# EG4® MONITOR CENTER

### OVERVIEW

The EG4 Monitor Center has new features that allow the end-user to easily check real-time system information regarding inverters, batteries, and other informative values. The images and descriptions in this guide will provide an overview of the EG4 Monitor Center, its settings and what they entail.



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#### **1. MONITOR CENTER OVERVIEW**

The EG4<sup>®</sup> Monitor Center is a cloud-based software that is accessible using a web browser. Begin by navigating to the EG4 Monitor Center website (*shown below*) and signing in.



#### NOTE:

Certain features shown in this guide are only available on select EG4<sup>®</sup> inverter models.



Once signed in to the Monitor Center, the user is placed on the default landing page. This page is referred to as the "Monitor" tab. Located at the top of the Monitor Center page, there are 5 tabs that can be selected.

- **A. Monitor** The "Monitor" tab displays Solar Yield, Battery Discharge/Charge, Feed-In Energy/Import, Consumption, and real time System Information.
- **B.** Data The "Data" tab contains detailed charts and data for inverters, solar arrays (if applicable) and batteries. This tab also has 5 pages.
  - **Chart** Displays various parameters in chart format over a 24hour period. There are separate charts for "PV Side," "Battery," "AC Side," "Backup Output," "Gen Side," and "Internal Sample."
  - **Energy** Displays how key energy parameters have varied over time.
  - **Data History** Displays the measured technical values of PV, battery, load, and grid for users or their distributor's examination to promptly address any potential issues.
  - Local Data The data captured during the offline periods are displayed in the "Local data" section (loss of internet or Wi-Fi).
  - Event History The "Event History" section displays a timeline of Notice and Fault events.





### NOTE:

# The "Data" tab will only display information on solar arrays when using TIgo Optimizers.

- **C. Configuration** The "Configuration" tab is designated for users to manage their station, dongle, and user information. This tab has 4 pages.
  - **Stations** The "Stations" section will show all stations linked to the account. Selecting a station name will display all inverters under that station or location.
  - **Dongles** Users can add the dongle Serial Number (SN) in the station if they have more than one inverter in the station.
  - **Devices** Users can view the general data for each of the inverters tied to the user's account.
  - **Users** This page shows a full list of users, distributors, and any other roles linked to the account.

Stations	
Dongles	
Devices	
Users	

- D. Overview The "Overview" tab allows EG4<sup>®</sup> or its distributors to quickly monitor system-wide data for their end users, such as solar yields, battery discharging, and other factors. This tab will have 2 pages.
  - **Station Overview** All stations linked to the account can be found here.
  - **Device Overview** All inverters linked to the account can be found here.
- **E.** Maintenance The "Maintenance" tab allows the end-user to set up and update their system. This tab will have 3 pages.
  - **Remote Set** This page will allow end users to set up their system for their specifications and uses.
  - Weather Optimize This page will allow the end user to set up their system for the best results according to weather conditions.
  - **Remote Update** This page shows all firmware updates for the system, past or present.

To access more on the "Data", "Configuration", "Overview", and "Maintenance" tabs, navigate to the corresponding sections in this document. This provides the end user more information of what each tab does and the information within each subpage.





#### 2. MONITOR TAB

After logging in to the EG4<sup>®</sup> Monitor Center and setting up the station, confirm that the correct inverter station has been selected. The default selection upon logging in will take the end-user to the "Monitor" tab, showing real time System Information, with tabs across the top of the screen. See image below.



### NOTE:

Settings will vary depending on which inverter and firmware version is installed.



### 2.1 SOLAR YIELD

The data in this section shows power generated by the solar array. AC coupled inverters will display the power generated by the grid-tied inverter. To accurately show data, the PV CT clamp for the AC ESS inverter will have to be installed. When the "Solar Yield" image is selected, the area displays the amount of solar energy used that day and a second mouse click displays the total Solar Yield since commissioning the system (*see images below*). Solar Yield data also includes the percentage portion of load supplied, total charge of battery, and total energy exported.



#### Total since commissioning



### 2.2 BATTERY DISCHARGE/CHARGE

The data in this section shows the charge and discharge of energy from the battery bank. When the battery picture is selected, the display will switch between Battery Discharge and Battery Charge showing totals for that day and since commissioning.





### 2.3 FEED-IN ENERGY/IMPORT

Displays energy exported to grid for that day and since commissioning. When the image is selected, it shows energy imported from the grid for that day and since commissioning.



Import	
	52.9 kWh Today Import
	20294.2 kWh Total Import

### 2.4 CONSUMPTION

The data in this section displays the total energy consumption of the location for that day and since commissioning.



### 2.5 SYSTEM INFORMATION

The image below displays live energy data with dynamic flows.



- **A. Battery Information** When the battery image is selected, the display will show battery charge and discharge limitations. The battery image color represents the following: Green = Healthy, Yellow = Warning, Red = Fault.
- **B.** Solar Yield The data will show the watts and volts that each array in the system is producing.
- C. Status The end-user can see what state their inverter is in.
  - **Grey color:** Inverter is offline and will stop power input and output.
  - Green color: Inverter is functioning properly.
  - **Orange color:** Inverter has experienced an event with a level of Notice or Warning. *See note below*.
  - Red color: Inverter has a fault.





#### NOTE:

Selecting the "Notice" event type will display the event(s) within the Data Tab under Event History (see image below).

EGUELECTRONICS		Ø Monitor	Data	🐯 Configuration	Overview	<b>E</b> Maintenance		🖄 English → 🕲 (User Name) →
Chart	C	) All devices 🗹 Sel	lect station first	(Station Name)	3383740027	All Event	~	Export data
		Station	Serial number	Event Type	Event		Start Time	Time Recovered
Chart Compare	1	(Station Name)	3383740027	Notice	W016: No AC Connection	n	2024-06-03 20:49:14	2024-06-05 21:50:18
Energy	2	(Station Name)	3383740027	Notice	W016: No AC Connection	n	2024-05-31 21:10:55	2024-05-31 21:27:10
Energy	3	(Station Name)	3383740027	Notice	W016: No AC Connection	n	2024-05-28 09:06:36	2024-05-31 20:49:14
Data History	4	(Station Name)	3383740027	Notice	W025: Battery voltage hi	gh	2024-05-17 14:23:07	2024-05-17 14:24:07
	5	(Station Name)	3383740027	Notice	W028: EPS Over load		2024-05-16 21:10:57	2024-05-16 21:12:59
Local Data	6	6 (Station Name) 3383740027 No		Notice	W028: EPS Over load		2024-05-16 21:02:54	2024-05-16 21:03:53
	7	(Station Name)	3383740027	Notice	W028: EPS Over load		2024-05-16 20:57:53	2024-05-16 20:59:52
Event History	8	(Station Name)	3383740027	Notice	W028: EPS Over load		2024-05-16 20:55:50	2024-05-16 20:56:51



#### NOTE:

Selecting the "Fault" event type will display the event(s) within the Data Tab under Event History (see image below).

EGHELECTRONICS	Ø Monitor	Data	😥 Configuration	Cverview Maintenance	<b>*</b> (9 E	inglish +			
Chart	🗌 All devices 🗹 Se	elect station first	~	All Event	~	Export data			
	Station	Serial number	Event Type	Event	Start Time	Time Recovered			
Energy	1		Fault	E000: Internal communication fault 1	2024-04-26 13:21:27				
Data History	2		Notice	W016: No AC Connection	2024-04-26 13:19:26	2024-04-26 13:20:26			
Data History	3		Fault	E000: Internal communication fault 1	2024-04-26 13:15:19	2024-04-26 13:19:26			
Local Data	4	4		W016: No AC Connection	2024-04-26 13:13:19	2024-04-26 13:14:18			
	5		Fault	E000: Internal communication fault 1	2024-04-26 12:40:22	2024-04-26 13:13:19			
Event History	6		Notice	W016: No AC Connection	2024-04-26 12:38:42	2024-04-26 12:39:42			
	7		Fault	E000: Internal communication fault 1	2024-04-26 12:33:18	2024-04-26 12:38:42			

**EPS** – The system converts power from battery/solar to AC line 1 and 2. EPS L1N and L2N will display the amount of watts consumed on each line.

- D. Utility/Grid Displays the grid input is present.
- **E.** Consumption Power When the inverter is running in bypass mode, this value shows the power being pulled from the grid.
- F. Start Functions Three start options for Gen Exercise, Quick Charge and Battery Backup.
  - Start Gen Exercise Starts generator automatically to ensure it is functioning properly.
  - **Start Quick Charge** Takes AC power for one hour and diverts it to charge batteries while putting the inverter in Bypass Mode.
  - **Start Battery Backup** The battery will charge all the way and not discharge until the grid goes down or selected to stop.

### 2.6 EXTENDED SYSTEM INFORMATION

The image below shows additional battery information. See callout 6 on Page 4 for full screen.



- Remain Cap: Remaining Ah capacity in the battery.
- Full Cap: Remaining Ah capacity in the full bank.
- Total Battery: The number of batteries.
- Discharge Current: Total discharge for all batteries.
- Total Voltage: Total voltage for entire bank.

#### 2.7 BATTERY INFORMATION

Next, scroll down the "Monitor" tab and this section will show the number of batteries an end-user has on their system. Here the end-user will be able to see additional values of the battery bank.

Battery Information 🗌 Show all parameters													
Battery 0 - EG4_485-	1_ID02 - V 0.00	Battery 1 - EG4_485-	1_ID03 - V 0.00	Battery 2 - EG4_485-	1_ID05 - V 0.00	Battery 3 - EG4_485-	Battery 3 - EG4_485-1_ID06 - V 3.37						
<b>52.28 V</b>	<b>78 %</b>	<b>52.29 V</b>	<b>80 %</b>	52.3 V	<b>82 %</b>	52.33 V	<b>79 %</b>						
Total Vol	soc	Total Vol	SOC	Total Vol	SOC	Total Vol	SOC						
<b>-48.9 A</b>	<b>100 %</b>	-43.9 A	<b>100 %</b>	-39.2 A	<b>0 %</b>	-44.7 A	<b>98 %</b>						
Current	SOH	Current	SOH	Current	SOH	Current	Soh						

- Battery ID The name of the battery.
- Total Voltage Total voltage of the battery.
- SOC The state of charge of the battery.
- Current The charge/discharge current of the battery.
- **SOH** State of health of the battery.

Show all parameters: Select the check box to display additional details about the battery.

Battery Inf	formation	🗌 Show all pa	rameters	Battery Ir	Battery Information 🛛 Show all paramete									
Battery Information Z Show all parameters														
Battery 0 - EG4_485-1_I	D02 - V 0.00	Battery 1 - EG4_485-1_IC	003 - V 0.00	Battery 2 - EG4_485-1_IC	004 - V 0.00	Battery 3 - EG4_485-1_IC	205 - V 0.00							
<b>51.45 V</b>	<b>51.45 V 33 %</b>		<b>38 %</b>	<b>51.47 V</b>	<b>46 %</b>	<b>51.5 V</b>	<b>43 %</b>							
Total Vol	Total Vol SOC		SOC	Total Vol	SOC	Total Vol	SOC							
<b>-43.5 A</b>	<b>100 %</b>	-42.1 A	<b>100 %</b>	-37.8 A	<b>0 %</b>	-40 A	<b>0 %</b>							
Current	SOH	Current	SOH	Current	SOH	Current	SOH							
<b>29 °C</b>	<b>29 °C</b>	28 °C	<b>29 °C</b>	25 °C	<b>25 °C</b>	<b>26 °C</b>	<b>26 °C</b>							
Min Temp / Cell 0	Max Temp / Cell 0	Min Temp / Cell 0	Max Temp / Cell 0	Min Temp / Cell 0	Max Temp / Cell 0	Min Temp / Cell 0	Max Temp / Cell 0							
<b>3.213 V</b>	<b>3.218 V</b>	<b>3.215 V</b>	<b>3.219 V</b>	3.18 V	<b>3.228 V</b>	<b>3.216 V</b>	<b>3.222 V</b>							
Min Volt / Cell 3	Max Volt / Cell 4	Min Volt / Cell 6	Max Volt / Cell 10	Min Volt / Cell 0	Max Volt / Cell 0	Min Volt / Cell 0	Max Volt / Cell 0							
<b>353</b> Cycle Count		<b>143</b> Cycle Count		<b>O</b> Cycle Count		<b>0</b> Cycle Count								

- Min. Temp The cell number with the lowest temperature.
- Max. Temp The cell number with the highest temperature.
- Min. Volt The cell number with the lowest voltage.
- Max. Volt The cell number with the highest voltage.
- Cycle Count Number of times the battery has been fully charged and discharged.

#### 2.8 INPUT & OUTPUT POWER

Located further down on the "Monitor" tab, the power curve for Input & Output Power per day can be found. The graph below displays the statistics for Solar PV, Battery, Grid, Consumption, SOC, and AC Coupling. These can also be selected individually to show input & output power.

Input&Output Power	80 - 170		Notification
8k			Other Revenue
-8k		31	CO2↓ 36.49 kG COx Reduction
-16k	08:00 10:00 12:00	14:00 16:00 18:00 20:00 22:00 04-25 <sup>0</sup>	Coal Saving

- A. Solar PV Displayed by a blue line.
- B. Battery Discharged Displayed by a green line.
- C. Grid Displayed by a red line.
- D. Consumption Displayed by an orange line.
- E. SOC Displayed by a purple line.
- F. **AC Couple** Displayed by a dark blue line.

### 2.9 ENERGY OVERVIEW

At the bottom of the "Monitor" tab is the Energy Overview. This displays the Month, Year, and Total Solar Production, Battery, Export to Grid, Import to User, and Consumption.



- A. Solar Production Displayed in light blue.
- B. Battery Discharged Displayed in green.
- C. Battery Charged Displayed in dark blue.
- D. Export to Grid Displayed in red.
- E. Import to User Displayed in brown and shows energy from the grid.
- F. Consumption Displayed in orange and shows how much loads are consuming.
- G. AC couple/Generator Displayed in blue.
- H. Month Select to see energy statistics for each day.
- I. Year Select to see energy statistics for each month.
- J. Total Select to see energy statistics for each year.

#### 3. DATA TAB

The "Data" tab displays detailed data, including technical details for PV, battery, grid, and loads, that are helpful for analysis, maintenance, and troubleshooting. The data tab is made up of five pages: Chart, Energy, Data History, Local Data, and Event History. For more details on each page, see the following tables.

#### 3.1 CHART

Displays various parameters in chart format over a 24-hour period. There are separate charts for PV Side, Battery, AC Side, Backup Output, Gen Side, and Internal Sample.

EGUELECTRONICS	Ø Monitor	Data	Configuration	00 Overview	ම් Maintenance										😫 Eng		
Chart	Select station first		▼	✓ 2024-	04-26												
horrow	PV Side		v	pv1(V) - (41148300	82, 2024-04-26)					SC	DC(%) - (411	4830082, 2	2024-04-26	)			Battery
chergy	Vpv1(V)							76									SOC(%)
Data History	Vpv2(V)							75									vBat(V)
Local Data	Ppv2(W)							74									DisCharge Power(W)
2000.0000		0 AVG: OV						AVG: 73	3.2%								
Event History								/3									
								72									
		04-26	01:00 02:00	03:00 04:00	05:00 06:0	0 07:00	08:00	71 04-26	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	
	AC Side		V	acr(V) - (41148300				Backup Output									
	Vacr(V)																V Backup Output r(V)
	pToGrid(W)							. 0 _AVC.0W									P Backup Output(W)
	pFromGrid(W)																S Backup Output(VA)
	pACcoupling(W)	0 AVG: OV															
	pLoad(W)																
		04-26	01:00 02:00	03:00 04:00	05:00 06:0	0 07:00	08:00	04-26	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	
	GenVolt/V)		Ger	1Volt(V) - (4114830	082, 2024-04-26)					vBu	152(V) - (41	14830082,	2024-04-2	6)			vBus2/Vi
	GenFreq(Hz)							400									Vbat_Inv(V)
	GenPower(W)							300 AVG: 2	293.4V								vBus1(V)
		AVG: 0								vBusP(V)							
								200									
								100									
								0									
		04-26	01:00 02:00	03:00 04:00	05:00 06:0	0 07:00	08:00	04-26	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	

The following table gives a brief description of the parameters found in the chart shown on the previous page:

Section	Name	Description							
	Vpv	Voltage of solar input							
FV Side	Ppv	Power of solar input							
	SOC(%)	Battery state of charge							
Batton	vBat(V)	Battery voltage							
Dallery	Charge Power(W)	Total battery charging wattage							
	Discharge Power(W)	Total battery discharging wattage							
	Vacr(V)	Voltage of AC output							
	Qac(Var)	Reactive power of AC output							
AC Sido	pToGrid(W)	Power being exported to the grid							
AC Side	pFromGrid(W)	Power being utilized from the grid							
	pACoupling(W)	Total power being utilized from AC coupled system							
	pLoad(W)	Power being utilized for the load							
	V Backup Output r(V)	Load rated voltage							
Rockup Output	F Backup Output(Hz)	Load frequency							
	P Backup Output(W)	Load output power							
	S Backup Output(VA)	Load apparent power							
	GenVolt(V)	Voltage of generator connected to inverter							
Gen Side	GenFreq(Hz)	Frequency of generator connected to inverter							
	GenPower(W)	Amount of power being utilized from the generator							
	vBus2(V)	2 <sup>nd</sup> sample from high voltage BUS							
Internal Comple 1	Vbat_Inv(V)	Voltage sample from batteries after boost							
internal Sample T	vBus1(V)	1 <sup>st</sup> sample from high voltage BUS							
	vBusP(V)	Total high voltage sample							

#### 3.2 ENERGY

The "Energy" section displays how key energy parameters have varied over time by Month, Year, and Total.

- Selecting "Month" will show the energy statistics for each day of the month.
- Selecting "Year" will show energy for each month of the year.
- Selecting "Total" will show energy for each year.



Name	Description
E_pv_all(kWh)	Energy generated by entire PV array
E_pv1(kWh)	Energy generated by PV string 1
E_pv2(kWh)	Energy generated by PV string 2
E_inv(kWh)	Energy output via AC output
E_rec(kWh)	Energy of AC charge
E_charge(kWh)	Energy used for battery charge
E_discharge(kWh)	Energy output by battery discharging
E_backupPower(kWh)	Load energy output
EnergyToGrid(kWh)	Feed-in energy
EnergyFrom Grid(kWh)	Energy import from grid

### 3.3 DATA HISTORY

This page displays the measured technical values of PV, battery, load, and grid for users or their distributor's examination to promptly address any potential issues. Advanced technical knowledge is necessary to properly comprehend this table. End users are advised to concentrate solely on the "Monitor", "Chart", and "Energy" sections as these offer simple to comprehend performance data.



### NOTE:

Data can be exported to an Excel file to be provided to the distributor for technical support. Distributors can then analyze the following factors to perform quick troubleshooting for their end users.

EGUELECTRONICS	Ø Monitor	Data	Co	ැබූ nfiguratio	n	Ove	88 erview		Mair	<b>e</b> ntenance							<b>1</b>	nglish	•			•
Chart	Select station	first	~			~	۲.	2024-04	-12	>						Expo	ort data	Ехро	ort data(2	2024-04-1	12 - 2024	4-04-05)
	Serial number	Time	Status Vpv	I(V) Vpv2(	V) Vpv3(V	) vBat(V)	SOC(%	) Ppv1(V	V Ppv2()	V Ppv3(V	/ pCharge	() pDisCharge	Vac(r)(\	Vacs(V)	Vact(V)	Fac(Hz)	Pinv(r)(	Prec(r)	V PF(r)	Veps(r)	( Vepss(	V Vepst(
Energy	1	2024-04-12 12:17:51	0x88 425	4 0	0.1	55.7	100%	42	0	0	38	0	0	25.6	0.1	0	0	0	[0]	242.3	0	0
Data History	2	2024-04-12 12:14:49 (	0xC0 427	1 0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	241.6	0	0
Data History	3	2024-04-12 12:11:46 (	0xC0 425	8 0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	241.4	0	0
Local Data	4	2024-04-12 12:08:44 (	0x88 425	8 0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	242.3	0	0
	5	2024-04-12 12:05:43	0x88 425	9 0	0.1	55.7	100%	75	0	0	68	0	0	25.6	0.1	0	0	0	[0]	241.9	0	0
Event History	6	2024-04-12 12:02:42 0	0x88 426	9 0	0.1	55.7	100%	13	0	0	12	0	0	25.6	0.1	0	0	0	[0]	241.6	0	0
	7	2024-04-12 11:59:40 (	0x88 428	0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	241.4	0	0
	8	2024-04-12 11:56:39 (	0xC0 428	8 0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	242.3	0	0
	9	2024-04-12 11:53:39	0xC0 427	7 0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	241.6	0	0
	10	2024-04-12 11:50:38 (	0x88 429	3 0	0.1	55.7	100%	75	0	0	68	0	0	25.6	0.1	0	0	0	[0]	241.4	0	0
	11	2024-04-12 11:47:36	0xC0 427	6 0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	242.3	0	0
	12	2024-04-12 11:44:32 (	0xC0 425	0	0.1	55.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	241.6	0	0
	12	2024 04 12 11 41 21 (	w00 43E	5 0	0.1	66.7	100%	0	0	0	0	0	0	25.6	0.1	0	0	0	[0]	241.6	0	0

Name	Description
PtoGrid/PtoUser	Checks if CT was connected correctly
Vpv/Ppv	Checks the MPPT
Vo/Po/So	Checks the load type and check if there is an overload when in load mode
Vb/SOC	Checks the current state of charge and if the battery is overcharged or overly discharged.
Vac/Fac	Evaluates Grid performance and to check if working voltage and frequency range is adjusted to comply with grid
E-xxday	Evaluates energy distribution
E-xxall	Checks if the system is working well under off grid mode

### 3.4 LOCAL DATA

The data captured during the offline periods is displayed in the "Local Data" section (loss of internet or Wi-Fi). The only distinction from "Data History" is that it is used for offline data recording. Local data is recorded while the system is offline for more than 20 minutes and is taken every 5 minutes. Data can be stored in the system for a maximum of 90 days.

EGUELECTRONICS	Ø Monitor	) Data	👸 Configuration	Overview	<b>பி</b> Maintenance		Øi English →	•
Chart	✓ Select station first		<b>v</b>	Show all	local data < 2024-04-	> [1, 90] Read	Clear	Export data
Energy	Serial number Time		Status Vpv1(V) Vpv2(V) vBat(	V) SOC(%) Ppv1(W Pp	v2(W pCharge() pDisCharge Vacr(V)	Fac(Hz) Pinv(W) Prec(W) PF	Vepsr(V Feps(Hz Peps(W Seps(V	A pToGrid pToUser ePv1Da
Data History								
Local Data								
Event History								

### 3.5 EVENT HISTORY

The "Event History" page displays a timeline of Notice and Fault events. If there is not a record of a "historical event," the inverter is properly connected and working without any issues.

EGUELECTRONICS	Ø Monitor	Data 0	🔅 Configuration	Cverview Maintenance		ĝi English → →
Chart	🗆 All devices 🗹	Select station first	<b>v</b>	✓ All Event	~	Export data
	Station	Serial number	Event Type	Event	Start Time	Time Recovered
Energy	1		Notice	W016: No AC Connection	2024-04-12 09:21:36	
Data History	2		Notice	W026: Battery voltage low	2024-04-12 08:28:52	2024-04-12 09:21:36
Data History	3		Notice	W027: Battery open	2024-04-12 08:20:04	2024-04-12 09:21:36
Local Data	4		Notice	W016: No AC Connection	2024-04-11 11:01:26	2024-04-12 08:26:52
	5		Notice	W000: Communication failure with b	attery 2024-04-09 10:33:05	2024-04-09 12:49:40
Event History	6		Notice	W026: Battery voltage low	2024-04-09 09:58:07	2024-04-11 11:01:26
	7		Notice	W027: Battery open	2024-04-09 09:22:58	2024-04-11 11:01:26

### 4. CONFIGURATION TAB

The "Configuration" tab is designated for users to manage their Stations, Dongles, Devices, and User information.

(	EGUELECTRONICS		Ø Monitor	) Data		හි Configuration	88 Overview	<b>b</b> Maintenance	ġ	English 👻			
	Stations	+	Add Station							Search by stat	tion name	×	٩
			Station name		Со	untry	Timezone	Daylight saving time	Create date 🔻	/	Action		
	Dongles	1			Un	ited States of America	GMT -6	No	2023-09-15		Station Manageme	nt 🕶	
	Devices	2			Un	ited States of America	GMT -6	No	2023-04-13		Station Manageme	nt 🗸	
	Devices												
	Users												

### 4.1 STATIONS

The "Stations" page will show all stations linked to the account. Selecting a station name will display all inverters under that station or location.

Selecting the "Add Station" button creates another site if there is more than one station under the same account. This is useful for distributors who have multiple customers who would like assistance with monitoring/troubleshooting their inverters.

EGUELECTRONICS	Ø Monitor	<b>())</b> Data	<b>ිරි</b> Configuration	Overview	ස් Maintenance		Øii English → 💿 (U	ser Nam	1e) 🔻
Stations	+ Add Station						Search by station name	×	٩
	Station name	c	ountry	Timezone	Daylight saving time	Create date 🔻	Action		
Dongles	1 (Station Name)	U	nited States of America	GMT -6	Yes	2023-12-04	Station Manage	ment 🕶	
Devices									
Users									

#### 4.2 DONGLES

Users can add a dongle Serial Number (SN) to the station if they have more than one inverter in the station. The inverter will be shown on the system once the dongle has been properly configured to communicate with the server and the inverter has been powered on.



#### **IMPORTANT:**

Before configuring the password for the Wi-Fi dongle, add the dongle to the monitor center.

EGUELECTRONICS		Ø Monitor	Data		හි Configurati	on		0 Overview	<b>e</b> Maintenance	, <b>*</b>	۲ (	🖄 English 👻	
Stations			✓ All Status	~	All Type 🖌	+ Add	l Dongle	✿ Import Dongle			Sear	ch by dongle SN	×
		Serial number	Dongle type	Station	n name	E	EndUser	Firmware	Create date	Connect Status		Last Update Time	Action
Dongles	1		Wi-Fi			E	EndUser		2023-08-11	Lost		2024-01-18 13:05	Management -
Devices	2								2023-09-22	Lost			Management 🗸
Devices	3		Wi-Fi						2023-08-02	Lost		2023-08-15 14:3€	Management <del>-</del>
Users	4								2024-03-03	Lost			Management 🗸
	5		Wi-Fi						2023-10-13	Connected		2024-03-07 14:28	Management 🗸

### 4.3 DEVICES

The "Devices" page displays any inverter tied to the user's account, listed by serial number. Data can be exported to an Excel file for record keeping or to view specific inverter stats.

EGUELECTRONICS		Ø Monitor		) Data	<b>{</b> Config	€} uration	Over	8 view	<b>e</b> Maintenance		(1) Er	nglish 🝷	• (	Jser Nam	e) 👻
Stations	Ċ		~								Search	by inverter	/dongle S	N X	٩
		Serial number	Dongle	Station name	Device ty	Battery type	Power Ra	Firmware	Status	Connect Status	BattParall	BattCapac	Export	Action	
Dongles	1			(Station Name)	6000XP	Lithium battery	6kW	cCaa-186168	PV&Battery Grid on	Connected	0	500	true	Manager	ment 🕶
Devices	2			(Station Name)	6000XP	Lithium battery	6kW	cCaa-186168	PV&Battery Grid on	Connected	5	500	true	Manager	ment 🕶
benets															
Users															

### 4.4 USERS

The "Users" page shows a full list of users, distributors and any other roles linked to the account. End users can modify passwords and edit personal information in the user page under the "User Management" drop down box. Distributors can add installer or end user accounts on this page.

<b></b>																-
Dor	nales			Username	Nickname	Role	E-mail		Country	Timezone	Tel number	Address	Create date	Action		
001	igico		1	Docteam enduse	r	EndUser			United States (	GMT -6			2024-03-14	User Man	nagement 🗸	
Dev	vices															
Use	ers									1						
									ate	Actio	n					
	* Username	(User N	Vame)	I					04	Use	Manageme	nt 🗸				
	Nickname	Nickna	ime								5					
	* E-mail	suppor	rt@eq	4electronics.com			~			Edit						
										N 41:4						
	* Continent	North	Amer	rica			~			Woalt	y password	1				
	* Region	North	Amer	rica			~									
	* Country	United	d State	es of America			~									
	* Timezone	GMT -	6				~				♦					
	*1	Co alla						Г	* Old Passuo		Dacquord					
	~ Language	Englis	n						Old Passwo		assword					
	Tel number	Tel nur	nber						* New Passwo	rd New	Password					_
	Address	Addres	s						* Repeat passwo	rd Repe	at password					
		Update	•	Back to user list						Upda	te Back to user li	st				
		<u> </u>														

#### 5. OVERVIEW TAB

The "Overview" tab allows EG4<sup>®</sup> or its distributors to quickly monitor system-wide data for their end users, such as solar yields, battery discharging, and other factors.

### 5.1 STATION OVERVIEW

All the stations linked to the account can be found here. Selecting a station name will switch the main page to show the real time data.

Station Overview												Search by station n	iame	×	٩
		Name	Status	SolarPower	ChargePower	DischargePower	Load	Solar Yield	BatteryDischargi	FeedEnergy	ConsumptionEn	Installer ≑	EndUser		
Device Overview	1		Ø Offline	0 W	0 W	0 W	0 W	0 kWh	0 kWh	0 kWh	0 kWh				
	2		💋 Offline	0 W	0 W	0 W	0 W	0 kWh	0 kWh	0 kWh	0 kWh				
	3		Ø Offline	0 W	0 W	0 W	0 W	0 kWh	0 kWh	0 kWh	0 kWh				
	4		Ø Offline	0 W	0 W	0 W	0 W	0 kWh	0 kWh	0 kWh	0 kWh				

### 5.2 DEVICE OVERVIEW

All the inverters linked to the account can be found here. Selecting a serial number will switch the main page to show the real time data for that inverter.

Station Overview			✓ A	ll Status 🖌								Se	arch by inverter SN		×	٩
		Serial number	Status	Device type	SolarPower	ChargePower	DischargePow	Load	Solar Yield	BatteryDischa	FeedEnergy	Consumptio	n Station name	Parallel	Actio	n
Device Overview	1		Ø Offline	18KPV	0 W 0	0 W	0 W 0	0 W	0 kWh	3550.1 kWh	4330.2 kWh	0 kWh				
	2		Ø Offline	18KPV	0 W	0 W	0 W 0	0 W	0 kWh	64.9 kWh	16.9 kWh	39.8 kWh				
	3		Ø Offline	18KPV	0 W	0 W	0 W	0 W	273.1 kWh	5502.1 kWh	5191.1 kWh	79.1 kWh				
	4		Notice	18KPV	13 W	12 W	0 W 0	0 W	36.7 kWh	30.1 kWh	1.9 kWh	244 kWh				
	5		🕑 Normal	18KPV	0 W	0 W	11 kW	-221 W	36.6 kWh	17145.7 kWh	14848.1 kWh	0 kWh				
	6		Ø Offline	6000XP	0 W	0 W	0 W 0	0 W 0	0 kWh	35 kWh	0 kWh	12.2 kWh				
	7		Ø Offline	6000XP	0 W	0 W	0 W	0 W	387.1 kWh	651.8 kWh	0 kWh	156.2 kWh				
	8		🖉 Offline	6000XP	0 W	0 W	0 W 0	0 W	0 kWh	13.2 kWh	0 kWh	0 kWh				
	9		🕑 Normal	6000XP	5 kW	4 kW	0 W	0 W	181 kWh	144.4 kWh	0 kWh	20.4 kWh				

#### 6. MAINTENANCE TAB

The "Maintenance" tab is used to remotely change settings on the inverter by selecting a station and then an inverter serial number. The Maintenance tab includes Remote Set, Weather Optimize, and Remote Update. *See image below.* 

#### 6.1 REMOTE SET

The "Remote Set" page is used to configure inverter settings. Select the station to begin configuring settings. Each sub-section is explained below.

EGUELECTRONICS	Ø Monitor	) Data	<b>ූ</b> වූ Configuration	Overview	<b>Haintenance</b>
Remote Set	Select station	first	♥	Read	
Weather Optimize	🔨 Comm	ion Setting			
Remote Update	A Applic	ation Setting			
	∧ Grid C	onnect Setting			
	▲ Charg	e Setting			
	▲ Gener	ator Charge			
	▲ Discha	rge Setting			
	▲ Batter	y Read			
	∧ Reset				

#### **Common Settings**

✓ Common Setting		
Time (?)	yyyy-MM-dd HH:mm:ss	Set
PV Input Mode (?)	<empty> 🗸</empty>	Set
Start PV Volt(V)	[90, 500]	Set
Model		
Measurement (?)	<empty> 🗸</empty>	
Battery Type (?)	<empty> 🗸</empty>	
Lithium Brand (?)	<empty> 🗸</empty>	Set Model
Firmware version		
LCD Version		

- **Time:** Set the time/date of the inverter. The input format is 2019-02-14 14:44:00 (YYYY-MM-DD HH:MM:SS)
- PV Input Mode: The connection type of solar modules.
- Start PV Volt (V): Voltage at which the MPPT utilizes solar for loads/charging.
- **Measurement:** Choose the correct "Measurement" according to Meter Type or CT Sample Ratio according to the external measuring device that is installed. The default measurement is 1000/1. The measurement can be adjusted if there is a meter connected to the inverter.
- **Battery Type:** Choose the "Battery Type" and then select Lithium Brand (for closed-loop communications), or battery capacity for lead-acid/lithium batteries with no communications. *Note: after setting the battery type, all other settings will reset to default.*
- Lead-acid Capacity: Set the total capacity when using lead-acid batteries.
- Lithium Brand: Choose the brand of lithium battery being used.
- Firmware version: Shows the current firmware version being used.
- LCD Version: Shows the current LCD version being used.



#### NOTE:

When the "Model" settings need to be changed, users need to set inverter to "Standby" in the Application Settings menu first, then select "Set Model" to change the model.

#### **Application Settings**

✓ Application Setting			
No Batteries (?)	Enable Disable		
Power Backup (?)	Enable Disable	Seamless EPS switch	ng (?) Enable Disable
Grid Sell Back (?)	Enable Disable	Grid Sell Back Power(k	M) (?) [0, 25.5] Set
Fast Zero Export (?)	Enable Disable	Off-Grid Mo	de (?) Enable Disable
PV Arc (?)	Enable Disable	PV Arc Fault Cl	2ar (?) Clear
Grid Loss Warning Clear (?)	Enable Disable	R	SD (?) Enable Disable
Normal / Standby (?)	Normal Standby	Restart Inve	ter (?) Restart
Micro-Grid (?)	Enable Disable	Max. AC Input Power(k	M) (?) [0, 6553.5] Set
System Charge SOC Limit(%)	[10, 101]	Set System Charge Volt Li	nit(V) [40, 59.5] Set
Parallel System			
Set System Type (?)	<empty></empty>	✓ Set Share Batte	ry (?) Enable Disable
Set Composed Phase (?)	<empty></empty>	✓ <empty> ✓ Set Parallel Setting Data Sy</empty>	nc (?) Enable Disable

- **No Batteries:** Allows access to off-grid mode when only solar input is available without battery storage.
- **Power Backup:** If "Power Backup" function is Enabled, the LOAD terminal will maintain output when AC is interrupted. "Power Backup" can be set via the web or "Off-Grid Output" by LCD. (When enabling this mode, the inverter's output will be uninterrupted.)
- Seamless EPS Switching: When power is interrupted, the inverter will seamlessly switch to EPS mode unless there is a grid voltage fluctuation issue; in which case, we suggest setting to "Disable" to avoid misjudgment.
- **Grid Sell Back:** In some cases, the customer cannot feed energy into grid. If the customer does not want to feed energy to the grid, the "Grid Sell Back" function can be disabled.
- **Grid Sell Back Power(kW):** If "Grid Sell Back" function is enabled, the power limitation feed can be adjusted.
- **Fast Zero Export:** Normally, the inverter will adjust output power every 5 seconds to avoid export. If "Fast Zero Export" is enabled, the inverter will adjust output power accordingly.
- **Off-Grid Mode:** Enable for nominal Off-Grid operations while utilizing AC input as a backup power source, allowing for absolute zero export.
- **PV Arc:** The inverter will detect when there is an arc fault on the PV inputs in order to protect itself from potential damage.
- PV Arc Fault Clear: Clear the records of PV arc fault.
- **Grid Loss Warning Clear:** Enable for an absolute Off-Grid system. The "No AC Connection" and "AC V /F out of range" warning will not occur when enabled.
- **RSD:** The rapid shut-down detection of the PV inputs.
- **Normal/Standby:** "Standby" is used to set the system into standby mode, stopping feed in, charge and discharge. "Normal" is used to set the whole system to auto run status.
- Restart Inverter: Restarts the inverter.
- **Micro-Grid:** Should be set only when the generator is connected to the Inverter's Grid terminal. With this option enabled, the inverter will use AC power to charge the battery and will not export any power through the Grid terminal if AC power is present at the inverter's Grid terminal.
- Max. AC Input Power(kW): The inverter can adjust the charge power based on the detected inverter's load consumption and "Max. AC Input Power(kW)" limitation.
- System Charge SOC Limit(%): The limit to which the battery can be charged measured by SOC%. Once set, the battery SOC will not exceed the set value.

• **System Charge Volt Limit(V):** The limit to which the battery can be charged measured by voltage. Once set, the battery voltage will not exceed the set value.

Parallel System				
Set System Type (?)	<empty></empty>	✓ Set	Share Battery (?)	Enable Disable
Set Composed Phase (?)	<empty></empty>	▼ Set	Parallel Setting Data Sync (?)	Enable Disable

- Set System Type: EG4<sup>®</sup> inverters support paralleling of multiple inverters. In this scenario, one of the inverters must be set to Master and the others set to Slave. If all inverters are installed as single-phase, be sure to set one of the inverters to "1 Phase Master." If a three-phase system is needed, set one of the inverters to "3 Phase Master." All inverters are set to Slaves by default. Upon purchase/receipt of the inverters, one will need to be set to Master before paralleling multiple inverters.
- **Share Battery:** For paralleled systems: if all inverters connect to same battery bank, "Share Battery" must be enabled. The Master inverter will broadcast the battery information to all other inverters.
- Set Composed Phase: When using ≥ 3 inverters to compose a three-phase system, the AC terminals of the inverter must be connected to a three-phase grid. If the system is connected to the grid, the inverter will detect the phase it connects to automatically, record it and output the phase as it detected. If the user setting is different from the phase the inverter detected, it will output the phase detected. The output phase record will be cleared if the customer clears it. If the system is not connected to the grid, the inverter will use the user output phase setting to compose the three-phase output. If the customer sets the wrong phase (i.e., 2 U phase and no W phase) the system will report error.
- Parallel Setting Data Sync: Syncs master inverter settings to those of the slave inverter(s).

#### **Grid Connect Settings**

✓ Grid Connect Setting						
Grid Frequency(Hz) (?)	<empty> 🗸</empty>	Set	Grid Type (?)	<empty></empty>	•	Set

• **Grid Frequency:** If the "Grid Frequency" is nominal at 50Hz, then the inverter's frequency will be adjusted to 50Hz automatically. If there is no grid power and it is read as 50Hz, but the devices are 60Hz, then it can be set to 60Hz manually. This is based on the rated frequency of the local grid regulation and devices.



#### WARNING:

Settings should be adjusted while the device is on Standby. Ensure this setting is correctly configured before powering on the system. Using the wrong power frequency can lead to home appliance damage.

• Grid Type: Select the correct "Grid type" to function, such as split phase: 240/120 or 208/120V.

#### Charge Settings

✓ Charge Setting								
Batt Charge Control (?)	Volt SOC		Charge Cur	rent Limit(Adc) (?)	[0, 250]	Set		
Charge Setting     Batt Charge Control (?) Voit SOC     Charge Last (?) Enable Disable     Battery Backup Mode Enable Disable     AC Charge     AC Charge Enable (?) Enable Disable     Start AC Charge SOC(%) (0,90) Set     Start AC Charge SOC(%) (0,100) Set     AC Charge End Time 1 (0,23) : (0,59) Set     AC Charge End Time 1 (0,23) : (0,59) Set     Battery Backup Mode     PV Charge Priority (?) Enable Disable     PV Charge Priority Start Time 1 (0, 23) : (0, 59) Set     Battery Diority Start Time 1 (0, 23) : (0, 59) Set								
Battery Backup Mode	Enable Disable							
AC Charge								
AC Charge Enable (?) Enable	Disable	AC Charge Based On (?)	<empty> 🗸</empty>	Set	AC Charge Power(	<b>(W) (?)</b> [0, 25.5]	Set	t
Start AC Charge SOC(%) [0, 90]	Set	Start AC Charge Volt(V)	[40, 57]	Set				
Stop AC Charge SOC(%) [0, 100]	Set	Stop AC Charge Volt(V)	[42, 59]	Set				
AC Charge Start Time 1 [0, 23]	: [0, 59] Set	AC Charge Start Time 2	[0, 23] : [0, 59]	Set	AC Charge Start	Time 3 [0, 23] :	[0, 59] Se	ət
AC Charge End Time 1 [0, 23]	: [0, 59] Set	AC Charge End Time 2	[0, 23] : [0, 59]	Set	AC Charge End	Time 3 [0, 23] :	[0, 59] Se	эt
Battery Backup Mode								
PV Charge Priority (?) Enable	Disable	PV Charge Power(kW)	[0, 25.5]	Set				
PV Charge Priority Stop SOC(%) (?) [0, 100]	Set	PV Charge Priority Stop Volt(V)	[48, 59]	Set				
Battery Priority Start Time 1 [0, 23]	: [0, 59] Set	Battery Priority Start Time 2	[0, 23] : [0, 59]	Set	Battery Priority Start	Time 3 [0, 23] :	[0, 59] Se	ət
Battery Priority End Time 1 [0, 23]	: [0, 59] Set	Battery Priority End Time 2	[0, 23] : [0, 59]	Set	Battery Priority End	Time 3 [0, 23] :	[0, 59] Se	∍t

- **Battery Charge Control:** If the inverter communicates with the lithium battery and is capable of closed-loop communication, then select "Batt. Charge Control" according to "SOC." If communication is not available, users can select "Batt. Charge Control" according to "VOLT."
- Charge Current Limit (Adc): The maximum charge current limitation of the entire system.
- Charge Last: Charges battery last.
- **AC Charge Enable:** If using AC (i.e., the Grid) to charge the battery, the customer must (1) "Enable" AC Charge Enable, (2) set the max power to charge the battery from AC; "AC Charge Power (kW)", (3) set the SOC and Voltage Limits; "Start AC Charge SOC(%)/Volt(V)" and "Stop AC Charge SOC (%)/Volt(V)" and (4) set the time period to use the AC to charge the battery. There are 3 time periods that can be set. If the battery SOC and Voltage is within the limits, the system will use AC from the Grid to charge the battery during the time that is set.
- AC Charge Based On: According to time: Set a preferred time period to charge the battery range: 00:00 23:59. According to voltage: Set AC to charge the battery when it drops to a preset voltage. Range: 50-59V.
- AC Charge Power (kW): The max charging power from grid.
- AC Charge: Set AC charging according to Time or Volt(V)/SOC (%).
- Start AC Charge SOC(%)/Volt(V): Limit of SOC and Voltage at which system will start charging batteries from AC.
- Stop AC Charge SOC(%)/Volt(V): Limit of SOC and Voltage at which system will stop charging batteries from Grid.
- AC Charge Start Time 1-3: Start AC Charging according to these time settings.
- AC Charge End Time 1-3: Stop AC Charging according to these time settings.
- **PV Charge Priority:** In this mode, solar will charge battery first. After charging batteries, solar will supply any loads. Lastly, it will feed into the grid if surplus power is generated.
- PV Charge Power(kW): The max charging power from solar.
- PV Charge Priority Stop SOC (%): When SOC reaches this limit, charge first mode will end.
- PV Charge Priority Stop Volt (V): When voltage reaches this limit, charge first mode will end.
- Battery Priority Start Time 1-3: Start time for charge first setting.
- Battery Priority End Time 1-3: End time for charge first setting.

#### **Generator Charge Settings**

✓ Generator Charge									
Generator									
Generator Boost	Enable Disable		Generator Cool-Down Time(Min)	[0.1, 25.5]	Set				
Batt Charge Current Limit(Adc) (?)	[0, 4000]	Set	Gen Rated Power(kW) (?)	[0, 25.5]	Set				
Charge Start Volt(V) (?)	[40, 57]	Set	Charge Start SOC(%)	[0, 100]	Set				
Charge End Volt(V)	[42, 59]	Set	Charge End SOC(%)	[0, 100]	Set				

- **Generator Boost Enable/Disable:** Enable or disable the generator boost feature. Enable to allow the inverter to pull supplemental power from both PV and battery whenever the generator power is not sufficient to handle all loads.
- **Generator Cool-Down Time(Min):** Set the cool-down time period for the generator before re-engaging the generator's output to the inverter.
- Batt Charge Current Limitation(Adc): Battery charge current limitation from Generator.
- **Gen Rated Power(kW):** The battery charge power can be limited based on the detected inverter's load consumption and Generator input power limitations.
- **Charge Starts Volt(V)/SOC(%):** While using auto-start function of the generator, the "Charge Start Voltage / SOC (%)" can be limited to start up the generator automatically.
- **Charge End Volt(V)/SOC(%):** While using auto-start function of the generator, the "Charge End Voltage / SOC (%)" can be limited to turn off the generator automatically.

#### Discharge Settings

✓ Discharge Setting						
Batt Discharge Control (	7) Volt SOC		Discharge Current Limit(Adc) (7)	(0, 17) Set	Start Discharge P	import(W) (7) [10, ] Set
On-Grid Cut-Off SOC(%) (	7) (0, 90) Set		Off-Grid Cut-Off SOC(%) (?)	[10, 90] Set		
On-Grid Cut-Off Volt(V) (	7) [40,56] Set		Off-Grid Cut-Off Volt(V) (?)	[40, 56] Set		
Forced Discharge						
Forced Discharge Enable (	7) Enable Disable		Forced Discharge Power(kW) (?)	(0, 25.5) Set		
Stop Discharge SOC(%) (	7) [10, 100) Set		Stop Discharge Volt(V)	(40, 56) Set	PVSellToGrid(Comp. w/	NEM3.0) (?) Enable Disable
Forced Discharge Start Time	1 [0, 23] : [0, 59] Set		Forced Discharge Start Time 2	(0, 23) : [0, 59] Set	Forced Discharge	Start Time 3 [0, 23] : [0, 59] Set
Forced Discharge End Time	1 [10, 23] ; [10, 59] Set		Forced Discharge End Time 2	(0, 23) : [10, 59] Set	Forced Discharge	End Time 3 [0, 23] : [0, 59] Set
Peak Shaving						
Grid Peak-Shaving (7)	Enable Disable					
Grid Peak-Shaving Power 1 (kW) (7)	[0, 25.5]	Set		Grid Peak-Shaving Power 2(kW) (?)	[0, 25.3]	Set
Start Peak-Shaving Volt 1(V)	(40, 59)	Set		Start Peak-Shaving Volt 2(V)	[40, 59]	Set
Start Peak-Shaving SOC 1(%)	10, 100)	Set		Start Peak-Shaving SOC 2(%)	30, 100)	Set
Peak Shaving Start Time 1	[0, 23] : [0, 59] Set			Peak Shaving Start Time 2	(0, 23) : (0, 59) Set	
Peak Shaving End Time 1	[0, 21] : [0, 50] Set			Peak Shaving End Time 2	[0.23] : [0.50] Set	
AC Couple						
AC Couple (?)	Enable Disable					
AC Couple Start Volt(V)	[46,525]	Set		AC Couple Start SOC(%)	(0. 80)	Set
AC Couple End Volt(V)	(42, 50)	Set		AC Couple End SOC(%)	(0, 100)	Set
Smart Load						
Smart Load (?)	Enable Disable					
Start PV Power(kW) (?)	[0, 25.5]	Set		Grid Always On (?)	Enable Disable	
Smart Load Start Volt(V)	[40, 50]	Set		Smart Load Start SOC(%)	(D, 100)	Set
Smart Load End Volt(V)	[40, 59]	Set		Smart Load End SOC(%)	(0, 100)	Set

- Batt Discharge Control: If the inverter communicates with the lithium battery and is capable of closed-loop communication, users should select "Batt. Discharge Control" according to "SOC." When using lead-acid batteries or lithium batteries without communication, users should select discharge control according to "VOLT."
- Discharge Current Limit (Adc): The Max. discharge current limit when grid power is on.
- Start Discharge P\_Import(W): Default value is 100 which means the battery will begin to discharge power to take the load when the import power from grid is higher than 100W. (Adjust range [50-100]).

- **On-Grid Cut-Off SOC(%)/Volt(V):** When the inverter connects to the grid and if the battery is discharging to take the load, it will stop discharge when the SOC/Voltage is lower than this limit.
- Off-Grid Cut-Off SOC(%)/Volt(V): When the inverter is not connected to the grid and the battery is discharging to take the load, the battery will stop discharging when the SOC/Voltage is lower than this limit.
- **Forced Discharge Enable/Disable:** If the customer wants to simply discharge the battery, they can enable forced discharge function and set both the discharge power and time period.
- Forced Discharge Power(kW): Forced discharge power limit.
- Stop Discharge SOC(%)/Volt(V): If Battery SOC is lower than this limit, the inverter will stop forced discharging function.
- **PVSellToGrid(Comp. w/ NEM3.0):** Enable or disable PV sell back to grid feature.
- Forced Discharge Start Time 1-3: Start time for Forced Discharge.
- Forced Discharge End Time 1-3: End time for Forced Discharge.
- **Grid Peak-Shaving:** Peak-Shaving is used to avoid peak demand charges from the grid. Peak shaving can be accomplished by halting Grid Charging at specific times. For example, during periods of peak demand (i.e., high grid rates), or when the batteries are near fully charged based on SOC and Voltage.
- Grid Peak-Shaving Power 1-2(kW): Used to set the maximum power that the inverter can draw from the grid.
- Start Peak-Shaving Volt(V)/SOC(%) 1-2: The point at which Peak-Shaving starts.
- **Peak-Shaving Start Time 1-2:** The time of day at which charging by the grid will be halted.
- **Peak-Shaving End Time 1-2:** The time of day at which charging by the grid will resume.
- **AC Couple Enable/Disable:** When connecting an existing on-grid system to the GEN terminal, AC Couple must be set to enable.
- AC Couple Start Volt(V)/SOC (%): AC Coupling will start at this set Voltage/SOC.
- AC Couple Stop Volt(V)/SOC (%): AC Coupling will stop at this set Voltage/SOC.
- **Smart Load Enable/Disable:** When Smart load function is enabled, the GEN terminal will be reused to Smart Load, and the inverter will offer power to this load based on the setup values.
- Start PV Power (kW): This is the minimum PV power limit to function with smart load output.
- **On Grid Always On:** Once this function is enabled, smart load will always function when grid power is on.
- Smart Load Start SOC (%) / Volt (V): The high limit for battery to turn on smart load.
- Smart Load Stop SOC (%) / Volt (V): The low limit for battery to turn off smart load.

#### **Battery**

V Battery Read	
Restart Battery Module 0	
	Restart Battery Module
Restart battery module	
Reset	

∽ Reset		
	All to Default Reset	

• **Reset:** Reset all settings to default.

#### **Working Mode**

The "Working Mode" feature has several different preset working modes that allow the user to configure the system to meet their needs through customizing settings. Working modes include Backup Mode, Peak Shaving, AC Charge Mode, PV Charge Priority, Forced Discharge/Export PV Only, and Self Consumption. The steps to access the working modes and a brief description of the modes are outlined below.

1. In the "Maintenance" tab on the Remote Set page, ensure that the correct station is selected. Select "Read" (*shown below*) for the Monitor Center to fetch the default or pre-configured settings for the station. Located to the top right of the page, select "Working Mode".

	EGyELECTRONICS	Ø Monitor	) Data	Onfiguration	00 Overview	日 Maintenance	(ð) English 👻
1	Remote Set	Select station first		<ul> <li>Image: A set of the set of the</li></ul>	Read		Working Mode Export PDF
10	Weather Optimize	🗸 Common Se	etting				
	Remote Undate						

2. After "Working Mode" is selected, navigate below Application Settings for the "Working Mode Setting" section (*shown below*). This section gives users access to configure the system to their own needs by utilizing both settings and time of use periods.

✓ Working Mode Se	etting											
Active Mode												
Backup Mode												
Peak Shaving												
AC Charge Mode												
PV Charge Priority												
Forced Discharge/ Export PV Only												
Self Consumption	01:00	03:00	05:00	07:00	09:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00
Battery Backup Mode	Enable	Disable										
AC Charge Power (?)	0k ( <b>kW)</b>	w	[0, 25.5]	Set			5	itart			End	
Backup SOC(%) (?	)		[0, 100]	Set		Ť1	00 :	00 5	et		: 59	Set
Backup Volt(V) (?)			[42, 59]	Set								

- **Backup Mode:** The system prioritizes battery backup/storage by ensuring the battery is only utilized when PV and Grid power is not sufficient for powering loads.
- **Peak Shaving:** The user can define a time-frame of when the system will compensate the power pulled from the grid for loads during peak demand times to avoid higher electricity rates.
- AC Charge Mode: Allows the grid to both charge batteries and power loads.
- PV Charge Priority: Prioritizes PV power to charge batteries first.
- Forced Discharge/Export PV Only: Forced discharge prioritizes battery power for powering loads and grid sell back. Export PV Only prioritizes PV power to export to the power grid.
- **Self Consumption:** Prioritizes the energy stored/generated from the system to power loads.

Upon selecting a "Working Mode", the system must be configured using specific settings for each mode. For required information concerning the settings of each Working Mode, scan the QR codes.

6000XP Monitor System Working Modes



18kPV Monitor System Working Modes



#### **Export Pdf**

The "Export PDF" feature creates a PDF document with the system's selected settings and values for ease of troubleshooting. To use the Export PDF function, ensure the correct station is selected. Select "Read" for the Monitor Center to fetch the default or pre-configured settings for the station. If "Read" is not selected before trying to Export PDF, the PDF will be missing the specified settings and values. Next, select "Export PDF" (*shown below*) to create a document showing the system settings.

	EGUELECTRONICS	<ul> <li>Monitor</li> </ul>	Data	Configuration	00 Overview	ම් Maintenance	🕲 English 👻
1	Remote Set	Select station first		<b>v</b>	Read		Working Mode Export PDF
	Weather Optimize	🗸 Common Se	etting				
	Remote Undate						

### 6.2 WEATHER OPTIMIZE

The "Weather Optimize" feature uses real-time weather information to adjust charging strategies based on tomorrow's local weather conditions, ensuring the battery bank remains adequately charged. Weather Optimize reviews the weather one day at a time starting at 5pm the day before. All weather data is based on the forecast from openweathermap.org. For example, if heavy rain is predicted in the next day's forecast the battery bank will be charged to the heavy rain SOC value as configured in charge percent (%) by weather area. The configuration steps are outlined below:

1. To enable Weather Optimize, the device will need to be added. To add the device, select "Add Device" (*shown below*). The Charge Start Time, Charge End Time and SOC values are populated with default values. All the values can be changed to the preferred time and percentages. Once the desired settings are adjusted, select "Add" to save the changes.

EGUELECTRONICS		Ø Monitor		Data	<ul> <li>Configuration</li> </ul>	ition Ov		ම් Maintenance
Remote Set		Ad	d device			Se	arch by inverter	<b>Q X</b> 12
Weather Optimize			Serial number	Station name	Charge Time Range	Locatio	n Action	
weather Optimize		1			00:30 - 04:00	√ Q	Managem	ent 🕶
Remote Update		2			00:30 - 04:00	√ <b>Q</b>	Managem	ent 🕶
* Serial number * Charge Start Time * Charge End Time Charge percent(%) & * Clear sky * Few(11%-25%) clouds * Scattered(25%-50%) clouds * Broken(51%-84%) clouds * Overcast(85%-100%) clouds	00:30 04:00 <b>29 weather:</b> 30 65 75 85 95				* Station n.	ame LAT 33.1 may producerce	2560959064763,-95.5864279	4451929 C
* Light rain	80				* Contin	vent No	th America	
* Moderate rain	90				* Re;	pion No	th America	
* Heavy rain	100				* Cou	ntry Un	ted States of America	
* Other	90				* Timez	one GM	T-6	
			Add Cancel		* Daylight saving t	sime O	Yes  No Export Cancel	

2. After the device is added, the location for the device needs to be set. Select the pin icon (shown above) and use the map, latitude and longitude coordinates, or the search option to select a location. Without a set location, there will be a red X next to the pin icon and Weather Optimize will not function. Once all location settings have been verified as correct, select the "Update" button to save the location. The red X should be changed to a green check.

3. Users can edit the Charge Start Time, Charge End Time and SOC percentages, by selecting the "Management" drop down menu and selecting "Edit" (*shown below*). Once settings are changed to the preferred values, select the yellow "Edit" button to save the changes.

EGUELECTRONICS	<ul><li></li></ul>	Data	Configuration	00 Overview	ම් Maintenance
Remote Set	Add device			Search by inverter	ST X Q
Weather Optimize	Serial number	Station name	Charge Time Rang 00:30 - 04:00	Ge Location Action ✓ ♥ Managem	nent -
Remote Update	2		00:30 - 04:00	Managem	nent <del>v</del>
	Edit * Serial number		×	Disable	
	* Charge Start Time * Charge End Time	00:30 <b>~</b> 04:00 <b>~</b>			
	Charge percent(%) by * Clear sky	weather: 30			
	* Few(11%-25%) clouds * Scattered(25%-50%) clouds	65			
	* Broken(51%-84%) clouds	85			
	* Overcast(85%-100%) clouds * Light rain	80			
	* Moderate rain * Heavy rain	90			
	* Other	90			
-0		Edit Ca	incel		



### NOTE:

At this time, the 6000XP does not support the Weather Optimization feature.

#### 6.3 REMOTE UPDATE

The "Remote Update" page allows users to check and upgrade firmware on the inverters connected to the account. To check for available updates, select the blue question mark (*shown below*). If there is a suggested update the firmware version will be displayed. From the Check Updates window, selecting "Check more" will redirect to the Firmware Change log.

EGyELECTRONICS	Ø Monitor	Data	<b>ිරි</b> Configuration	Overv	) riew	<b>Maintenance</b>
Remote Set	Station	×Q	Online Device	🗹 Auto Reloa	d	1.11
Weather Optimize	Serial number	Dongle	Firmware version	Connect Statu	Action	_
	1		2	Connected	Standard Update	e
Remote Update						
heck Updates		×				
Serial number						
Firmware version						
Suggestion No updates						
Check more ->			Firmware Change	log export PD	2	Log and version upda
Check more ->	Standard Updat	te Cancel	Firmware Change	log export PD	2	Log and version upda Change log • FAAB-1B1B • FAAB-141A
Check more ->	Standard Updat	te Cancel	Firmware Change	log expert PD	8	Log and version upda Change log • FAAB-1B1B • FAAB-1A1A • FAAB-1919
Check more ->	Standard Updat	te Cancel	Firmware Change	log export PD	2	Log and version upda Change log • FAAB-1B1B • FAAB-1A1A • FAAB-1A1A • FAAB-1919 • FAAB-1818 • FAAB-1717
Check more ->	Standard Updat	te Cancel	Firmware Change	log export PD		Log and version upda Change log • FAAB-181B • FAAB-1A1A • FAAB-1919 • FAAB-1818 • FAAB-1717 • FAAB-1616
Check more ->	Standard Updat	te Cancel	Firmware Change	log export PD	2	Log and version upda Change log • FAAB-1B1B • FAAB-1B1B • FAAB-1A1A • FAAB-1919 • FAAB-1818 • FAAB-1717 • FAAB-1616 • FAAB-1312
Check more ->	Standard Updar	te Cancel	Firmware Change 18KPV-12LV Information FAAB-1B1B 2024-06-19 Same as fAAB-1B1B, change	log export PD	Р АВ-1А1А.	Log and version upda Change log • FAAB-1B1B • FAAB-1A1A • FAAB-1919 • FAAB-1919 • FAAB-1818 • FAAB-1717 • FAAB-1616 • FAAB-1616 • FAAB-1312 • FAAB-1010 • FAAB-0D0E
Check more ->	Standard Updat	te Cancel	Firmware Change 18KPV-12LV Information FAAB-1B1B 2024-06-19 Same as fAAB-1B1B, change 1.Fixed an issue when invert generator to take load and cd	log export PD	AB-1A1A. inverter can't use	Log and version upda Change log • FAAB-1B1B • FAAB-1B1B • FAAB-1919 • FAAB-1919 • FAAB-1818 • FAAB-1818 • FAAB-1616 • FAAB-1616 • FAAB-1312 • FAAB-1010 • FAAB-0D0E • FAAB-0C0D
Check more ->	Standard Updat	te Cancel	Firmware Change          18KPV-12LV         Information         FAAB-1B1B         2024-06-19         Same as fAAB-1B1B, change         1.Fixed an issue when invert generator to take load and ct         2. Optimized the logic of on-6	log export PD es based on the FA. er in off-grid mode, harge battery. grid load taking.	AB-1A1A. inverter can't use	Log and version upda Change log • FAAB-1B1B • FAAB-1A1A • FAAB-1919 • FAAB-1919 • FAAB-1818 • FAAB-1717 • FAAB-1616 • FAAB-1616 • FAAB-1312 • FAAB-1010 • FAAB-0D0E • FAAB-0D0E • FAAB-0D0E • FAAB-0C0C • FAAB-0C0C
Check more ->	Standard Updat	te Cancel	Firmware Change 18KPV-12LV Information FAAB-1B1B 2024-06-19 Same as fAAB-1B1B, change 1.Fixed an issue when invert generator to take load and ch 2. Optimized the logic of on-g	log export PD	AB-1A1A. inverter can't use	Log and version upda Change log • FAAB-1B1B • FAAB-1B1B • FAAB-1919 • FAAB-1919 • FAAB-1919 • FAAB-1717 • FAAB-1616 • FAAB-1312 • FAAB-1010 • FAAB-010E • FAAB-00DE • FAAB-0C0D • FAAB-0C0C • FAAB-0B0B
Check more ->	Standard Updat	te Cancel	Firmware Change	log export PD	AB-1A1A. inverter can't use	Log and version upda Change log • FAAB-1B1B • FAAB-1B1B • FAAB-1A1A • FAAB-1919 • FAAB-1818 • FAAB-1818 • FAAB-1818 • FAAB-1616 • FAAB-1010 • FAAB-1010 • FAAB-0D0E • FAAB-0C0D • FAAB-0C0C • FAAB-0B0B
Check more ->	Standard Updat	te Cancel	Firmware Change 18KPV-12LV Information FAAB-1B1B 2024-06-19 Same as fAAB-1B1B, change 1.Fixed an issue when invert generator to take load and ch 2. Optimized the logic of on-generator FAAB-1A1A 2024-04-22	log export PD	AB-1A1A. inverter can't use	Log and version upda Change log • FAAB-1B1B • FAAB-1B1B • FAAB-1919 • FAAB-1919 • FAAB-1919 • FAAB-1717 • FAAB-1616 • FAAB-1010 • FAAB-1010 • FAAB-000E • FAAB-0C0D • FAAB-0C0D • FAAB-0B0B
Check more ->	Standard Updat	te Cancel	Firmware Change	log export PD es based on the FA. er in off-grid mode, narge battery. grid load taking.	AB-1A1A. inverter can't use	Log and version upda Change log • FAAB-1B1B • FAAB-1A1A • FAAB-1919 • FAAB-1818 • FAAB-1818 • FAAB-1717 • FAAB-1616 • FAAB-1010 • FAAB-1010 • FAAB-0D0E • FAAB-0C0D • FAAB-0C0D • FAAB-0C0C • FAAB-0B0B



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