

# ENERGY STORAGE WATER CHILLERS

## QUALITY FEATURES AND MATERIAL INFORMATION

### Controls

Standard Controls are:

- TAE M 05-10 supplied with level 1 microprocessor plus main switch, 4 membrane switches, 2 digit LED window (7 segments each), 2 LEDs
- TAE/TWE 015-301 supplied with level 3 microprocessor plus disconnect, 3 digit LED window (7 segments each), 7 LEDs, 15 alarms, antifreeze controls, serial port for optional RS232 interface, 50% compressor unloading
- TAE 402-602, as above, but with 13 LEDs, 21 alarms

### R22 Evaporator/Energy Storage Tank

- Refrigeration grade copper coil with external aluminium fins, immersed in an insulated storage tank. Models M05 & M10 are supplied with 304 stainless steel tanks, which are sealed but not pressure rated. A built in plastic fill/vent tank is included. These models are suitable only for open circuits. Models 015-602 are supplied with a carbon steel tank rated for 85 PSIG. These models are suitable for open or closed circuits. The tanks are fitted with a manual air eliminator and drain valve. An optional 304 stainless steel tank is available.

### Water Circuit

- Combination evaporator/storage tank is piped to a pump with a fixed by-pass to prevent dead head condition and to ensure continuous water flow through the evaporator. Models 015-301 are supplied with stainless steel pump. TAE 402-602 have stainless impellers. Close-coupled TEFC motor is standard.

### Low Noise Level

- Optional noise attenuation package available.

### Internal or External Use

- Optional weatherproof enclosure (except M05 & M10)
- Galvanized steel housing, etched and epoxy painted
- Optional low ambient controls

### Cabinet

- Manufactured from galvanized steel etched and finished in backed epoxy coating

### Refrigeration Compressor

- High efficiency, fully hermetic, reciprocating, heat pump duty compressor, with low noise level, suction gas cooled, fitted with internal thermal protection and anti-vibration mountings. Models 201-602 are supplied with 50% compressor unloading for additional energy savings

### High Ambient Operation

- Large condenser and increased airflow permit operation up to 105°F

### Air Cooled Condenser (TAE)

- Single or dual circuit coils, manufactured from refrigeration grade seamless tubing with mechanically bonded aluminum fins, fan motors are TEFC except models TAE M05 & M10

### Water Cooled Condenser (TWE)

- Coaxial heat exchanger with carbon steel shell and copper tubes. Supplied with 2-way water regulating valve (3-way is optional)

### Modular Installations

- Any number of units may be connected in parallel to provide step control, increased flexibility and common spare parts

### Low Water Pressure Drop (less than 2 PSI)

- Low velocity water flow through energy storage tank/evaporator
- Reduced frictional resistance of water in contact with exchanger fins

### Remote Control

- Level 1 panel includes dry contacts for remote on/off control and display of alarms only
- Level 2 panel may be connected to a remote computer or building management system via an optional RS232 interface. Up to 16 units can be controlled & monitored simultaneously with the MTA software option

### Accumulation Tank

- In stainless steel on M05 & M10 models, it can be connected to open fluid circuits, and is completely sealed but not pressure-proof. A separate fill expansion tank is made of plastic with screwed lid. On 015 model and up, the accumulation tank is made of carbon steel, suitable for up to 6 bar working pressure, and can be connected to closed open or closed fluid circuits. The tank is fitted with a manual air vent and a drain valve. Non ferrous version is also available

### Energy Storage System

- Insulated closed steel, tank with R22 evaporator inside
- Suitable for water pressure up to 85 PSIG (except M05 & M10)

### Unprecedented Reliability

- High quality refrigeration and electrical components
- Stainless steel pumps on 015-301, stainless impeller on 402-602
- built-in pump by-pass to eliminate dead head condition
- R22 evaporator resistant to freezing during operation

### Axial or Centrifugal Fans

- TAE models are available with optional centrifugal fans within same cabinet dimensions (for ducted condenser air or heat recovery applications)

### Quick Access for Easy Maintenance

- All main components (electrical panel, compressor, pump) are easily accessed by removing the front panel

### Refrigeration Circuit

- TAE M 05-10, TAE/TWE 015-301 are single circuit, TAE 402-602 are dual circuit
- Capillary expansion on Models M05-M020
- Externally equalized expansion valve on 031-602
- Sight glass on 015 and up
- Filter Dryer
- HP, LP and fan pressure switches on 015 and up

### Circulation Pumps

- Standard stainless steel pumps (stainless impeller 402-602) with TEFC motors (except M05-M10)
- Special request pumps are available
- Chillers can be supplied without pumps if required

### Automatic Water Make-Up

- Designed for closed circuits, these optional kits include:
- Pressure reducing valve, isolation valve and pressure gauge
  - Tank pressure gauge
  - Automatic drain valve
  - Safety Valve
  - Diaphragm expansion tank
  - Water filling kit with level indicator, suitable for open or closed circuits

### Gauges

- Standard gauges are:
- TAE / TWE 05-020 water pressure gauge
  - TAE / TWE 031-602 R22 suction and discharge gauges, water pressure gauge

## OTHER MODELS AVAILABLE

Air/Water Heat Pumps with reversible cycle  
Air Cooled Chillers with scroll compressors  
Air Cooled Chillers with semi-hermetic compressors

Water Cooled Chillers with scroll compressors  
Water Cooled Chillers with semi-hermetic compressors  
Custom Chillers ( Special Quotes )

**1-800-345-8207**