WIRED DROPULA

INSTRUCTION MANUAL

Models: MK3
Revision: 1.1
Date: November 4, 2019
Email: support@bridgiot.co.za
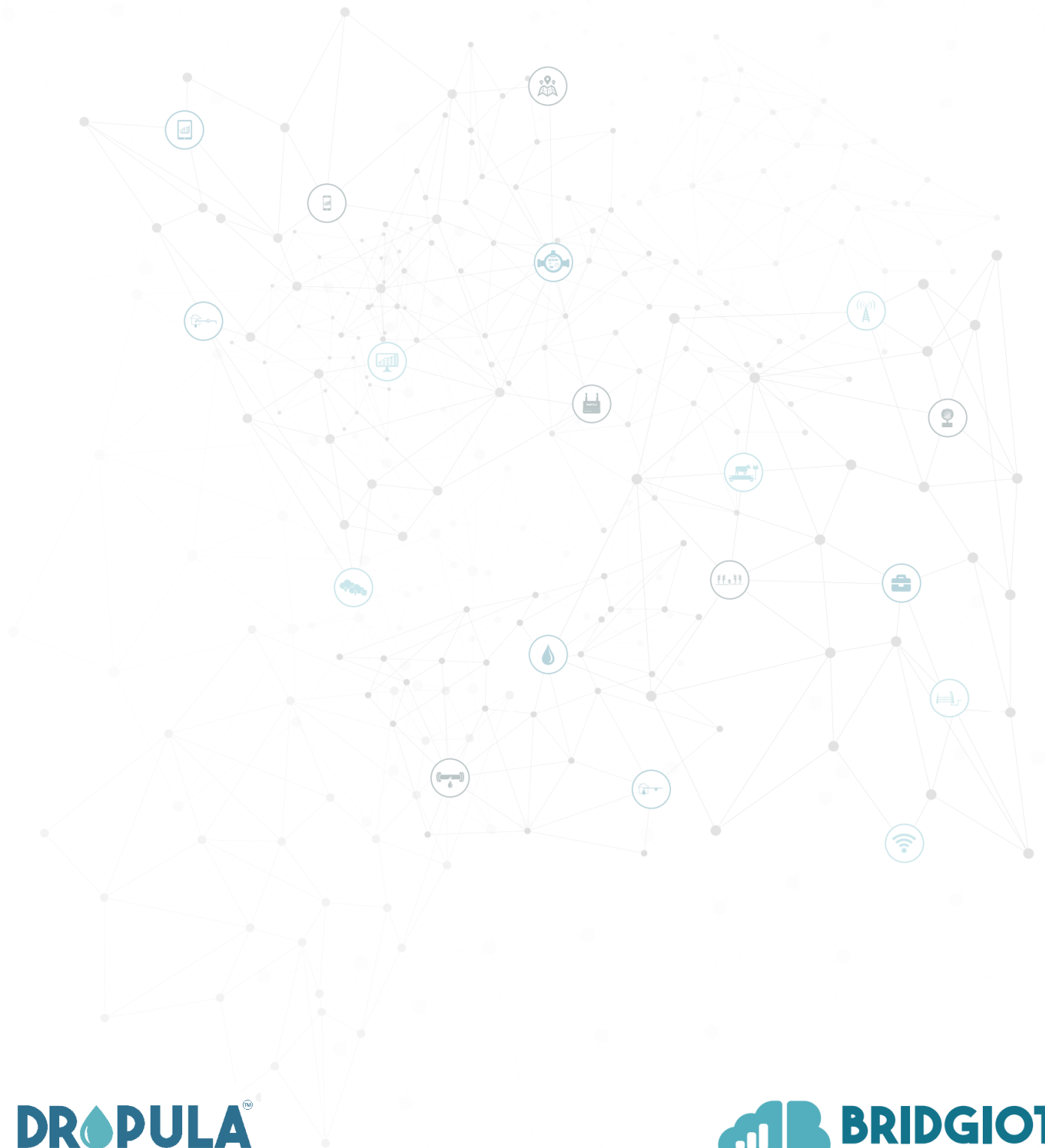
DR🌢PULA™

BRIDGIOT
Remote Intelligence and Control

Contents

Warranty

1. We, BridgIoT (RF) (Pty) Ltd, warrant to you that, for a 6-month period from the date of purchase, the Wired Dropula (from here on referred to as the "good") will be free of any defect.

2. If any defect in the good is discovered by you within a 6 month period from the date of purchase, you can return the good to us or to one of our duly authorised service agents. A good returned under this warranty must be presented to us in its original packaging together with all accessories. We will then, at your option:

   a) repair or replace the good; or

   b) refund to you the price paid by you for the good.

3. If within three months after repair, the failure, defect or unsafe feature has not been remedied, or a further failure, defect or unsafe feature is discovered, the supplier must:

   a) replace the good; or

   b) refund to the consumer the price paid by the consumer for the good.

4. We will refuse the return of any good which has been:

   a) partially or wholly disassembled;

   b) physically altered;

   c) damaged;

   d) used in a manner contrary to any instructions provided by us; or

   e) permanently installed or attached and/or combined with other goods or property in any way.

5. We will not:

   a) repair the good where the defect or damage to the good is found to be a direct result of your negligence, recklessness or malicious behaviour; and/or

   b) be liable for damage caused to the good as a result of wear and tear unless such damage manifests itself:

      i. within 6 months from the date of purchase (where the good has been used for normal family, personal or household purposes); or

      ii. 6 months from the date of purchase (where the good has been used for commercial or professional purposes).

6. Where we issue a refund under this warranty, we will deduct the charges we are allowed to deduct under the Consumer Protection Act, No 68 of 2008.

7. Please note that our normal warranty does not cover any natural disasters, for example; flooding, lightning, earthquakes, etc.

About the Wired Dropula

The wired Dropula is suitable for data communication from pulse-capable water meters to the cloud through the Sigfox network. When installing and initialising the wired Dropula device, be sure to follow the applicable instruction(s) provided for each component by the relevant manufacturer(s).
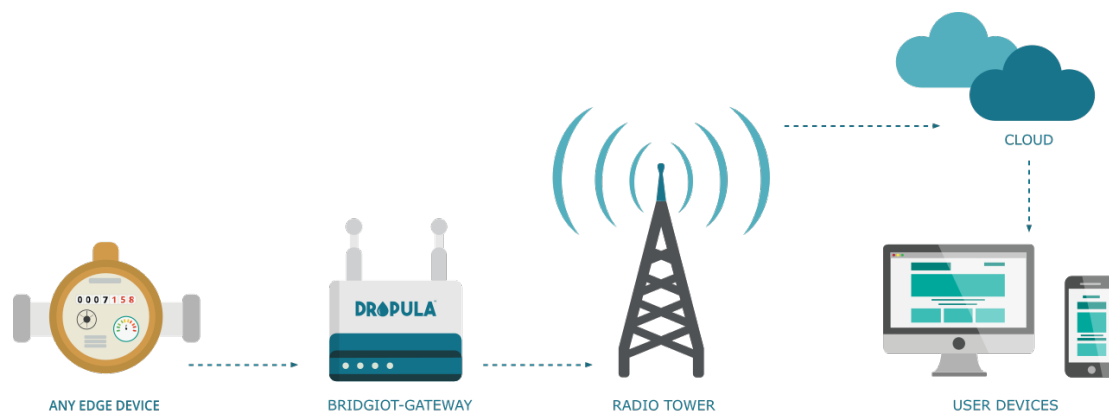
Installation, maintenance and dismantling may only be performed by trained professionals in accordance with this instruction manual and the safety instructions.

Use the wired Dropula only after first thoroughly reading and understanding this instruction manual and the safety instructions. In the event of any ambiguities regarding installation and operation, consult trained professionals or contact our offices.

Improper Usage

The wired Dropula must not be operated in the following environments:

1. In damp conditions.
2. In rooms in which the operation of electrical and electronic components may be dangerous.
3. Locations where Sigfox communication may be unreliable.

Safety During Installation & Use

Please take note of the following when installing, conducting maintenance or using your wired Dropula:

1. Risk of fire due to short circuit.

2. Make sure that the power supply to the wired Dropula is according to the specifications listed in this document.

3. Factory labels and markings may not be altered, removed or rendered unreadable.

Exclusion of Liability

The manufacturer cannot monitor the compliance to this manual or the conditions and methods during installation and operation. Improper installation of the system may result in damage to the property and/or bodily harm.

Therefore, we assume no responsibility for loss, damage or costs which result from or are in any way related to incorrect installation, improper operation, incorrect execution of installation work and incorrect usage and maintenance.

The manufacturer reserves the right to make changes to the product, technical data or assembly and operating instructions without prior notice.

Physical Properties

Mass	400 g
Enclosure	IP66
	Dimensions: 120 x 120 x 60 mm

Technical Specifications

Make	BridgIoT
Model	Wired Dropula Rev 2
Battery Input	3.6
Estimated Battery Life	3 years
Temperature Range	0 - 70 °C
Accreditation	Sigfox reference: CORP-9242
	P_00C5_3575_01
	M_0042_FDF8_01
	M_000B_C8D5_02

Connectivity Information

Communication Protocol	Sigfox
Transmit Power	2.18 dB

Product Description

The BridgIoT (RF) (Pty) Ltd wired Dropula is a Pulse-to-Sigfox communication device. The wired Dropula allows for connection of a pulse-capable edge device with the cloud through the Sigfox network. Below are images of the wired Dropula device enclosure, in a closed and opened state.
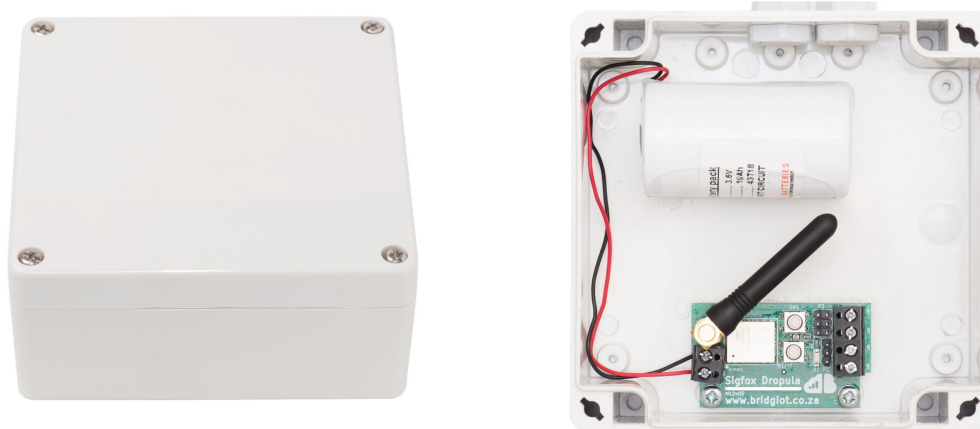
Device Setup

After checking your water meter's compatibility and having received your wired Dropula, please follow the instructions below in order to install and set it up correctly.
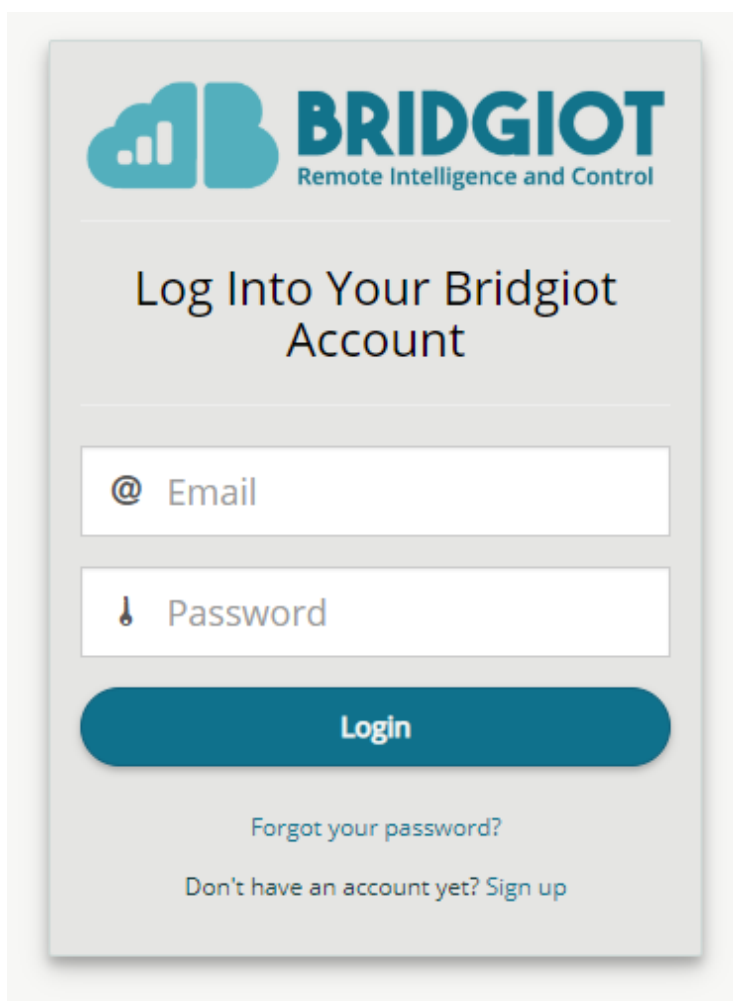
Step-by-Step Instructions

1. In order to use your wired Dropula, you must create an user account on the BridgIoT (RF) (Pty) Ltd web-app found at app.bridgiot.co.za.

2. After registering, please send your device ID (a 6-digit alpha-numeric code found on a sticker attached to the device enclosure) and registered user email address to signups@bridgiot.co.za.

3. Take the Dropula unit and pulse probe to the relevant water meter that is to be monitored.

4. Connect the probe to your compatible water meter, following the appropriate manufacturer's instructions.

5. Open the Dropula enclosure.

6. Connect the probe wires to the appropriate signal and ground terminals (marked on the PCB), referring to the relevant documentation for clarity regarding the probe's signal and ground wires which must be connected to the Wired Dropula.

7. Connect the battery wires to the appropriate terminals on the Dropula.

8. Install the Dropula enclosure in a suitable position where good Sigfox signal will be available.

9. Log on to the web app to confirm the Dropula has signal, and adjust installation position if required.

Operation

User Interface

The user can manage their device via BridgIoTs online web-app, found at app.bridgiot.co.za. Please sign up on this web-interface, by clicking the "Sign up" link on the landing page as shown below, in order to access your device data and settings.

Once registered, please email the unique 6-digit alpha-numeric code, found on the outer surface of your device, to signups@bridgiot.co.za along with the email address you used to register the device and we will link your device to your account.

You will now be able to view your device in the homepage of the web-app, it will look similar to the following sample:

GEASY

Name	Connectivity	Status	Temperature	Heating Setting	
My First Geasy	Online	● Ready	58°C	Always on	⚙

DROPULA

Name	Connectivity	Live Water Flow	Usage Today	Usage This Week	Usage This Month	
My First Dropula	Online	37.19 litre/min	4770.0 litres	4770.0 litres	32810.0 litres	⚙

PRESSURE

Name	Connectivity	Live Pressure	Min	Max	Avg	
My Pressure Sensor	Online	5.60 bar	5.54 bar	5.71 bar	5.60 bar	⚙

WATER LEVEL

Name	Connectivity	Current Level	Min	Max	Avg	
My First Depth Sensor	Offline (2018-12-13 07:29)	34.69 m	33.82 m	35.72 m	34.69 m	⚙

ENERGY METERS

Name	Connectivity	Power (kW)	Today	Week	Month	
My First Wattson	Online	9.01 kW	73.6 kWh	73.6 kWh	993.3 kWh	⚙

If you have multiple devices, additional functionality are available in some of these device type section, such as a holistic view, for which a sample is given below.

DROPULA

Name	Live Water Flow	MNF [L/h]	Today [L]	Past 7 Days [L]	Past 30 Days [L]	
Dropula 1	5.10	0.00	171.40	4070.00	26131.70	
Dropula 2	3.10	7.33	309.20	4752.70	28966.80	
Dropula 3	2.10	0.00	281.00	5489.80	31503.80	
Dropula 4	1.50	0.00	292.60	6839.50	34290.90	
Dropula 5	0.50	0.00	168.40	3278.20	20430.50	
Dropula 6	0.30	0.00	260.40	5283.90	33871.00	
Dropula 7	0.00	0.00	139.80	8643.70	38479.80	
Dropula 8	0.00	0.00	245.00	4771.40	25986.10	
Dropula 9	0.00	0.00	200.50	3751.50	22777.00	

From these views you are able to navigate to an overview of each individual device, which will be similar to the sample given below.

CURRENT STATUS

WATER FLOW RATE	CONNECTIVITY
1.5 litres/minute	Online

TOTAL WATER USAGE

TODAY	THIS MONTH
1,095 liters	**114,855** liters

View more >

TODAY'S LARGEST EVENTS

TIME	LITERS
7:16	460.0

View more >

ANALYTICS

Widget content coming soon.   View more >

CSV

Date range:

🗓 February 21, 2019 - March 22, 2019 ▾

Interval:

10 Minutes ▼

⬇ Download

REPORTS

Created At	Type	Time Frame	Link
2019-03-18	week	2019-03-11 - 2019-03-18	⬇
2019-03-11	week	2019-03-04 - 2019-03-11	⬇
2019-03-04	week	2019-02-25 - 2019-03-04	⬇
2019-02-25	week	2019-02-18 - 2019-02-25	⬇

Navigating further you will reach the following views:

WATER

Live:	1.5 litres/min
Today:	1095.0 litres
This Week:	27115.0 litres
This Month:	114855.0 litres
Last Month:	36139.0 litres

View more >

18 Mar 2019

■ Water

Events

Start ⌄	Duration (Minutes)	Volume (Litre)
12:35	138	1550
10:59	56	380
08:03	123	3750

Show 10 rows per page

Page 1 of 1

Notifications & Reporting

Notifications of abnormal events such as bursts are sent via SMS and email. These notifications are generated according to thresholds set by the user using our online platform.

Included here is a sample of the automated weekly report generated by our system for a single device. Similarly, a monthly report is also available.
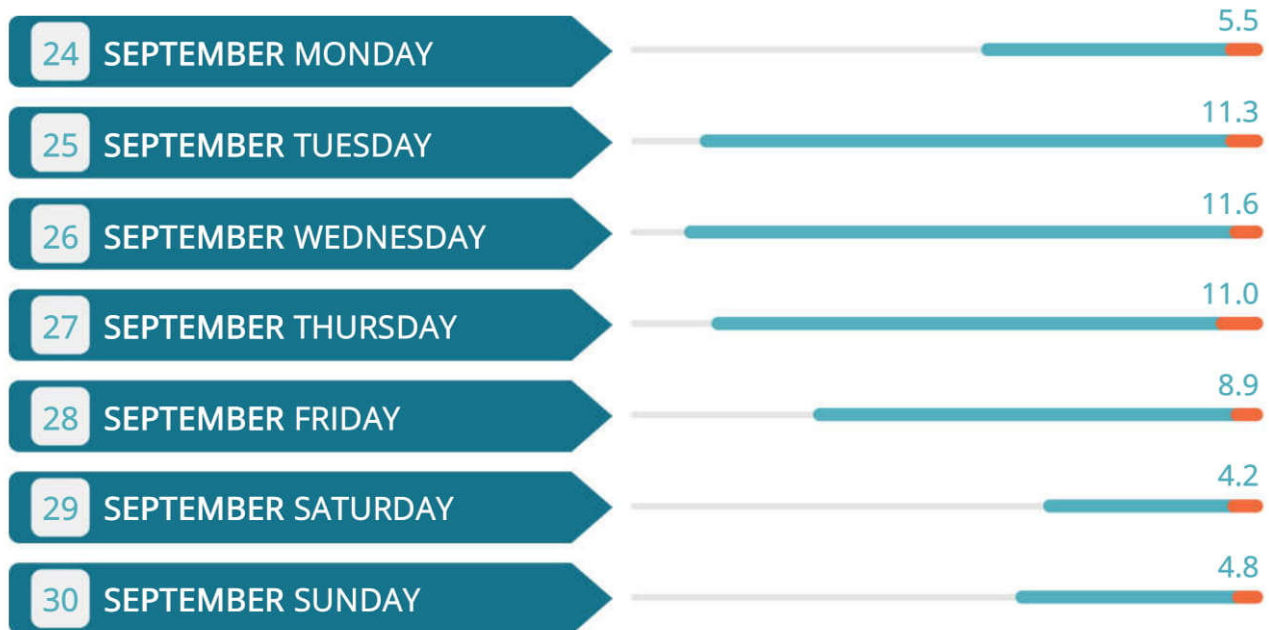
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▂▃BY BRIDGIOT

WEEKLY WATER CONSUMPTION

VOLUME PER WEEKDAY

GENERAL USE | ESTIMATED LOSSES

VOLUME (KL)

24	SEPTEMBER MONDAY	5.5
25	SEPTEMBER TUESDAY	11.3
26	SEPTEMBER WEDNESDAY	11.6
27	SEPTEMBER THURSDAY	11.0
28	SEPTEMBER FRIDAY	8.9
29	SEPTEMBER SATURDAY	4.2
30	SEPTEMBER SUNDAY	4.8

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VOLUME PER WEEKDAY

VOLUME (KL)

GENERAL USE | ESTIMATED LOSSES
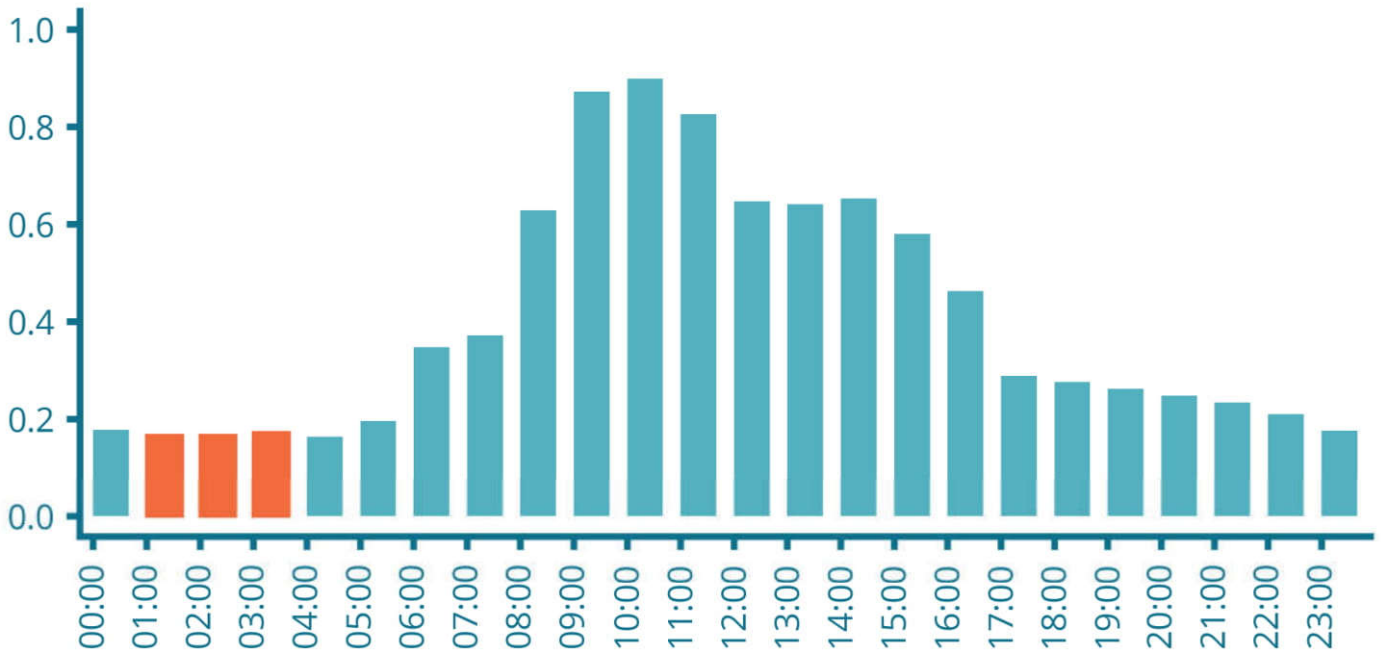
TIME OF DAY

VOLUME PER WEEKDAY
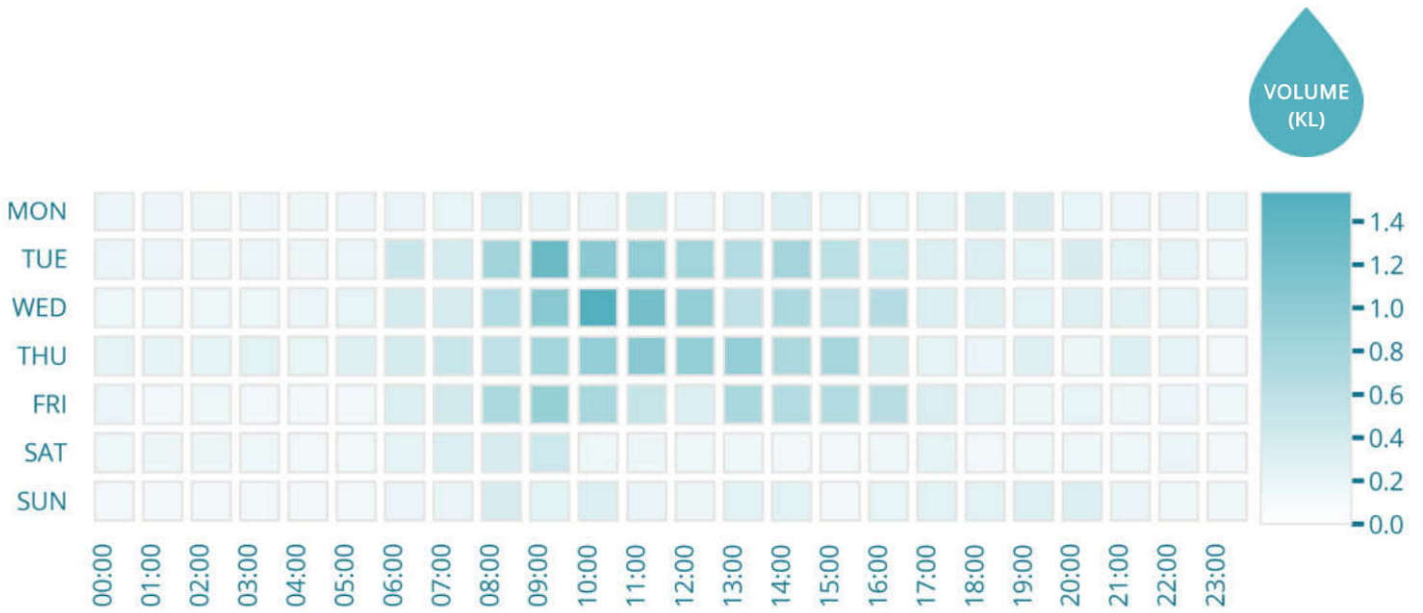
VOLUME (KL)

TIME OF DAY

1	Volume Total	57.33 kL
2	Cost Total	R 5,733.00
3	Highest Days	Wed, Tue
4	Average Daily Volume	9.66 kL
5	Average Daily Cost	R 966.00
6	Highest Usage Hours	10:00, 09:00, 11:00

BridgIoT Website

https://www.bridgiot.co.za/

Company Registration Number

2015/284421/07

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Western Cape	Western Cape	Western Cape
South Africa	South Africa	South Africa