SMART FACTORY MONITORING

Every panel. Every machine. Live.

Live monitoring of main and sub-distribution boards, APFC (automatic power factor correction) panels, transformers, DG (diesel generator) sets and machines — on the web and in the **UEIOT Live** app.

GET IT ON Google Play



Krionix™
CONNECTING THE DOTS OF TOMORROW.

PADMASHAKTI IOT TECHNOLOGIES PVT LTD

- Main & sub-panels
- Power factor & quality
- Transformers & DG sets
- Machine sensors

Made in India · DPIIT-recognised Startup · Udyam MSME registered · 3 Indian patent applications

www.krionix.in

Designed & manufactured in Harihar, Karnataka · India

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AT A GLANCE

An Indian manufacturer of smart monitoring for industry

Padmashakti IoT Technologies Pvt. Ltd., trading as **Krionix**, is an Industrial IoT (Internet of Things) company and OEM (original equipment manufacturer) headquartered in Harihar, Karnataka. We design and build monitoring hardware in-house and run it on our own cloud and mobile app — so the panels, transformers and machines a factory already has can report their condition in real time, without being replaced.

< 3 s
Live data updates on web and app

50+
Configurable alert event types

10,000+
Data points per plant, without rework

100%
In-house hardware, firmware, cloud and app

What we monitor in a factory

Main incomer, MDB & sub-DBs
Main and sub-distribution boards

Energy, demand, power quality and cost — plant-wide and department by department.

APFC panels
Automatic power factor correction

Power factor, kVAr and capacitor-step status, with alerts before a low-PF penalty.

Transformers & DG sets
DG = diesel generator

Loading, oil and winding temperature, run hours, fuel level and mains/DG status.

Motors, pumps & utilities
Vibration, temperature, pressure, flow and level from industrial sensors.

Who we serve

- Sugar & distilleries
- Steel, foundry & forging
- Rice, flour & food processing
- Textiles & spinning
- Pharma & chemicals
- Engineering & auto components
- Cold storage & warehouses
- Commercial buildings & campuses
- Water & pumping stations
- Utilities & PSUs

Retrofit first
Works with existing panels and meters.

Built in India
Designed and built end-to-end in Karnataka.

On your phone
Every panel and alarm in the UEIOT Live app.

Flexible commercials
Start with one panel, then scale up.

Abbreviations: **APFC** automatic power factor correction · **DG** diesel generator · **IoT** internet of Things · **kVAr** kilovolt-ampere reactive · **MDB** main distribution board · **OEM** original equipment manufacturer · **PF** power factor

THE CHALLENGE

Electricity is a major cost, yet most plants check it only once a month

The monthly bill shows *how much* was spent — not *where*, *when* or *why*. Without live data, low power factor, demand peaks, idle running and failing machines stay hidden until they cost money.

~42%
of India's electricity is consumed by industry (2023-24)

~70%
of industrial electricity is used by electric motor systems

20–30%
energy saving from IE3/IE4 (premium and super-premium efficiency) motors

Where money leaks today

Low power factor
A tripped capacitor step or failed contactor goes unnoticed. State tariffs penalise a low PF (power factor), typically below 0.90–0.95, and under kVAh (kilovolt-ampere-hour) billing a low PF raises the cost of every unit.

Maximum demand overshoot
Large loads started together push kVA (kilovolt-ampere) demand above the contract demand — and the penalty applies to the whole billing month.

Unplanned breakdowns
Bearing wear, overheating and phase unbalance give warning signs weeks ahead — if someone is watching.

No department-wise view
Energy cost cannot be allocated to departments or products, so waste has no owner.

What live monitoring changes

- ✓ Problems found in minutes, not at month-end
- ✓ Maintenance planned on condition, not on calendar
- ✓ Power factor and demand kept inside tariff limits
- ✓ Every unit (kWh) and rupee traced to a department

Sources: industry share — ORF Energy News Monitor (Sep 2025), citing CEA (Central Electricity Authority) data for 2023-24; motor share (global) and IE3/IE4 savings — Power Line, "Growing Market: energy-efficient motors and drives" (Apr 2026); PF thresholds and kVAh billing — Techovn, "Power factor penalty in India". PF penalty rules vary by State and tariff order.

Abbreviations: **CEA** central Electricity Authority · **IE3 / IE4** international efficiency classes for motors · **kVA** kilovolt-ampere (apparent power) · **kVAh** kilovolt-ampere-hour · **kWh** kilowatt-hour (one unit of energy) · **PF** power factor

THE CHALLENGE · POWER QUALITY

Hidden power-quality problems that raise costs

Drives, UPS (uninterruptible power supply) systems and LED lighting save energy but distort the supply. These problems stay hidden until a capacitor bank fails, a transformer overheats or a motor burns out.

Harmonics

VFDs (variable frequency drives), UPS units, induction furnaces and LED drivers inject harmonic currents. High THD (total harmonic distortion) overheats transformers, cables and neutrals, blows capacitors and causes nuisance tripping.

Voltage unbalance

Current unbalance can be 6 to 10 times the voltage unbalance. Extra motor heating is about 2 × (% unbalance)² °C, and winding insulation life halves for every 10 °C rise.

High, low and dipping voltage

Sags, swells and long periods of high or low voltage make motors draw more current, drop out contactors and trip drives in the middle of a batch.

Low or leading power factor

Failed capacitor steps lower PF (power factor); over-correction at light load makes it leading. Both raise kVA demand and can attract tariff charges.

Neutral current & hot spots

Unbalanced and harmonic loads overload the neutral. Loose joints and overloaded busbars heat up silently — a common cause of panel fires.

Idle running & leaks

Machines, fans and compressors left running between shifts. Compressed-air leaks alone can waste 20–30% of a compressor's output.

How Krionix catches each one

Problem	What we measure	Alert raised
Harmonics	Voltage and current THD per phase	THD above the set limit at the incomer or a feeder
Unbalance	Phase voltages and currents	Voltage or current unbalance above limit
Power factor	PF, kVAr (kilovolt-ampere reactive), APFC steps	PF below target, or leading PF
Voltage & idle running	Voltages, frequency; kW (kilowatt) out of hours	High/low voltage or phase loss; load running in an off period

Sources: U.S. Department of Energy, Motor Tip Sheet #2 "Eliminate Voltage Unbalance" (2000) and Compressed Air Tip Sheet #3 "Minimize Compressed Air Leaks" (2000). Harmonic limits for consumers in India are set by CEA grid-connectivity regulations, aligned with IEEE 519 (Institute of Electrical and Electronics Engineers standard on harmonics) — Power Line, Dec 2020.

Abbreviations: **APFC** automatic power factor correction · **CEA** central Electricity Authority · **IEEE** institute of Electrical and Electronics Engineers · **kVA** kilovolt-ampere (apparent power) · **kVAr** kilovolt-ampere reactive · **kW** kilowatt (real power) · **PF** power factor · **THD** total harmonic distortion · **UPS** uninterruptible power supply

THE SOLUTION

From the panel to your phone in under 3 seconds

Krionix connects to the meters and sensors in your panels, sends live readings to the cloud in under 3 seconds, and turns them into dashboards, alarms and reports — on the web and in the UEIOT Live app.

1 · FIELD

- **Energy meters** — MDB · sub-DB · feeders
- **APFC relay / meter** — PF · kVAr · steps
- **Transformer & DG** — OTI · WTI · fuel · status
- **Vibration & RTD** — motors · bearings · pumps
- **4–20 mA sensors** — pressure · flow · level
- **Digital inputs** — breaker · trip · run/stop

2 · EDGE

Krionix gateways
& cloud data loggers

- RS485 / Modbus RTU
- 4–20 mA · RTD · vibration
- Digital inputs
- 4G · Wi-Fi · Ethernet
- MQTT · LoRa options
- Buffers data in outages
- Surge & ESD protected



panel-mounted, plug & play

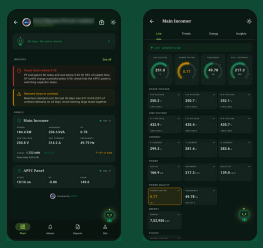
3 · CLOUD

Krionix cloud
secure · multi-site

- Time-series storage, 5+ yrs
- Auto-built dashboards
- Rules, alarms, escalation
- Cost, carbon & insights
- Scheduled PDF/Excel reports
- REST & MQTT APIs

AES-256 · role-based access

4 · PEOPLE & SYSTEMS



UEIOT Live app

- Web dashboard & TV wall
- WhatsApp · SMS · email
- Management reports
- ERP · SCADA · CMMS

Fits what you have

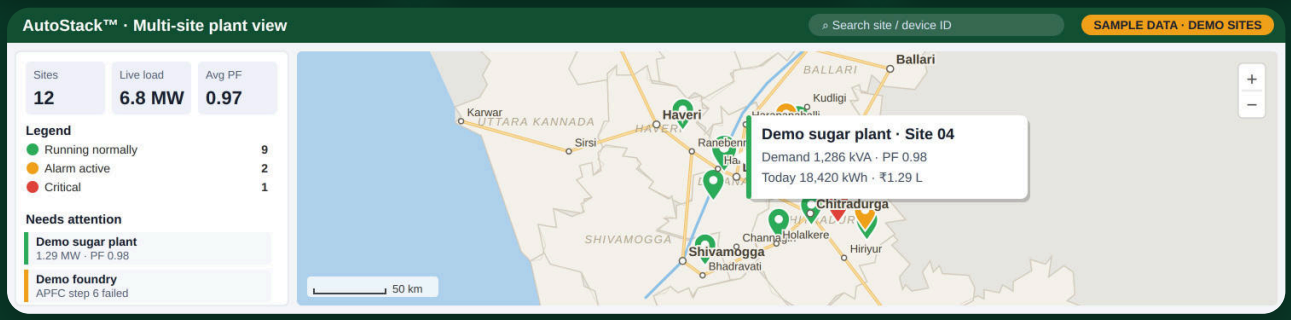
Works with existing Class-1 multifunction meters, CTs, APFC relays and sensors. No panel rebuild.

Grows without rework

Start with the main incomer; add sub-DBs, machines and sites later. Dashboards build themselves.

Never loses data

Gateways store readings locally during network outages and sync when the link returns.

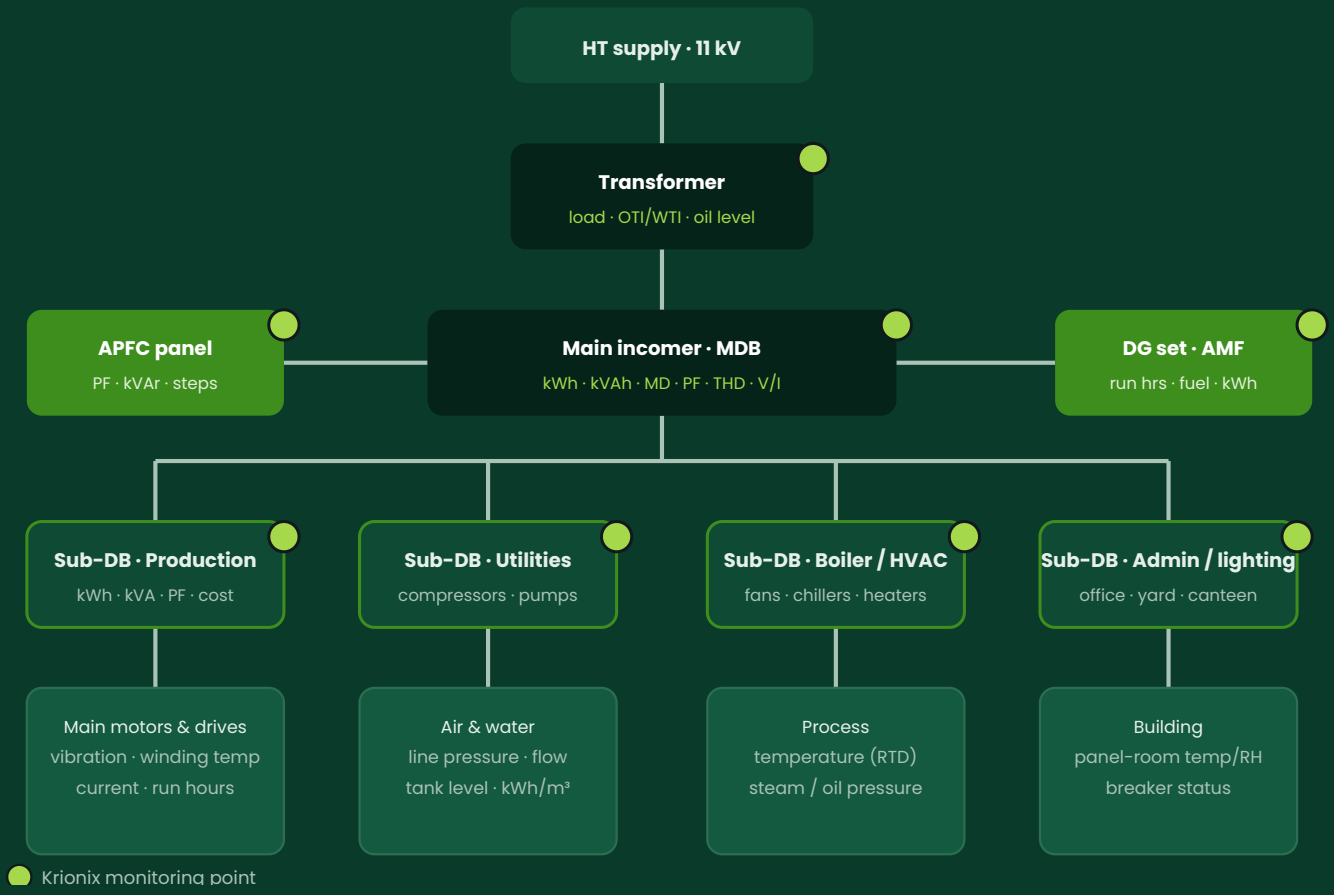


Abbreviations: **APFC** automatic power factor correction

PLANT-WIDE VISIBILITY

One view from the main incomer to every machine

We mirror your electrical SLD (single-line diagram) on the dashboard. Every monitoring point rolls up to its parent panel, so energy and cost can be seen for the whole plant, each department, or a single machine.



Level	Typical measurements	What it answers
Main incomer	kWh, kVAh, kVA demand, PF, V, I, Hz, THD	What will this month's bill be? Are we near contract demand?
Sub-DB	kWh, kVA, PF, current per phase	Which department uses what — and what it costs
Machine	Current, run hours, vibration, temperature	Is this machine healthy, loaded and running when it should be?

Abbreviations: DB / Sub-DB distribution board / sub-distribution board · **Hz** hertz (frequency) · **kVA** kilovolt-ampere (apparent power) · **kVAh** kilovolt-ampere-hour · **kWh** kilowatt-hour (one unit of energy) · **PF** power factor · **SLD** single-line diagram · **THD** total harmonic distortion

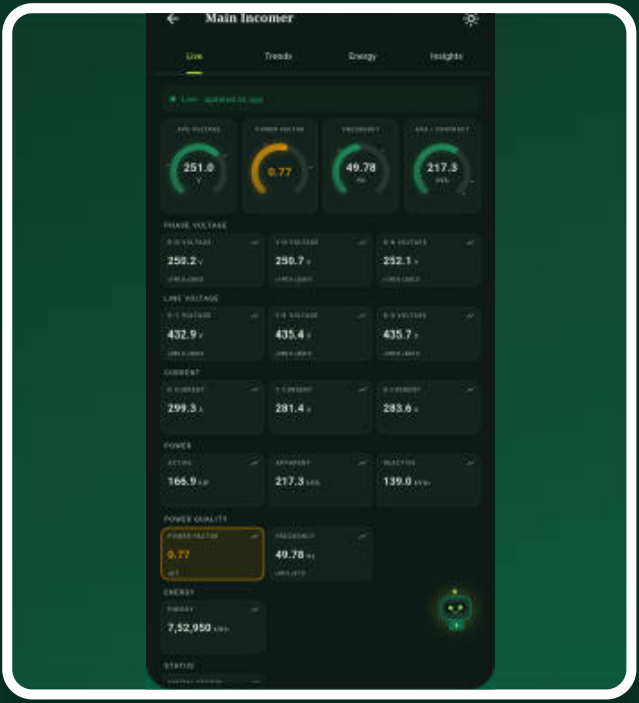
MODULE 1 · MAIN INCOMER & MDB (MAIN DISTRIBUTION BOARD)

Know your electricity bill before it arrives

The main distribution board is where the utility measures you. Krionix reads the incomer meter live, so energy, demand and power factor can be managed during the month — not argued about after it.

Parameters monitored

Group	Parameters
Voltage	R-N, Y-N, B-N; R-Y, Y-B, B-R; unbalance
Current	R, Y, B, neutral; unbalance
Power	kW, kVA, kVAr — total and per phase
Quality	Power factor, frequency, THD (total harmonic distortion) of voltage and current
Energy	kWh, kVAh, kVArh — import/export
Demand	kVA MD (maximum demand) vs contract demand
Cost & CO_2	₹ per day/month at your tariff; scope-2 (purchased electricity) CO_2 emissions



What you can do with it

Stay under contract demand

Alert as kVA approaches the limit, with a 30-day peak record to plan large-load starts.

Forecast the bill

Today, 7-day and 30-day cost at your tariff, with a month-end bill estimate.

Catch supply problems

High/low voltage, phase loss and unbalance logged with time stamps — evidence for the utility.

Common findings in the first month of monitoring

- ✓ Power factor dropping at night or at light load
- ✓ Demand peaks at shift start when loads start together
- ✓ Supply voltage running high, overheating motors
- ✓ Base load drawn on holidays with no production

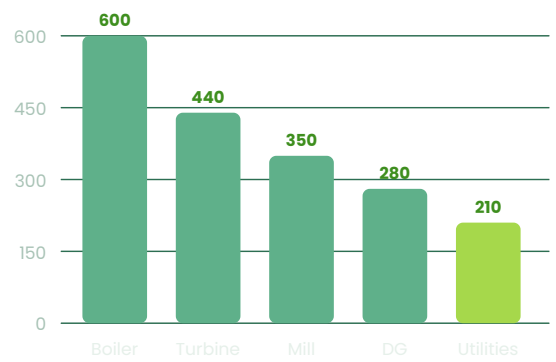
Abbreviations: **CO_2** carbon dioxide · **kVA** kilovolt-ampere (apparent power) · **kVAh** kilovolt-ampere-hour · **kVAr** kilovolt-ampere reactive · **kW** kilowatt (real power) · **kWh** kilowatt-hour (one unit of energy) · **MD** maximum demand · **MDB** main distribution board · **THD** total harmonic distortion

MODULE 2 · SUB-DBS (SUB-DISTRIBUTION BOARDS) & DEPARTMENTS

Give every unit of energy an owner

Metering each sub-distribution board shows exactly where energy goes. Department heads see their own consumption and cost, and management sees energy per tonne, per shift or per product.

Department-wise consumption · today (illustrative)



kWh per department, sugar-mill example. Each bar opens a detailed department dashboard.

Key features

- **Real-time departmental consumption** — kWh, kVA and PF per sub-DB
- **Comparisons** — rank departments, shifts and days; spot the outlier
- **Cost allocation** — energy cost booked to each process for budgeting
- **Load balancing** — find unbalanced phases and overloaded feeders
- **Idle-running detection** — loads drawing power outside production hours
- **KPIs** — kWh per tonne, per shift or per unit produced
- **History** — years of data for capacity planning and audits

For department heads
Own dashboard and daily report for their section only.

For maintenance
Overloaded feeders and unbalance flagged before they trip.

For management
Energy cost per product, trend by month, plant-to-plant comparison.

Monthly cost allocation (illustrative)

Department	kWh	Share	Energy cost*	kWh per tonne
Boiler	18,000	32%	₹1,26,000	6.0
Turbine	13,200	23%	₹92,400	4.4
Mill	10,500	19%	₹73,500	3.5
DG & utilities	14,700	26%	₹1,02,900	4.9

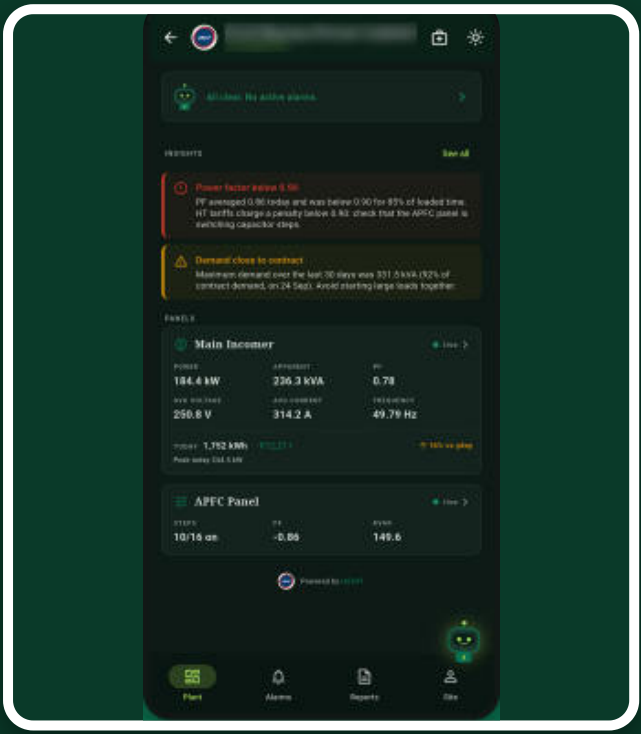
*At an assumed ₹7 per kWh and 3,000 tonnes processed; actual tariff and production are set per plant.

Abbreviations: DB / Sub-DB distribution board / sub-distribution board · **DG** diesel generator · **kVA** kilovolt-ampere (apparent power) · **kWh** kilowatt-hour (one unit of energy) · **PF** power factor

MODULE 3 · APFC (AUTOMATIC POWER FACTOR CORRECTION) PANELS

Keep your power factor within tariff limits

An APFC panel only saves money while every capacitor step is healthy and switching. A blown fuse, a welded contactor or a degraded capacitor quietly pulls PF down — and the penalty shows up on the next bill. Krionix watches the panel continuously.



What we monitor

- Live and average power factor at the incomer and at the APFC panel
- kVAr demanded vs kVAr delivered
- Number of steps on (e.g. 10 of 16) and switching activity
- Capacitor current per step — to find degraded or failed units
- Panel voltage, harmonics (THD — total harmonic distortion) and panel-room temperature

Typical alerts

- PF below target (e.g. 0.90) for more than a set time
- Step not responding / capacitor current low
- Over-compensation (leading PF) at light load
- High THD that can overheat capacitors

Why it matters — a simple illustration

200 kW	256 kVA	204 kVA
Same real load in both cases	Demand at PF 0.78 (failed steps)	Demand at PF 0.98 (healthy APFC)

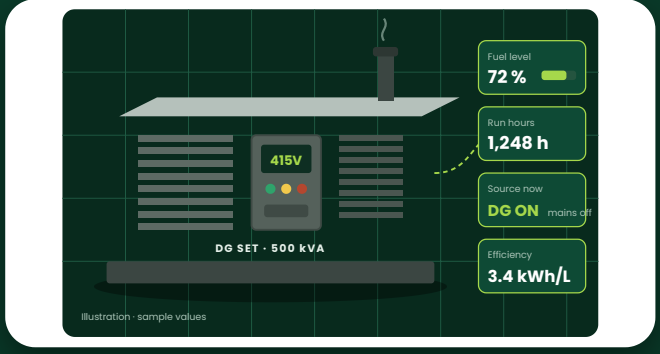
kVA (kilovolt-ampere) = kW (kilowatt) ÷ PF (power factor). Low PF raises kVA demand by about 25% here, which raises demand charges, kVAh-based energy charges and any low-PF surcharge under the applicable State tariff.

Abbreviations: APFC automatic power factor correction · **kVA** kilovolt-ampere (apparent power) · **kVAh** kilovolt-ampere-hour · **kVAr** kilovolt-ampere reactive · **kW** kilowatt (real power) · **PF** power factor · **THD** total harmonic distortion

MODULE 4 · TRANSFORMERS & DG (DIESEL GENERATOR) SETS

Protect the two assets your plant cannot run without





In-plant transformers

A transformer failure can stop production for days. Krionix uses the same technology as our THMS product for utility transformers.

- Loading in kVA and % of rating, phase unbalance
- Oil and winding temperature (from OTI/WTI — oil and winding temperature indicators — or RTD sensors)
- Oil level and tank pressure (where fitted)
- LV voltage, PF and harmonics
- Alarms on overload and over-temperature

DG sets & changeover

Know when the DG ran, how much it produced and how much fuel it used — for every set, at every site.

- Mains / DG status from the AMF (auto mains failure) panel or changeover contacts
- Run hours, starts and kWh generated
- Fuel level via 4–20 mA sensor; refill and drain events
- Fuel efficiency in kWh per litre
- Battery voltage and service-due reminders

Thermal early warning

Temperature trend against load shows a cooling or oil problem before the relay trips.

Fuel accountability

Sudden level drops raise a pilferage alert with time stamp.

Grid vs DG cost

Monthly split of energy and cost from grid and DG, per site.

Typical alarms

Asset	Alarm examples
Transformer	Load above 90% of rating · oil temperature high · oil level low · LV voltage out of band
DG set	DG started / stopped · fuel level low · sudden fuel drop · service hours due · battery low
Changeover	Mains failure and restoration time · DG on-load duration · failed auto-start

Abbreviations: AMF auto mains failure (panel that starts the DG) · **DG** diesel generator · **kVA** kilovolt-ampere (apparent power) · **kWh** kilowatt-hour (one unit of energy) · **OTI / WTI** oil / winding temperature indicator · **PF** power factor · **RTD** resistance temperature detector · **THMS** transformer health monitoring system

MODULE 5 · MACHINES & PROCESS

Sensors that detect machine faults before a breakdown

Most breakdowns of motors, pumps, fans and gearboxes give warning signs — rising vibration, heat or current — weeks before failure. Krionix sensor loggers bring those signals onto the same dashboard as your energy data.

Sensor	Fitted on	What it catches
Vibration	Motor bearings, shafts, pumps, fans, gearboxes	Imbalance, misalignment, looseness and bearing wear
Temperature (RTD — resistance temperature detector)	Motor windings, bearings, transformer oil, process lines	Overheating, cooling failure, over-load
Pressure (4–20 mA)	Compressed air, steam, hydraulic and water lines	Leaks, choked filters, compressor over-running
Flow (4–20 mA / pulse)	Process water, cooling water, boiler feed	Water use per department, leaks, pump efficiency
Level (4–20 mA)	Diesel tanks, water tanks, chemical tanks	Low level, overflow, fuel pilferage
Temperature & humidity	Panel rooms, cold stores, warehouses	Hot spots, HVAC failure, storage compliance
Digital inputs	Breakers, trip relays, run/stop contacts, doors	Trips, run hours, unauthorised operation
Motor current	Large motors through CTs (current transformers)	Overload, single-phasing, dry running, idle running

From reactive to predictive

- Baseline every machine when it is healthy
- Alert on deviation from its own baseline
- Plan the repair in the next shutdown
- Track run hours for service intervals
- Portable motor testing kit for spot checks



Abbreviations: **HVAC** heating, ventilation and air-conditioning · **RTD** resistance temperature detector

HARDWARE

Gateways and data loggers built for electrical panels

Compact units for DIN-rail or panel mounting that connect to existing meters and sensors. Plug-and-play: once powered, they appear on the dashboard.







Model	Inputs	Key specifications
RS485 cloud gateway	1 × RS485 serial port (Modbus RTU protocol); up to 32 meters on one bus, cable up to 350 m	12–24 V DC; 4,800–115,200 baud; Wi-Fi / 4G; operating -25 to +80 °C
4-channel analog logger	4 × 4–20 mA (pressure, flow, level, fuel)	12 V DC; range and engineering units set from the web portal
RTD temperature logger	1 × RTD sensor	12 V DC; continuous scan; plug-and-play with dashboard
Vibration logger	1 × vibration sensor (bearings, shafts, motors)	12 V DC; continuous scan; predictive alerts
Panel energy monitor	3-phase V/I via CTs; multi-feeder variants	Class-1 metering; RS485/Modbus; local display
DI (digital-input) module	Breaker, trip, run/stop, door contacts	Status and run-hour logging; event alerts

Protection on every unit

Reverse-polarity, surge and ESD (electrostatic discharge) protection up to 2 kV on power and signal lines. IP20 (ingress protection) for mounting inside panels; IP-rated enclosures for field use.

Connectivity options

4G LTE (mobile data), Wi-Fi or Ethernet to the cloud; MQTT (lightweight IoT messaging); LoRa (long-range radio) for large campuses; Modbus TCP and an on-premise server on request.

Specifications are typical and may vary by variant. Housing: 135 × 85 × 50 mm for sensor loggers; 47 × 125 × 50 mm for the RS485 gateway.

Made in India · **DPIIT-recognised Startup** · **Udyam MSME registered** · **3 Indian patent applications**

Abbreviations: **DI** digital input · **DIN rail** standard mounting rail inside panels · **ESD** electrostatic discharge · **IoT** internet of Things · **IP20** ingress protection rating (indoor, inside panels) · **kV** kilovolt · **LoRa** long-range low-power radio · **LTE** long-Term Evolution (4G mobile data) · **MQTT** message Queuing Telemetry Transport · **RS485 / Modbus** industrial serial link and protocol used by meters · **RTD** resistance temperature detector

Your plant, live

Every meter and APFC panel, updated every few seconds.





UEIOT LIVE · ANDROID APP

Powered by Krionix

GET IT ON Google Play

Your whole plant in your pocket

UEIOT Live is our Android app for plant owners, managers and maintenance teams. Every meter and APFC panel updates in under 3 seconds, alarms arrive the moment a limit is crossed, and reports are one tap away — wherever you are.

< 3 s
Live refresh on the plant screen

4
Views per panel: Live, Trends, Energy, Insights

₹ · CO_2
Cost and carbon next to every kWh

PDF
Daily, weekly and monthly reports to share

- ✓ Plant overview with automatic insights
- ✓ Bill estimate and month-end forecast
- ✓ Light and dark themes, with an in-app assistant
- ✓ Alarms grouped by type, acknowledge & resolve
- ✓ Scan your electricity bill to cross-check
- ✓ Same login and data as the web dashboard

Owners
Today's cost, month-end forecast and alarms at a glance.

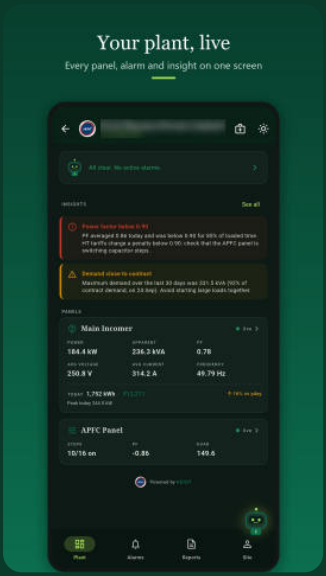
Plant managers
Demand, power factor and department trends; reports to share.

Maintenance
Live readings and alarms at the panel, on the shop floor.

UEIOT LIVE · SCREEN BY SCREEN

Everything your plant team needs in four tabs

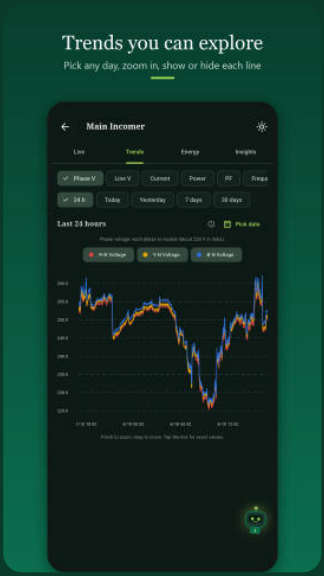
Plant · Alarms · Reports · Site — with Live, Trends, Energy and Insights for every panel.



Plant overview — every panel live, with insights such as low power factor or demand near the contract limit.



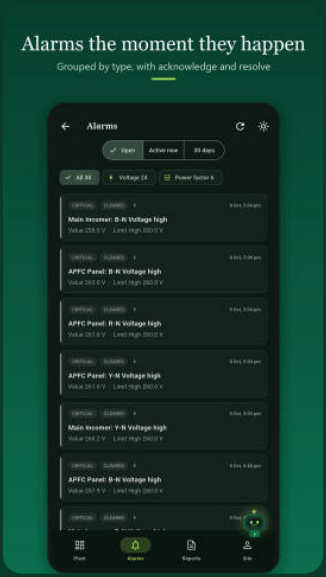
Live — gauges and phase-wise voltage, current, kW, kVA, kVAr, power factor, frequency and energy.



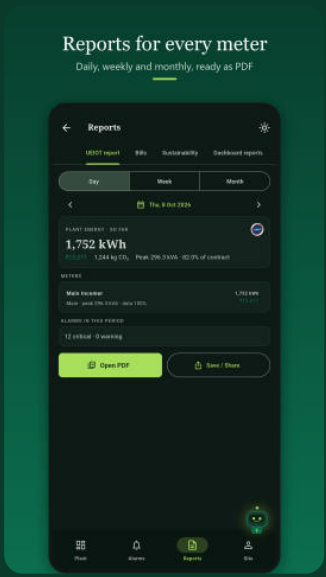
Trends — any day or range; pinch to zoom; show or hide each phase.



Energy — kWh, ₹ and CO_2 for today, 7 and 30 days, with bill forecast.



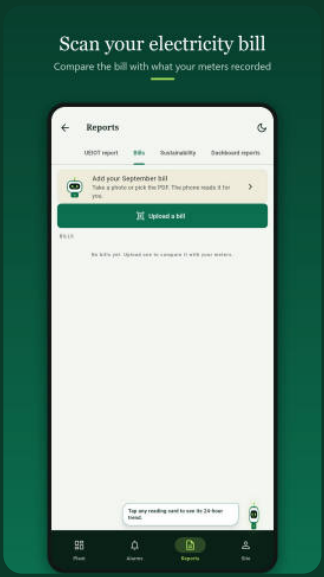
Alarms — grouped by type and severity; acknowledge and resolve.



Reports — daily, weekly, monthly PDF per meter; save or share.



Sustainability — 12-month CO_2 emissions, trees needed to offset them, and monthly charges.



Bill scan — photograph the bill; compare it with what the meters recorded.

Abbreviations: **CO_2** carbon dioxide · **kVA** kilovolt-ampere (apparent power) · **kVAr** kilovolt-ampere reactive · **kW** kilowatt (real power) · **kWh** kilowatt-hour (one unit of energy)

ALERTS, REPORTS & DASHBOARDS

The right alert to the right person, instantly

Alerts are configurable for 50+ event types, with thresholds, delays and escalation set per panel, department or team. Critical events stay open until someone acknowledges them.

App push

UEIOT Live notification with live value

WhatsApp

Alerts and daily summary reports

SMS

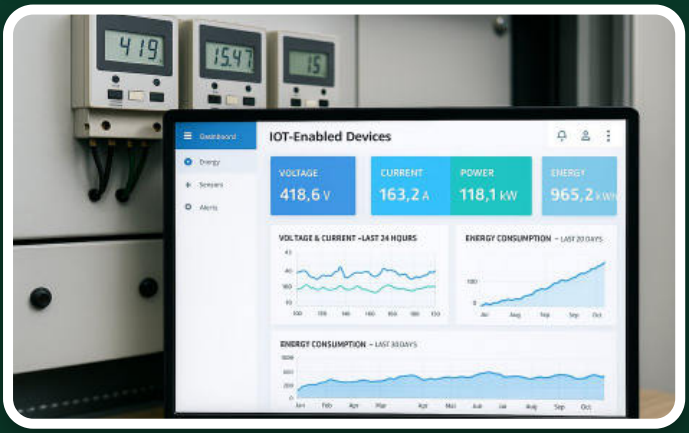
For field staff and critical escalation

Email

Scheduled PDF/Excel reports to management

Example alert rules

Event	Rule (example)	Sent to
Low power factor	PF (power factor) < 0.90 for 15 min	Electrical in-charge; escalate to plant head after 1 h
Demand near contract	kVA > 90% of contract demand	Shift in-charge, plant head
Voltage high / low	Phase voltage outside 190–260 V	Maintenance team
Phase unbalance	Current unbalance > 10%	Maintenance team
Machine vibration	Above baseline for 10 min	Mechanical maintenance
Transformer temperature	Oil temperature > set limit	Electrical in-charge, plant head
Device offline	No data for 10 min	Krionix support and site admin



Web dashboard & reports

- Auto-built dashboards for every site, panel and device
- Multi-plant, multi-department structure
- Control-room TV wall view
- Daily, weekly and monthly reports in PDF, Excel and CSV
- Custom KPIs (key performance indicators): energy per unit produced, load per department

Abbreviations: kVA kilovolt-ampere (apparent power) · **PF** power factor

BENEFITS

Benefits for your plant

Less downtime

Faults found early and repairs planned into shutdowns, not forced by breakdowns.

Lower energy bills

PF and demand inside tariff limits; idle running and waste found and removed.

Longer equipment life

Motors, transformers and capacitors protected from overload, heat and unbalance.

Decisions on data

Measured loads for expansion, solar sizing, motor upgrades and budgets.

ESG & energy audits

CO_2 and energy history for audits, ESG (environmental, social, governance) and BRSR reports.

Accountability

Department-wise energy cost with clear ownership, shift by shift.

How savings typically come — an illustration

Lever	What monitoring reveals	Typical action
Power factor	Failed APFC steps; PF below tariff limit	Replace capacitor or contactor the same week
Maximum demand	Peaks caused by simultaneous starts	Stagger large loads; review contract demand
Idle running	Loads running during breaks and holidays	Shut-down checklists, timers, interlocks
Compressed air	Compressor running at no production	Leak repair, pressure set-point correction
Motors	Old, under-loaded or overheating motors	Right-size; IE3/IE4 upgrade; VFD (variable frequency drive) where suited
DG	Low kWh per litre, unexplained fuel drops	Service, load management, fuel control

You can't manage what you can't see.

Actual savings depend on the plant, tariff and actions taken. We measure the baseline during the first weeks, so every improvement afterwards can be shown in kWh and rupees.

Abbreviations: **APFC** automatic power factor correction · **BRSR** business Responsibility and Sustainability Report · **CO_2** carbon dioxide · **DG** diesel generator · **ESG** environmental, social and governance · **IE3 / IE4** international efficiency classes for motors · **kWh** kilowatt-hour (one unit of energy) · **PF** power factor · **VFD** variable frequency drive

WORKING WITH US

Start with one panel and scale to the whole plant

Step	Stage	What happens
1	Site survey	SLD (single-line diagram), existing meters, CTs (current transformers), APFC panels and sensors reviewed; monitoring points agreed
2	Design & proposal	Bill of materials, network plan and dashboard structure; commercial proposal
3	Installation	Gateways and sensors fitted by licensed electrical staff, with planned shutdown if needed
4	Commissioning	Data verified against panel meters; alert limits, tariff and users configured
5	Training & handover	UEIOT Live and web dashboard training for managers and maintenance staff
6	Support & review	Remote monitoring of device health; periodic review of savings and alerts

Engagement models

Pilot

Main incomer plus APFC panel, or one critical department, to prove value on your own data.

Purchase + subscription

One-time hardware cost with an annual platform and app subscription.

Managed service

Krionix installs, monitors and sends a monthly energy and health review.

Shared responsibilities

Party	Responsible for
Krionix	Gateways, loggers and sensors; installation and commissioning; cloud, web dashboard and UEIOT Live app; alerts, reports and technical support
Client	Site access and shutdown windows; single-line diagram and tariff details; internet or SIM coverage at panel locations; any meter or CT replacement where required

All data belongs to the client. Commercial terms are finalised through mutual discussion; installation charges are quoted separately based on site survey.

Abbreviations: APFC automatic power factor correction · **CT** current transformer · **SLD** single-line diagram

SECURITY & DATA

Your plant data, fully protected

Role-based dashboards with secure login on mobile, tablet and desktop. Each user sees only what their role needs.

Role-based access

Separate views for Admin, Manager, Operator and Maintenance. Multi-plant and multi-department access trees.

Encryption & login

AES-256 (Advanced Encryption Standard) encryption for data in transit and at rest; MFA (multi-factor authentication) for web access.

Reliable hosting

99.9% uptime cloud servers; data retention of 5+ years; on-premise or private-server option per IT policy.

Audit trail

Complete log of who viewed or changed settings, alert limits and users.

Open integration

APIs (application programming interfaces) for ERP (enterprise resource planning), SCADA (supervisory control and data acquisition), CMMS (maintenance management) and billing systems; scheduled Excel/PDF exports.

Non-intrusive

Devices read meters and sensors without interfering with protection; any control function is added only on request.



Security at a glance

- Encrypted from device to dashboard
- Each user sees only their own plant and role
- Every login and settings change logged
- Your data stays yours — cloud or on-premise

Abbreviations: AES-256 advanced Encryption Standard, 256-bit · **CMMS** computerised maintenance management system · **ERP** enterprise resource planning · **MFA** multi-factor authentication · **SCADA** supervisory control and data acquisition

ABOUT US

Padmashakti IoT Technologies Pvt. Ltd.

An Industrial IoT and smart-monitoring company headquartered in Harihar, Karnataka, trading as **Krionix**. Incorporated in 2025, we design and manufacture IoT hardware in-house and run it on our own cloud and apps — *connecting one device at a time.*

2025	DPIIT	3	100%
Incorporated in Harihar, Karnataka	Recognised Startup India company	Indian patent applications filed	In-house hardware, firmware, cloud and app

Mission

To empower industries with real-time IoT-driven insights that reduce downtime, optimise energy use and enable smarter decisions — with monitoring that is scalable, reliable and built in India.

Vision

To become a leading Industrial IoT provider, building an intelligent ecosystem where every machine and every process runs at peak efficiency, safety and sustainability.

Leadership



Shri Gulab Chand D. Jain
Managing Director
40+ years in electrical equipment and manufacturing.



Shri Kiran S. Kulkarni
Director
Hexitronics Automation LLP; formerly with BARC (Trombay). IoT deployment and large-scale infrastructure.



Shri Basavaraj M. S.
Director
Founder, Universal Electricals; 30+ years in electrical supervision, LT panels, lift irrigation and transformer yards.

Our partners: Krionix is a newly formed company in which we are all partners — together with Ashwin G Jain (Krionix), Ananth and Vaman (Hexitronics Automation LLP, ISO 9001:2015) and Nikhil M B (Universal Electricals · UEIOT).

Our services

Real-time energy monitoring · **Plant & equipment health monitoring** · **Predictive maintenance** · **IoT dashboards & analytics** · **System integration & automation** · **Custom IoT development & support**

Credentials: DPIIT-recognised startup · Udyam MSME · Patent applications 202541076329 (water meter retrofit), 202541062777 (AutoStack™), 202541094317 (Akiva™ AI) · Make in India · CIN U62013KA2025PTC207648

Abbreviations: HT / LT high tension / low tension (voltage) · **IoT** internet of Things

ALSO FROM KRIONIX

One platform for transformers, meters and water



Transformer Health Monitoring (THMS)

India loses about 13 lakh distribution transformers a year — a failure rate of around 10%. Krionix THMS gives each transformer a weatherproof 4G unit that monitors electrical, thermal and physical health and alerts engineers before it fails.

- V, I, kW/kVA/kVAr, PF, harmonics, unbalance
- Oil and winding temperature, oil level, tank pressure, vibration
- Packages for 25 kVA to 1250 kVA



Water AMR — OCR retrofit & bulk metering

Our patent-pending OCR retrofit reads the certified digits of existing water meters, with an image behind every reading. Ultrasonic bulk meters complete the water balance for plants, campuses and cities.

- Multi-brand mechanical meters, no replacement
- 4G LTE, long-life battery, tamper alerts
- Plant water per department and kWh per m³ for pumps



Energy-meter AMR retrofit

A non-intrusive upgrade that turns existing energy meters into smart, cloud-connected meters — for tenant billing in industrial estates, colonies and commercial buildings.

- Automatic readings, tamper detection, 4G LTE
- Remote connect/disconnect through a 30 A relay

Source for transformer failures: Distribution Transformer Standardisation Cell, reported by PTI / Business Standard, 17 Nov 2025. Separate Krionix THMS and Water AMR profiles are available on request.

Abbreviations: AMR automatic meter reading · **kVA** kilovolt-ampere (apparent power) · **kVAr** kilovolt-ampere reactive · **kW** kilowatt (real power) · **kWh** kilowatt-hour (one unit of energy) · **LTE** long-Term Evolution (4G mobile data) · **OCR** optical character recognition · **PF** power factor · **THMS** transformer health monitoring system

PRODUCT CATALOGUE

Products at a glance







Product	Brand	Description
RS485 / 4G cloud gateway	Krionix	Connects up to 32 Modbus meters per bus to the cloud; Wi-Fi or 4G
Cloud data loggers (4–20 mA, RTD, vibration, DI)	UEIoT	Plug-and-play sensor loggers with web-configurable ranges
Energy monitoring device / smart energy meter	UEIoT	Real-time energy monitoring with RS485/Modbus
Panel energy monitor & power analyser	UEIoT	Three-phase multi-feeder monitoring and power-quality analysis
Electrical data recorder	UEIoT	High-precision recording for analysis and troubleshooting
APFC monitoring	UEIoT	Power factor and capacitor-step health in LT and HT panels
Motor vibration monitoring	UEIoT	Continuous vibration and temperature with predictive alerts
Induction motor testing kit	UEIoT	Portable testing and diagnostics for induction motors
Transformer Health Monitoring (THMS)	Krionix	Electrical, thermal and physical monitoring of transformers
Energy meter AMR retrofit	Krionix	Non-invasive smart upgrade for existing energy meters; 4G LTE
OCR water AMR & bulk water metering	Krionix	OCR reading of existing meters; ultrasonic bulk meters (±1%)
UEIOT Live app & web dashboards	UEIoT	Live data, alarms, reports, cost and carbon on Android and web
Custom IoT development	Krionix	Custom hardware, firmware and cloud — BMS, ETP/STP/WTP, Edge-PLC

Krionix and UEIoT products run on one platform and one login. Detailed datasheets for each product are available on request.

Abbreviations: AMR automatic meter reading · **APFC** automatic power factor correction · **DI** digital input · **HT / LT** high tension / low tension (voltage) · **IoT** internet of Things · **LTE** long-Term Evolution (4G mobile data) · **OCR** optical character recognition · **RS485 / Modbus** industrial serial link and protocol used by meters · **RTD** resistance temperature detector · **THMS** transformer health monitoring system

WHY KRIONIX

Upgrade your monitoring, keep your existing panels

Today	Conventional approach	With Krionix
Energy data	Monthly bill and manual log sheets	Live readings in under 3 seconds, on phone and web
Power factor	Found low when the bill arrives	Alert the same hour a capacitor step fails
Maintenance	Fixed schedule or after a breakdown	Condition-based, guided by vibration and temperature
Cost allocation	One bill for the whole plant	Energy cost per department, shift and product
Upgrading	New SCADA or replacement panels	Retrofit gateways on existing meters
Supply chain	Imported or assembled systems	Designed and manufactured in Karnataka

What sets us apart

- **Indian manufacturer, not a trader** — hardware, firmware, cloud and app built in-house
- **Retrofit-first** — protects existing panels and meters
- **Our own mobile app** — UEIOT Live, made for plant teams
- **One platform** for panels, machines, transformers, DG and water
- **Electrical expertise** — experienced electrical team for safe installation
- **Local support** from Karnataka for faster response







Abbreviations: **DG** diesel generator · **SCADA** supervisory control and data acquisition



Krionix™

CONNECTING THE DOTS OF TOMORROW.

Let us show you your plant, live

We would be glad to arrange a live demonstration of UEIOT Live and a site survey for your plant.

GET IT ON Google Play

GET IN TOUCH

Padmashakti IoT Technologies Pvt. Ltd.

PADMASHAKTI IOT TECHNOLOGIES PVT LTD

Registered office
Rajatagiri, 1st Main, Hamsagar Compound,
Vijayanagara, Harihar – 577601,
Karnataka, India

Phone
+91 94481 36101
+91 98455 18161

Email
info@krionix.in
padmashaktiiottechnologies@gmail.com

Website
www.krionix.in

Made in India · DPIIT-recognised Startup · Udyam MSME registered · 3 Indian patent applications · AES-256 secured cloud · 4G LTE connected

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