Hydro-**DENCO** High CAPACITY CRAC

Hydro-DENCO QUICK FACTS

- Low cost heat rejection
- Minimum complexity and risk
- Touch screen controls
- Low hydraulic pressure losses
- No heat exchanger fouling
- Reliable
- Energy Efficient
- Scalable
- Flexible
- Zero ODP/GWP
- Integrated Controls
- Low power electronically commutated pump Motor

Hydro Denco is a robust, reliable and proven range of Computer Room Air Conditioning (CRAC) units. They represent the latest evolution in the 50 year history of Denco products

Market leading energy efficiency is ensured through the use of Electronically Commutated (EC) fans for all equipment. A versatile controller, complete with touch screen graphic display, optimises system operation and can communicate all data, including real time energy usage, to external devices as required.

The range comprises three models, each with a single cooling circuit offering cooling capacities from 50kW, up to 200kW. Fans are mounted in the unit base section for downflow air delivery, with many options available regarding air inlet and discharge configuration. Equipment is generally supplied with only cooling as this is increasingly popular for standard data centre applications.

Hydro-DENCO & matching fluid Cooler Technical information

Hydro-DENCO kW

Sizes	Sensible Cooling glycol 25°C	Sensible Cooling - CHW 10° C	Fan Motor-Power (Total)	Total System Power Input
HD 102	100	250	5.0	6.6
HD 153	150	350	8.0	10.0
HD 204	200	500	10.8	12.2

Each sensible cooling system incorporates a single water/glycol circuit offering cooling capacities from 50kW, up to 200kW with no restriction on pipe run between
indoor and outdoor units.

Hydro-DENCO dimensions (indoor Unit)

Size	Height mm	Width mm	Depth mm	Weight kg
HD 102	3200	1995	900	700
HD 153	3200	2500	900	850
HD 204	3200	3400	900	1400

This system uses no refrigerants or mechanical cooling, offers a high degree of autonomy due to multiple independent systems, requires significantly less electrical infrastructure and is inherently efficient, taking heat directly from the indoor air and rejecting it directly to ambient air.

Fluid Cooler Size (Outdoor Unit)

Size	Height mm	Width mm	Height mm	Weight Kg (Wet)
HD 102	1690	1130	2066	640
HD 153	1690	1130	3466	1008
HD 204	2521	2260	3970	2460

A HD system would be expected to provide an annualised partial Power Utilisation Effectiveness (PUE) of between 1.05 and 1.15, depending upon exact loading

Performance

Size	Control Air Temp (Nom) °C	Control Air Temp (Max) °C	Air Volume Flow m³/s	External Static Pressure Pa	Fluid Flow Rate (Max) l/s	HD Pressure Loss kPa	Fluid Cooler Pressure Loss kPa	Fluid Concentration %	Connection Size (Nom) mm
HD 102	25	28	8	50	5.0	45	45	25	65
HD 153	25	28	12	50	7.5	50	48	25	65
HD 204	25	28	16	50	10.0	45	28	25	80

Max Temperature for Fluid is 27°C*