

## Digital Open Pan Evaporimeter

Without Refilling

**Digital Open Pan Evaporimeter** 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-DOPE-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.

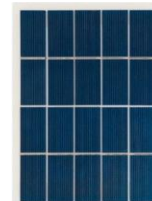
### DATA Logger\_ View

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



### SOLAR Charger\_View


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





### Accessories\_View

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

## Sensor\_View

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


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

Professional Line	Specification	MODEL: BHM-S-THA
<b>Measuring range temperature</b>	-40° C to 123 ° C	
<b>Measuring humidity</b>	0 to 100 %	
<b>Accuracy temperature</b>	± 0.3 ° C @ 5 to 40° C	
<b>Accuracy rel. humidity</b>	± 2% @ 20 to 80 %	
<b>Resolution of temperature</b>	0.01 ° C Typical	
<b>Resolution rel. humidity</b>	0.05 % RH Typical	
<b>Operating condition</b>	-40°C to +70 °C & 0...100 %	
<b>Supply voltage</b>	0 to 5 volts	
<b>Weather shield</b>	IP 65 provided	
<b>Dew point</b>	Calculated Provided	
<b>Measuring range air pressure</b>	300 hPa ~ 1100 hPa	
<b>Accuracy air pressure</b>	±0.12hPa or better	

Professional Line	Specification	
<b>Pan Model</b>	BHM-M-OPE-IS	<div style="border: 1px solid black; padding: 5px; display: inline-block;">           User can select the Pan Material before Quotation         </div>
<b>Pan Material</b>	Cooper outside white paint and tinned inside Galvanised Sheet complete white paint Stainless Steel outside white paint and tinned inside	
<b>Pan Diameter</b>	1220 mm ±4 or 1200 mmm ±4 [user selected before purchase]	
<b>Pan Standard</b>	As specified by IS 5973 which known as the modified Class A NWS and WMO	
<b>Depth of the Pan</b>	254 mm	
<b>Protection Cover</b>	Top of the pan is covered by the Hexagonal Mesh for the protection of the bird and animal to drink the water	

Professional Line	Specification
<b>Stillwell Sensor Model</b>	BHM-S-OPE-SE
<b>Stillwell Sensor Type</b>	Shaft, pulley, float and Weight type
<b>Accuracy of Pan Evaporation</b>	With pan and pipes ± 0.25% over 10" range i.e. (FSO)
<b>Resolution</b>	0.20mm
<b>Rotation</b>	360° continuous
<b>Sensor Operating temperature</b>	- 40 to +60°C
<b>Sensor Measuring Range</b>	0 to 8" (0 to 200 mm)
<b>Linearity</b>	0.25%
<b>Output voltage</b>	0-5 volts
<b>Input voltage</b>	5 volts OR 9 to 30 volts (optional at extra cost)
<b>Altitude</b>	0—2500 meter
<b>Operating Temp. and Humidity</b>	-5° to 60° and 0 to 100%
<b>Sensor Total Height</b>	With base screw 26 inches
<b>Sensor Material</b>	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

Professional Line	Specification
<b>Platform</b>	
<b>Water Temperature Model</b>	BHM-S-WT
<b>Water Temp Sensor</b>	Digital
<b>Water Temperature Sensor</b>	-10°C to 85°C
<b>Water temp. Sensor accuracy</b>	±0.5° C
<b>Probe Length</b>	10 "

Professional Line	Specification	MODEL: BHM-S-SR
<b>Measuring range</b>	0 to 1800 W/m <sup>2</sup>	
<b>Spectral Response Range</b>	400 - 1100 nm	
<b>Cosine Response</b>	±3% (0° to ±70° incident angle) ±10% (±70° to ±85° incident angle)	
<b>Absolute accuracy</b>	±5% of full scale	
<b>Resolution</b>	1 W/m <sup>2</sup>	
<b>Drift</b>	up to ±2% per year	
<b>Operating Environment</b>	- 40 to 65 °C; 0 to 100% RH	
<b>Type</b>	Silicon Cell Class C	

## Ordering List:

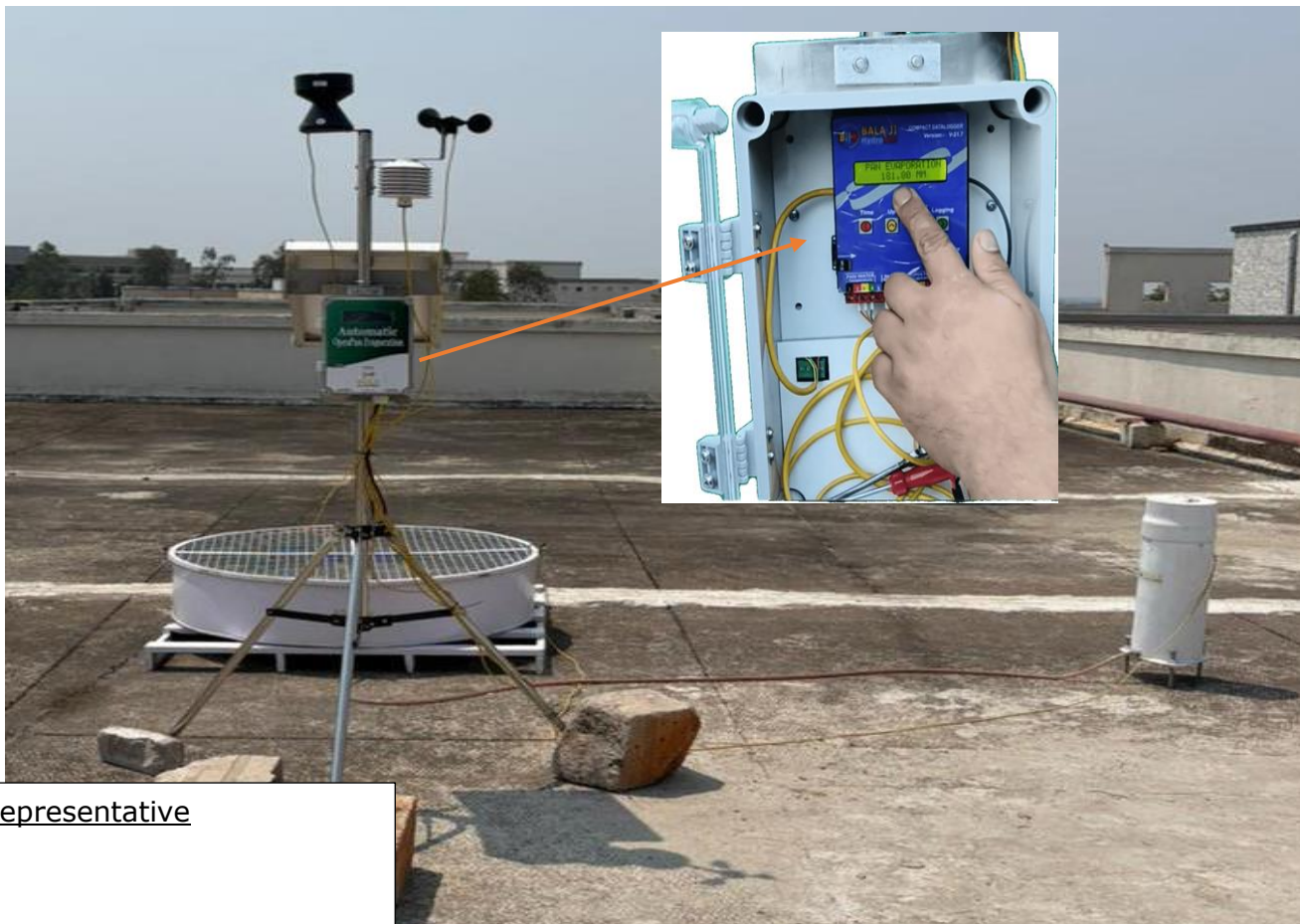
The (Model: **BHM-M-DOPE-WR**) **Digital Open Pan Evaporimeter System** is a complete meteorological and environmental monitoring solution, designed for accurate evaporation measurement, weather data logging, and remote monitoring.

### ◆ Included Components & Specifications

- **BHM-Compact-DL**  
Advanced industrial data logger with **GPRS telemetry**, enabling real-time data transmission and remote monitoring and related accessories (solar panel, stand, battery pack etc )
- **BHM-M-OPE-IS (Open Pan Evaporation Unit)**  
High-quality open pan evaporimeter, available in **GI (Galvanized Iron), SS (Stainless Steel), 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.
- **BHM-S-THA (Temperature, Humidity and Air Pressure)**  
Accurate air temperature, humidity and air pressure for weather forecast
- **BHM-S-SR (Pyranometer/Solar Radiation Sensor)**  
Above system comes with the compact data logger with IP66 enclosure, battery pack, solar panel, tripod stand and GPRS TELEMETRY MODEM

### FAT Certificate (Factory Acceptance Test)

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



Representative