Ikhaya Automation Systems are specialist leaders in Real Time Temperature Monitoring for Refrigerated Vehicles, Fridge, Freezers, Cold Rooms, Server Rooms and Pharmaceutical.

We provide a **Remote Wireless Temperature Monitoring System**, which in all essence is truly wireless from its sensors and communication to alerts. We utilise cutting edge technology to provide a real–time window into your business allowing you to monitor your critical variables from anywhere in the world via the internet. Completing the cold chain is what we do! The spin-off is increased Quality Control, Reduced Losses, More in-the-pocket Saving and Reduced Carbon Footprint.

Our current HARDWARE can operate in 2 states:

- **Standalone SMS system** whereby the unit will alert multiple users in the event of an alarm and allows the user to download the data via USB using an intelligent user friendly PC application
- **Real-time monitoring system** with interactive web service consisting of Dashboard, Reports, Alerts & Graphs
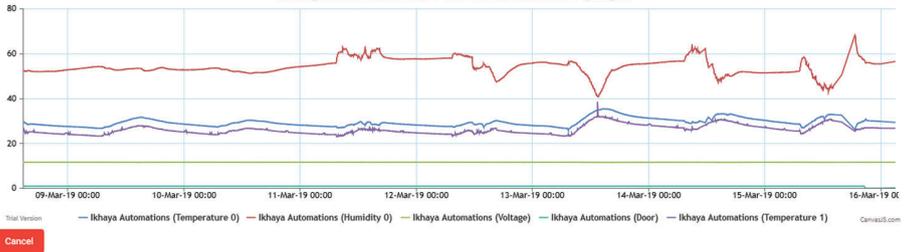
Dashboard

- Interactive user friendly dashboard

Devicepool: Ikhaya Automation Systems

Filter

Ikhaya Automations
Last updated: Mar 20, 2019, 1:53:03 PM

66.7% DC

34.2°C	Min: 15	45.9%	Min: 5	11.55V	Min: 10	Closed	Door	29.9°C	Min: 15
Alert	Max: 25 Temperature 0	Ok	Max: 95 Humidity 0	Warning	Max: 12 Voltage	No Set Points		Ok	Max: 33 Temperature 1

Graphs

- Min Max Line
- Zoom
- Pan
- Multi Graph
- Print or Download
- Line, Bar, Scatter, Column, etc.

Sensor(s) Graph

Chart Type
Line

Specified Range
1 Month

Ikhaya Automation sensor month line graph

Trial Version

— Ikhaya Automations (Temperature 0) — Ikhaya Automations (Humidity 0) — Ikhaya Automations (Voltage) — Ikhaya Automations (Door) — Ikhaya Automations (Temperature 1)

CanvasJS.com

Cancel

Reports

- Excel Based Reports
- Detailed or Summarised
- Max, Min, Average & MKT
- Log Downloads
- Exception Report
- Built in Graphs
- Alarm History

REPORT

GPS

- Pinpoint the location of your asset as well as its temperature in real time
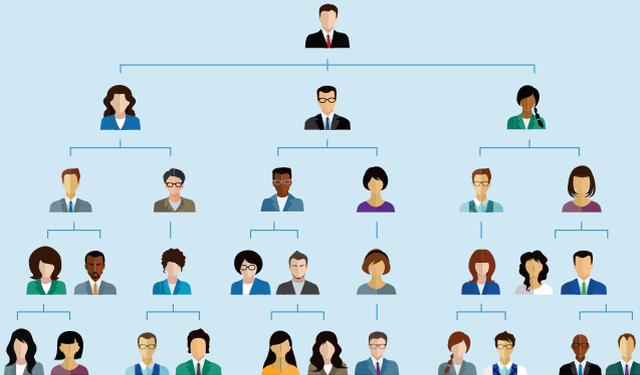
Audit Logs

- Tracks any changes made to the system

Users

- Hierarchy Based
- Read and/or write permission based on role

Technical Specifications VM 1000

General

Model	VM 1000
Dimensions	135mm x 100mm x 50mm
Weight	0.45kg
Mounting method	Velcro/Mounting Screws
Mode of Communication	GPRS
Mode of operation	Electronic
ICASA Approval	TA-2018/2266
WHO Approval	PQS Code: E006/061

Environmental Specifications

Operating Temperature	5°C to 60°C
IP Rating	IP 54
Storage Temperature	5°C to 50°C

Electrical Specifications (Option 1)

Input Supply	100 – 220Vac Adaptor with 12vdc output, 1 Amp (centre pin positive)
Standalone Battery Backup	Yes (Lithium - Non rechargeable)
Current Consumption @ 12V	Active Mode (GSM Transmission active): 150mA (typical) average
	Instantaneous peak current: 0.6 - 1 Amp
	Standby Mode: 55mA, Display ON
	Standby Mode (Adapter): 15mA (Power Down - LCD Off)
	Standby Mode (Battery): 40uA
Battery Type	Lithium Non Rechargeable
Battery operating life	3-5 Years (LCD Display off, Power Save mode active)

Electrical Specifications (Option 2)

Input Supply	Lithium Battery 3.6Vdc, 6.5Ah
Current Consumption @ 7.2 VDC	Active Mode (Transmission): 150mA
	Standby Mode: 40uA (Display off)
Battery Type	Lithium Non Rechargeable
Battery operating life	3-5 Years
Number of Batteries	2 x C Cell Lithium

Logging

Logging Interval	Default: 10 Minutes
	Minimum: 1 Minute
	Maximum: 1440 Minutes
	(Configurable in 1 minute step duration)
Standard Upload Frequency	Once per day or on alarm when in battery mode; configurable when connected to mains power
Memory capability	14 000 logs internal Flash

Alarms	
On-board	LCD
	Internal Buzzer
Remote	SMS, Email, Web

User interface	
Viewing and Programming	WEB
	Membrane & LCD

Quality	
Standard	ISO 9001-2015

Inputs	
Digital Inputs	One (Door Sensor)

Temperature Sensor	
Digital Probes	4 ports but up to 8 sensors in parallel (Max of 80 meters cable in total)
Sensor Temperature Range	-30°C to +55°C
Sensor Temperature Accuracy	±0.5°C (-20°C to +55°C)
Sensor Resolution	0.0625°C steps

Internal Temperature Humidity Sensor	
Digital Probes	1
Sensor Temperature Range	0°C to +60°C
Sensor Temperature Accuracy	±0.3°C
Sensor Humidity Range	0% to 100%
Sensor Humidity Accuracy	±2%

Interface	
Membrane	Control Buttons

Display	
Type	Graphic, OLED Backlit
Resolution	128 x 64 Pixels
Colour	Blue
Display Length / Width	65mm x 33mm

IKHAYA
AUTOMATION SYSTEMS

Product Specification VM 1000

- SMS, Email & Buzzer alert
- Alert can be cancelled via the keypad or response via SMS/Email
- User programmable delay on an alarm
- Pre-defined time delay between SMS/Email escalation recipients
- SD card for data storage
- On-board recorded alarm history with date & time of last alarm event
- 90 days history downloadable via USB using an intelligent user friendly PC application
- Door Alarm
- On-board Min Max history
- On-board Temperature and Humidity for ambient monitoring
- On-board calibration
- Battery Powered (not mains reliant)
- Battery capable of lasting up to 5 years (default settings)
- 12vdc input jack
- Mounting via magnets or wall plugs
- Hardware easily convertible/upgradable into a **Real Time Monitoring Solution**
- Automated software update (GSM/SD Card)
- Interactive web hosting service
- Interactive, backlit OLED display
- GPS enabled