THE COMPLETE IRRIGATION AUTOMATION MANAGEMENT SYSTEM



DconAg AIR

10 Pumpsets + 512 Valves

Suitable for

Large Scale Farms



DconAg SMART

1 Pumpset + 64 Valves

Suitable for

Medium Scale Farms



TCON series

1 Pumpset + 5 Valves / 12 Valves

Suitable for

Small Scale Farms





Available on

GET IT ON Google Play

Available on the App Store

TCON

Timer Based Irrigation Controller (Wired)





TCON is an ideal solution for **small scale farms** designed to automate irrigation with precision and ease. It is a time based cellphone motor starter that supports wired drip and sprinkler irrigation systems and includes a built in fertigation timer for efficient nutrient management.

- **Multi Valve** Management
- **Pumpset** Automation
- Precision Irrigation
- Bluetooth Connectivity
- **Durable & Reliable**

TCON

Timer Based Irrigation Controller (Wired)

Compatible with Tcon

FEATURE HIGHLIGHTS

Automatic Pump & Valve Control
Fully automated irrigation cycles

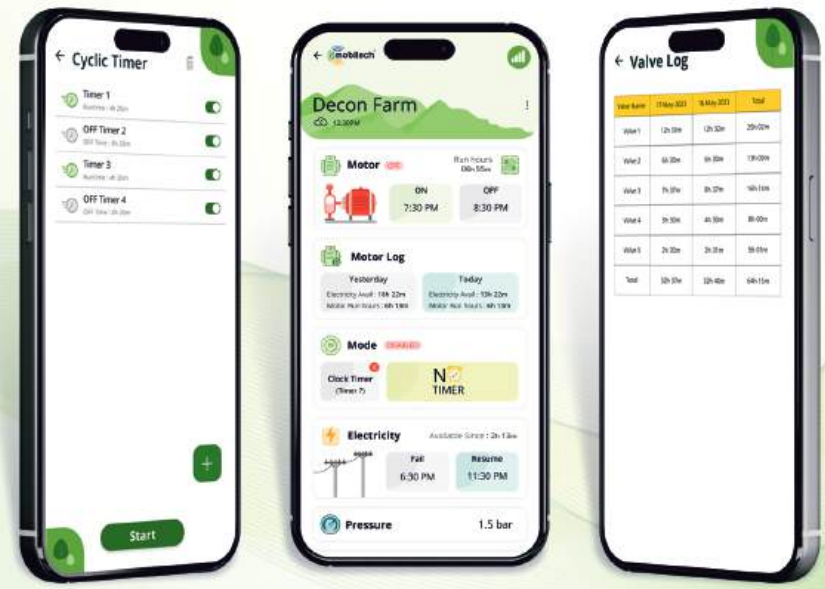
Multiple Timer Modes
Cyclic, Clock & Fertigation scheduling

Built-in Fertigation
Nutrient dosing with irrigation

Advanced Protection
Dry run & pressure safety features

TECHNICAL SPECIFICATIONS

- Power Source: AC (Alternating Current)
- Rain Detection: Yes
- Fertigation: Inbuilt fertigation timer
- 230V Voltage: 230V AC 50Hz
- Communication (Additional) : Wi-Fi
- Cloud Control: Yes (if Wi-fi enable)
- Display: Onboard screen for easy setup



Dcon Ag SMART

Drip Irrigation / Sprinkler Irrigation Automation (Wired / Wireless)

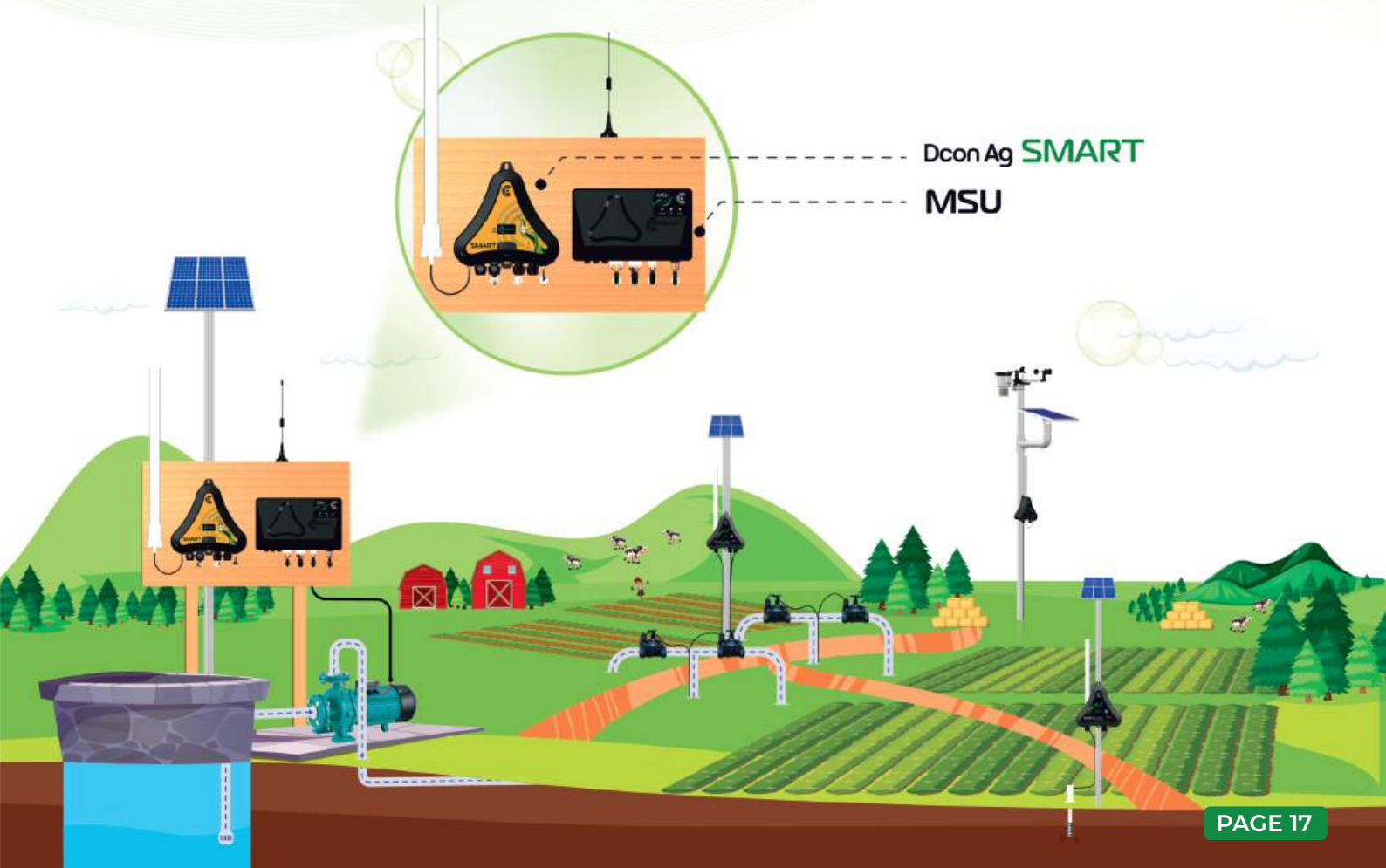
The system connects to **pumps, solenoid valves, and field sensors** to automate drip or sprinkler irrigation.It also works with soil moisture sensors, weather stations, auto backwash systems, fertigation units, and water level sensors for smart irrigation control.Using-real time data or set schedules, it automatically operates pumps and valves for accurate water and nutrient supply.The entire system can be monitored and controlled anytime, anywhere through a **mobile app.**

One Pumpset

One SIM Card

64 Valves

Satellite Based Irrigation



Dcon Ag SMART

Drip Irrigation / Sprinkler Irrigation Automation (Wired / Wireless)

Compatible with Dcon Ag SMART

FEATURE HIGHLIGHTS

- Designed for small to medium-sized farmlands.
- Controls up to **64 solenoid valves.**
- Operates via mobile app with **Wifi, Bluetooth & GSM.**
- Connects to sensors, pumps, and valves for smart irrigation.
- **Soil Moisture Based** - Automatically controls irrigation based on soil moisture levels.
- **Weather Based** - Adjusts irrigation according to real-time weather conditions.
- **Flow Based** - Monitors water flow to ensure proper distribution and detect issues.
- **Pressure Based** - Maintains optimal pressure and identifies pipeline problems.

TECHNICAL SPECIFICATIONS

- Supports **1 SIM, 1 Pump Set**
- Power source : **AC & Solar**
- Backup Time : **18 Hours**
- Compatibility : **Suitable for all medium farms**
- Communication : **Wifi , Bluetooth**
- Internal Storage : **1 Year Log**
- Cloud Control : **Yes**
- Display : **Onboard screen for easy setup**
- Inbuilt GPS : **Yes**



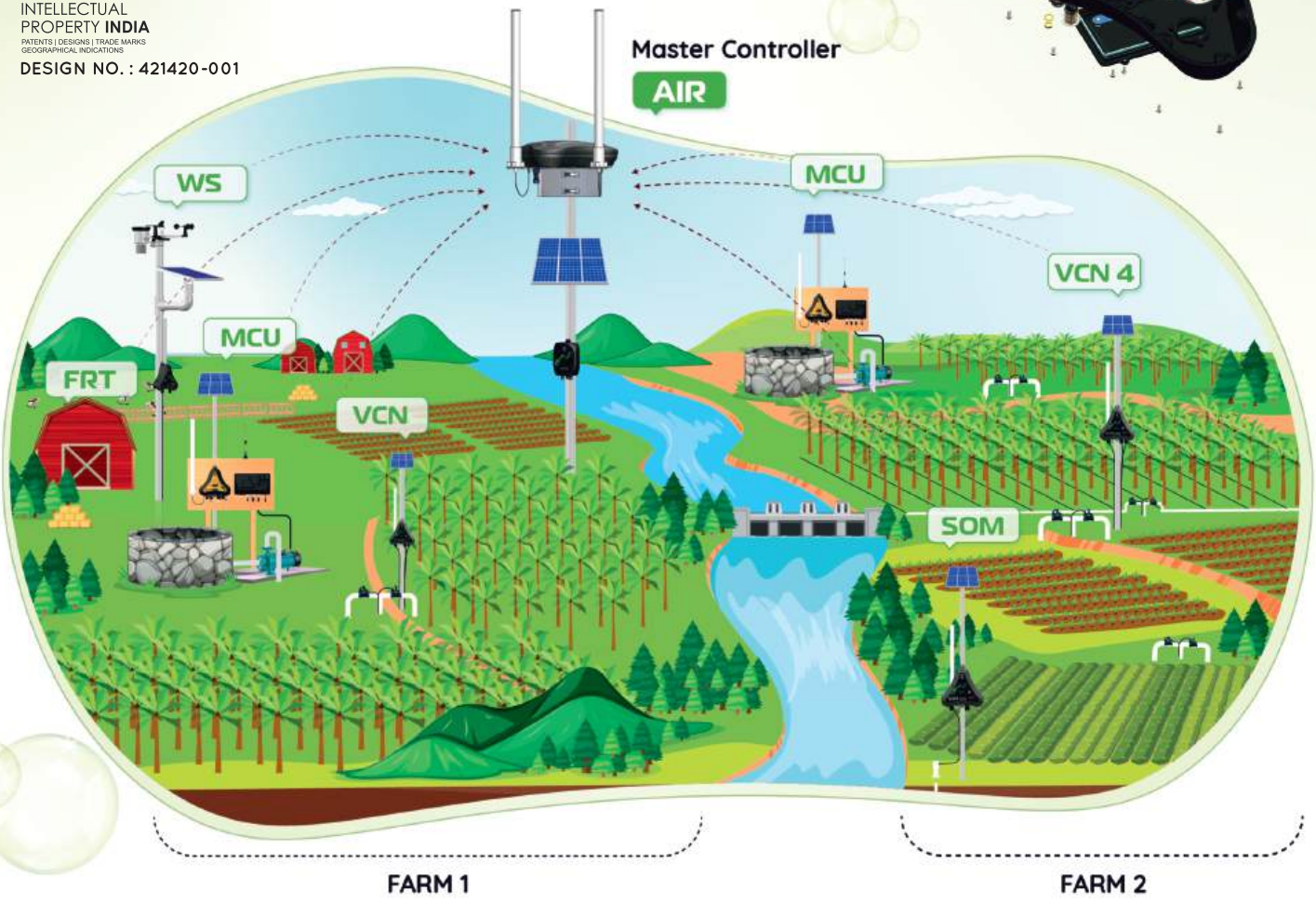
Dcon Ag AIR

Master Control Unit

IP65



INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS
DESIGN NO. : 421420-001



The **Dcon Ag AIR** unit operates, monitors, and manages multiple agricultural processes like **pumpsets, fertigation, solenoid valve control, weather stations, soil moisture,** and reservoir water level. It can handle various input and output combinations. Mesh network technology links field units, with one unit acting as a bridge to the cloud, with **dual channel LoRA.**



Control Upto 10 Pumpsets



Control & Manage upto 512 Valves



Satellite Based Irrigation

Dcon Ag AIR

Master Control Unit

Compatible with Dcon Ag AIR

FEATURE HIGHLIGHTS

24/7 Solar Operation
Solar-powered with 72-hour backup.

Remote Cloud Connectivity
Real-time monitoring via 5G/LTE cloud access.

Dual LoRa Communication
Dedicated channels for pump and field control.

Rugged & Scalable Design
IP65-rated, supports 10 motors and multiple connections.

Patented Smart Technology
Cloud-enabled updates for modern farm management.

TECHNICAL SPECIFICATIONS

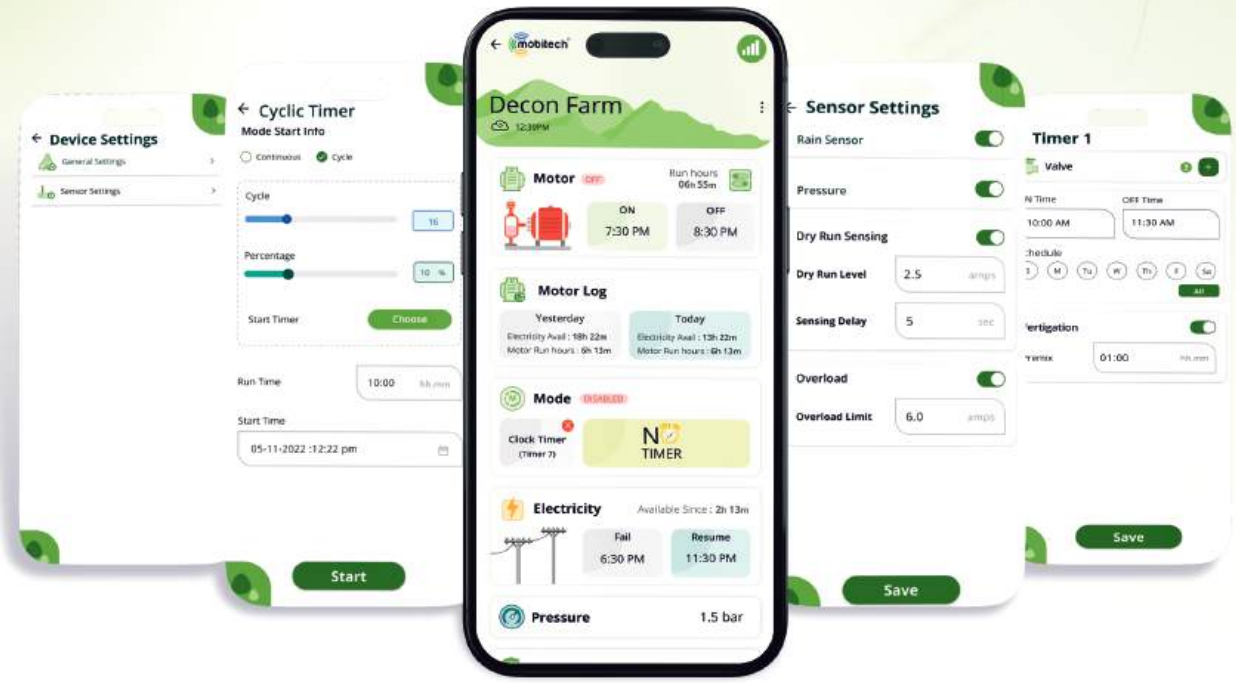
- Solar Panel: 12.5V/40W
- Battery Bank: 7.4V/ 15Ah
- Internal battery: 3.7V/15Ah
- Backup time: 72 hours

- Cloud communication: GSM/Wifi/LTE
- Local Communication: LoRA (2 band) & Bluetooth 5.0
- Internal Storage: 1 Year Log Inbuilt GPS

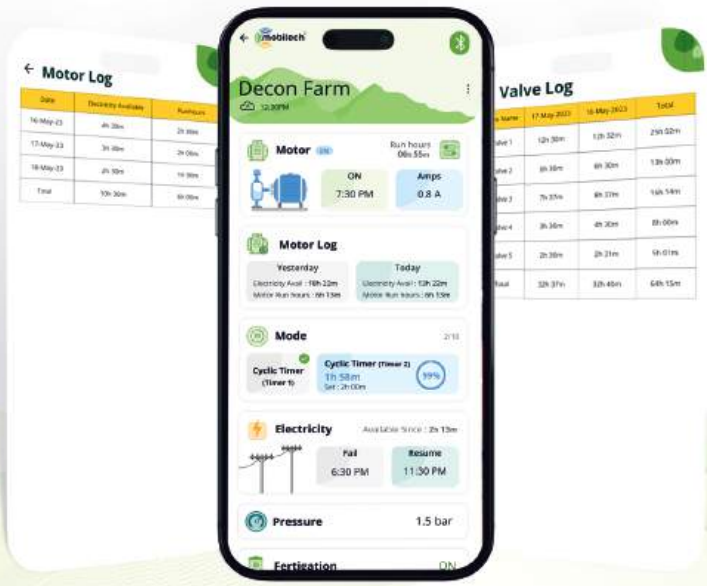


TCON

SCAN FOR APP







Dcon Ag SMART

SCAN FOR APP







Dcon Ag AIR

SCAN FOR APP







Comparison of Micro irrigation automation controllers

Features		Dcon Ag AIR	Dcon Ag SMART	TCON 51 & TCON 121
Functional Features	Pump Control Capability	10	1	1
	Pump Relay Capability	✓	✓	✓
	DOL & Star Delta Starter Compatibility	✓	✓	✓
	Pump Drive Control(VFD)	✓	✓	✓
	Valve Control Capacity	512 (Wired,Wireless)	64 (Wired,Wireless)	5 & 12 (Wired)
	Maximum Parallel Valve Control	20	10	2
	Pressure Release Valve Compatibility	✓	✓	✓
	Auto Backwash Compatibility	✓	✓	
	Auto Backwash Support Capacity	10	1	
	Time Based Auto Backwash	✓	✓	
	Pressure Based Auto Backwash	✓	✓	
	Auto Refill Irrigation Water Source	✓		
	Borewell Refill Motor Control	✓		
	Main Valve Actuation	✓		
	AC Solenoid Coil Voltage	24V AC	24V AC	24V AC
	AC Solenoid Coil Current	100 - 400mA	100 - 400mA	100 - 400mA
	DC Solenoid Coil Voltage	9-12V DC	9-12V DC	
	DC Solenoid Coil Watt	2-4W	2-4W	
	Water Level Control Capability	✓	✓	
	No of Water Level Control Points	10	1	
	Soil Moisture Monitoring	✓	✓	
	Soil Moisture Sensor Integration Capacity	512	64	
	Weather Monitroing	✓	✓	
	Weather Station Integration Capacity	10	1	
	Rain Detection	✓ (Quantify)	✓ (Quantify)	✓ (Detection)
	Wind Speed Monitoring	✓	✓	
	Wind Direction Monitoring	✓	✓	
	Temperature & Humidity Monitoring	✓	✓	
	(LUX) & UV Radiation Monitoring	✓	✓	
	Atomspheric Pressure Monitoring	✓	✓	
	Weather Forecast Integration	✓	✓	
	Weather Forecast Duration	5	5	

Comparison of Micro irrigation automation controllers

Features		Dcon Ag AIR	Dcon Ag SMART	TCON 51 & TCON 121
Functional Features	Multi Schedule Irrigation Control	✓•		
	Geospatial Valve Mapping	✓	✓	
	Realtime Pump & Valve Status Mapping	✓	✓	
	Fogger & Fan Control Support	✓	✓	
Pump Protection Features	Single Phase Protection	✓	✓	
	Current Based Dry Run Protection	✓	✓	✓
	Flow Based Dry Run Protection	✓	✓	
	Overload Protection	✓	✓	
	Low and High Voltage Protection	✓	✓	
	Current Imbalance Protection	✓	✓	
	Dry Run Resume Delay	✓	✓	
	Voltage Resume Delay	✓	✓	
	AC Solenoid Coil Current	✓	✓	
Connectivity & Technology	IoT Connectivity	✓	✓	
	Remote Access Capability	✓	✓	
	GSM Communication Support	✓	✓	
	WiFi Connectivity	✓	✓	✓
	Bluetooth Connectivity	✓	✓	✓
	LoRa Connectivity	✓	✓	
	LoRa Channel Capacity	Multiple	Single	
	LoRa Node Capacity	256	32	
	GSM Node Capacity	10		
	LoRa Range Extension	✓		
	Wireless Range Support	Upto 3 kms	Upto 1 kms	
	Ai Integration Support	✓	✓	
Electrical Parameter	Power Source Type	AC & Solar	AC & Solar	
	Voltage Sensing Capability	✓	✓	
	Phase Monitoring	1Ph & 3Ph	1Ph & 3Ph	1Ph & 3Ph
	Battery Backup Support	✓	✓	
	Backup Duration Time	72 Hrs	18 Hrs	
	Current Sensing Capability	✓	✓	✓

Comparison of Micro irrigation automation controllers

Features		Dcon Ag AIR	Dcon Ag SMART	TCON 51 & TCON 121
Electrical Parameter	Power Factor Measurement	✓	✓	
	Power Consumption(KW)	✓	✓	
	Voltage & Current Monitoring Display	✓	✓	
Irrigation & Fertigation Timer Controls	Cyclic Timer	✓	✓	✓
	Cyclic Timer With Fertigation	✓	✓	✓
	Cyclic Volume Control	✓	✓	
	Cyclic Volume With Fertigation	✓	✓	
	Clock Based Timer	✓	✓	✓
	Clock Run Timer Control	✓	✓	
	Clock Run Timer With Fertigation Control	✓	✓	
	Calender Based Clock Timer	✓	✓	
	Calender Based Clock Run Timer	✓	✓	
	Calender Based Clock Run Timer With Fertigation	✓	✓	
	Soil Moisture Irrigation Control	✓	✓	
	Rainfall Based irrigation Control	✓	✓	
	Soil Moisture Triggered Cyclic Timer	✓	✓	
	Soil Moisture triggered Cyclic Volume Control	✓	✓	
	Irrigation Flushing Mode	✓	✓	
Fertigation	Fertigation Management	✓	✓	✓ *
	Fertigation Control Capacity	10	1	1
	Fertigation Channel Capacity	30 Channel	5 Channel	
	Tank Integration Capacity	150	5	
	Simultaneous Tank Control Capacity	10	5	
	EC Monitoring	✓	✓	
	EC Control	✓	✓	
	pH Level Monitoring	✓	✓	
	pH Level Control	✓	✓	
	Booster Pump Safety	✓	✓	
Display & Enclosure Ratings	Onboard Display	✓	✓	✓
	Ingress Protection Rating(IP)	IP65	IP65	

* - Simple Fertigation • - Coming Soon

Dcon Ag MCU & MSU

Motor Control Unit & Motor Starter Unit



The **Motor Control Unit(MCU)** is a smart device that automates and manages irrigation motors. It allows farmers to turn motors ON and OFF remotely. The MCU receives control signals and sends them to the **Motor Starter Unit (MSU),** which then starts or stops the motor. This ensures **safe, reliable, and automated motor operation** without the need to visit the field.

- Dry Run
- Overload
- Phase Failure
- Voltage Fluctuations
- Power Cut Intimation

Dcon Ag MCU & MSU

Motor Control Unit & Motor Starter Unit

Compatible with

Dcon Ag AIR | Dcon Ag SMART

FEATURE HIGHLIGHTS

Real-Time Pressure Control
Maintains optimal water flow using live pressure sensor data.

Single & Three-Phase Support
Compatible with both single-phase and three-phase pump sets.

Wide Power Compatibility (0.5–500 HP)
Supports pump sets across a broad power range for flexible applications.

Easy Installation & Smart Monitoring
User-friendly design with advanced communication for reliable control.

Live Display Monitoring
Shows real-time electrical data and pump status.

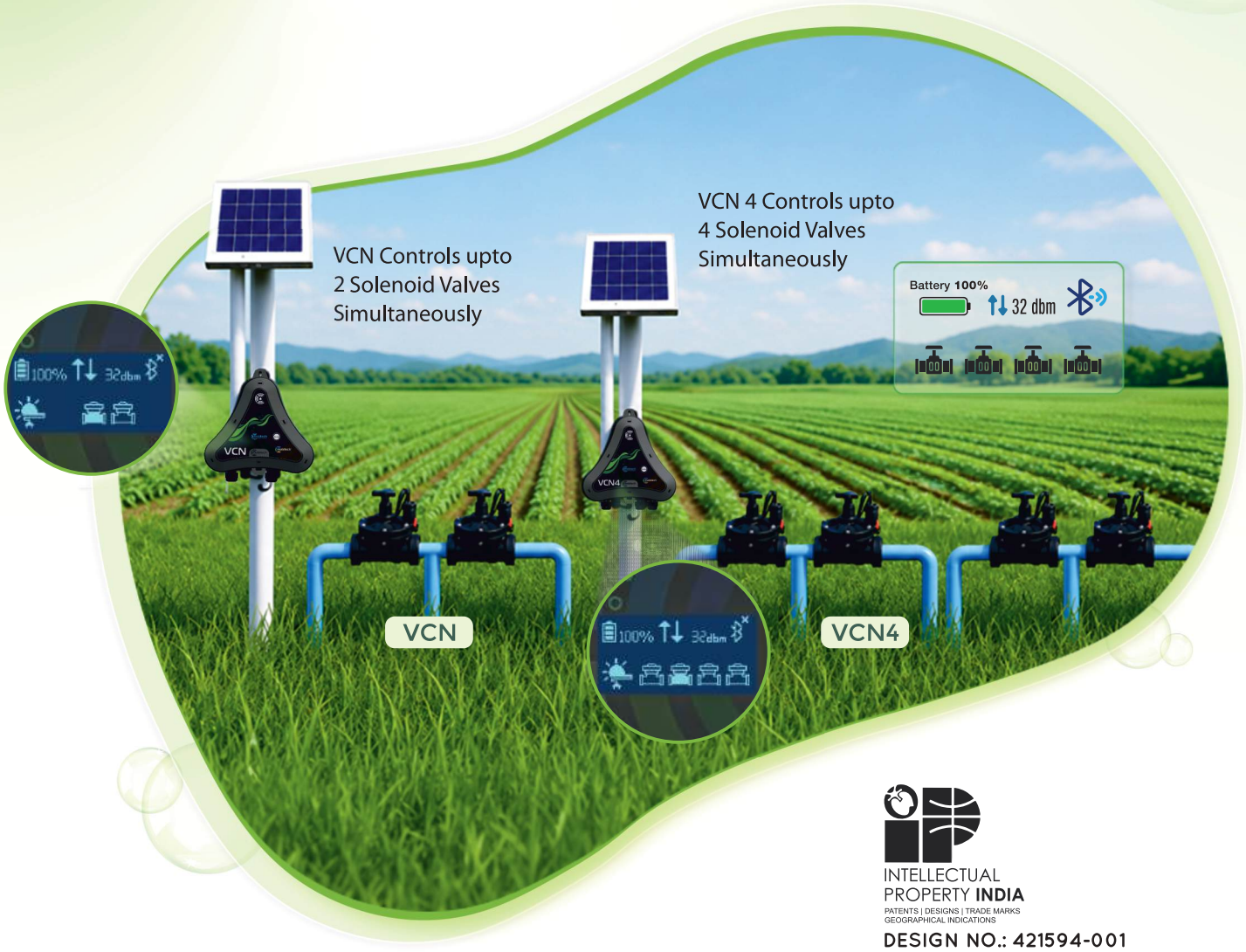
TECHNICAL SPECIFICATIONS

- Input Voltage 3 Phase: 360V -450V AC
- Input Voltage 1 Phase: 180V -240V AC
- Default CT Coil: 50A External CT Upto: 500A
- Battery: 3.7V/2.6Ah
- Backup time: 6 hours
- Communication: LoRA & Bluetooth 5.0
- Compatibility: Suitable for All types of starter panel
- Inbuilt GPS



Dcon Ag VCN & VCN4

Wireless Valve Controlling Unit



INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS
DESIGN NO.: 421594-001

Dcon Ag VCN and **VCN4** are wireless slave units that connect to **Dcon Ag AIR.**
They are designed to independently control DC solenoid valves, with VCN capable of managing 2 valves and VCN4 capable of managing 4 valves, regardless of their sizes.

- Solar Powered
- Easy Interface
- Remote Monitoring
- Durable Design
- Data Analytics

Dcon Ag VCN & VCN4

Wireless Valve Controlling Unit

Compatible with

Dcon Ag AIR | Dcon Ag SMART

FEATURE HIGHLIGHTS

Real-Time Monitoring (Optional)
flow & pressure inputs for smarter irrigation decisions

IP65 Rugged Enclosure
Weather-proof for harsh farm conditions

Ultra-Low Power Solar Operation
Solar powered with long battery backup

Long-Range Wireless Control
LoRa connectivity linked to central AIR unit

Local Status Display
High-brightness display for valve status

TECHNICAL SPECIFICATIONS

- Solar Panel: **9V/ 6W**
- Battery: **3.7V/2.6Ah**
- Backup time: **72 hours**
- Communication: **LoRA & Bluetooth 5.0**
- Inbuilt **GPS**



Dcon Ag WL

Water Level Controlling Unit



The Water Level Controlling Unit monitor the water level in wells and borewells and shows it clearly on the controller display. It also supports mobile app monitoring, so users can check the water level anytime from their phone.

- Real Time Monitoring
- Automatic Pump Control
- Solar Powered
- Mobile Alerts & Remote Access
- Smart Water Conservation

Dcon Ag WL

Water Level Controlling Unit

Compatible with

Dcon Ag AIR | Dcon Ag SMART

FEATURE HIGHLIGHTS

Designed for effective operation in reservoirs up to **100 feet** (31 meters) deep, the system is suitable for a wide range of agricultural and commercial water storage applications.

IP65 protected enclosure ensures durability in harsh environments

Accurate, consistent water level readings, supporting precise **irrigation planning, pump control**, and effective water resource management.

Corrosion-resistant sensors make the system ideal for hard-water reservoirs, delivering long-term durability and reliability.

Solar-powered, the WL operates continuously, providing uninterrupted monitoring in remote locations without access to electricity.

TECHNICAL SPECIFICATIONS

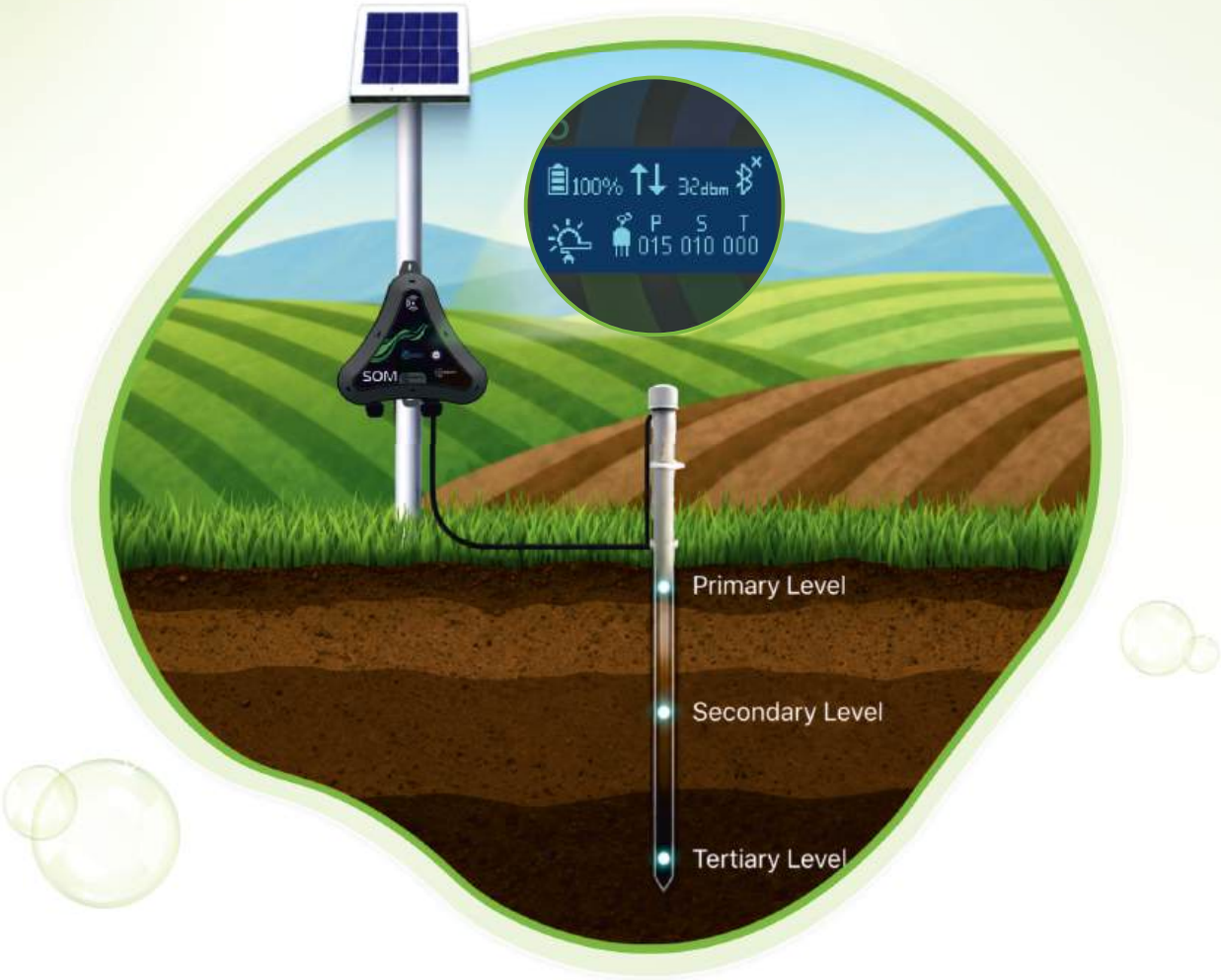
- Solar Panel: **9V/ 6W**
- Battery: **3.7V/5.2Ah**
- Backup time: **96 hours**

- Communication: **LoRA & Bluetooth 5.0**
- Inbuilt **GPS**



Dcon Ag SOM

Soil Moisture Controlling Unit



The **SOM (Soil Moisture)** Slave Unit provides real-time soil moisture data at three levels primary, secondary, and tertiary. This accurate information helps farmers manage irrigation efficiently, make timely decisions, and maintain healthy soil, supporting sustainable and modern farming practices.

- 3-Level Monitoring
- Accurate Moisture Data
- Smarter Irrigation
- Healthier Soil
- LoRA + Bluetooth 5.0

Dcon Ag SOM

Soil Moisture Controlling Unit

Compatible with

Dcon Ag AIR | Dcon Ag SMART

FEATURE HIGHLIGHTS

3-Depth Measurement
Tracks moisture across multiple root zones

Instant Data to Dcon Ag
Faster decisions for irrigation planning

Farm-Ready Durability
Reliable in rain, heat, and varying soil conditions

Corrosion-Resistant Sensors
Ideal for hard-water reservoirs, long service life

Precision Agriculture Support
Optimizes water use, improves yields, reduces wastage

TECHNICAL SPECIFICATIONS

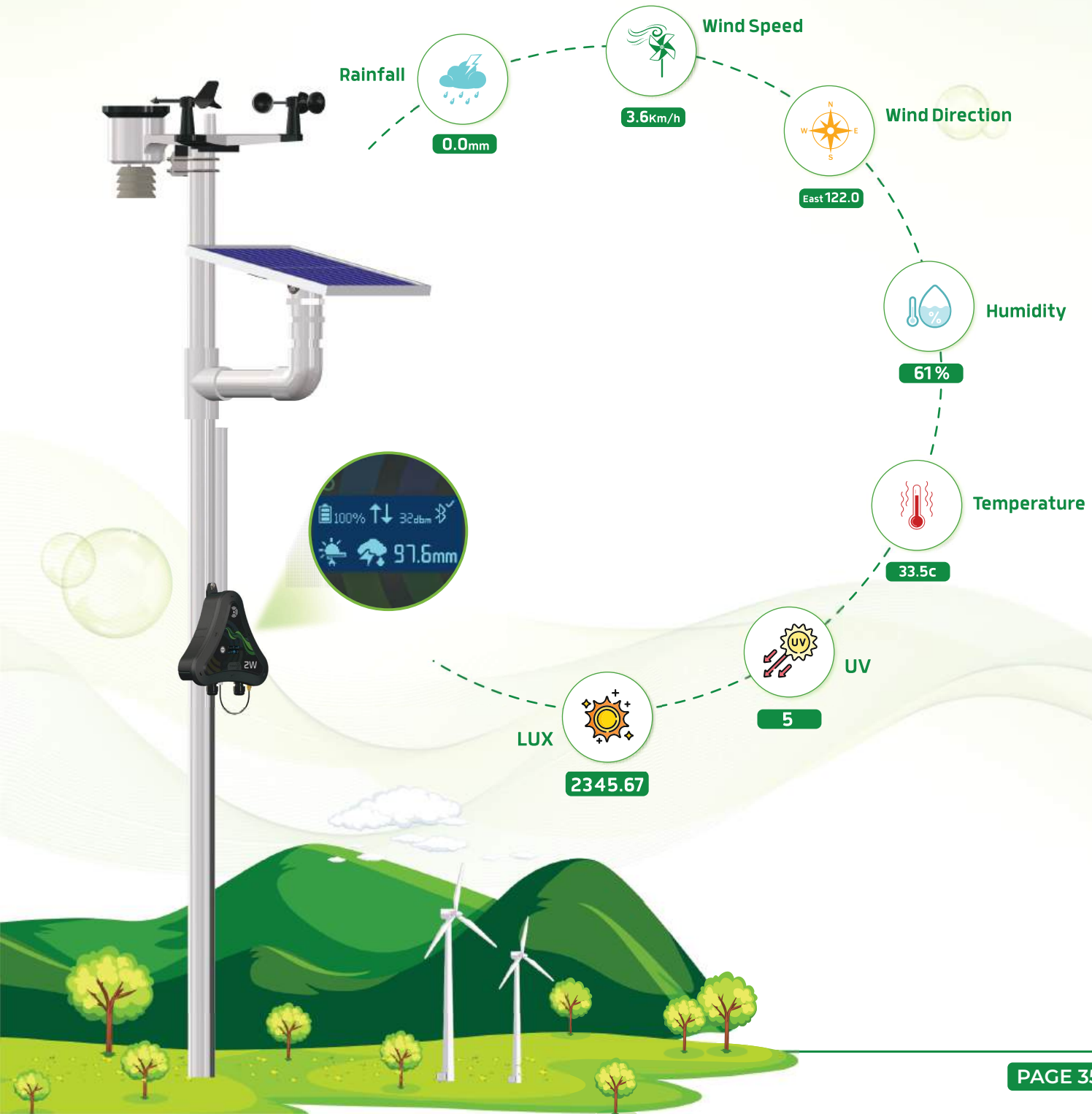
- Solar Panel: **9V/ 6W**
- Battery: **37V/2.6Ah**
- Backup time: **72 hours**
- Communication: **LoRA & Bluetooth 5.0**
- Number of Soil Moisture Sensor: 3 Nos
- Inbuilt **GPS**



Dcon Ag WS

Weather Station

The **Dcon Ag WS Weather Station** Controller delivers accurate, realtime monitoring of **rainfall, wind speed, temperature** and **humidity** with automated control for smarter farming. It enhances productivity by improving crop management, yield, and efficient resource utilization. Automated, weather based operations reduce manual effort and costs while enabling informed, proactive decisions to minimize risks.



Dcon Ag WS

Weather Station

Compatible with

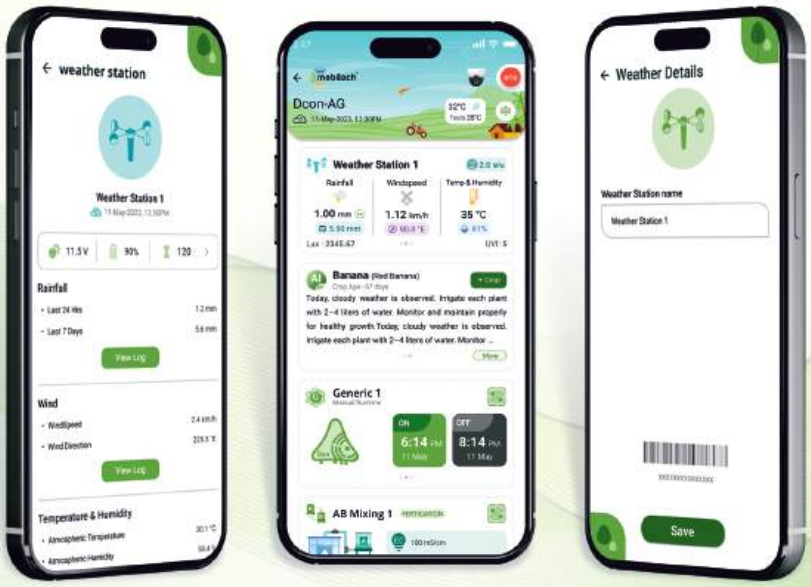
Dcon Ag AIR | Dcon Ag SMART

FEATURE HIGHLIGHTS

- The system accurately monitors **wind speed, wind direction, rainfall, temperature, humidity, and air pressure in real time.**
- It helps farmers plan field operations and protect crops from weather-related risks.
- Real-time microclimate data ensures water is applied only when needed, improving irrigation efficiency and crop health.
- **Instant alerts for wind, heat, rain, and frost** help farmers quickly protect their crops.
- **Stored weather data and analytics** help farmers plan better by tracking seasonal trends and forecasting future irrigation needs.

TECHNICAL SPECIFICATIONS

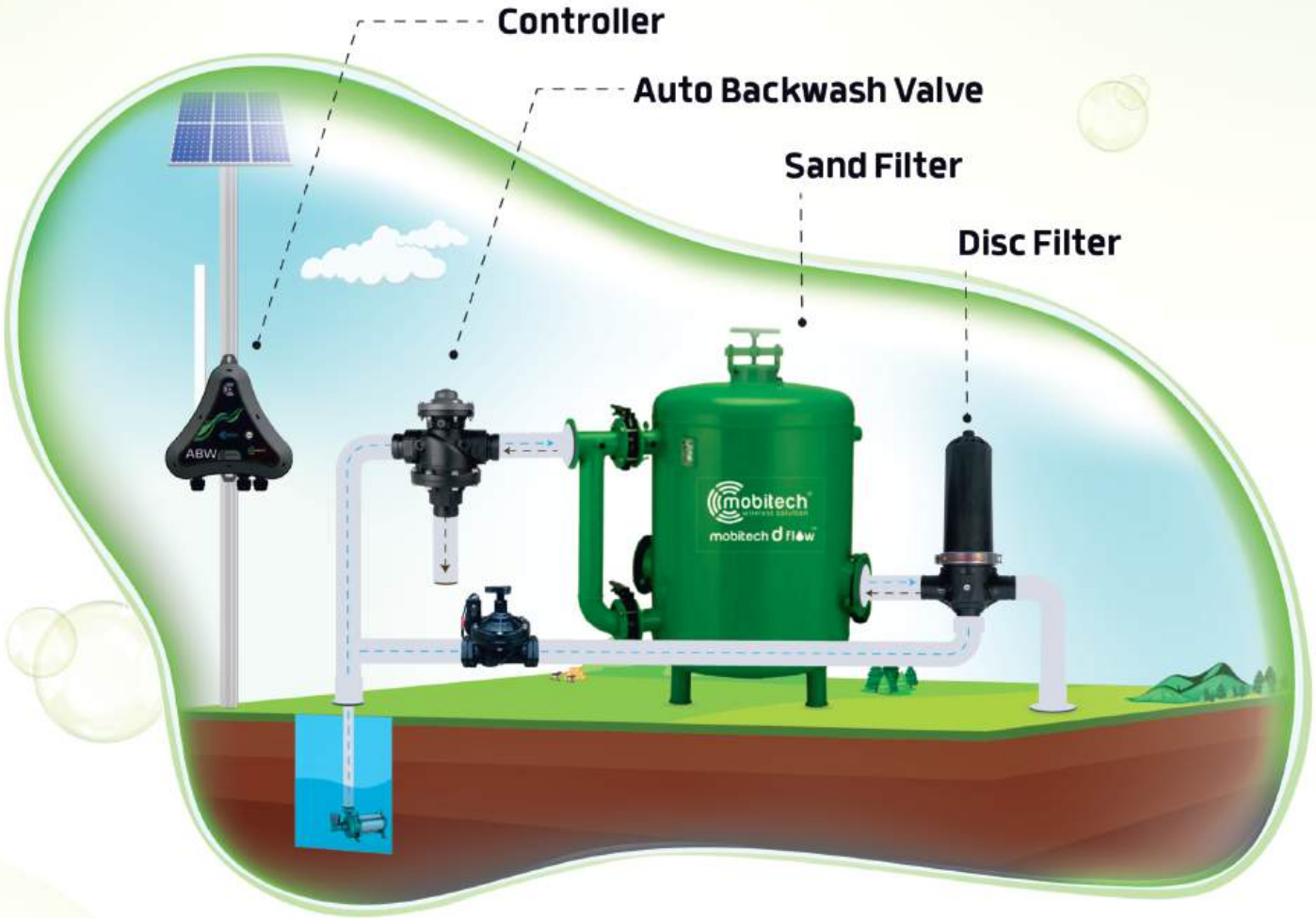
- Solar Panel: **9V/6W**
- Battery: **3.7V/5.2Ah**
- Backup time: **96 Hours**
- Communication: **LoRA & Bluetooth 5.0**
- Sensors: **Wind speed, (Anemometer), Wind direction, Rain guage, Temperature, Humidity, UV, LUX.**



Dcon Ag ABW

Auto Backwash

The **Auto Backwash Valve** is a smart filtration system that keeps your irrigation running smoothly by automatically **removing dirt, sand,** and **impurities.** It monitors pressure levels and, when they reach a set limit, automatically flushes out debris keeping filters clean and ensuring efficient, uninterrupted operation.



IP65 Dust & Water Resistent

72 Hours Battery Backup

Communication **LoRa & Bluetooth 5.0**

Accommodating **Diverse Filtration**

Download Reports in **Pdf & Excel** Formats

Dcon Ag ABW

Auto Backwash

Compatible with

Dcon Ag AIR | Dcon Ag SMART

FEATURE HIGHLIGHTS

- **Dual Power Support (AC & DC) -** Works with both AC and DC power for flexible use in any setup.
- **Smart Pressure Monitoring -** Continuously tracks water pressure to maintain smooth and efficient flow.
- **Automatic Flushing -** Activates self cleaning when pressure reaches a preset level, preventing blockages.
- **Wide Filter Compatibility -** Supports screen, disc, and sand filters for all irrigation needs.
- **Low Maintenance & Cost-Saving -** Self cleaning design reduces manual work, lowers costs, and extends equipment life.

TECHNICAL SPECIFICATIONS

Power : **180–240V AC input** with 12W solar panel and 7.4V battery (up to 72 hours backup).

Connectivity : **LoRa and Bluetooth 5.0** for reliable wireless communication.

Sensors : **Pulse-type** water flow sensor (optional) Two pressure sensor inputs (4–20 mA).

Inbuilt GPS

Performance : Designed for **stable, efficient monitoring** and control of irrigation systems.



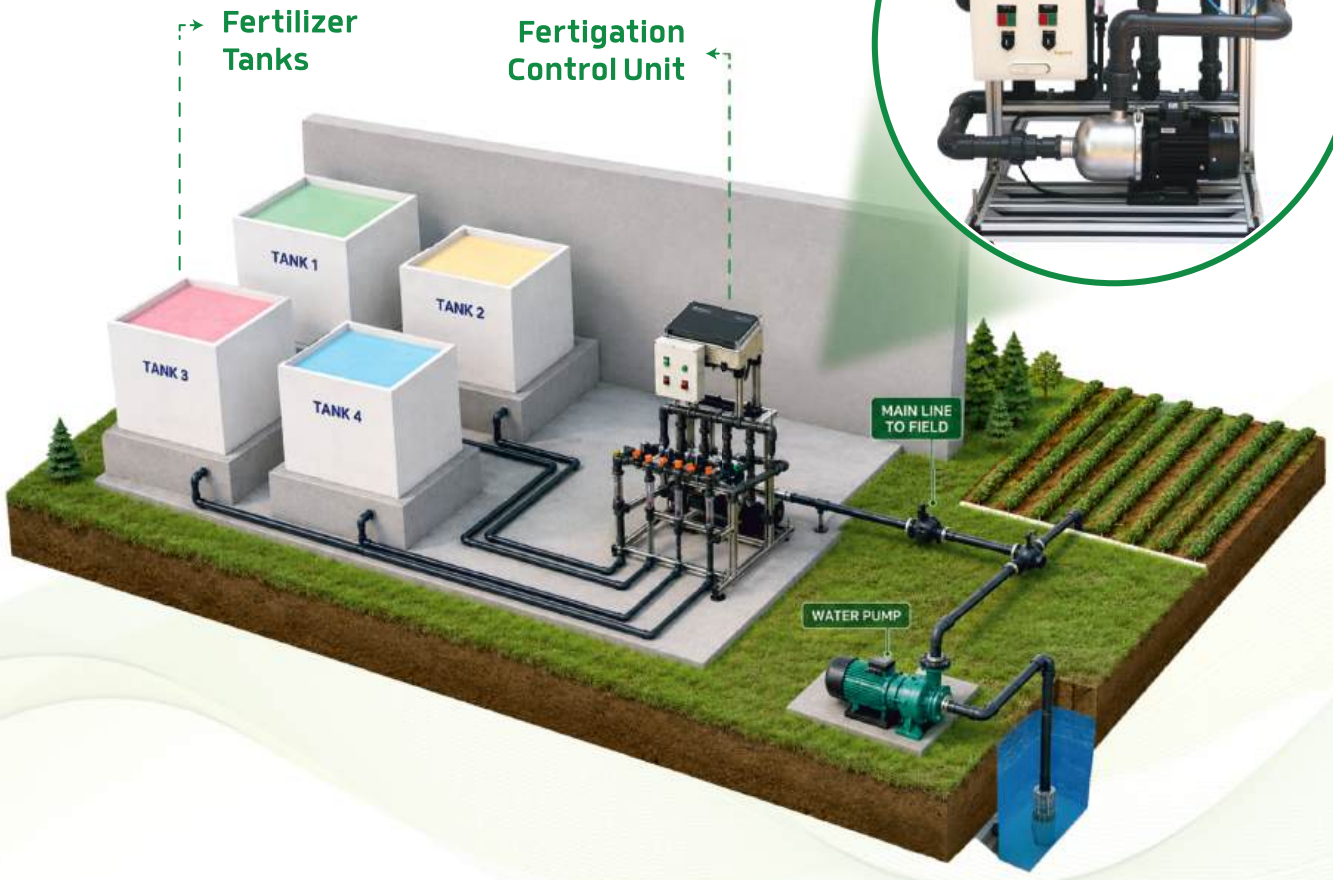
Dcon Ag FRT

Fertigation Control Unit

The Fertigation unit delivers nutrients to crops through drip irrigation, improving yield while saving water. The **Dcon Ag FRT** unit wirelessly connects to the fertigation controller to enhance irrigation automation. The system can be controlled from a mobile phone anytime, ensuring accurate nutrient dosing, better water management, and efficient farm operations.







Dcon Ag FRT

Fertigation Control Unit

Compatible with

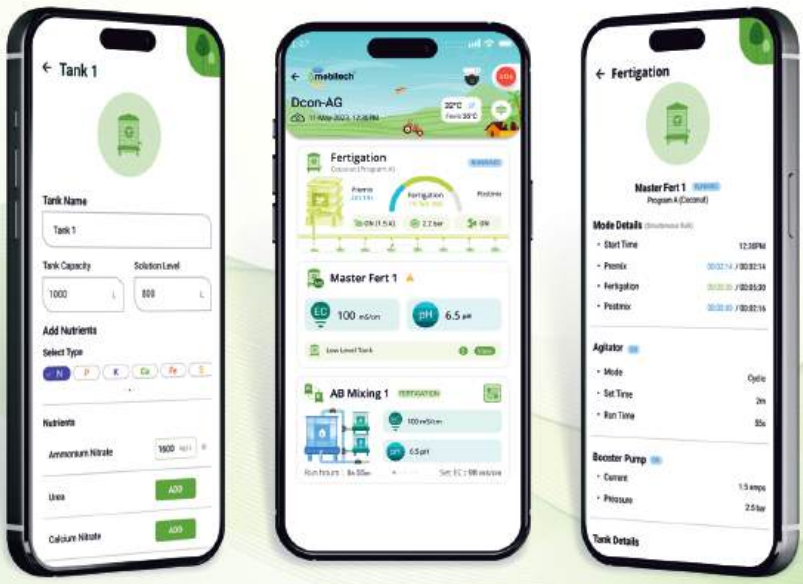
Dcon Ag AIR | Dcon Ag SMART

FEATURE HIGHLIGHTS

- **Precision pH and EC Control** Ensures accurate nutrient dosing for healthier crops and improved yield quality.
- **Wide Flow Adaptability** Supports diverse irrigation needs with stable hydraulic performance and quick EC/pH stabilization.
- **Wireless Connectivity** Enables reliable data communication and seamless integration with fertigation controllers.
- **Energy-Efficient Operation** Uses a single pump for nutrient mixing and injection, optimizing water and fertilizer usage.
- **Low Maintenance & Durable Design** Easy to install, minimal upkeep required, and built to withstand harsh agricultural conditions.

TECHNICAL SPECIFICATIONS

- Input Voltage: **230V AC / 440V AC**
- Number of Injectors: **Minimum 1, Maximum 30 (Customizable)**
- Injector Capacity: **250 to 1000 liters per hour (LPH)**
- Main Flow Range: **5 to 60 cubic meters per hour (m^3/h)**
- Number of Tanks: **Customizable based on specific requirements**



AC10

Wired Irrigation Controller 10 Station

Compatible with

Dcon Ag AIR | Dcon Ag SMART

The AC10 Irrigation Controller integrates with **Dcon Ag AIR** and **Dcon Ag SMART** devices to provide reliable irrigation automation. It receives wireless commands and controls solenoid valves through **wired outputs, ensuring accurate, stable,** and **efficient** irrigation management.



- Stable - Accurate Irrigation Operation
- Improved Water Efficiency
- Reliable Solenoid Valve Control
- Reduced Manual Intervention
- Suitable for Farms, Polyhouses & Landscapes

Solenoid Valves

Automated Water Flow Management.

A solenoid valve is a valve that is controlled by electricity and has a rapid response time. There are two types available: one operates on AC power and the other operates on DC power.







Direct Current (DC)

AVAILABLE SIZES
3/4″,1″,1.5″, 2″, 2.5″, 3″ and 4″
OPERATING PRESSURE
1 – 10 Bar
COIL VOLTAGE
9V DC

Alternating Current (AC)

AVAILABLE SIZES
3/4″,1″,1.5″, 2″, 2.5″, 3″ and 4″
OPERATING PRESSURE
1 – 10 Bar
COIL VOLTAGE
24V AC



Pressure Relief Valves

Protecting Your System from Excess Pressure.

Pressure Relief Valve (PRV), Protects the irrigation pipeline from excessive pressure by automatically releasing excess water when pressure exceeds the set limit. This helps prevent pipe damage and ensures safe, efficient system operation.



FEATURE HIGHLIGHTS

- It helps to prevent water line from damage due to high pressure.
- Indirectly it helps for even wetting.

TECHNICAL SPECIFICATIONS

- Port Size : **2" to 4"**
- Voltage : **No Solenoid**
- Pressure range : **0.5 to 4 bar**



Flow Meter

Measure Every Drop with Precision

It helps to achieve volume based irrigation. We use **electromagnetic flow meter** and **Turbine type flow meter.**



FEATURE HIGHLIGHTS

- It is highly durable
- It helps to measure quantity of water pumped
- Easy Maintenance

TECHNICAL SPECIFICATIONS

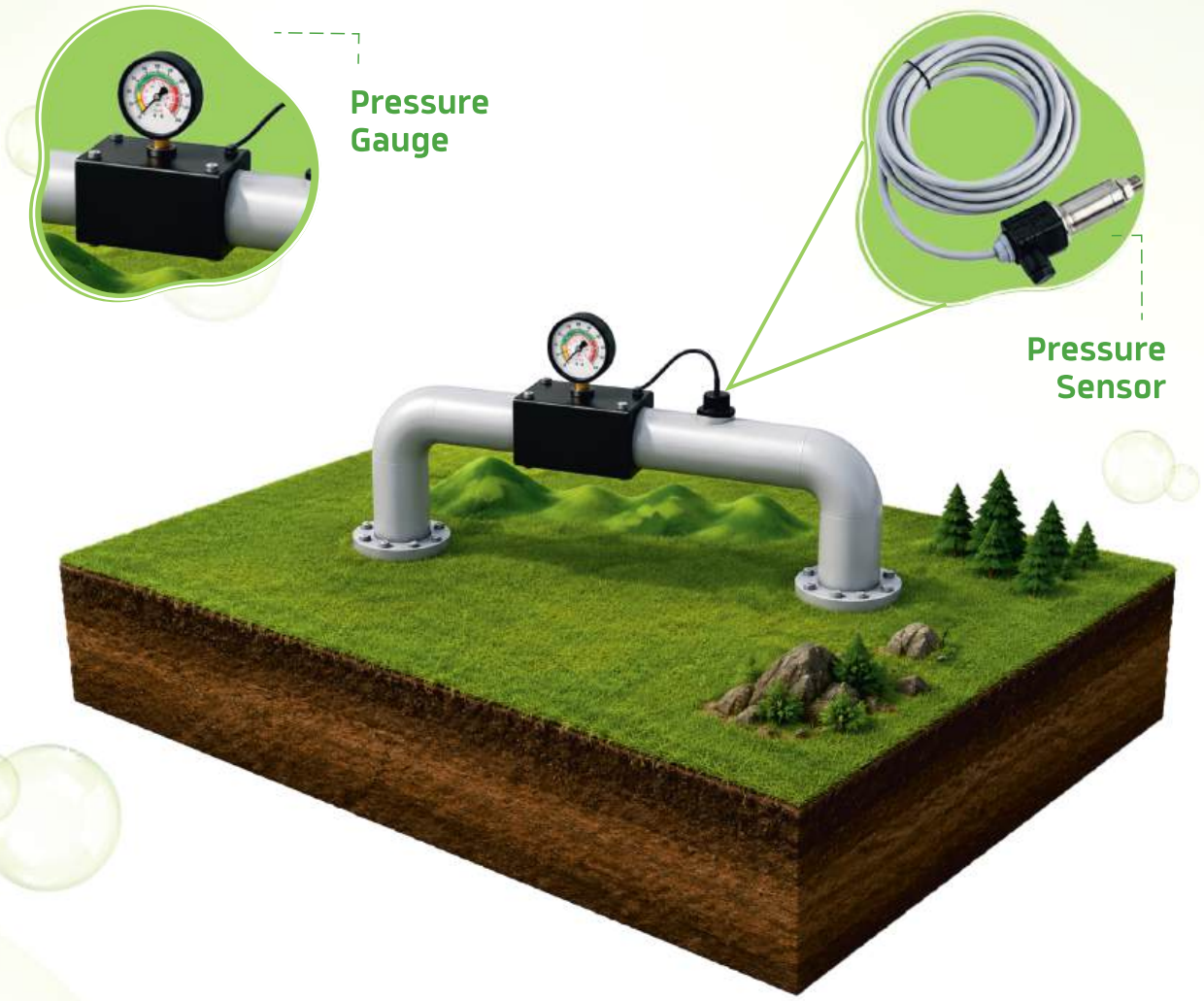
- Accuracy : ± **0.5%**
- Repeatability : ± **0.1%**
- Flow range : **0.3 to 2500 ltr/sec**
- Pipe Size: **63mm to 300mm**



Pressure Sensor

Monitoring Pressure

The **Pressure Sensor** continuously monitors the water pressure inside the irrigation pipeline and transmits the data to the **AIR (Master Control Unit)** for real time analysis.



- Realtime Pressure Monitoring
- Instant Data Transmission
- Low & High Pressure Alerts
- Ensure Uniform Water Flow
- Prevents System Failure

300000+
installation across india

Manufacturer

Mobitech Wireless Solution Private Limited

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Erode District, Tamil Nadu, **INDIA.**

Phone : +91 99 4343 0000
E-mail : sales@mobitechwireless.in
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mobitech® wireless solution
IRRIGATION AUTOMATION

Product Catalogue

Version 2.1