Kelvion

Combining Dry & Wet Cooling to reduce energy and water consumption

Multiple operation modes for seamless and efficient adaption

Heat Rejection in conjunction with Liquid Cooled Chillers

www.kelvion.com

Kelvion Heat Rejection & Heat Recovery

CASCADE COOLING

Kelvion's Cascade Cooling is an innovative solution that combines dry and wet cooling technologies to deliver unmatched efficiency, flexibility, and sustainability.

A dry mode for efficient operation in cooler month, a wet mode for maximum capacity in peak summer conditions and a smart mixed mode that bridges the gap to ensure optimal performance throughout the year.

Whether the priority is energy savings or water conservation, Cascade Cooling adapts with multiple operating modes – seamlessly and efficiently. It's a smart, high-performance solution built for high-demanding applications.

MARKETS

- Data Center
- Power & Energy
- Heavy & Light Industry

MAIN FEATURES

POWER OR WATER SAVING OPERATION
to balance energy & water consumption

UP TO 100% ADIABATIC EFFICIENCY
(compared to 95% Adiabatic/ Hybrid V-Bank)

APPROACH OF 2K TO WET BULB
(compared to 4-5K Adiabatic/ Hybrid V-Bank)

SUITABLE FOR POOR WATER QUALITY/SEA WATER

COOLING TOWERS

Proven thermal performance and high efficiency ensures that Cooling Towers are aligned for peak loads

MEGA-BAY® GIGA-BAY®

With a high proportion of free cooling, both Mega-Bay® and Giga-Bay® deliver sustainable, energy-efficient, and reliable cooling performance

PLATE HEAT EXCHANGER

Perfectly balanced to the Cascade System our PHE's offering higher heat loads and allow a very close temperature approach

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CASCADE COOLING

FREE COOLING

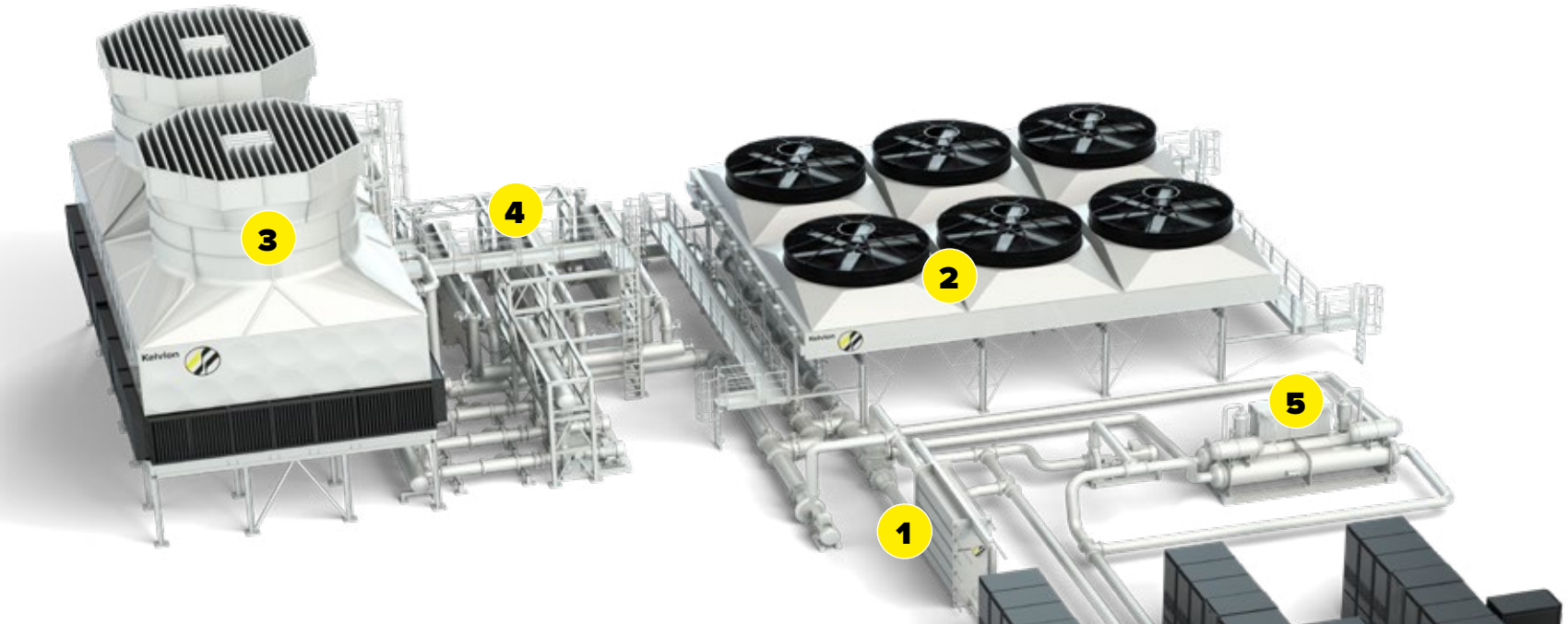
- Low ambient temperatures
- No mechanical cooling
- In Operation:
  - 2 Dry Cooler
  - 1 PHE

MIXED MODE

- Medium ambient temperatures
- Heat rejection in conjunction with Liquid Cooled Chillers (LCC) 5
- Power conserving operation
- In Operation:
  - 2 Dry Cooler
  - 1 PHE
  - 5 LCC

MECHANICAL MODE

- High ambient temperatures
- Power or water conserving operation
- High peak safety
- In Operation:
  - 2 Dry Cooler
  - 1 4 PHEs
  - 3 Cooling Towers
  - 5 LCC



KEY FEATURES

- Combining Dry & Wet Cooling
- Reducing Energy & Water Consumption
- Optimised OPEX / CAPEX

- **Approach of 2K to Wet Bulb** (compared to 4-5K Adiabatic/ Hybrid V-Bank)
- **Up to 100% adiabatic efficiency** (compared to 95% Adiabatic/ Hybrid V-Bank)
- **Suitable for Poor Water Quality / Sea Water**

- Customised selection to suit application
  - Set water usage preference
  - Design Dry Coolers for reduced water
  - Align Cooling Towers for peak load
  - Process fluid runs in series Dry Cooler to Cooling Tower

Enjoy the animation about the different modes of our Cacade Cooling Solution