

Automatic Open Pan Evaporation System

Without Refiling

Automatic Open Pan Evaporation without refilling system comes with an industrial-grade microcontroller datalogger that ensures high reliability, accuracy, and continuous performance even in the toughest weather conditions. BHM make Automatic Open Pan Evaporation is one of the best Automatic Pan Evaporimeter systems and a top choice for research work, agricultural studies, and meteorological applications in the market.

This automatic open pan evaporimeter offers a total water level measurement range of 0–254 mm, allowing the user to refill the pan before complete evaporation of water. The Automatic Open Pan Evaporation **Model BHM-M-OPE-WR** is supplied with a tripod stand, solar panel, and battery case, featuring an intelligent solar charging circuit that makes the system completely self-powered and energy efficient.

A 16 x 2 alphanumeric display along with a 1 x 4 keypad is provided on the front of the datalogger, enabling easy on-site programming, real-time evaporation monitoring, and data logging without a computer. The system is powered by a Lithium Iron Phosphate (LiFePO₄) battery with a lifespan of more than 2 years, ensuring low maintenance, long battery life, and reliable field performance.

DATA Logger_ View

Professional Line	Specification
Datalogger System	Built-in industrial datalogger with 1x4 keypad for easy programming and real-time sensor monitoring without a computer
Display Unit	16 x 2 alphanumeric display with backlight, ideal for clear field data visibility
Measured Parameters	Date & Time, Open Pan Water Level (mm), Water Temperature (°C), Wind Speed (m/s), Max and Avg. Wind Speed (m/s), Rainfall (mm), Dew Point (°C), Battery Voltage
Real-Time Clock (RTC)	High-precision RTC with ±1 ppm/year long-term stability and ±3.5 ppm stability from -40°C to 85°C
Logging Rate	Flexible data logging interval from 1 minute to 1 hour
Data Storage Capacity	8 GB internal storage, supports over 5 years of continuous data logging at 1-minute interval
Power Supply	5V power system with lithium-ion battery, optimized for low power consumption
Battery Life	Long-lasting battery with up to 5 years of continuous operation
Clock Accuracy	High precision ±5 seconds per year
Battery Charging	Dual charging via solar panel and 220V AC power supply
IP Rating (System)	IP65 rated enclosure, ensures dustproof and water-resistant performance
Operating Temperature	Designed for extreme conditions: -40°C to 75°C
Operating Humidity	Works in 0–95% non-condensing humidity environments
Data Retrieval	Industrial SD Card support, no software required—direct Excel data access (copy & paste)
Data Transmission	GPRS telemetry system for remote monitoring and real-time data transfer
Watchdog Timer	Automatic system reset in case of microprocessor failure for uninterrupted performance
Weatherproof Enclosure	IP67 weatherproof compact enclosure (20x30x14 cm) for easy transport and outdoor durability



SOLAR Charger_View


Professional Line	Specification
Battery Type	3.7 V Lithium-ION Cell Battery pack
Battery charges	Provided Inbuild solar charging Circuit through solar panel (6 V, 20 watts)
Battery Life	More than 2 years
Protection	Reverse Polarity and Battery over Charge Protection
Advance Feature	Soft Start Charging or good health of battery Disconnect charging when temperature of batter goes high than normal
System Battery backup	For 10 days without sunlight condition (18.2 Amp battery pack provided)




Accessories_View

Professional Line	Specification
Solar panel	6 V, 20 Watt
Tripod stand	SS make tripod Stand
Mounting	Clamp
Manual	User instruction manual
Video	Installation video link provided
GPRS Telemetry modem	Provide with 1-year cloud Webspace (free of cost)

Sensor_View

Professional Line	Specification	MODEL: BHM-S-WS
WIND Speed Sensor	3 CUP	
Measuring range wind speed	0.22 ... 50 m/s	
Accuracy wind speed	0.5 m/s at 0.8 ... 5 m/s and 2 % FS at 5.02... 50 m/s	
Resolution wind speed	0.06 m/s	
Operating condition	0...+70 °C • 0...100 %	
Supply Voltage	0 to 5 volts	
Material	ABS (Acrylonitrile Butadiene Styrene)	

Professional Line	Specification	MODEL: BHM-S-TBRG5
RAIN FALL Sensor	Tipping Bucket Self Empty	
Measuring intensity	~500 mm/ hours	
Accuracy of rain gauge	100 mm / hour, better than ±4%	
Collection area	127 cm ²	
Design	Aerocon for remove the wind effect	
Resolution	0.20 mm	
Operating condition	0°C to +70 °C 0...100 %	
Output	Switch Encloser	
Material	ABS (Acrylonitrile Butadiene Styrene)	
Capacity	Unlimited	

Professional Line	Specification	
Pan Model	BHM-M-OPE-IS	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>User can select the Pan Material before Quotation</p> </div>
Pan Material	Cooper outside white paint and tinned inside Galvanised Sheet complete white paint Stainless Steel outside white paint and tinned inside	
Pan Diameter	1220 mm ±4 or 1200 mmm ±4 [user selected before purchase]	
Pan Standard	As specified by IS 5973 which known as the modified Class A NWS and WMO	
Depth of the Pan	254 mm	
Protection Cover	Top of the pan is covered by the Hexagonal Mesh for the protection of the bird and animal to drink the water	
Stillwell Sensor Model	BHM-S-OPE-SE	
Stillwell Sensor Type	Shaft, pully, float and Weight type	
Accuracy of Pan Evaporation	With pan and pipes ± 0.25% over 10" range i.e. (FSO)	
Resolution	0.20mm	
Rotation	360° continuous	
Sensor Operating temperature	- 40 to +60°C	
Sensor Measuring Range	0 to 8" (0 to 200 mm)	
Linearity	0.25%	
Output voltage	0-5 volts	
Input voltage	5 volts OR 9 to 30 volts (optional at extra cost)	
Altitude	0–2500 meter	
Operating Temp. and Humidity	-5° to 60° and 0 to 100%	
Sensor Total Height	With base screw 26 inches	
Sensor Material	FRP (Reinforced fibre) Powder coated White Paint Outer side and Waterproof Rubber coted paint inside body which provided the corrosion free Protection Wooden with white Paint 4" of height from ground	
Platform		
Water Temperature Model	BHM-S-WT	
Water Temp Sensor	Digital	
Water Temperature Sensor	-10°C to 85°C	
Water temp. Sensor accuracy	±0.5° C	
Probe Length	10 "	



Ordering List:

The Model: BHM-M-OPE-WR Automatic Open Pan Evaporation System is a complete meteorological and environmental monitoring solution, designed for accurate evaporation measurement, weather data logging, and remote monitoring.

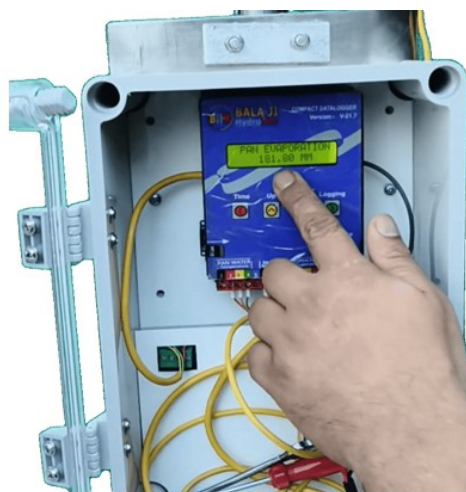
◆ Included Components & Specifications

- **BHM-Compact-DL**
Advanced industrial data logger with **GPRS telemetry**, enabling real-time data transmission and remote monitoring.
- **BHM-M-OPE-IS (Open Pan Evaporation Unit)**
High-quality open pan evaporimeter, available in GI (Galvanized Iron), SS (Stainless Steel), and Copper. *User must specify preferred pan material before quotation.*
- **BHM-S-OPE-SE (Stillwell System)**
Durable stillwell with shaft and pulley system for accurate water level measurement.
- **BHM-S-OPE-WT (Water Temperature Sensor)**
Precision water temperature sensor for monitoring evaporation-related temperature variations.
- **BHM-S-WS (Wind Speed Sensor)**
Reliable anemometer for wind speed measurement, essential for evaporation and weather analysis.
- **BHM-S-TBRG-5 (Tipping Bucket Rain Gauge)**
High-accuracy rainfall measurement system for precise precipitation data collection.

Above system comes with the compact data logger with IP66 enclosure, battery pack, solar panel, tripod stand and GPRS TELEMERTY MODEM

FAT Certificate (Factory Acceptance Test)

Mandatory with the complete set of the Automatic open pan evaporation with individual part.



Representative