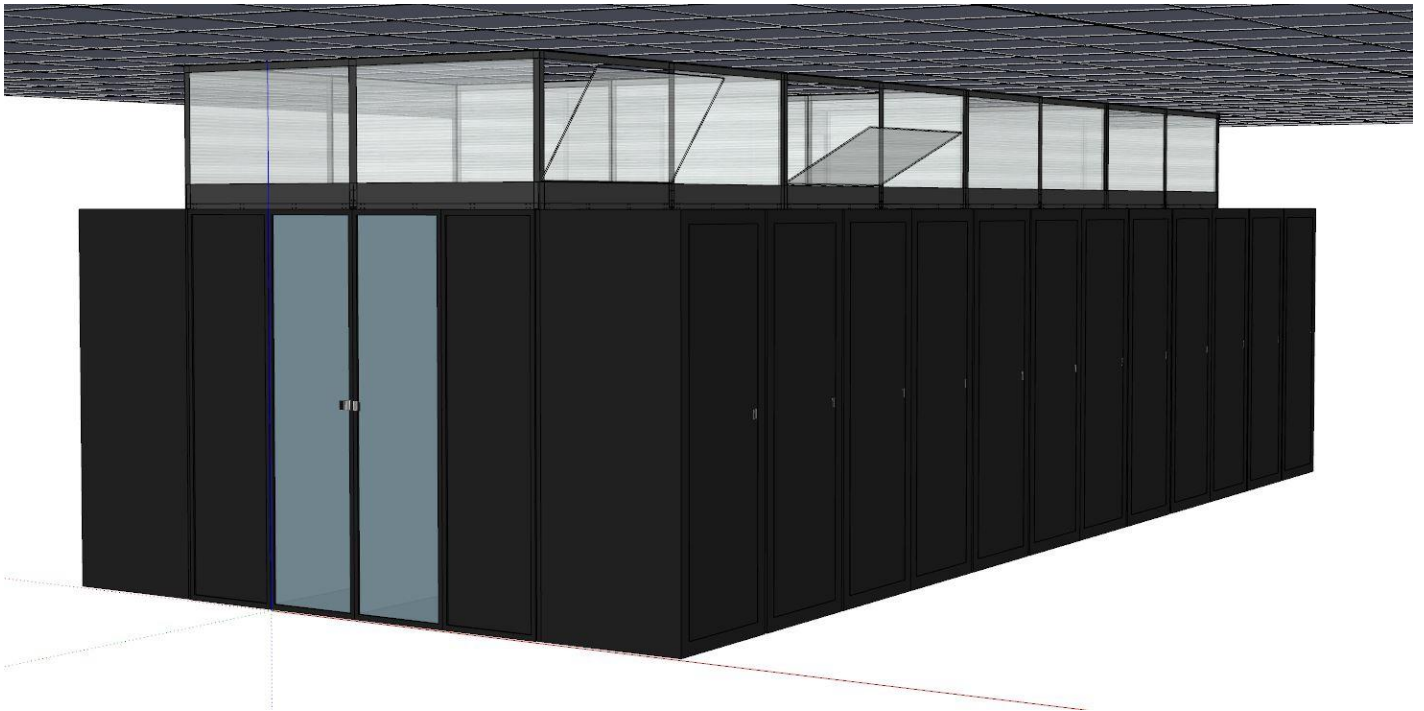


DL Custom: TMS – Thermal Management Solution



Data centers play a pivotal role in modern technologies that we all enjoy, especially those technologies which rely on cloud computing.

Hot Aisles and Cold Aisles: Most servers and physical IT equipment will intake cool air from the front and exhaust hot air out of the back. If servers are placed on racks that face the same direction, the heat from the front most rack will flow to the intake of the next rack. As the air passes through each rack, it is further heated. This orientation for servers is unsustainable as the servers quickly become overheated.

The solution? Polycarbonate Twinwall or DL Custom TMS is used as a physical barrier to create literal aisles (walkways) that are set up to manage heat from servers. Server farm racks are lined up in alternating rows, where the front of the servers face each other creating a "cold aisle", and the exhausts from the server face each other creating a "hot aisle".

Study shows that when hot and cold aisles are used in combination with containment systems including polycarbonate twinwall (DL Custom TMS), a reduction in the need for electrical fans can see an energy savings of 20% to 25%.

DL Custom TMS solution for optimizing cooling efficiency

Features of DLC Thermal Management Solution - TMS

- DL Custom CACS ensures minimizing the possibility for human error by using modular components
- Utilize standard, modular, cooling system components to lower service contract costs
- DL Custom TMS is versatile and can be used on any third-party racks.
- DL Custom TMS has stringent fire ratings that protect enclosed systems from cross-contamination
- DL Custom TMS clear panel transmits 80% of light in addition, UV coatings protect sheets from yellowing and generally prevents more than a 4% decrease in light transmission over a 20-year period.

Benefits of DLC Thermal Management Solution - TMS

- Provide redundant cooling capacity and air distribution in the smallest feasible footprint
- Eliminates hot spots throughout the Data Center by providing a high level of separation between supply and return air.
- Separated by transparent polycarbonate TMS, an HVAC system will provide cool air through the cold aisles and utilize return ducts in the hot aisles to recycle or exhaust warm air. The desirable thermal properties of polycarbonate TMS allow the alternating cold and warm aisles to sit side by side without significant heat transfer between the TMS and multiwall sheets
- DL Custom TMS solution simplifies the ease of deployment to reduce unrecoverable labor costs
- DLC TMS provides for cooling distribution improvements without load impact
- DL Custom solution optimizes capital investment with higher ROI and scalability.
- DL Custom TMS solution enables businesses to better leverage their assets and improve their Return on Asset (ROA) utilization.
- DL Custom TMS solution creates a balance between power, cooling and density needs for optimum energy efficiencies and application/systems performance