

TC-CDU-L2000C In-Row Liquid-to-Liquid CDU

Liquid-to-Liquid Coolant Distribution Unit • 2000 kW • In-row • for rows and halls around 2000 kW

Model: TC-CDU-L2000C	Document: TC-DS-CDU-L2000C	Revision: Rev A	Date: 2026-09-18
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2000 kW Rated capacity	5 °C Approach temp.	3200 LPM Secondary flow	1+1 Redundant pumps	In-row Installation	Modbus RTU / TCP
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OVERVIEW

- In-row L2L CDU: facility water or dry-cooler loop on the primary side, PG25 to the rack manifold and cold plates on the secondary side
- 2000 kW rated, 5 °C approach, 3200 LPM secondary flow, variable 40–100%
- 1+1 redundant pumps with auto switchover, dual-feed ATS, leak detection, coolant quality monitoring, 50 µm filter, bypass online-replaceable filter and auto refill
- PID control; Modbus RTU / TCP for BMS / DCIM
- In-row floor-standing, 1200 × 1500 × 2200 mm, approx. 2200 kg, IP55
- For rows and halls around 2000 kW of direct-to-chip load (AI clusters, colocation retrofits)



In-row liquid-to-liquid CDU cabinet



Inside: plate heat exchanger, redundant pumps, filter and valve group

Key specifications		Performance & control		Monitoring • interfaces • environment	
Rated cooling capacity	2000 kW	Approach temperature	5 °C	Leak detection	Yes
Installation	In-row, floor-standing	Primary liquid in / out	35 °C / 45 °C	Coolant quality monitoring	Yes
Dimensions (W × D × H)	1200 × 1500 × 2200 mm	Secondary liquid out / in	40 °C / 50 °C	Secondary filter	50 µm
Weight	approx. 2200 kg	Secondary rated flow	3200 LPM	Bypass online-replaceable filter	Yes
Coolant	PG25 (25 % propylene glycol / water)	Flow range	40–100%	Automatic refill	Yes
Power supply	3-ph AC 380 V 50/60 Hz or 480 V 60 Hz	Pump head	35 m	Communication	Modbus RTU & TCP/IP (RS-485 / RJ45)
Dual-feed ATS	Yes	Redundant pumps, auto switchover	1+1	Operating environment	–10 to 55 °C, 5–90 % RH
Power consumption	< 32 kW	Control	PID, flow vs. temperature	Storage environment	–45 to 70 °C, 5–93 % RH
Ingress protection	IP55	Flow check	2000 kW ÷ (1030 × 3.9 × 10 K) ≈ 2987 LPM; 3200 LPM rated incl. margin	Connections	Primary in/out, secondary supply/return, power and comms bottom / top (confirm on site)
Display	10.1" touch HMI				

ENGINEERING FIT

For rows and halls around 2000 kW of direct-to-chip load (AI clusters, colocation retrofits). Delivers 40 °C secondary supply from 35 °C facility water; every 1 °C of warmer facility water cuts chiller energy by roughly 2–3 %. Pairs with ToneCooling cold plates, manifolds and hose assemblies from the same factory, validated end-to-end on one CFD model and one test bench.

DOCUMENTS & FACTORY TESTS

Supplied: dimensional / connection drawing, P&ID, Modbus register map, flow–pressure-drop curve, selection table, user manual. Factory tests: pressure hold, leak test, flow resistance at rated flow, pump / ATS switchover, leak-sensor / coolant-quality / comms check; records ship with every unit. Combined cold plate + manifold + CDU report for full-rack projects.

Note: rated at 35 °C primary inlet, 40 °C secondary supply, PG25; other conditions per selection table. Platform names indicate compatibility only and imply no endorsement or partnership. Specifications subject to change.