

Electricity Consumption Monitoring

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Electricity (Advanced)



# Product Description

Thank you for buying our product MURAQEB-Electricity Advanced.

MURAQEB-Electricity Advanced consists of one Logger Unit and comes in different models:

- 13A MK Socket
- 16A GR Socket
- 100A for main line monitoring
- 16A/32A Industrial Socket
- Other models are also available upon request



The Logger Unit has a Power Meter inside which collects Electrical Measurements and stores them inside MURAQEB. These measurements are also uploaded to the cloud.

The Electrical Measurements include the following Attributes: Voltage - Current - Power – Frequency - PF & Energy Consumption (kWh).

MURAQEB connects to the internet via WIFI.

MURAQEB can be monitored via your PC/mobile from local network or over the Internet.

**MURAQEB** Advanced can issue alerts for high/low Voltage, high/low Current, high/low Power, low PF, and high Energy Usage (kW.h). **MURAQEB** Advanced can send these alerts over emails, SMS Messages, or Phone Calls as per your preferred settings.

MURAQEB uses a High-Accuracy Meter of class 0.5 fitted inside the Main Unit.

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# Safe Operation Instructions

Please read the Instructions for Safe Operation carefully before using this product.

- Keep the Logger Unit out of reach from children or infirm persons.
- Take care while handling this product to avoid any mechanical or electrical damage.
- Ensure that the Logger Unit is mounted in a stable horizontal or vertical position as per the instructions.
- MURAQEB is for Indoor use only. Outdoor use is strictly prohibited.
- DO NOT expose MURAQEB to rain as it will result in electrical hazards.
- DO NOT install **MURAQEB** in a dusty place.
- DO NOT expose MURAQEB to water or moisture.
- DO NOT expose MURAQEB to high intensity light sources (e.g., xenon flash or laser).
- DO NOT expose MURAQEB to heat from any source and DO NOT expose to fire.
- Clean the Logger Unit using a dry cloth.
- Do Not try to open the Unit to avoid shock Hazards due to high Voltage AC240V
- Do Not try to open the Unit as this will result in cancelling Warranty
- Do Not try to install MURAQEB Power 100A (for main line) without the help of a qualified technician.

# Disposal

Do not dispose electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed in landfills or dumps, hazardous substances can leak into the groundwater and get into the food supply chain, damaging your health and well-being.

## Compliance

CE / FCC

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## 1. Installation

You can learn more about Installing & Operating MURAQEB by viewing the Tutorial Videos form our website:

http://www.afkardigital.com >> Products >> Mini Products



- 1. Open and check what is inside your MURAQEB box:
  - Product Description, Warranty, & Safe Operation Manual
  - MURAQEB Unit as per your model ordered, some models are shown below



- 2. Mounting of MURAQEB, Options are:
  - Horizontal mounting on a clean surface
  - Vertical mounting on a D25 rail

### Installing MURAQEB 13A-MK / 16A-GR

3. Connect the AC Plug to a power socket, then connect the device you want to monitor its Power and Energy Consumption to MURAQEB socket.

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Installing MURAQEB 100A for Main Line



Warning: Disconnect electricity from the Main Breaker before starting installation

4. Connect the 2 wires of MURAQEB to AC220 Line & Neutral inside the MDB as indicated in picture aside.

- 5. Carefully place the Current Transformer (CT) around the Main Line as indicated in the example pictures aside. Make sure you do not drop the CT while handling.
- 6. The CT can be placed in any direction around the Main line.
- 7. Check that the CT is fully closed.



In case MURAQEB is disconnected from electricity, the Energy Counter is preserved.



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#### Configuration 2.

#### 2.1. Creating your Cloud Account

- 8. In your web browser, type https://hudhud.smarturdon.com/
- 9. Click on Register as a new user.
  - Fill in Username / Password
  - Fill in a valid email address & a working mobile • number

Note: By filling a valid phone number you will receive important information about your product thru SMS messages.

- 10. Click on Register.
- 11. A confirmation email will be sent to your inbox. For GMAIL, this might take up to ~3min. Pls also check your Junk/spam folders.
- 12. Once you receive the email, click on the link provided to activate your account.
- 13. If you see as in the aside, it means your account has been created successfully.

#### 2.2. Adding MURAQEB Advanced to your Cloud Account

- 14. In your web browser, type https://hudhud.smarturdon.com/ and login to your account which you have just created in the previous step.
- 15. Your subscription determines the number of users who can simultaneously access MURAQEB thru the internet. Select any user ID, later you can give names to the IDs for more convenience.
- 16. To start adding MURAQEB to your account, click on "+"
- 17. Fill in the Serial No. of MURAQEB which is labeled at the back of the Logger Unit, then click on "Check".



Use your account to log in.





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- If the Serial No. you filled is correct, the pictures of MURAQEB (Logger Unit and Sensors) will be displayed along with other information.
- 19. Click on "Add" to add this MURAQEB to your account and then click on "Back"



20. You can now see your MURAQEB device listed in your Cloud Account.

Controller Name	Serial Number	Number of Connected Devices	Last Heart-beating message (GMT)	Web Access Expiry	Storage Period on Cloud	+
Factory Power Monitor	000000085c77a71	1	04/06/2021 19:52:20	04/07/2021	30 Days	0

### 2.3. Accessing & Activating MURAQEB Advanced

- 21. Ensure that the Logger Unit is connected to the AC adapter.
- 22. Check available WIFI networks from your PC or mobile. You should see the WIFI of MURAQEB like the example aside. The WIFI of MURAQEB will show



up after ~one minute from powering the Logger Unit and it will include the serial No. of your MURAQEB at the end of the name.

- 23. Select the WIFI of MURAQEB, then fill in password 12345678
- 24. To ensure you camped on the WIFI of MURAQEB, the network view should be like below.

<b>MURAQEB - براقب</b> Electricity Consumption Monitoring	o Electric	ity (Advanced)	AFKAR Digital #-Integration - Automation Control - Internet of Things
AD-HudHud-000000085 No Internet, secured	c77a71	< Wi-Fi ON CURPENT NETWORK	Wi-Fi Direct ADVANCED
	Disconnect	AD-HudHud-00000008	35c77a71

Computer (PC)

Mobile

25. In your web browser, type <u>http://192.168.99.1</u> to access MURAQB thru the local network. Login as: Username: admin Password: admin (Later you can change the password)



26. Your browser will direct you to the WIFI Setup page where you need to define the local WIFI network inside MURAQEB. Initially, under WIFI Network Status there will be no defined WIFI, and the WIFI IP address of MURAQEB will be showing No IP.

Network	Status
IP Address	No IP

- 27. Under WIFI Selection
  - Select WIFI Name, fill in Password, and click on Save.
  - If WIFI password you filled is correct, "Saved Successfully" will be prompted.

WIFI Selection	
WIFI Name	SANAFER-O -33
Password	••••••
Save	Saved Successfully

28. Refresh your browser page. Under WIFI Network Status you will see a valid IP address and the name of the WIFI you selected.



29. Go to **Settings** >> **Cloud Account**. Fill in same Username and Password when you created your account (as in step 9). Click then on "Check"



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30. If account information you filled is correct, **MURAQEB** will prompt a successful message and will restart.

Controller ID : 000000	0005a0d0899	Controller ID : 0000000	05a0d0899
User Name	ibrahim123	User Name	ibrahim123
Password	•••••	Password	•••••
Check	Saved Successfully	Check	Program is restarted
4		•	

### 2.4. Monitoring MURAQEB Advanced from Local Network

- 31. Reconnect your PC/mobile back to your local WIFI network (same one defined for MURAQEB)
- 32. By this time, MURAQEB should have finished restarting.
- 33. In your web browser, fill in the IP address of MURAQEB (found in step 28). Login as before:
  - Username: admin
  - Password: admin
- 34. You will be able to see all devices connected to MURAQEB from the local WIFI.

← 192.168.1.150/Lo ← → C △	agin/Index.html × +	192.168.1.150/Logit Tindex.html	● ☆ ● ★ ●	- 🗆 X	)
Logi	n	Smart Hudhu	ıd Controller		•
User N Passw	Jame admin ord	Monitor and Control Any Total MONITOR in Total CONTROL	ything over the Internet In front of your eyes at your fingertips		
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Favorites				
Machines (Line	1)			
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ூ 10(20 s) 🕝 ≌ 60(90 s) 🕝				
<b>_</b>				
v Voltage	222.8	v		
©Current	4.356	A		
Power	969.5	w		
(E) Energy	1160.563	kWh		
(F) Frequency	49.9	Hz		
	1	]		
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### 2.5. Monitoring MURAQEB Advanced thru the Internet

35. In your browser, type <a href="https://hudhud.smarturdon.com">https://hudhud.smarturdon.com</a> to access your account.



- 36. Login and select the User ID/Name from the drop menu.
- 37. Select which MURAQEB you want to monitor from the list.

Factory Power	000000085c77a71	1	04/06/2021 19:52:20	04/07/2021	30 Davs	6 💼
Controller Name	Serial Number	Number of Connected Devices	Last Heart-beating message (GMT)	Web Access Expiry	Storage Period on Cloud	+

- 38. You should be able now to monitor MURAQEB you selected thru the Internet.
- 39. To add another MURAQEB to your account, you need to repeat Parts (2.2 and 2.3) only.

Device - User area	× +		0	- 🗆 ×
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Factory Power Monitor	iers i de Cloud 🗸 i S Devices	← 🔺 Alerts/IFTTT ← 🛛 🗠 🥱	leports • 🛛 👯 Settings • Status 🖉 Hello - Kamel •	About AR
Save Order	HIDC SHOW			
Machi	ines (Line1)			
2 🕸 😋 🛞 🗸 View 1	> 310 20 <a>P</a>			
V Voltage	222.9 v			
© Current	4.368 A			
P Power	972.5 w			
E Energy	1160.584 kWh			
Frequency	50 Hz			
PowerFactor	1.			
Over Power Alarm	OFF			
	Smart Hudhud Cont	roller		
Digital p-Integration - Automation Control - Internet of Things				•

# 3. Shutting Down MURAQEB Advanced Safely

If you do not want to use MURAQEB for some period or need to move MURAQEB from one place to another. You need to do the following:

- 1. Login to MURAQEB, either from local network or remotely.
- 2. Go to Settings >> Controller. Scroll down to Controller Management.
- 3. Click on "Shut down the Device".
- 4. Wait for ~one minute, then disconnect MURAQEB from the AC source as follows:



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### For MURAQEB 13A-MK / 16A-GR:

Disconnect the device from MURAQEB socket (if any), then disconnect MURAQEB from the AC source.

### For MURAQEB 100A Main Line

To avoid Shock Hazards, you need a qualified technician to uninstall MURAQEB

In case MURAQEB is disconnected from electricity, the Energy Counter is preserved.

# 4. Operating MURAQEB Advanced

You can learn more about Operating MURAQEB and its Features by viewing the Tutorial Videos form our website: <u>http://www.afkardigital.com</u> >> Products >> Mini Products

- Creating Cloud Account
- Configuring MURAQEB
- Displaying Graphs / Tables
- Setting Alerts (IFTTT) for Email/SMS/Phone Calls
- Filling Usernames inside MURAQEB
- Checking your account balance
- Selecting Forms
- Making Favorites Menus
- Setting Refresh Timer/Storage Timer
- Setting Storage Period
- Upgrading MURAQEB Software
- Backing up/Restoring MURAQEB configuration to/from cloud
- **4** Restarting, Rebooting, and Shutting down **MURAQEB**
- Other Settings, and more...



Contact us for any queries or information related to MURAQEB Replacing Sensor Battery Ordering more Sensors Technical Issues Any Further Queries & Information

