

Weather-Based Irrigation Technologies—Summary of Product Information and Features

Company Info		Aeon Matrix	Blossom	Calsense (ET)	ETwater Systems	GreenIQ	Hydro-Rain	Hunter Ind. (Solar Sync)	Hunter Ind. (Hydawise)
Telephone		(669) 235-5866	(949) 453-8080	(800) 572-8608	(415) 945-9383	(800) 972-5612		(760) 591-7344	(760) 487-2144
Contact Person		Wen Tseng	Justin Houston-Brown	Rick Capitanio	Kevin Heverin	Keren Israel Michaeli		Dave Shoup	Anthony Long
Email		support@aeonmatrix.com	justinemrsich@lages.com	info@calsense.com	info@etwater.com	keren@greeniq.co		david.shoup@hunterindustries.com	anthony.long@hunterindustries.com
Website		www.yardian.com	myblossom.com	www.calsense.com	www.etwater.com	greeniq.co	bhyve.hydorain.com	www.hunterindustries.com	www.hydawise.com
Number of Residential Models		4	2		2	2		2	3
Number of Commercial Models				1	3	2	2	2	2
Year Product(s) Entered Market		2017		1993	2005	2013	2017	2009	2016
Method of Estimating Water Need									
Basis for Schedule:	Historical Data	Back-up		✓	✓	✓		✓	
	On-site Station/Sensor(s)	✓		✓ ¹	✓ ¹	✓ ¹		✓	✓ ¹
	Remote Station(s)/Sensor(s)				✓	✓ ³			✓
	Weather Forecasts	✓	✓		✓	✓	✓		✓
Weather Data Source		Weather forecast received from the internet	Real-time weather data from local stations and satellites	Historic ET data, evaporative atmometer type ET sensor, weather station or CIMIS data	Big data sources with a coordinate based system. Option to add Public, ETWS, or on-site weather stations.	Public weather/forecasts and optional on-site sensors	Weather forecast received from the internet	On-site temp, solar radiation, and rain/freeze sensors	Weather forecast downloaded from the internet.
Product Features									
Standalone Controller or Add-on to Existing Station or Zone Capacity		Standalone	Stand-alone	Standalone	Standalone & Add-on	Stand-alone	Stand-alone	Add-on	Standalone
Master Valve or Pump Circuit(s)		8 - 12	8 - 12	8 - 48	8 - 48	8, 16	8 - 16		4 - 54
Internal Power Transformer		1	✓	2	2	✓	✓		✓
Battery Powered - DC		✓		✓	✓	✓	✓		✓
Station Circuit Current Rating (Amperes)		0.75		1.5	2.0	1.0	0.4		
Terminal Wire Size Range (Gauge)		14 - 22		14	12 and smaller	14 - 26	14 - 22	20	14 - 20
Outdoor Installation		✓	✓	✓	✓	✓ ¹	✓	✓	Some Models
On-site Rain Gauge or Sensor w/ Rain Shutoff/Delay		✓ ¹		Tipping Bucket Rain Gauge ¹	Rain Sensor or Gauge ¹	✓ ¹	✓	Electronic Rain Sensor	✓ ¹
Rain Shutoff/Delay by Remote Sensor or Forecast		✓	✓		✓	✓	✓		✓
Rainfall Irrigation Schedule Compensation		✓			✓	✓			✓
On-site Wind Gauge w/ High Wind Shut-off				✓ ¹		✓ ¹			
High Wind Shut-off by Remote Sensor					✓ ¹	✓ ³			
On-site Temperature Sensor w/ Freeze Shut-off						✓ ¹	✓	✓	
On-site Temperature Sensor w/ High Temp On or Off Freeze or High Temp Shut-off by Remote Sensor			✓		✓ ¹	✓ ¹	✓		✓ ¹
On-site Evaporative Atmometer Type "ET Sensor"				✓ ¹		✓ ¹			
On-site Solar Radiation Sensor				✓ ¹				✓	
On-site Humidity Sensor				✓ ¹		✓ ¹			
Flow Sensor(s) Connectivity				✓	✓	✓			✓
Additional Sensor Terminals				✓	✓	✓			✓
Internet or Computer Interface		✓	✓	✓	✓	✓	✓		✓
Remote Control Device(s) for Controller		✓	✓	✓ ¹	✓	✓	✓		✓
Two-way Communication with Server		✓			✓	✓			✓
Station Circuit Testing		✓	✓	✓	✓	✓			✓
Surge and/or Lightning Protection		✓		✓ ¹	✓	✓	✓		✓
EPA WaterSense Certification		✓			✓	✓	✓	✓	✓
Scheduling Features									
Fully Automatic Schedule Generation		✓	✓		✓				✓
Base Irrigation Schedule Required				✓		✓	✓	✓	
User May Define Non-Irrigation Days		✓ ²	✓	✓	✓	✓	✓	✓	✓
Operable in Manual Clock Mode		✓		✓	✓	✓	✓	✓	✓
Manual Operation by Station or Program		✓	✓	✓	✓	✓	✓	✓	✓
Variable Total Run Times		✓	✓	✓	✓	✓		✓	✓
Number of Irrigation Schedule Period(s)				7, 14, 21, or 28 Day	Unlimited Days				✓
Number of Available Start Times		8		6 per manual program	9				✓
Cycle/Soak Manual Input				✓	✓				✓
Cycle/Soak Periods Automatically Calculated		✓			✓				✓
Runs Concurrent Stations				✓	✓	✓			✓
Number of Programs		9 - 13		7	Unlimited	✓			28
Percent Irrigation Adjust Feature		✓		% of ET adjust per station	✓	✓	✓		✓
Station Distribution Uniformity/Efficiency Setting		✓			✓				
Syringe Cycle or Program		✓		✓	✓				
New Landscape Establishment/Fertilizer Program				✓	✓				
Review of Weather Information		✓		✓	✓	✓			✓
Review of Irrigation or Water Use Information		✓		✓	✓	✓			✓
English and Spanish Languages Display		✓		✓	✓	✓			✓
Product Support and Warranty									
Warranty		2 years	2 years	10 years	3 years	2 years	2 years	5 & 10 years	2 years
Support:	On-site Service Technicians			✓	✓			✓	
All companies offer email support	Telephone Technicians		✓	✓	✓	✓	✓		✓
	Online Chat			✓	✓	✓			✓
	Local Distributors			✓	✓	✓		✓	✓
Installation, Maintenance, & Cost									
Professional Installation & Programming Recommended				✓	✓		✓	✓	✓
Ongoing Maintenance Required				Clean Sensors				Clean Sensors	
Battery Replacement Required							✓		
Suggested Retail Price		\$200 - \$250	\$149 - \$199	\$1,075 - \$3,950	\$950 - \$3,800	\$200-\$250	\$185 - \$225	\$120 - \$225	\$279 - \$825
Annual Service Cost					\$184 - \$300				\$0 - \$708

1 - Optional add-on feature not included in controller price(s) shown; 2 - Automatically applies local non-irrigation day restrictions; 3 - Using IFTTT applet; 4 - ST8-WIFI controller only; 5 - ESP-TM2 & ESP-Me only

Weather-Based Irrigation Technologies—Summary of Product Information and Features Continued

Company Info		Irritrol®	MC Smart Controls	Netro, Inc.	NxEco	Orbit	Plaid Systems, LLC.	Rain Bird (ST8-WIFI & ESP-TM2 or ESP-Me w/LNK)	Rain Bird (ESP-SMTe)
Telephone		(951) 785-3512	(801) 739-7009	(866) 346-3876	(855) 696-9326			(800) 724-6247	(800) 724-6247
Contact Person		Keith Shepersky	Customer Service	Arlene Zheng	Liang Li			James Harris	Nick Kelsch
Email		keith.shepersky@irritrol.com	info@mcsmartcontrols.com	info@netrohome.com	support@nxeco.com		Online Form	jharris@rainbird.com	nkelsch@rainbird.com
Website		www.irritrol.com	www.mcsmartcontrols.com	www.netrohome.com	nxeco.com	bhyve.orbitonline.com	spruceirrigation.com	wifi-pro.rainbird.com	wifi.rainbird.com
Number of Residential Models		2	1	2	3	4	1	8	2
Number of Commercial Models		3	1		1				
Year Product(s) Entered Market		2011	2017	2016	2015	2016	2017	2016	2016
Method of Estimating Water Need									
Basis for Schedule:	Historical Data	✓		✓				✓	✓
	On-site Station/Sensor(s)	✓	✓	✓ ¹	✓ ¹		Optional		✓
	Remote Station(s)/Sensor(s)		✓		✓			✓	
	Weather Forecasts			✓	✓	✓	✓	✓	
Weather Data Source		On-site temp, solar, and rain sensors with historic data backup	Local or on-site weather station data received from the internet and on-site sensors	Weather forecast and measured rainfall received from the internet. Optional on-site sensor array.	Local NOAA weather stations & www.worldweatheronline.com	Weather forecast received from the internet	Optional wireless SMS. Weather forecast received from the internet and optional, on-site sensors.	Weather forecast received daily from the internet	Onsite rain/temperature sensor
Product Features									
Standalone Controller or Add-on to Existing Station or Zone Capacity		Controller w/ Add-on	Standalone	Standalone	Stand-alone	Stand-alone	Standalone	Stand-alone & Add-on	Stand-alone
Master Valve or Pump Circuit(s)		6 - 12	12	6 - 12	8 - 36	4 - 12	16	4 - 22	4 - 22
Internal Power Transformer		1	1	1	✓	✓	1	✓	✓
Battery Powered - DC		Some Models	✓			✓		Outdoor Models	Outdoor Models
Station Circuit Current Rating (Amperes)		1.0	1.0		0.75	0.4	0.9	1.0	1.0
Terminal Wire Size Range (Gauge)		12 - 18	14 - 24		12 - 20	14 - 22	18	14 - 20	14 - 20
Outdoor Installation		✓	✓		✓ ¹	✓		Outdoor Models	Outdoor Models
On-site Rain Gauge or Sensor w/ Rain Shutoff/Delay		Hygroscopic Rain Sensor	✓ ¹		✓ ¹	1	✓ ¹	✓	✓
Rain Shutoff/Delay by Remote Sensor or Forecast		✓	✓	✓	✓	✓	✓		
Rainfall Irrigation Schedule Compensation		✓	✓	✓	✓			✓	✓
On-site Wind Gauge w/ High Wind Shut-off									
High Wind Shut-off by Remote Sensor									
On-site Temperature Sensor w/ Freeze Shut-off		✓	✓ ¹	✓ ¹		✓			✓
On-site Temperature Sensor w/ High Temp On or Off Freeze or High Temp Shut-off by Remote Sensor			✓	✓ ¹	✓	✓	Freeze	Alarm ¹	
On-site Evaporative Atmometer Type "ET Sensor"			✓ ¹						
On-site Solar Radiation Sensor		✓	✓ ¹	✓ ¹					
On-site Humidity Sensor			✓ ¹						
Flow Sensor(s) Connectivity		✓ ¹	✓				✓		
Additional Sensor Terminals			1	Soil Moisture				Soil Moisture ¹	
Internet or Computer Interface		✓ ¹	✓	✓	✓	✓	✓	✓	
Remote Control Device(s) for Controller		✓ ¹	✓	✓	✓	✓	✓	✓	✓ ¹
Two-way Communication with Server			✓		✓			✓	
Station Circuit Testing							✓	✓	✓
Surge and/or Lightning Protection		✓	✓		✓		✓	✓	✓
EPA WaterSense Certification		✓	✓	✓	✓	✓	✓	✓	✓
Scheduling Features									
Fully Automatic Schedule Generation		✓		✓			✓		✓
Base Irrigation Schedule Required			✓		✓	✓		✓	
User May Define Non-Irrigation Days		✓	✓	✓	✓	✓	✓	✓	✓
Operable in Manual Clock Mode		✓	✓	✓	✓	✓	✓	✓	✓
Manual Operation by Station or Program		✓	✓	✓	✓	✓	✓	✓	✓
Variable Total Run Times			✓		✓				
Number of Irrigation Schedule Period(s)		31 or 365	4				20	Days of Wk,Odd/Even, Cyclical	Days of Wk,Odd/Even, Cyclical
Number of Available Start Times		9	4					3 - 4	6
Cycle/Soak Manual Input			✓		✓		✓	✓ ⁴	✓
Cycle/Soak Periods Automatically Calculated		✓		✓	✓		✓	✓ ⁴	✓
Runs Concurrent Stations		✓			✓		✓		
Number of Programs		3		Unlimited			20	3 - 4	2
Percent Irrigation Adjust Feature		✓			✓	✓	✓	✓	✓
Station Distribution Uniformity/Efficiency Setting					✓				✓
Syringe Cycle or Program									
New Landscape Establishment/Fertilizer Program							✓		✓
Review of Weather Information		✓	✓		✓		✓		✓
Review of Irrigation or Water Use Information		✓	✓	✓	✓		✓	✓	✓
English and Spanish Languages Display		✓	✓					✓	✓
Product Support and Warranty									
Warranty		5 years	3 years	2 years	2 year	2 years	1 year	3 years	3 years
Support:	On-site Service Technicians		✓	✓	✓	✓		✓	✓
All companies offer email support	Telephone Technicians	✓	✓	✓	✓	✓		✓	✓
	Online Chat				✓			✓	✓
	Local Distributors	✓			✓			✓	✓
Installation, Maintenance, & Cost									
Professional Installation & Programming Recommended		✓				✓		✓ ⁵	✓
Ongoing Maintenance Required		Clean Solar Sensor					Clean Sensors		Clean Sensor
Battery Replacement Required		✓				✓	Soil-Moisture Sensors		
Suggested Retail Price		\$353 - \$661	\$250	\$120 - \$150	\$120 - \$215	\$60 - \$120	\$249	\$179 - 415	\$313 - 347
Annual Service Cost					\$0				

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Weather-Based Irrigation Technologies—Summary of Product Information and Features Continued

Company Info		Rain Master®	Scotts Miracle Gro	Signature Control Systems	Toro®	Tucor	Weathermatic®
Telephone		(951) 785-3453	937-553-4576	(949) 390-4778	(951) 785-3515	(800) 272-7472	(972) 278-6131
Contact Person		Sergio Ramos	Kim Markus	Don Clark	Robert Starr	Larry Sarver	Brodie Bruner
Email		sergio.ramos@rainmaster.com	kim.markus@scotts.com	don.clark@scsmail.com	robert.starr@toro.com	lsarver@tucor.com	info@weathermatic.com
Website		www.rainmaster.com	mygro.com	www.signaturecontrolsyste.ms.com	www.toro.com	www.tucor.com	www.weathermatic.com
Number of Residential Models		0	1	3	1	1	1
Number of Commercial Models		2		5		3	3
Year Product(s) Entered Market		2002	Jan 2018	2013	2013	1995	2004
Method of Estimating Water Need							
Basis for Schedule:	Historical Data	✓			✓	✓	
	On-site Station/Sensor(s)	✓ ¹		✓	✓		✓
	Remote Station(s)/Sensor(s)	✓ ¹	✓	✓		✓	
	Weather Forecasts		✓	✓			
Weather Data Source		Automatic, historic or manually entered ET or with optional on-site weather station	Real-time weather data from local stations and satellites	Proprietary	On-site temp, solar, and rain sensors with historic data backup	Automatic, historic or manually entered ET or with optional on-site weather station	On-site temp & rain sensor and solar radiation estimated based on date & location
Product Features							
Standalone Controller or Add-on to Existing Station or Zone Capacity		Standalone	Stand-alone	Standalone	Controller w/ Add-on	Standalone	Standalone
Master Valve or Pump Circuit(s)		6 - 200	7	4 - 24	4 - 16	25 - 100	4 - 96
Internal Power Transformer		1 - 2	✓	✓	1	3	2
Battery Powered - DC		✓	✓	Outdoor Models	✓	✓	Some Models
Station Circuit Current Rating (Amperes)		1.0	0.5	0.5	1.25	Not Reported	Optional Solar
Terminal Wire Size Range (Gauge)		12 - 14		12 - 18		14, 16, 18	1.2
Outdoor Installation		✓		✓	Some Models	✓	✓
On-site Rain Gauge or Sensor w/ Rain Shutoff/Delay		Tipping Bucket Rain Gauge ¹		✓ ¹	✓	✓	✓
Rain Shutoff/Delay by Remote Sensor or Forecast		✓ ¹	✓	✓		✓	
Rainfall Irrigation Schedule Compensation		✓ ¹	✓	✓	✓	✓	✓
On-site Wind Gauge w/ High Wind Shut-off		✓ ¹		✓ ¹		✓	OEM add-on
High Wind Shut-off by Remote Sensor						✓	
On-site Temperature Sensor w/ Freeze Shut-off		✓ ¹		✓ ¹	✓	✓	✓
On-site Temperature Sensor w/ High Temp On or Off		✓ ¹		✓ ¹			
Freeze or High Temp Shut-off by Remote Sensor		✓ ¹	✓	✓ ¹			
On-site Evaporative Atmometer Type "ET Sensor"		✓ ¹					
On-site Solar Radiation Sensor		✓ ¹			✓	✓	
On-site Humidity Sensor		✓ ¹		✓ ¹		✓	
Flow Sensor(s) Connectivity		✓		✓	✓ ¹	✓	✓
Additional Sensor Terminals		✓				✓	✓
Internet or Computer Interface		✓	✓	✓	✓ ¹	✓	✓
Remote Control Device(s) for Controller		✓ ¹	✓	✓	✓ ¹	✓	✓
Two-way Communication with Server		✓ ¹		✓		✓	
Station Circuit Testing		✓	✓	✓		✓	✓
Surge and/or Lightning Protection		✓ ¹		✓	✓	✓ ¹	✓
EPA WaterSense Certification		✓	✓	✓	✓	✓	✓
Scheduling Features							
Fully Automatic Schedule Generation		✓ ¹	✓	✓			✓
Base Irrigation Schedule Required		✓			✓	✓	
User May Define Non-Irrigation Days		✓	✓	✓		✓	✓
Operable in Manual Clock Mode		✓			✓	✓	✓
Manual Operation by Station or Program		✓	✓	✓	✓	✓	✓
Variable Total Run Times		✓	✓	✓		✓	✓
Number of Irrigation Schedule Period(s)		7 or 30 Day	✓	Up to 31 Days & Odd/Even	3	14 Day & Odd/Even	Days of Week/Mos. & Odd/Even
Number of Available Start Times		5 - 8	✓	4	4	12	8
Cycle/Soak Manual Input		✓	✓	✓	✓	✓	✓
Cycle/Soak Periods Automatically Calculated		✓	✓	✓			✓
Runs Concurrent Stations		✓			✓	✓	✓
Number of Programs		4 - 16		16	4	10	4
Percent Irrigation Adjust Feature		✓	✓	✓		✓	✓
Station Distribution Uniformity/Efficiency Setting		✓					
Syringe Cycle or Program		✓				✓	
New Landscape Establishment/Fertilizer Program					✓		✓
Review of Weather Information		✓		✓		✓	✓
Review of Irrigation or Water Use Information		✓		✓		✓	✓
English and Spanish Languages Display				✓	✓		✓
Product Support and Warranty							
Warranty		5 years	2 years	2 years	5 years	1 - 5 years	2 - 10 years
Support:	On-site Service Technicians	✓					✓
All companies offer	Telephone Technicians	✓	✓	✓	✓	✓	✓
email support	Online Chat	✓					
	Local Distributors	✓		✓	✓	✓	✓
Installation, Maintenance, & Cost							
Professional Installation & Programming Recommended		✓		Yes, But Not Required		Recommended	✓
Ongoing Maintenance Required		Clean Sensors (If Applicable)				Clean Sensors	
Battery Replacement Required			✓		✓		✓
Suggested Retail Price		\$600 - \$6,000	\$150	\$222 - \$485	\$353 - \$548	\$1,290 - \$1,980	\$292 - \$2,625
Annual Service Cost		\$120 - \$180		Optional After First Year		\$72 - \$360	

1 - Optional add-on feature not included in controller price(s) shown; 2 - Automatically applies local non-irrigation day restrictions; 3 - Using IFTTT applet; 4 - ST8-WIFI controller only; 5 - ESP-TM2 & ESP-Me only