

# HIGH EFFICIENCY

## Central Chiller



## Technical Specifications

The high efficiency central chillers are remarkably energy efficient and can save processors up to 60% in electrical costs. The system continuously measures ambient and process conditions and will adjust to operate in the most efficient manner. Designed with electrical, mechanical and control redundancy, along with predictive analysis, downtime is virtually eliminated.

The High Efficiency Central Chiller is available in single circuits from 20 to 60 tons and is designed with modularity in mind. Users can purchase a system to meet their current process cooling needs. Expansion is made easy by plugging similar capacity units in parallel for up to 600 tons of cooling. The chillers control off the temperature of the tank and can maintain between 20°F to 80°F (-7°C to 26.6°C).

### ENERGY EFFICIENT

- Up to 60% energy savings compared to traditional cooling systems.
- Improved fan motor and compressor energy usage.

### MODULAR & EXPANDABLE

- Parallel one to ten units within the same control platform.
- Invest in additional units as the process needs grow.

### VIRTUALLY ELIMINATE DOWNTIME

- Advanced control platform provides live monitoring and remote serviceability.
- Automatic mechanical and electrical redundancy through intuitive controls.

## Features

### General

- Hermetic tandem scroll compressors with crank case heaters.
- Stainless steel, copper brazed plate evaporator.
- Non-ferrous construction on chilled water piping side.
- TS Tech™ Tool-less evaporator inlet strainer and evaporator back flush ports and strainer blow down valve.
- Water-cooled models feature shell and tube condensers with electrically actuated cooling water regulating valves and inlet water temperature sensors.

### Electrical

- Single-point power and ground wire connections per circuit.

### Refrigerant

- Refrigerant suction and discharge pressure transducers.
- Refrigerant suction and liquid line temperatures sensors for superheat and subcool readings.
- Electronic expansion valve with sight glass and moisture indicator.
- Encapsulated high discharge pressure safety switch with manual reset.
- Removable core filter dryer.
- Refrigerant discharge line, liquid line, and hot gas line service valves with Schrader access ports.

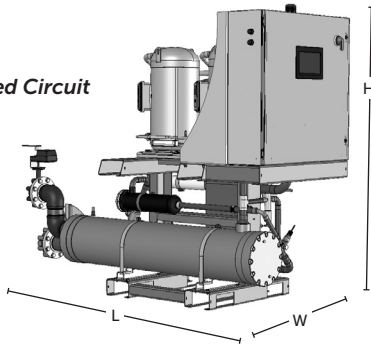
### Controller

- Enable or disable individual circuits or compressors.
- Compressor hour tracking and staging to balance hours.
- Compressor anti-cycle timer to prevent compressor short cycling.
- High and low temperature warnings and faults.
- High and low refrigerant suction and discharge warnings and faults to protect the compressor.

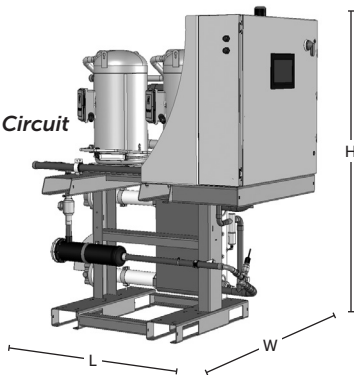


System Diagram

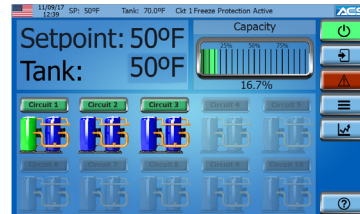
Water-Cooled Circuit



Remote Air-Cooled Circuit



Advanced Controller



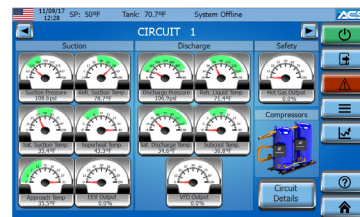
Home Screen

Quick visual representation of the entire system, easily allowing you to enable or disable circuits in your system.



Alarm Help Screen

Guides users through common alarms and offers suggestions on solutions.



Individual Circuit Overview

An in-depth look at each circuit for a full representation of status and performance.

Specifications

High Efficiency Central Chiller (Water-cooled)

Model	Cooling Capacity Tons @ 50° LFT (kW) <sup>1</sup>	Condenser Water Flow GPM (LPM)	Dimensions in Inches (CM)			Shipping Wt. Lbs (Kg) <sup>3</sup>
			Height <sup>2</sup>	Width	Depth	
20T	23.1 (81.2)	60	72 (183)	40 (101)	79 (201)	1250 (567)
25T	28.6 (100.5)	75	72 (183)	40 (101)	84 (214)	1380 (626)
30T	33.6 (118.2)	90	72 (183)	40 (101)	84 (214)	1490 (676)
40T	43.7 (153.7)	120	72 (183)	40 (101)	93 (237)	2250 (1020)
50T	54.9 (193.1)	150	72 (183)	40 (101)	93 (237)	2450 (1111)
60T	70.6 (248.3)	180	72 (183)	40 (101)	93 (237)	2623 (1190)

<sup>1</sup> For additional capacities at multiple LFTs, refer to the product Operation and Installation manual. Stated capacity data assumes 85° F condenser water, w/ 2.4 GPM/Ton flow on the evaporator ± 5% component variance.  
<sup>2</sup> Add additional 3 inches to height when ordering alarm option.  
<sup>3</sup> Shipping weight does not include packaging materials, such as pallets, cardboard, etc.

High Efficiency Central Chiller (Remote Air-cooled)

Model	Cooling Capacity Tons @ 50° LFT (kW) <sup>1</sup>	Dimensions in Inches (CM)			Shipping Wt. Lbs (Kg) <sup>3</sup>
		Height <sup>2</sup>	Width	Depth	
20T	20.7 (72.8)	72 (183)	40 (101)	69 (176)	1000 (454)
25T	25.7 (90.4)	72 (183)	40 (101)	72 (183)	1100 (499)
30T	30.3 (106.5)	72 (183)	40 (101)	72 (183)	1200 (544)
40T	39.5 (138.9)	72 (183)	40 (101)	72 (183)	1900 (862)
50T	49.6 (174.5)	72 (183)	40 (101)	72 (183)	2050 (930)
60T	63.5 (223.3)	72 (183)	40 (101)	72 (183)	2200 (998)

<sup>1</sup> For additional capacities at multiple LFTs, refer to the product Operation and Installation manual. Stated capacity data assumes 95° F ambient w/ 2.4 GPM/Ton flow on the evaporator ± 5% component variance.  
<sup>2</sup> Add additional 3 inches to height when ordering alarm option.  
<sup>3</sup> Shipping weight does not include packaging materials, such as pallets, cardboard, etc.

Remote Condenser

Model	THR BTUH	Condenser Fan Sections	Total CFM	Dimensions in Inches (CM)			Shipping Wt. Lbs (Kg) <sup>*</sup>
				Height	Width	Depth	
20T	315,423	2	19,800	50	45.5	127	650 (295)
25T	394,048	2	19,000	50	45.5	127	700 (317)
30T	583,597	3	28,500	50	45.5	180	1030 (467)
40T	597,893	4	38,600	50	45.5	233	1250 (567)
50T	760,106	4	37,000	50	45.5	233	1350 (612)
60T	975,301	5	46,200	50	45.5	286	1700 (771)

<sup>\*</sup> Remote condensers requiring more than 5 zones are shipped as two separate sets. Shipping weight does not include packaging materials, such as pallets, cardboard, etc.