OptiPlant

TRANE

Additional step towards chiller plant optimization

Optimize operation to reduce costs

Every business faces challenges to reduce operating costs and minimize its environmental footprint. But in many buildings where the HVAC system uses two air cooled chillers, the units frequently operate well below 100% load and in some cases as low as 50%.

Trane OptiPlant will only allow selected chillers to operate at any given time as the cooling demand requires. Run times and equipment wear and tear will be substantially reduced.

Typical load profile (*)





OptiPlant, a Trane prepackaged control solution

Trane's unparalleled knowledge of commercial cooling systems combined with control expertise has produced OptiPlant, a prepackaged control solution. OptiPlant can be installed, commissioned and operated by a non-control technician. A visually intuitive touch screen display makes it quicker and easier to commission the solution and to access its control capabilities.

Benefits of OptiPlant

- Lower operating and maintenance costs:
 - Reduced operating hours delivers 15% or more reduction in energy consumption and correspondingly reduced operating costs.
 - Fewer run hours means longer component lifetime and lower maintenance costs.
- **Easy chiller control**: intuitive screens allow easy monitoring and control of the plant.
- **Traceability of plant operation**: displays event log and system temperature trends over the seven previous days.
- **Rapid return on investment**: payback achievable in less than two years in an average size office building.



Metering

Not only do businesses need to reduce operating costs by controlling their chiller plant but they also need to know how much they are spending. In addition, more and more regulations relate to energy metering of equipment.

Chiller 1			Energy Metering	
2	Daily Elect. Wh 168.0	Monthly Elect. With 2002.0	Year to Date Elect: KVVh 2502.0	
Chiller 2	Daily Elect. w/Wh 173.0	Monthly Elect With 1602.0	Year to Date Elect KWh 2002.0	Sync
otal Cooling Load	Daily Cooling #Mh 1834.1	Monthly Couling With 15208.2	Tear to Date Cooling With 18478.9	

Trane OptiPlant offers optional metering capabilities to measure the energy consumption of each chiller. A dashboard on the touchscreen display shows the daily, weekly and yearly consumption in kWh.

Efficiency of the chiller plant

OptiPlant measures and calculates the cooling load on the chiller plant. It is then compared against the energy consumption. A gauge on the screen displays the instantaneous efficiency of the chiller plant.



Trending

The OptiPlant stores the last 7 days of data and displays three graphs:

- Electrical consumption against cooling load.
- System efficiency against outdoor air temperature.
- Active chilled water set point, actual flow and return chilled water temperatures against outdoor air temperature.



The electrical consumption can be analyzed against the performance of the chiller plant.

Install chiller plant controls from Trane. Gain a partner in making your building better for life.







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