

Liquid Cooling System & CDU

CAPABILITY SHEET - ELECTRONICS THERMAL MANAGEMENT - ENGINEERED TO ORDER & INDIGENISED

THE SYSTEM

WHAT	A liquid cooling system is a closed loop that takes heat out of high-power electronics at the cold plate and rejects it, so the equipment runs at full power.
OUR ROLE	Neometrix does the thermal and hydraulic design, the skid, manifolds, distribution unit, controls and leak detection, and the test and qualification.
STATUS	Engineered to order, and indigenised; sized to the heat load, the platform and the environment. No delivered system or platform is claimed on this sheet.

THE LOOP

PICK IT UP	Cold plates and compact exchangers sit against the hot components, so the coolant collects the heat at source rather than chasing it through air.
MOVE IT	A pump and reservoir set circulates coolant at controlled flow - typically dual redundant pumps with changeover, plus filtration, de-aeration and expansion volume.
REJECT IT	A liquid-to-air or liquid-to-liquid exchanger dumps the heat, or a refrigerant chiller stage does when coolant must be held below ambient temperature.

RELIABILITY

REDUNDANT PUMPS	Once equipment depends on cooling, a cooling failure is an equipment failure - so pumps are duplicated on a common manifold with automatic changeover.
LEAK SAFETY	Temperature, flow, pressure and level are sensed continuously, with dedicated leak detection, staged alarms and interlocks that protect the load before damage.
CLEAN COOLANT	Water-glycol or dielectric fluid chosen for freeze point and compatibility; the loop is flushed, filtered, de-aerated and corrosion-inhibited to a regime.

DISTINCT & HONEST

VS AIR & TEST GEAR	The ground cart blows conditioned air into a cabin; the thermal chambers test whether hardware survives. This keeps electronics alive in service.
OUR FRANCHISE	It is fluid systems, heat transfer, fabrication, controls and test - our competence; chiller, pumps, exchanger cores and cold plates are bought-in.
ENGAGEMENT	Send the heat load, the coolant and the environment to sales@neometrixgroup.com for a clause-by-clause compliance matrix in two working days.

DEFENCE PROGRAMMES DESK

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