



Thermal Energy Storage Systems

Lower your energy, equipment and maintenance costs.

Integrating an IceStor tank into your system will generate immediate savings, and protect against rising energy costs for years to come, but it is also the smart environmental choice. Our systems can help you earn LEED points, and meet ASHRAE Standard 189 requirements.

By making ice at night and storing it to use during daylight hours, design engineers can level the cooling load profile of the building and downsize installed equipment. IceStor thermal systems can often be installed for little additional capital cost, when incorporated during the design phase.

Ice thermal storage is a proven, reliable technology and a strategic method to reduce cooling load demand. Whether you are a building owner, engineer, architect or contractor, you can easily integrate the IceStor tank into new or existing cooling systems.


IceStor[™]
LATENT ENERGY STORAGE SYSTEM
www.icestor.com

Benefits

LOWER ENERGY COST

Off-peak energy is cleaner and less expensive than peak energy. Lower rates, rebates and incentives ensure that you will save money throughout the life of your system.

LOWER EQUIPMENT COST

With smart load management, peak demand is more evenly distributed throughout the day, which means your system can use a smaller, less expensive chiller.

LOWER MAINTENANCE COST

No moving parts, non-corrosive polymer heat exchangers, and flexible internal connections ensure a reliability and durability that is second to none.

COMPACT SIZE

Most ton-hours of storage per square foot of space.

LOWEST PRESSURE DROP

IceStor systems have the industry's lowest fluid pressure drop, resulting in the best installed savings, smaller horsepower pumps and better system efficiency.

SUPERIOR HEAT TRANSFER

IceStor provides the highest heat exchanger surface area in the industry to enhance operating efficiencies by allowing higher, more efficient, chiller charging temperatures.

Features

- Compact modular design for flexibility
- Lowest fluid pressure drop in the industry for best overall efficiency
- Low up-front installation cost
- Low maintenance and operating costs
- Field-built systems available
- Easy installation and seamless alignment with your existing system

IceStor LATENT ENERGY STORAGE SYSTEM	Units	SERIES 7				SERIES 8				SERIES F		
		Model 140C	Model 280C	Model 420C	Model 590C	Model 170T	Model 340T	Model 550T	Model 715T	Model HX 12-7	Model HX 12-8	Model HX12-10
HEIGHT	ft	7	7	7	7	8	8	8	8	7	8	10
PERFORMANCE												
Maximum latent storage	Ton-Hours	125	250	375	500	150	300	450	600	125	150	193
Net sensible storage (28°F/58°F)	Ton-Hours	25	48	75	100	30	60	90	120	24	30	38
Stored cooling per Sq. Ft. floor Space (latent and sensible)	Ton-Hours	4	4	4	4	4.5	4.5	4.5	4.5	3	4.5	5.5
PHYSICAL DIMENSIONS												
Total heat exchanger surface area-submerged	ft ²	1,960	3,920	5,880	7,840	2,295	4,590	6,885	9,180	1,960	2,295	2,870
Heat exchanger surface-submerged	ft ² / on Hour	17	17	17	17	17	17	17	17	17	17	17
Container O.D. (LxWxH)	inches	65x96x82	120x96x82	182x96x82	236x96x82	65x96x96	120x96x96	182x96x96	236x96x96	Field	Field	Field
Floor space required	ft ²	43	80	121	157	43	80	121	157	Field	Field	Field
Container Volume (O.D.)	ft ³	300	550	830	1,075	340	640	970	1,260	Field	Field	Field
*Weight (Shipping)	lbs.	1,700	3,200	4,500	6,000	2,000	3,800	5,300	7,100	Field	Field	Field
*Weight (Operating)	lbs.	13,380	25,230	39,120	51,400	16,250	30,450	47,150	62,050	Field	Field	Field
*Weight, Operating, per Sq.Ft. of Floor Space	lbs./ft ²	310	315	325	330	375	380	390	395	Field	Field	Field
*Water volume	gallons	1,310	2,495	3,935	5,160	1,620	3,030	4,770	6,260	Field	Field	Field
*Water weight	lbs.	10,940	20,860	32,817	43,070	13,530	25,300	39,800	52,240	Field	Field	Field
*Brine volume	gallons	70	140	210	280	80	160	240	320	70	80	103
GENERAL SPECIFICATIONS												
Maximum operating temperature	*F	100	100	100	100	100	100	100	100	100	100	100
Maximum operating pressure	psi	90	90	90	90	90	90	90	90	90	90	90
Number of heat exchangers	Each	12	24	36	48	12	24	36	48	12	12	12
Number of HX-12 modules	Each	1	2	3	4	1	2	3	4	1	1	1
Insulation - R Value Sides	R	12	12	12	12	12	12	12	12	Field	Field	Field
Insulation - R Value Top	R	24	24	24	24	24	24	24	24	Field	Field	Field
HX tubing O.D.	inches	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

* Approximate

Current customers include:

SONY

CBS

Marriott
HOTELS · RESORTS · SUITES

PHASE CHANGE
ENERGY SOLUTIONS

In addition to the popular models listed, we specialize in custom applications, knockdown systems for retrofit jobs, site-built tanks, buried tank applications and more.

Contact us today so we can help you design your best cooling system! 1-800-283-2887 or icestor@phasechange.com