in injury, damage to properties, or a fatal event.

DANGER

DANGER denotes a hazardous situation which, if not avoided, will result in death or severe injury.

WARNING

WARNING denotes a hazardous situation which, if not avoided, can result in death or severe or moderate injury.

CAUTION

CAUTION denotes a hazardous situation which, if not avoided, can result in moderate or minor injury.

NOTICE

NOTICE denotes a situation which, if not avoided, that can result in property damage

2.4. Symbols and Information

The following symbols are used in this document.

INFORMATION

INFORMATION denotes messages and information that is important but non safety-relevant for a task or topic.

3. SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

Users of these documents are cautioned to familiarize themselves with safety instructions contained in this section and observe at all time when working.

Users are reminded that all electrical or electronic devices come with residual risks despite compliance with international safety requirements and careful construction. To prevent injury and property damage, and to ensure long-term operation of the product, please adhere to all applicable safety instructions in handling and usage of the product.

WARNING

Danger to life due to electric shock in case of working in fault conditions

Under fault conditions, dangerous voltages may be present in the product. Working on the product and power supply circuit in such faulty conditions may result in death or severe injuries due to electric shock.

- **DO NOT** touch live components when voltage sources and power supply are still connected or just disconnected.
- Make sure that a disconnection unit is installed to the voltage resources.
- Make sure that the installation of disconnection unit is accessible at all times.
- Personal protective equipment **MUST** be worn suitably and properly for all work on the product and the system.

CAUTION

Damage due to electromagnetic radiation

This product is a communication device equipped with wireless antenna, that may emit electromagnetic radiation during operation.

Interference of the electromagnetic radiation may result in damage to devices and people that are close to the product for long periods of time.

- All persons **MUST NOT** stay closer than 15-20cm distance for a long period of time.

NOTICE

Damage to property due to manipulation of PV system data and parameters in network

This product is a communication device that can be connected to the internet, which may risk unauthorized users to access and manipulate the data of your system from the same network.

- Connecting the product to unsecured networks may risk security of data and PV system safety.
- **DO NOT** disclose the dynamic IP address of the product.
- Close unnecessary network ports.
- Set up a firewall for private networks.
- Set up a security password for private networks.

NOTICE

High internet traffic and data volume due to inappropriate settings





The data volume and internet traffic in usage of the product may vary due to the system design and settings. Inappropriate setup of the system may result in high volume of data and hence internet costs due to, for example, short data update intervals.

It is recommended to avoid the following in installation of a PV system:

- Connecting a large number of inverters for communication and monitoring purposes within the same network.
- Setting on short data upload frequency for the devices.

4. UNPACKING THE PRODUCT

4.1. Package and Symbols

	Breakable Item
	Place Upwards
	Recyclable and Reusable
	Avoid Damp and Moisture

4.2. Packing List




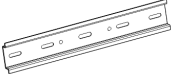
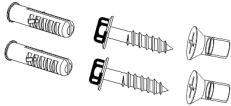



i INFORMATION

The connection part from the product to the inverter is a purchase option that is included in the package.

i INFORMATION

*The power adapter supports 3 different types of AC plug systems.

Upon receiving the product, carefully inspect for damage on carton and package completeness. For any visible damage or missing parts on the inverter or any other accessories included in packing list, please contact your dealer.

			
<p>HiManager (Without antenna) 1 pcs</p>	<p>Power Adapter* 1 set</p>	<p>RS485 Terminal Block 2 pcs</p>	<p>DIN Rail 1 set</p>
			
<p>Mounting Accessories* 1 set</p>	<p>Warranty Card 1 pcs</p>	<p>Quick Installation Guide 1 pcs</p>	<p>Antenna 1 pcs</p>

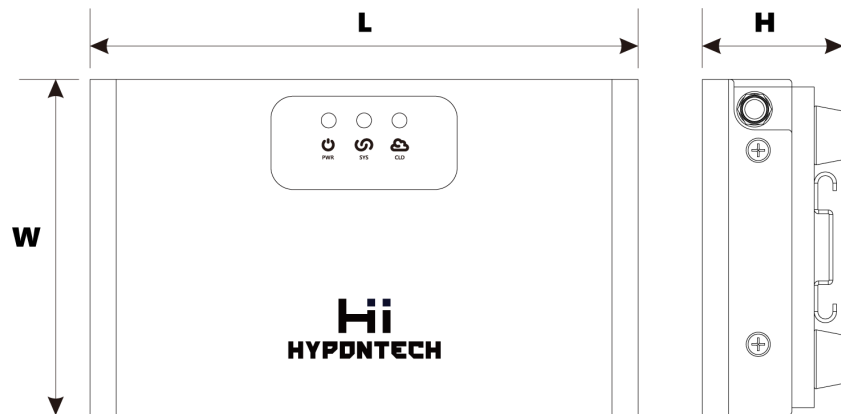
***Mounting Accessories** contains:

- 2* Countersunk screws, M3, cross-head
- 2* ST 4.2 screws, 25mm, cross-head
- 2* Expansion Bolts

5. OVERVIEWING THE PRODUCT

5.1. Product Overview

5.1.1. Dimensions



	HiManager
Width W	90 mm
Height H	38 mm
Length D	147 mm

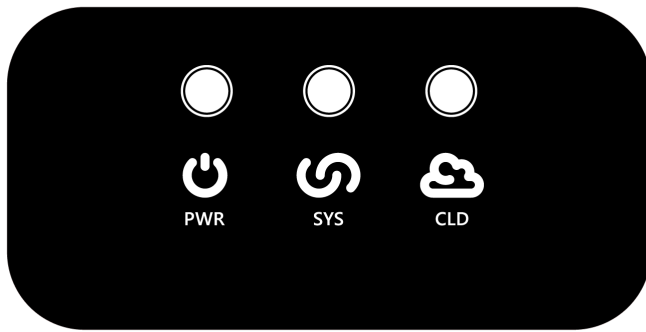
5.1.2. Interface

5.1.2.1. LED Indicators

Power, System and Cloud LED

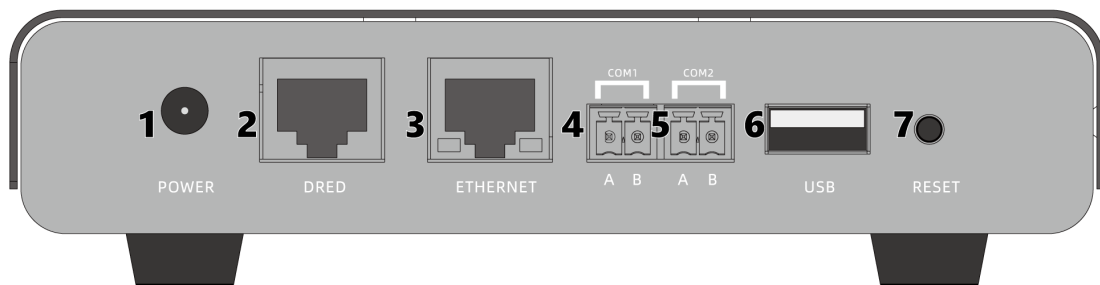
The LEDs indicate of the product:

- **"PWR"** > Power Status
- **"SYS"** > System Operation Status
- **"CLD"** > Cloud Server Connection Status



LED Indicator	Status	Explanation
PWR	Glowing red light	Device operation normal
	Flashing red light	Unstable power supply
	OFF	No power supply
SYS	Glowing green light	System operation normal
	Flashing green light	System booting or resetting
	OFF	System not operating
CLD	Glowing yellow light	Cloud server connected
	Flashing yellow light	Internet connected, no connection to cloud
	OFF	Internet not connected
	OFF	

5.1.2.2. Connection Area



1	Power Adapter
2	Input for DRED
3	Port for connecting ethernet cable
4	RS485 COM1: for connecting Inverter
5	RS485 COM2: for connecting Smart Meter or Inverter
6	Port for USB connection
7	Reset Button

6. INSTALLING THE PRODUCT

6.1. Safety: Mounting

CAUTION

Risk of injury due to weight of product

Lifting the product incorrectly or dropping in transportation or mounting may result in injuries like bruises or muscle strains.

- Make sure to take the weight of product into account in transportation and lifting, and proceed carefully.
- To avoid muscle strain or injury, please use proper lifting techniques and any necessary aid/tools.
- Personal protective equipment **MUST** be worn suitably and properly for all work.

CAUTION

Risk of injury due to cables routed in wall

Drilling holes on a wall may damage power cables or pipes for gas or water routed inside.

- Make sure to take cables or pipes into account before drilling.
- Personal protective equipment **MUST** be worn suitably and properly for all work.

INFORMATION

Risk of shortened product lifespan due to inappropriate installation environment

The product described in this document have a rating of **IP20** under the standard of IEC 60529.

- The product is designed for indoor use **ONLY**.

Installing the product in an inappropriate environment may risk shortening its lifespan. To ensure optimal performance and operation, please:

- **DO NOT** install the product in exposure to direct sunlight.
 - **DO NOT** install the product in exposure to rain and snow.
 - **DO NOT** install the product in exposure to splash of salt water.
 - Make sure the installation site meets ventilation requirement of the product.
-

6.2. Mounting Requirements

1. The mounting surface or structure **MUST** be able to support dimension and weight of the product (see [Product Parameters](#)). A concrete or masonry wall is recommended.
2. The tolerance between anchoring accessories and holes drilled on mounting surface **MUST NOT** exceed 5 mm.
3. The mounting location should avoid inadvertent contact from children.
4. The mounting location should be safely accessible for commissioning, operation and maintenance purposes at all times, without further aid of equipment such as scaffolding or lifting platforms.
5. The product should be mounted on a suitable height such that the LED can be easily read off.
6. All ambient conditions **MUST** be met (see [Product Parameters](#)).

6.3. Positioning

The product may be mounted in a horizontal position (see [Mounting on Horizontal Surfaces](#)).

- The product **MUST** be mounted indoor.

6.4. Location

The mounting location of the product is vital to establish reliable communication for the PV system.

- Connection to the inverters, internet routers, the wall outlet of product power supply, and other communication devices may limit where the product is mounted.
- Mounting the product in a central location to other connections and the source of internet signal is highly recommended.
- When the product is connected wirelessly to other components and devices, avoid having a number of brick walls, or other structures built by metallic materials in-between.
- When wireless connection to multiple inverters is required, the signal coverage to each inverter needs to be strong and stable.

6.5. Mounting on Horizontal Surfaces

Mounting the product on horizontal surfaces is allowed (e.g. on flat surfaces of tables, wall shelves).

- Distance the product reasonably from the surface edges to prevent falling, hence damage to properties.
- Ensure all 4 rubber feet at bottom of the product are in full contact with the surface.

6.6. Mounting on Vertical Surfaces

There are 2 options for mounting the product on vertical surfaces:

- Mounting on wall with countersunk screws
- Mounting on DIN rail

6.6.1. Mounting Option 1: on the Wall

6.6.1.1. Step 1

Mark 2 drill holes on the wall and align them horizontally.

Distance between the center of marks should be **72mm**.

6.6.1.2. Step 2

Drill the holes using a **6mm** bit to **30mm** depth.

Insert the expansion bolts into the drill holes.

6.6.1.3. Step 3

Insert the ST4.2 screws into the expansion bolts.

Do not fully tighten the screws to the end.

Leave the screw heads protruded from the wall surface for **4mm**.

6.6.1.4. Step 4

Align the mounting holes on the product to the protruded screws.

Hang the product onto the mounting screws.

Ensure the product is stably attached.

6.6.2. Mounting Option 2: on DIN Rail

6.6.2.1. Step 1

Mark 2 drill holes using the DIN rail as a template.

Distance between the center of marks should be **186mm**.

6.6.2.2. Step 2

Drill the holes using a **6mm** bit to **30mm** depth.

Insert the expansion bolts into the drill holes.

6.6.2.3. Step 3

Position the DIN rail in alignment with the drilled holes.

Fix the DIN rail on the mounting surface with ST4.2 screws.

6.6.2.4. Step 4

Place the product onto the DIN rail from above and hook it into place.

The product should audibly snap into place with the clamps at its back.

Ensure the product is stably attached.

7. CONNECTING THE PRODUCT

7.1. Connecting RS485

The connection port COM1 and COM2 are used for RS485 cable connections.

There are two purposes of connecting the RS485 cable to the product.

1. To connect up to 32 inverters (**Max. 16 inverters for each port**).
2. To connect smart meter on **COM2**.

7.1.1. Dimensioning of RS485 Cables

The cable length and quality may affect the quality of communication between connected Rs485 devices.

Refer to the following cable requirements:

- Maximum cable length: 1000m
- Communication shielding: yes
- Cable type: twisted pair conductors
- UV-resistance for Cable section installed outdoor : recommended

7.1.2. Procedure of Connecting RS485

i INFORMATION

Requirement for RS485 Connection

Please follow the steps described in this document properly and use the supplied parts **ONLY**.

- In connection of RS485 devices, including inverters and smart meters, always use the supplied terminal blocks.
- In connection of smart meters, the communication cables **MUST** be connected to **COM 2** of this product.

For specifications of the product and RS485 cable, refer to [Product Parameters](#).

i INFORMATION

RS485 Differential Signal Labelling: A and B

In establishing communication between RS485 devices, the polarities of data wire **A** and **B** **MUST** be paired accordingly on both ends.

- Some manufacturers of EIA RS485 specification products may label the wires in "+" and "-" instead.
- Reversing the polarity in connection will not damage a RS485 device, but no communication will be established.
- e.g. RS485 **A** on an inverter **MUST** be connected to RS485 **A** on this product.
- e.g. RS485 **B** on an inverter **MUST** be connected to RS485 **B** on this product.
- e.g. RS485 **A** on an inverter **MUST** be connected to RS485 **A** on another inverter.

Procedure:

1. Strip off 4--5mm of cable insulation.
2. Loosen the top screws of the RS485 terminal block to release sufficient room for the wire conductors.
3. Fully insert the stripped cable conductors into the terminal block to a stop.
4. Tighten the top screws to close the conductor entries.
5. Observe the polarity assignment of A and B.
6. Plug the RS485 terminal block into COM port on the product.

7.2. DRED Connection (for AS/NZS 4777.2 Only)

i INFORMATION

Establishing DRED Connection due to AS/NZS 4777.2

When the functions contained in Demand Response Mode (DRM) is specified, a grid-tied inverter may only be used in conjunction with a Demand Response Enabling Device (DRED).

- Installation of DRED to enable the functions of DRM is only applicable to AS/NZS 4777.2:2015.
- DRM0, DRM5, DRM6, DRM7, DRM8 are available.
- The DRED is connected externally to the inverter and not included in package.

The inverters to be installed and commissioned in Australian market require approval by local grid code (AS/NZS 4777.2), in which the grid code contains requirements on remote system control by the utility operator.

7.2.1. Demand Responsive Mode (DRMs)

The inverter shall detect and initiate a response to all supported demand response commands.

Demand response modes are defined by the standard as follows:

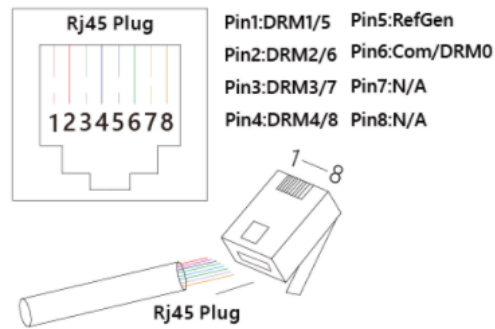
Mode	Requirement
DRM 0	Operate the disconnection device
DRM 1	Do not consume power
DRM 2	Do not consume at more than 50% of rated power
DRM 3	Do not consume at more than 75% of rated power AND Source reactive power if capable
DRM 4	Increase power consumption (subject to constraints from other active DRMs)
DRM 5	Do not generate power
DRM 6	Do not generate at more than 50% of rated power
DRM 7	Do not generate at more than 75% of rated power AND Sink reactive power if capable
DRM 8	Increase power generation (subject to constraints from other active DRMs)

Designation of Pins and DRMs

DI Port	Designation
REF 1	RefGen
1	DRM 1 / 5
2	DRM 2 / 6
3	DRM 3 / 7
4	DRM 4 / 8
REF 2	COM / DRM0

7.2.2. Procedure of Installing DRED on HiManager

Establishment of required function in the connection of Demand response enabling device (DRED) to inverter can be achieved via HiManager.



Procedure:

1. Prepare the RJ45 plug for DRED connection.
2. Insert the plug into the DRED socket on HiManager until the plug snaps into place.

7.3. Network Connection

i INFORMATION

Data transmission and monitoring interference due to unshielded cable

When unshielded ethernet cables are used for the network connection of the product, interference may be induced in ethernet cables due to the electromagnetic field generated during operation of the product.

To ensure quality communication between the system, the product and internet, it is recommended to have the ethernet cables and communication connections well-shielded to a suitable clearance, with cable lengths kept to minimal.

Procedure:

1. Insert the RJ45 plug of the network cable into the Ethernet port until the plug snaps into place.
2. Connect the other end of the network cable to a network source, e.g. a router, access point device.

7.4. Connecting Power Supply

! NOTICE

Damage to property due to condensation

The product described in this document has IP20 rating.

In moving of the product between environments in which large temperature differences exist, condensation of water may form in the product. Forming of water condensation or any water ingress may damage the product and impair its functionality.

- Make sure the product is dry at all times
- When moving between large environmental temperature differences are necessary, **DO NOT** connect the power supply of the product until it has reached room temperature.

Procedure:

1. Mount the supplied power supply unit on a suitable voltage source. Change the adapter type if necessary.
2. Connect the power supply cable and plug to the power supply port of the product.

8. OPERATING THE PRODUCT

8.0.1. Establishing Connection to Internet

i INFORMATION

Add device to HiPortal after internet connection is established

Despite established connection to internet, an installed and commissioned device **does not** upload any inverter work data unless manually added to a system or plant on HiPortal.

8.0.1.1. Via WLAN

- In operation the product generates a wireless Access Point (AP)
 - AP of HiManager requires manual configuration to connect to a WLAN for internet connection
- SSID, IP address and Password for AP
 - SSID: **HMAP[serial number of HiManager, last 5 digits]**, e.g. HMAP-12345
 - Standard access IP address in direct connection via WLAN to the AP network: **10.10.10.1**
 - Default password for AP: **12345678**

8.0.1.1.1. Configuring on Web Browsers

Procedure

1. Connect the end device to the AP of HiManager.
2. Open the web browser of the end device, enter the IP address **10.10.10.1** in the address bar and press **enter**.
3. In **[Wi-Fi Connection]**, select **[Scan]**.
4. Select the WLAN for the device to be connected with.
5. In **[Router Password]**, enter the security key of the WLAN and select **[Connect]**.
6. To verify a successful connection to the internet, you should check:
 - In **[Server Information]>[Connection Status:]>Connected OK**, which indicates
 - Internet access is available
 - Connection to HiPortal server is successful
 - In **[Wi-Fi Connection]>[Connection Status:]>Connected OK**, which indicates
 - Connection to the WLAN (e.g. router) is successful

8.0.1.1.2. Configuring on HiPortal App

Procedure: Logged in

1. Open HiPortal App on the end device and log in with HiPortal account.
2. Select **[Account]>[Find Device]>[Find Device]**

3. Connect to the AP of HiManager*
 - For technical reasons, connecting to AP in HiPortal is not possible for iOS.
 - In devices having an iOS operating system, go to **[Settings]** of your iPhone, connect to the AP in **[WLAN]** and return to the HiPortal App.
4. In **[Connect to Router]>[SSID]>[Please Select]**→, select the WLAN for the device to be connected with .
5. In **[Password]**, enter the security key of the WLAN and select **[SUBMIT]**.

Procedure: Not Logged in

1. Open HiPortal App on the end device. Select **[LOCAL]**.
2. Select **[Find Device]**
3. Connect to the AP of HiManager*
 - For technical reasons, connecting to AP in HiPortal is not possible for iOS.
 - In devices having an iOS operating system, go to **[Settings]** of your iPhone, connect to the AP in **[WLAN]** and return to the HiPortal App.
4. In **[Connect to Router]>[SSID]>[Please Select]**→, select the WLAN for the device to be connected with .
5. In **[Password]**, enter the security key of the WLAN and select **[SUBMIT]**.

8.0.2. Adding a Device to a Plant

i INFORMATION

A communication device can only be added to 1 plant on HiPortal

Once added to a plant on HiPortal, the communication device is bind to the plant and therefore cannot be added to any other plants.

In cases a communication device needs to be listed in another plant, you can

- unbind the device on HiPortal and add it to other plants.
- split the plant and add the device to the splitted plant.
- delete the plant and add the device to other plants.

Procedure

1. Click **[ADD]** on the successful pop-up.
Or
Select the plant to open **[Overview]**. In the top menu, select **[Devices - List]> [+ Add New Gateway]**.
2. Enter the SN of the gateway, e.g. the SN of a [datalogger](#).
Select **+** to the right of the field to add more devices.
3. Select **[Confirm]**.

The device should be uploading work data to HiPortal, given that

- internet access is available.
- SN of the device is correct.

8.0.3. Changing the Upload Interval of Data

The inverter work data is uploaded uniformly via communication device to HiPortal in a time interval of **5 minutes = 300 seconds**.

Altering the pre-determined upload interval of work data may influence the followings:

- Timestamps of uploaded work data
- Frequency of upload
- Size of uploaded work data at a specific timestamp
- Graphs and charts of uploaded work data
- Internet traffic usage in communication to HiPortal
- Instantaneous status of the plant
- Instantaneous status of the device and other connected components (e.g. HiManager, battery)
- Instantaneous status of the inverter

Procedure

1. Log into HiPortal Web.
2. In **[Device Management]>[Gateway]**, find the device to be configured.
3. Click on **[More]**.
4. In the drop-down list, select **[Set Upload Interval]**.
5. Change the upload interval in **seconds**. Select **[Confirm]**.

8.0.4. Configuring Inverter Settings on HiPortal Web

INFORMATION

No configuration via HiPortal for end user accounts

HiPortal only supports a part of options for inverter configurations to end user accounts with their user interface.

- Liability by missing or incorrect settings and associated yield losses are not accepted.
- In cases where configuration to the inverter is necessary, contact a professional or authorized technical support.

The parameters of the inverter are programmed to a pre-determined value set by default. Changing the parameters to appropriate values could optimize the performance of the inverter with regard to adaptability to the PV installation and local grid conditions.

For detailed instructions on configuring parameter settings of the inverter, refer to **Parameter Settings**. (澳洲列名需求, [链接到该说明书](#))

Procedure

QUALIFIED PERSONS

Changes to grid-related settings are required to be approved by local utility operators.

1. Log into HiPortal Web.
2. In **[Device Management]>[Inverter]** or **[Plant Management]>[Plant Overview]>Select a [plant]> [Devices - List]**, find the inverter to be configured.

3. Click on **[More]**.
4. In the drop-down list, select **[Configure]**.
5. Change the desired parameters.
6. Select **[Confirm]** to save all changes to the parameters.

8.0.5. Setting Safety Standards on HiPortal Web

NOTICE

Damage to property due to incorrect safety standards

Selecting a safety standard which is not valid for the country of installation and purpose may result in a disturbance in the PV system and lead to problems with the utility grid operator.

- When selecting the safety standard, applicable directives and regulations **MUST** be observed.
 - Local conditions of the utility grid and properties of the PV system should be taken into account.
- If you are uncertain about the valid standards and directives for the country of installation or purpose, please contact the grid operator.

Procedure

QUALIFIED PERSONS

1. Log into HiPortal Web.
2. In **[Device Management]>[Inverter]** or **[Plant Management]>[Plant Overview]>Select a [plant]> [Devices - List]**, find the inverter to be configured.
3. Click on **[More]**.
4. In the drop-down list, select **[Configure]**.
5. In the side tabs, select **[Grid Standard]**.
6. In the drop-down list, select the desired safety standard.
7. Select **[Confirm]** to save changes to the safety standard set of the inverter.

8.0.6. Configuring the Smart Meter

Smart meters can be configured in HiPortal and added to an existing plant.

- The energy export and import at the point of interconnection can be calculated and displayed in the overview of a plant.
- Installing a smart meter allows the enabling of **Active Power Control** and **Zero Export Mode** when connected to an inverter.

The configured smart meter are synchronized with the **modbus protocol** of communication device of the inverter.

For specified models of smart meter products and installation guidelines, refer to [Smart Meter Installation Guide](#). (未写链接)

For connecting the smart meter to an inverter, refer to [Connecting a Smart Meter](#).

8.0.6.1. Enabling Active Power Control

8.0.6.1.1. On HiPortal Web

Procedure



QUALIFIED PERSONS

1. Log into HiPortal Web.
2. In **[Device Management]>[Inverter]** or **[Plant Management]>[Plant Overview]>Select a [plant]> [Devices - List]**, find the inverter to be configured.
3. Click on **[More]**.
4. In the drop-down list, select **[Configure]**.
5. In the side tabs, select **[Active Power Control]**.
6. In the drop-down list of **[Active Power Control Mode]>[Fixed Active Power]**, select **[Meter:3]**.
7. In the drop-down list of **[Meter Type]**, select the meter model connected to the inverter.
8. In the field of **[Meter Limit Power]**, change the desired power limit in percentage of **0-100**.
9. Select **[Confirm]** to save changes to power limit and enable active power control of the inverter.

8.0.6.1.2. On HiPortal App

1. Log into HiPortal App.
2. In the bottom menu, select **[PLANTS]**.
3. Select the desired plant. The **[STATUS]** page of the plant opens.
4. In the top menu, select **[DEVICES]**.
5. Select the desired device. The **[CHARTS]** page of the device opens.
6. In the top menu, select **[SETTINGS]**.
7. Select **[Fixed Active Power]**.
8. Set **[Mode] > [Meter:3]**
Set **[Meter Limit Power] > #a number from 0 to 100#**
Set **[Meter Type] > select the meter model connected to this inverter**
Select **[SUBMIT]** to save changes to power limit and enable active power control of the inverter.

8.0.6.2. Enabling Zero Export Mode

If the inverter is to control at the grid-connection point **NOT** feeding any to the utility grid, perform the following steps.

Requirements

- A smart meter is connected to the inverter.
- The function of [active power control](#) is enabled.

Procedure



QUALIFIED PERSONS

1. In the field of **[Meter Limit Power]**, change the number to **0**.
2. Select **[Confirm]** to save changes to power limit and enable active power control of the inverter.

8.0.7. Configuring Power Quality Response Modes and DRED (for Australia Only)

This section provides brief information for configuring power quality modes on inverters described in this document for AS4777.2, as requested from Australian grid operators using a web-based monitoring platform.

Requirements

- In configuring power quality response modes of the inverter, the safety standard of the inverter must be set to **AS/NZS 4777.2:2015**.
- Changes to grid settings may need approval from the grid operator.

Inverter power quality response modes

Inverter power quality response modes	
Power quality response modes	Default operation per AS/NZS 4777.2:2015
Volt-watt response mode	Default: Disabled
Volt-var response mode	Default: Disabled
Fixed power factor mode	Default: Disabled
Reactive power mode	Default: Disabled
Characteristic power factor curve for $\cos \phi$ (P)	Default: Disabled

Procedure



QUALIFIED PERSONS

1. Log into HiPortal Web.
2. In **[Device Management]>[Inverter]** or **[Plant Management]>[Plant Overview]>Select a [plant]> [Devices - List]**, find the inverter to be configured.
3. Click on **[More]**.
4. In the drop-down list, select **[Configure]**.
5. Change the desired settings. Refer to the following sections.

8.0.7.1. Enabling DRED

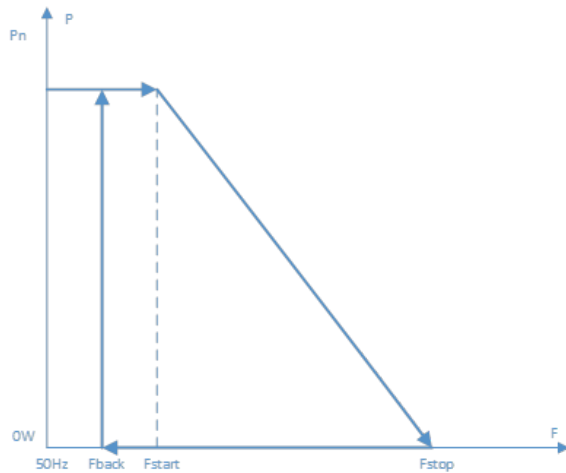
Procedure

1. In the side tabs, select **[Active Power Control]**.
2. Select **[Fixed Active Power]**.
3. Set **[Active Power Control Mode]** to **[DRED:2]**.
4. Select **[Confirm]**.

8.0.7.2. Enabling Over frequency response mode

Output power vs. Frequency

$$P_{out} = P_{ref} * \left(1 - \frac{F - F_{start}}{F_{stop} - F_{start}}\right)$$

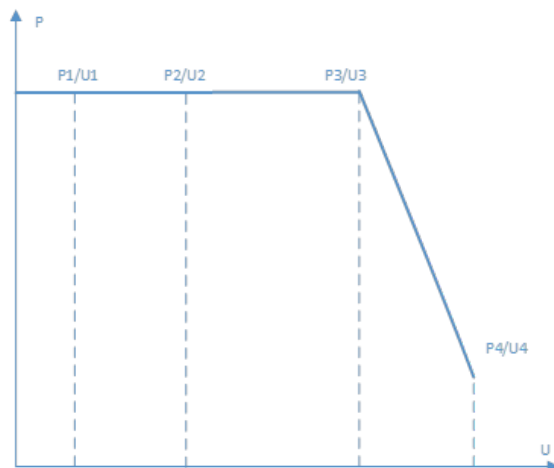


Procedure

1. In the side tabs, select **[Active Power Control]**.
2. Select **[Over Frequency Response]**.
3. Set **[P(U) Curve Enable]** to **[Enable:1]**.
4. Select **[Confirm]**.

8.0.7.3. Enabling Volt-watt response mode

Output Power vs. Voltage

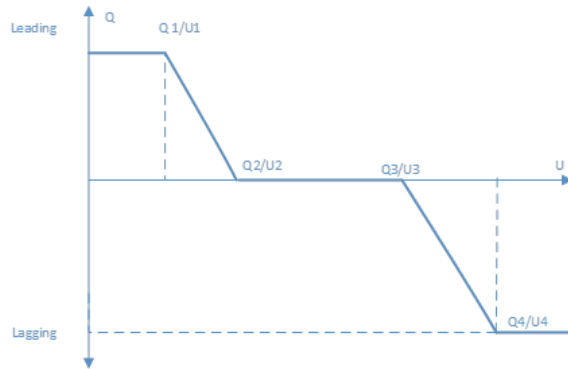


Procedure

1. In the side tabs, select **[Active Power Control]**.
2. Select **[P(U)]**.
3. Set **[Over Frequency Response Enable]** to **[Enable:1]**.
4. Select **[Confirm]**.

8.0.7.4. Enabling Volt-var response mode

Output Power vs. Q(U)

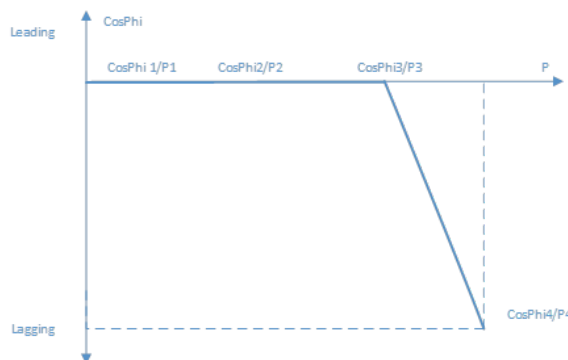


Procedure

1. In the side tabs, select **[Reactive Control]**.
2. Select **[Q(U) Curve]**
3. Change parameters to desired settings.
4. Select **[Confirm]**.

8.0.7.5. Configuring Reactive power control

Output Power vs. CosPhi(P)



Procedure

1. In the side tabs, select **[Reactive Control]**.
2. Select **[Fixed cosPhi]**
3. Change parameters to desired settings.
4. Select **[Confirm]**.

9. RECYCLING AND DISPOSAL

NOTICE



In requirement of WEEE, dispose the product using methods that are in

accordance with local regulations for electronic waste

The product described in this document is involved and categorized in the regulations of **Waste Electrical and Electronic Equipment (WEEE)** from the **European Community Directive 2012/19/EU**. Such regulations shall be applied in dispose and recycle of the product.

In countries and regions where equivalent regulations to WEEE are implemented in dispose of electrical and electronic waste, disposing methods in accordance with all applicable laws should be taken.

- If the product is to be stored away or shipped, pack the inverter using the original packaging or packaging that is suitable for the weight and dimensions of the product.
- If the product is no longer required or that replacement of the product is arranged or is to be arranged:
 - **DO NOT** dispose of the product together with the household waste.
 - Inform your dealer of the product or an authorized partner of Hypontech with information of the disposing product.
 - Dispose the product to a suitably authorized facility for recycling of electrical and electronic waste.

10. PRODUCT PARAMETERS

10.0.7.6. ELECTRICAL PARAMETERS

MODEL	Hi Manager
Input Voltage / V	DC 7.5 - 12
Input Current / mA	300
Max. Power Consumption / W	2.5

10.0.7.7. COMMUNICATION

MODEL	Hi Manager
Inverter Communication	RS485 x 2
Internet Communication	Ethernet 10/100 Mbit/s or Wifi (2.4GHz, 802.11 b/g/n)
RS485 Communication Range / m	1000
Wifi Communication Range / m	100
Data Storage / days	2
Display	LED x 3
Firmware update	Ethernet, USB

10.0.7.8. COMPATIBILITY

MODEL	Hi Manager
DRED	Yes
Smart Meter (RS485)	Yes

10.0.7.9. GENERAL DATA

MODEL	Hi Manager
Dimensions (W*H*D) / mm	147*90*38
Weight / g	410
Operating Ambient Temperature / °C	-10°C ~ +60°C
Storage Ambient Temperature / °C	-30°C ~ +80°C
Relative Humidity	5% to 95%
Protection class	IP20

11. CONTACT

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