Dcon Ag NEW

mobitech® wireless solution

IRRIGATION AUTOMATION

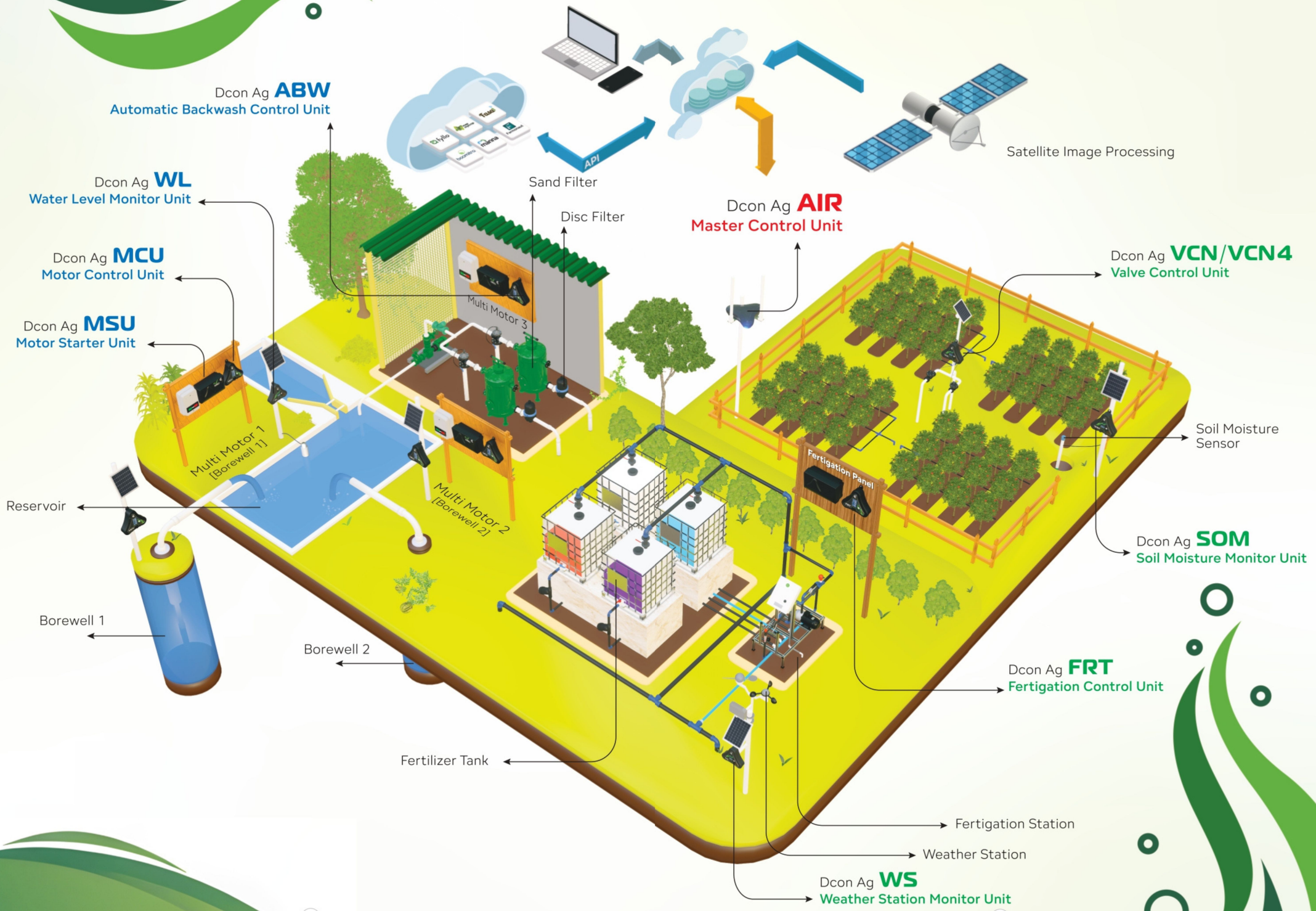
Wireless Smart Irrigation

Water management system

Ai Powered

Product Catalogue

Version 1.0


Dcon Ag ABW
Automatic Backwash Control Unit
API
Satellite Image Processing
Dcon Ag WL
Water Level Monitor Unit
Sand Filter
Disc Filter
Dcon Ag AIR
Master Control Unit
Dcon Ag MCU
Motor Control Unit
Dcon Ag VCN/VCN4
Valve Control Unit
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Motor Starter Unit
Multi Motor 3
Soil Moisture Sensor
Multi Motor 1
[Borewell 1]
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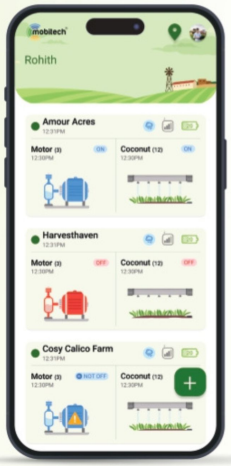
Dcon Ag SOM
Soil Moisture Monitor Unit
Borewell 1
Borewell 2
Dcon Ag FRT
Fertigation Control Unit
Fertilizer Tank
Fertigation Station
Weather Station
Dcon Ag WS
Weather Station Monitor Unit

Dcon Ag

GET IT ON Google Play

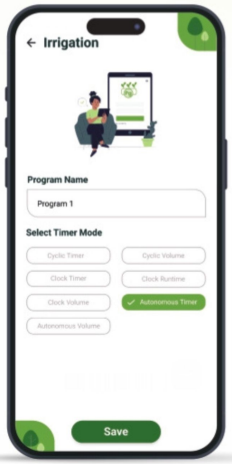
Available on the App Store

Monitor and Control all your farms in a single app



Real-time view of the farm on the map

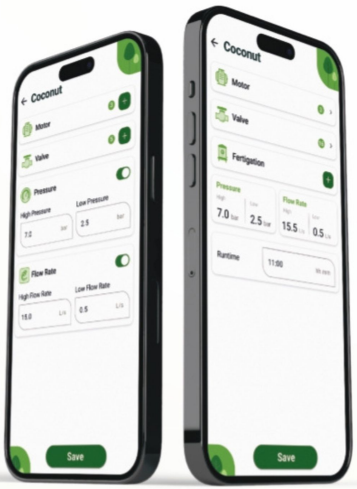
Time, volume and autonomous-based irrigation



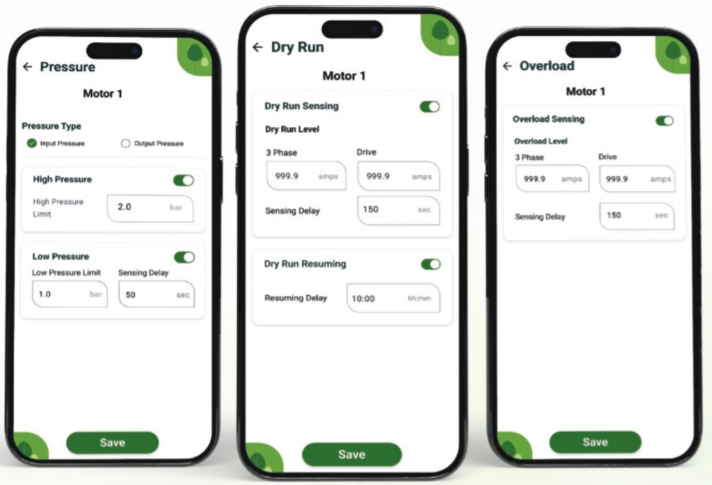
Are you curious about environmental data?

Get an overview of multiple motors

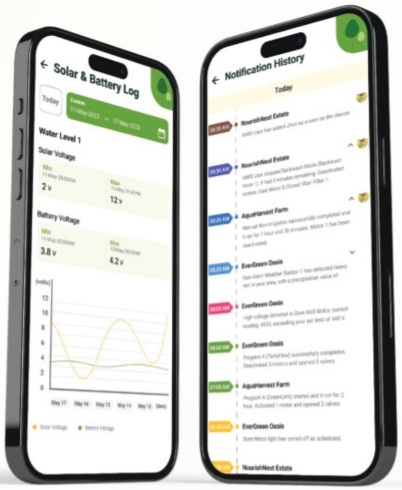
Group and Program at your convenience



Protect your system and have peace of mind



At the end of the day, find out if your crops are healthy or stressed through log reports.



Widgets for Android and iOS

Dcon Ag AIR

Master Control Unit

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..

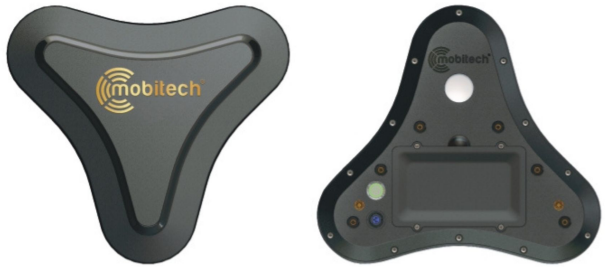
Features and Benefits

- **Solar-Powered Operation:** Runs continuously with solar panel for 24/7 functionality.
- **Robust Battery Backup:** Withstands up to 72 hours in cloudy conditions.
- **4G/LTE Cellular Connection:** Provides seamless cloud connectivity for synchronization and remote monitoring.
- **Dual Channel LoRA Technology:** Utilizes separate channels for pumpset control and field monitoring.
- **High-Speed Data Processing:** Enables efficient and rapid data handling.
- **Flexible Inputs and Outputs:** Supports diverse configurations for various agricultural applications.
- **IP65 Outdoor Protection:** Ensures durability with dust and water resistance.
- **Extended Wireless Range:** Covers over 3 km in wireless mesh network.
- **Cloud-Based and Local Control:** Enables scheduling and management options both locally and via cloud.
- **Cloud Software Upgrades and Support:** Facilitates updates, configurations, and ongoing support through cloud services.
- **Compatibility:** Integrates seamlessly with other Mobitech RF units.
- **Integration with Multiple Pumpsets:** Capable of managing multiple pumpsets simultaneously.
- **Patented Technology:** Incorporates patented features for innovative agricultural management.

IP65

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

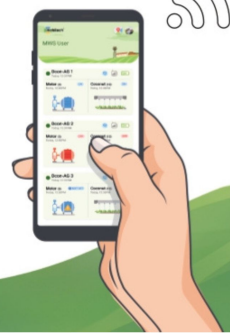


Long Range
LoRa®
Dual Channel

Receive Command from
Dcon Ag
application

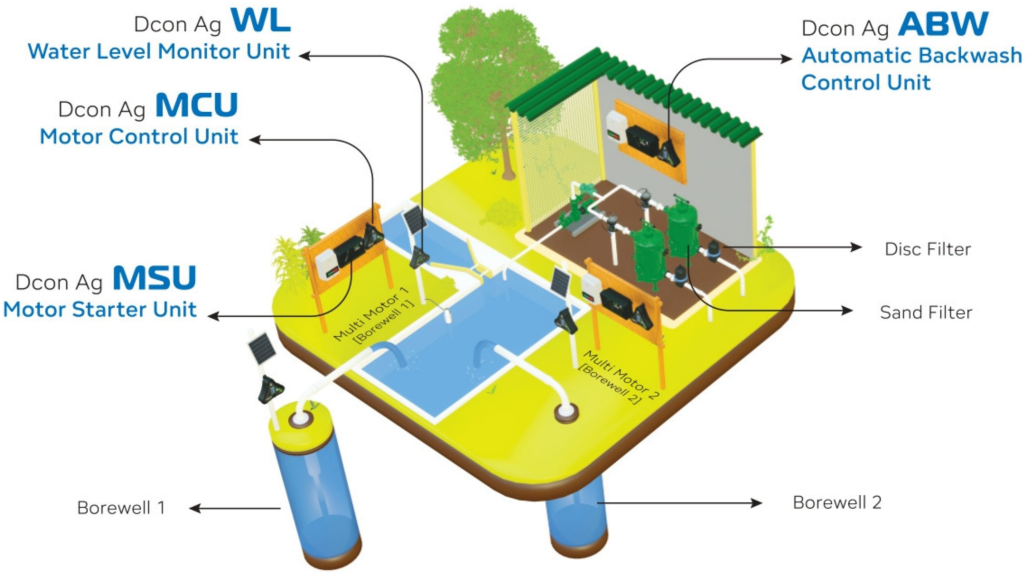
Passes command to the respective valves, sensors & Motor Controllers

Dcon Ag AIR



Control and Monitoring of Water Sources

Our system controls multiple borewells to keep your reservoir full, ensuring a steady water supply. It protects your pumpset from erratic electricity. Additionally, farmers can access real-time information on water levels, pumpset status, and electricity parameters..



Dcon Ag MCU & MSU

Our MCU (Motor control unit) is a cutting-edge slave unit designed to communicate with AIR and efficiently control pumpsets through our MSU (Motor starter unit).

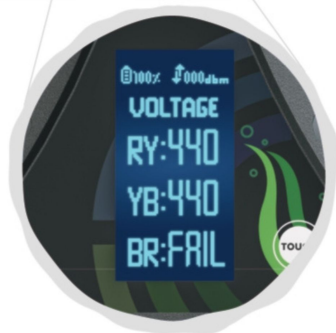
Features and Benefits

- **Advanced Communication:** Seamlessly integrates as a transceiver with AIR, ensuring reliable data transmission.
- **Efficient Control:** Facilitates precise ON/OFF control of pumpsets via our MSU optimizing operational efficiency.
- **Local Display:** Includes a built-in display for monitoring electricity parameters and pumpset status, providing real-time insights.
- **Firmware Over-The-Air (FOTA) Updates:** Allows for convenient firmware updates, ensuring the MCU is always up-to-date with the latest features and improvements.
- **Battery Backup:** Features inbuilt battery backup for up to 6 hours, ensuring continuous operation during power interruptions.
- **Inbuilt Protections:** Incorporates dry run and overload protection for enhanced safety and longevity of pumpsets.

- **Pressure Sensor Input:** Accepts water pressure data input via a pressure sensor, ensuring optimal water flow and system efficiency.
- **Versatile Compatibility:** Suitable for both single-phase and three-phase pump sets, accommodating a wide range of applications.
- **Wide Power Range:** Supports pumpsets ranging from 0.5 hp to 500 hp, offering flexibility in deployment across various industries.
- **Reliability and Robustness:** Designed for consistent performance in diverse environments, ensuring operational reliability.
- **User-Friendly Design:** Simplifies installation, operation, and maintenance, enhancing overall usability and efficiency.

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
- Fuse: Protection for each phase
- Communication: LoRA & Bluetooth 5.0
- Compatibility: Suitable for All types of starter panel
- Inbuilt GPS



Dcon Ag WL

Water Level Control Unit

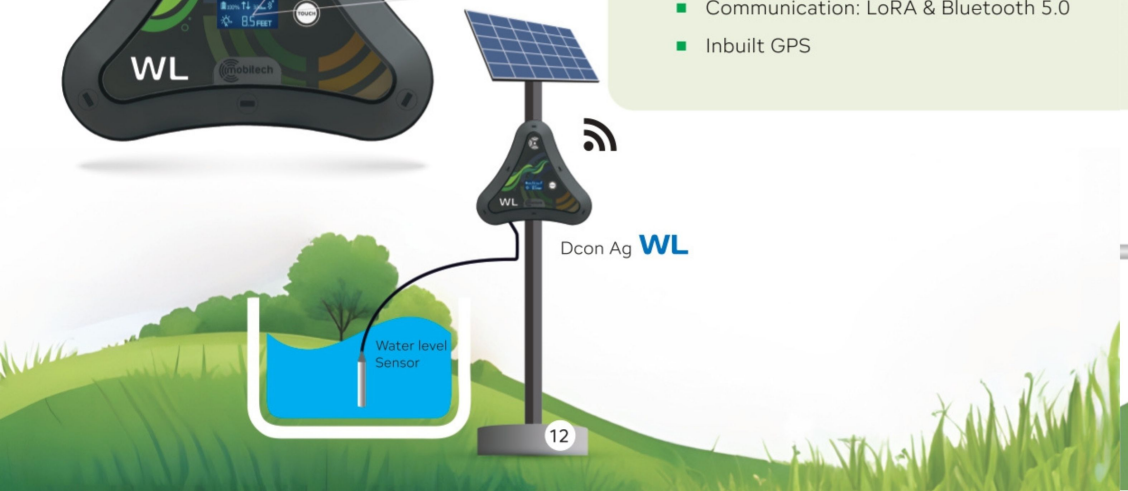
WL serves as a slave unit, connecting with AIR to monitor reservoir water levels and provide timely updates to farmers, simplifying water management.

Features and Benefits

- **Solar-Powered Operation:** WL operates continuously on solar power, ensuring reliable performance 24/7 without interruptions.
- **Deep Reservoir Compatibility:** Suitable for reservoirs up to 100 feet (31 meters) deep, accommodating various agricultural and industrial water storage needs.
- **Precision Water Level Monitoring:** Provides accurate water level measurements, facilitating precise irrigation planning and water resource management.
- **Non-Corrosive Sensors:** Equipped with sensors resistant to corrosion, ideal for use in reservoirs with hard water conditions, ensuring longevity and reliability.
- **Continuous Operation:** With solar power, WL operates non-stop, providing uninterrupted monitoring even in remote locations without access to electricity.
- **Versatile Application:** Suitable for a wide range of reservoir depths, WL adapts to different agricultural and industrial settings, enhancing its utility.
- **Improved Decision Making:** Accurate water level data enables informed decisions on irrigation timing, optimizing water use efficiency and crop yields.
- **Longevity and Reliability:** Non-corrosive sensors increase durability in challenging water conditions, reducing maintenance and ensuring consistent performance over time.

Specifications

- Solar Panel: 9V/ 6W
- Battery: 3.7V/5.2Ah
- Backup time: 96 hours
- Communication: LoRA & Bluetooth 5.0
- Inbuilt GPS



Dcon Ag ABW

Automatic Backwash Control Unit

The ABW slave unit connects with the AIR system. It constantly checks the pressure levels and, when they reach a set limit, triggers a process to flush out debris from the filters automatically. This helps maintain efficient operation by ensuring the filters remain clean and effective.

Features and Benefits

- **Dual Power Options (AC and DC Models):** Provides flexibility for various environments, ensuring compatibility and operational adaptability.
- **Continuous Water Pressure Monitoring:** Monitors water pressure in real-time to maintain optimal system performance, ensuring consistent water flow and efficiency.
- **Automatic Flushing Trigger:** Initiates flushing automatically when water pressure reaches a preset threshold, preventing blockages and enhancing system reliability.
- **Compatible with Multiple Filter Types:** Suitable for screen filters, disc filters, and sand filters, accommodating diverse filtration needs.
- **Self-Cleaning Capability:** Facilitates automatic debris removal from filters, optimizing system performance and extending equipment lifespan with reduced maintenance costs.
- **Cost Efficiency:** Reduces operational expenses by minimizing manual maintenance and potential equipment damage, improving overall cost-effectiveness.
- **User-Friendly Operation:** Simplifies maintenance with automated tasks, enhancing user convenience and operational efficiency.

Specification: (AC)

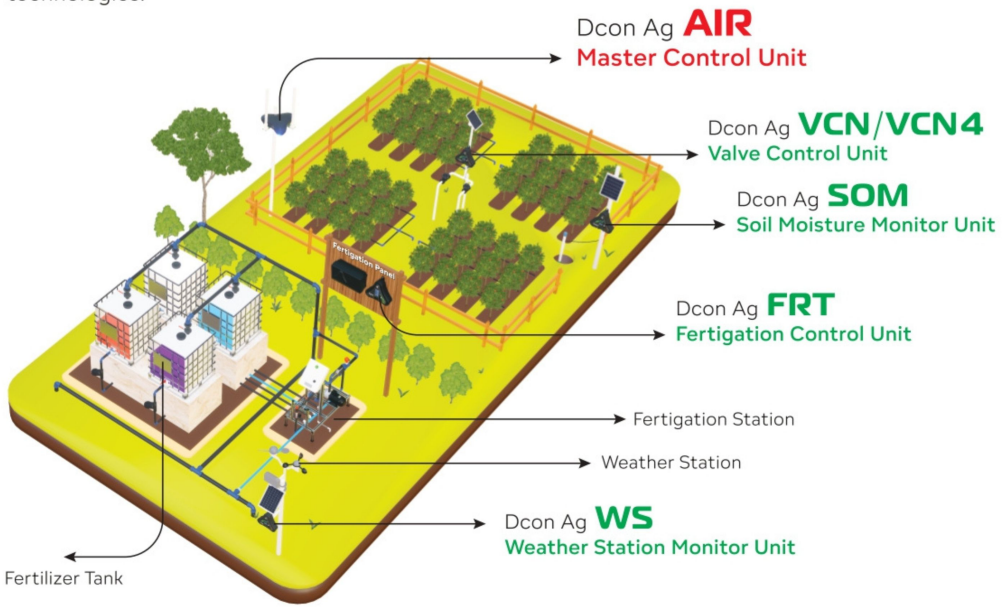
- Input Voltage: 180V – 240V AC
- Communication: LoRA & Bluetooth 5.0
- Water Flow sensor: Pulse type (optional)
- Pressure sensor: 2 Nos (4- 20mA)
- Inbuilt GPS

Specification: (DC)

- SolarPanel: 12.5V/ 12W
- Battery: 7.4v/2.6Ah
- Backup hours: 72 hours
- Communication: LoRA & Bluetooth 5.0
- Water flow sensor: Pulse type (optional)
- Pressure sensor input: 2 Nos

Irrigation & Fertigation Automation

Our advanced systems optimize water and fertilizer use to maximize crop efficiency and yield. Ideal for all scales of farming, they ensure sustainability and cost-effectiveness, enhancing productivity significantly. Discover the future of agriculture with our cutting-edge automation technologies.



Dcon Ag VCN & VCN4

Valve Control Unit

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.

Features and Benefits

- **Universal Solenoid Valve Control:** Designed to efficiently manage latching solenoid valves of any size, ensuring precise and reliable operation.
- **Comprehensive Field Monitoring:** Monitors flow, pressure, and other conditions in real-time via two inputs for pulse flow meters and pressure switches, enhancing decision-making and system optimization. (Optional)
- **Durable and Efficient Design:** IP65 protected enclosure ensures durability in harsh environments, while ultra-low power operation and solar power with a 72-hour battery backup provide reliable and energy-efficient performance.
- **Wireless Connectivity:** Connects wirelessly to a LoRa expansion linked to a Dcon Ag AIR unit, offering long-range communication and flexible installation options.
- **User-Friendly Interface:** Features a local high-brightness display to easily witness the status of the valves, simplifying monitoring and maintenance.

Specifications

- Solar Panel: 9V/6W
- Battery: 3.7V/2.6Ah
- Backup time: 72 hours
- Communication: LoRA & Bluetooth 5.0
- Number of valves VCN 2: Two Valves
- Number of Valves VCN 4: Four Valves
- Inbuilt GPS

Dcon Ag W2W

Wireless to Wired Valve Control Unit

The Dcon Ag W2W is a slave unit designed to receive data wirelessly from the Dcon Ag AIR. It connects to ACN5, ACN10, ACN20, and ACN30 wired AC solenoid valve controllers

Features and Benefits

- **Efficient Wireless Data Reception:** Seamlessly receives data wirelessly from the Dcon Ag AIR unit, ensuring efficient communication in agricultural and industrial settings.
- **Compatibility with AC Solenoid Valves:** Connects to ACN5, ACN10, ACN20, and ACN30 controllers, facilitating precise control of AC solenoid valves crucial for irrigation and fluid management systems.
- **Robust Input Power Requirement:** Operates with a stable input power supply of 230V AC, ensuring consistent performance and reliability in diverse operational environments.
- **Compact and Versatile Design:** Compact form factor allows for easy integration into existing systems, enhancing installation flexibility and minimizing space requirements.
- **Enhanced System Flexibility:** Functions as a slave unit, extending the capabilities of the control network while maintaining synchronization with the main Dcon Ag AIR unit, optimizing overall system efficiency.

Specifications

- Input voltage 3 phase: 360V - 450V AC
- Input voltage single phase: 110V - 240V AC
- Number of valves: ACN 10 - 10 Nos
- Type: 24V AC Coil
- Interface: RS485
- Valve feedback sensing
- Fuse Protection

Dcon Ag SOM

Soil Moisture Monitor Unit

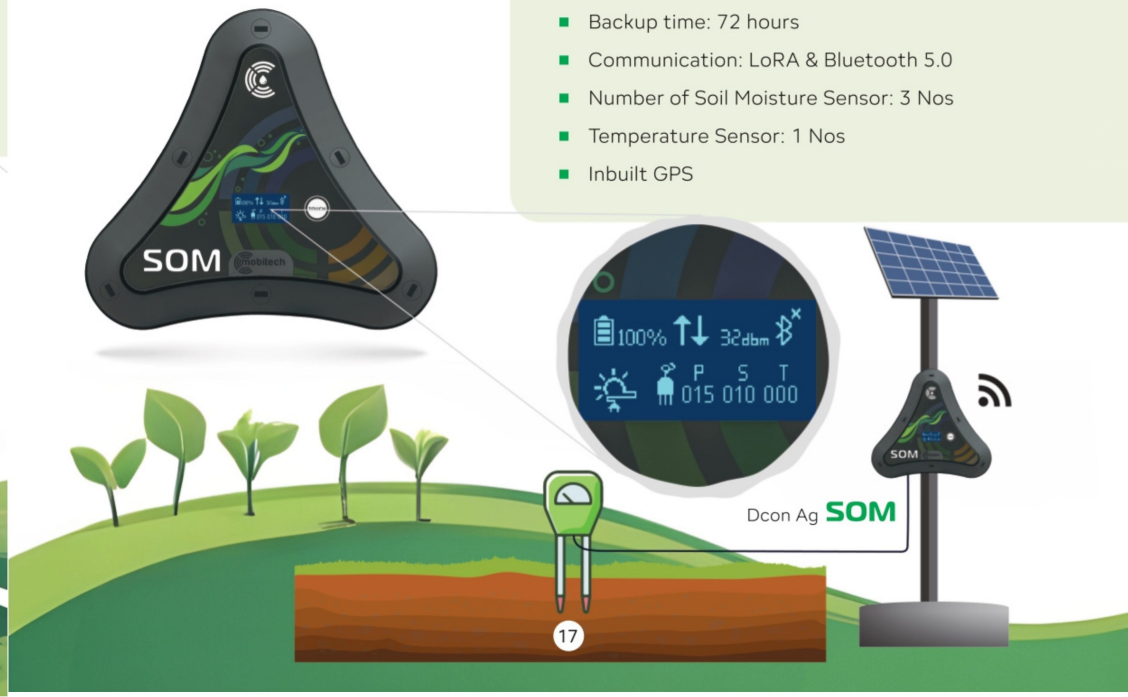
The SOM (Soil Moisture) slave unit integrates with the Dcon Ag AIR system to transmit soil moisture data at three levels-primary, secondary, and tertiary-optimizing irrigation and soil management. This real-time data enables precision agriculture by ensuring efficient water use and quick responses to changing conditions, supporting sustainable farming practices

Features and Benefits

- **Multi-Level Soil Moisture Monitoring:** The SOM unit measures soil moisture across primary, secondary, and tertiary levels, providing comprehensive insights into soil water content at different depths crucial for various crops.
- **Real-Time Data Transmission:** Enables instant transmission of soil moisture data to the Dcon Ag AIR system, facilitating timely decisions on irrigation scheduling and water management.
- **Precision Agriculture:** Supports precision farming by optimizing water usage based on accurate soil moisture readings, leading to improved crop yields and reduced water wastage.
- **Sustainable Resource Management:** Promotes sustainable agriculture practices by ensuring efficient use of water resources, enhancing soil health, and minimizing environmental impact.
- **User-Friendly Integration:** Seamless integration with the Dcon Ag AIR platform allows for easy installation and operation, empowering farmers with actionable insights for better decision-making and farm management.

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
- Temperature Sensor: 1 Nos
- Inbuilt GPS



Dcon Ag WS

Weather Station Monitor Unit

The Dcon Ag WS Weather Station Controller offers precise weather monitoring and automated control for optimal agricultural productivity. Experience reliable and real-time data to make informed decisions and enhance crop management.

Enhanced Productivity: Boosts crop management efficiency with real-time weather data, leading to better yield and resource utilization.

Cost Savings: Automates weather-dependent operations, reducing manual labor and optimizing resource use, saving time and money.

Informed Decision-Making: Provides accurate weather insights, allowing farmers to make proactive decisions and mitigate potential weather-related risks.

Features and Benefits

- Monitor wind speed, wind direction, and rainfall.
- Track temperature and humidity levels.
- Access weather forecasts for better planning.

Specifications

- Solar Panel: 9V/6W
- Battery: 37V / 5.2Ah
- Backup time: 96 Hours
- Communication: LoRA & Bluetooth 5.0
- Sensors: Wind speed, (Anemometer), Wind direction, Rain guage, Temperature, Humidity.

Fertigation Automation

Fertigation is essential for delivering nutrients efficiently to crops through irrigation, improving yield while saving water and labor. Mobitech specializes in easy-to-use systems that integrate seamlessly into existing irrigation setups. Our solutions cater to various crop needs and field conditions, helping farmers increase productivity sustainably. Mobitech combines technology and automation to support farmers in achieving better yields economically and with minimal environmental impact.

Dcon Ag FRT

Fertigation Control Unit

The Dcon Ag FRT unit is a slave device designed to wirelessly receive data from the Dcon Ag AIR. It seamlessly connects to the Fertigation controller to enhance irrigation automation.

Features and Benefits

- **Precision Control and Monitoring:** The Dcon Ag FRT unit enables precise monitoring and control of pH and EC levels, ensuring accurate nutrient delivery and uptake for healthier plants and improved yield quality. It supports precise fertilizer management, minimizing waste and enhancing nutrient efficiency.
- **Adaptability and Flexibility:** With a flow range from 250 to 1000 liters per hour (lph), the unit adapts to diverse irrigation needs, optimizing water usage and accommodating varying crop requirements. It offers stable hydraulic operation and rapid EC/pH stabilization, ensuring consistent performance during fertigation cycles.
- **Low-Maintenance and Installation:** Easy to install and virtually maintenance-free, the Dcon Ag FRT unit simplifies operational management without requiring frequent adjustments or component replacements. It offers a hassle-free solution for modern agricultural practices, enhancing productivity and profitability.
- **Efficiency and Sustainability:** Designed for energy efficiency, the unit minimizes power consumption while maximizing resource utilization. It employs a single pump for nutrient mixing and injection, reducing labor, water, and fertilizer costs. Its eco-friendly operation lowers soil contamination levels, supporting sustainable farming practices.
- **Reliability and Performance:** Utilizing robust wireless communication protocols, the Dcon Ag FRT unit delivers reliable data transmission and system performance. Its durable construction withstands harsh agricultural environments, ensuring uninterrupted operation and long-term reliability.
- **Wireless Connectivity and Compatibility:** This unit ensures efficient data reception from the Dcon Ag AIR, optimizing data collection and communication. It effortlessly integrates with various Fertigation controllers, reducing operational complexities and enhancing system versatility.

Specifications

- Input Voltage: 230V AC / 440V AC
- Number of Injectors: Minimum one, maximum 20 (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

Other Accessories

Solenoid Valves

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.

Irrigation Solenoid Valve - 2", 3" & 4" AC/DC — MAKE IN INDIA Valve's

Backwash Valve - 2" & 3"

Fertigation Valve - 1/2"

Pressure relief valve

Pressure Sustain valve

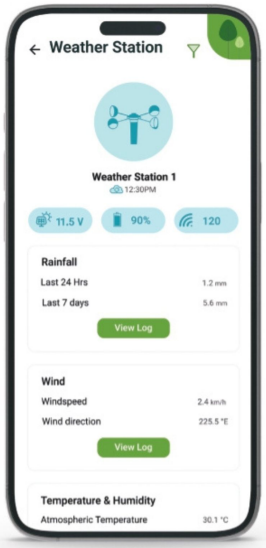
Flow Meter

Weather Station

The weather station gathers field data including rainfall, humidity, temperature, pressure, and wind direction, which it then transmits to the Dcon Ag.

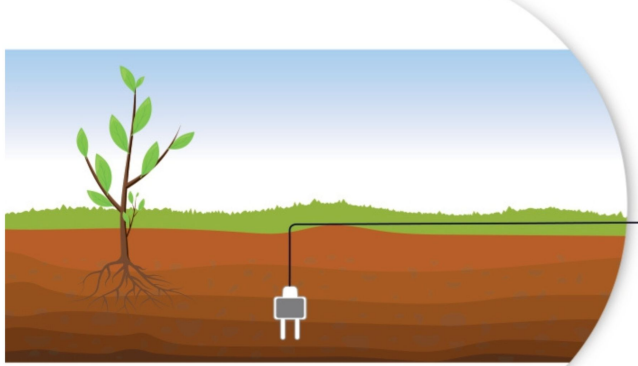
Features and Benefits

- Suitable for farms of all sizes.
- It accurately measures atmospheric pressure and temperature.
- It gauges humidity, rainfall speed, and wind direction.
- It operates using battery power.



Soil Moisture Sensor

The soil moisture sensor is an electrical resistance sensing device in a solid-state format, designed to measure the tension of soil water. As the water content changes, the tension also fluctuates, leading to a corresponding change in resistance.



Soil Moisture Sensor

Features and Benefits

- High durable stainless steel enclosure.
- It will not dissolve in soil.
- Not affected by freezing temperature.
- Mainly useful to achieve precise irrigation.

Specifications

- Materials : ABS plastic caps with stainless steel body, over a hydrophilic fabric covered granular matrix.
- Dimension : Dia 22mm, Len 83mm

mobitech®
wireless solution

IRRIGATION AUTOMATION

Manufacturer

Mobitech Wireless Solution Private Limited

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