INNOV@ DHFCF

33 to 266 kW

CHILLED WATER DATA CENTRE UNITS WITH FANS IN RAISED ACCESS FLOOR

STANDARD VERSION

EC FAN R · ENERGY SAVINGS · VARIABLE SPEED · WEB MONITORING

DHFCF is the new range of chilled water air conditioners for high-density technological environments.

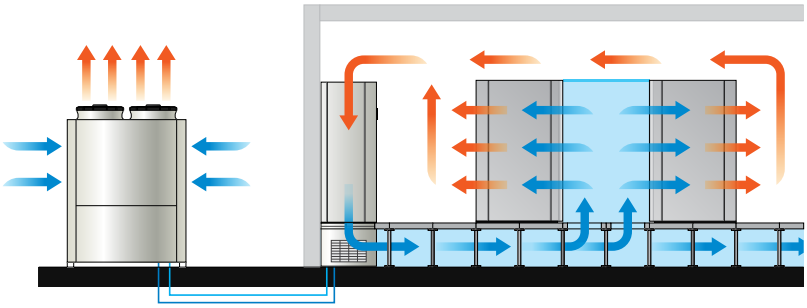
Thorough fluid dynamic analysis has led to each component being designed to minimise the pressure drops of the air flow, the unit's only electrical consumption.

The base module gives the air a larger cross-sectional area, a profile separates the air flows of each fan and the use of electronic motors enables efficient control of the air flow.

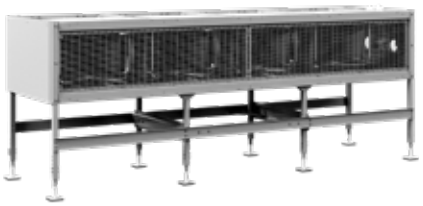
With a reduced ratio between chilled water and air, the possibilities for using indirect free-cooling are increased, with further increase of the system's PUE and reduction of management costs.

HIGH SPECIFIC POWER

PERFECT FOR FREE-COOLING SYSTEMS



MINIMUM PUE WITH THE "FREE-FAN" SOLUTION



AJUSTE EXACTO COM VÁLVULA MÚLTIPLA

VENTILATION ADJUSTMENT

REDUCED FOOTPRINT

DHFCF / Chilled water data centre units with cooling fans on raised floors

		045	055	065	075	150	180	200	210
		AIR TEMPERATURE 35°C RELATIVE HUMIDITY 30%							
Water inlet temperature 15°C Water outlet temperature 20°C Glycol 0%									
Cooling power	kW	91.2	100,5	154,5	173,6	234,2	263,5	308,7	344,3
SHR		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EER		32,6	34,7	26,2	27,6	24,7	26,4	23,9	25,3
Water inlet temperature 15°C Water outlet temperature 23°C Glycol 0%									
Cooling power	kW	85,7	96,6	141,7	163,9	219,5	253,2	283,4	327,9
SHR		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EER		30,6	33,3	24,0	26,0	23,1	25,3	22,0	301,2
Water inlet temperature 15°C Water outlet temperature 27°C Glycol 0%									
Cooling power	kW	77,9	89,9	128,0	153,6	194,2	233,0	256,0	301,2
SHR		1,0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EER		27,8	31	21,7	24,4	20,4	23,3	19,8	22,1
		AIR TEMPERATURE 30°C RELATIVE HUMIDITY 35%							
Water inlet temperature 10°C Water outlet temperature 15°C Glycol 0%									
Cooling power	kW	91,1	102,4	154,0	176,7	233,7	263,7	308,0	347,3
SHR		1.0	0,9	1.0	0,9	1.0	0,9	1.0	0,9
EER		32,5	35,3	26,1	28,0	24,6	26,4	23,9	25,5
Water inlet temperature 10°C Water outlet temperature 18°C Glycol 0%									
Cooling power	kW	85,9	97,9	141,8	164,6	219,8	254,3	283,7	329,2
SHR		1.0	0,9	1.0	1.0	1.0	1.0	1.0	1.0
EER		30,7	33,8	24,0	26,1	23,1	25,4	22,0	24,2
Water inlet temperature 10°C Water outlet temperature 22°C Glycol 0%									
Cooling power	kW	77,6	90,6	127,2	153,3	193,0	232,5	254,4	300,4
SHR		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EER		27,7	31,2	21,6	24,3	20,3	23,3	19,7	22,1
		AIR TEMPERATURE 24°C RELATIVE HUMIDITY 50%							
Water inlet temperature 7°C Water outlet temperature 12°C Glycol 0%									
Cooling power	kW	92,8	111,2	154,5	191,2	234,5	283,6	317,6	373,9
SHR		0,8	0,7	0,8	0,7	0,8	0,7	0,8	0,7
EER		33,1	38,3	26,2	30,3	24,7	28,4	24,6	27,5
Nominal air flow rate	m3/h	16500	16500	29000	29000	44000	44000	58000	58000
Fan power input	kW	2,8	2,9	5,9	6,3	9,5	10,0	12,9	13,60
Current absorbed by the fan	A	4,4	4,6	9,5	10,0	15,2	16,0	20,6	21,7
Lp @ Nominal rpm ; dist.= 2 m Q=2	dB(A)	70	70	71	71	73	73	74	75
Dimensions (W x H x D)	mm	1270x2000x960		1760x2000x960		2510x2000x960		3160x2000x960	
Minimum dimensions with ventilation module [L x H x D].	mm	1270x2550x960		1760x2550x960		2510x2550x960		3160x2550x960	
Power supply	V/ph/Hz	400/3+N/50							

Also available with 60 Hz power supply

INNOV@ DHFCS

57 to 211 kW

CHILLED WATER DATA CENTRE UNITS WITH FANS IN RAISED ACCESS FLOOR

SLIM VERSION

EC FAN R · ENERGY SAVINGS · VARIABLE SPEED · WEB MONITORING

DHFCS is the new range of chilled water air conditioners with reduced footprint for high power density technological environments. Thorough fluid dynamic analysis has been used to ensure extreme care and construction detail in the design, in order to reduce as far as possible pressure drops in the air flow, resulting in lower energy consumption of the fans, the only electrical load in the machine.

The air filter, positioned parallel to the coil, has a more compact frontal surface area, which significantly reduces the air pressure drop as it passes through.

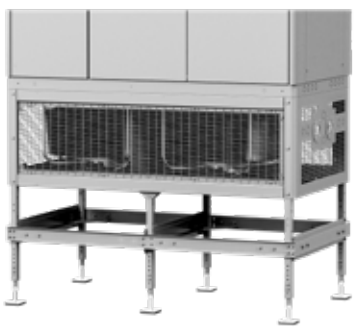
The base module gives the air a wider cross-sectional area, a profile separates the air flows of each fan and the use of electronic motors enables efficient control of the air flow. Planning of a Data Centre with much lower PUE values of the system are possible thanks to the technical solutions adopted for the **DHFCS**.

OPTIMISED FILTER CROSS-SECTION

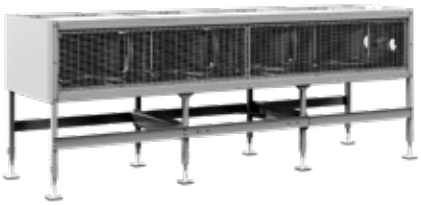
FINNED PACK COIL WITH HYDROPHILIC COATING

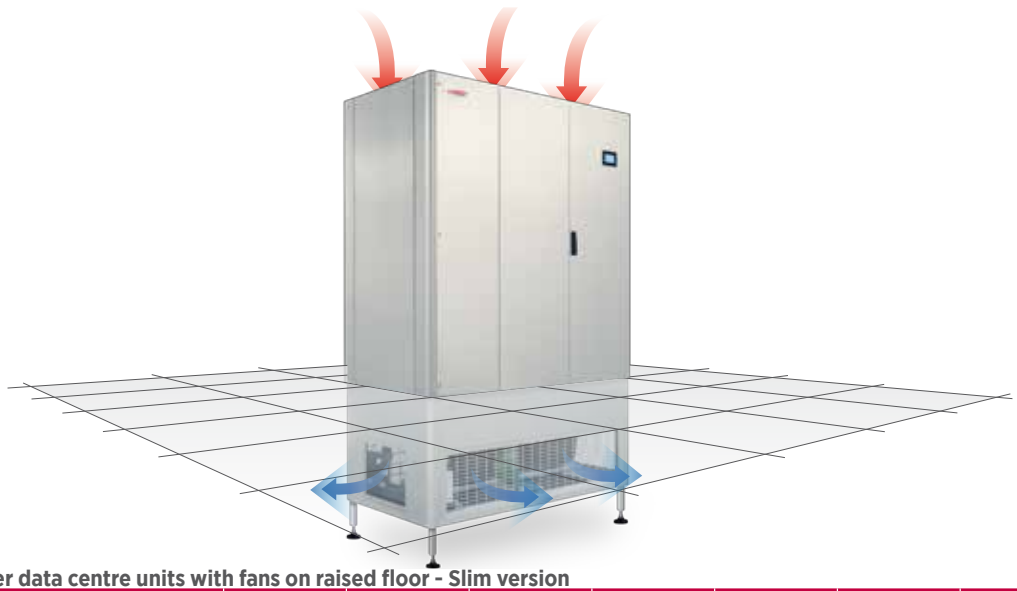
VENTILATION ADJUSTMENT

REDUCED FOOTPRINT



MINIMUM PUE WITH THE "FREE-FAN" SOLUTION





DHFCS / Chilled water data centre units with fans on raised floor - Slim version

		045	055	065	075	150	180	200	210
		AIR TEMPERATURE 35°C RELATIVE HUMIDITY 30%.							
Water inlet temperature 15°C Water outlet temperature 20°C Glycol 0%									
Cooling power	kW	72,9	84,9	110,8	130,2	173,0	199,0	223,1	259,9
SHR		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
EER		28,0	30,3	33,6	35,2	37,6	38,3	30,6	31,7
Water inlet temperature 15°C Water outlet temperature 23°C Glycol 0%									
Cooling power	kW	67,8	79,7	103,0	121,2	157,4	188,9	205,5	241,8
SHR		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
EER		26,1	28,5	31,2	32,8	34,2	36,3	28,2	29,5
Water inlet temperature 15°C Water outlet temperature 27°C Glycol 0%									
Cooling power	kW	58,8	70,9	89,3	110,2	136,5	168,5	178,2	220,0
SHR		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
EER		22,6	25,3	27,1	29,8	29,7	32,4	24,4	26,8
		AIR TEMPERATURE 30°C RELATIVE HUMIDITY 35%							
Water inlet temperature 10°C Water outlet temperature 15°C Glycol 0%									
Cooling power	kW	72,6	84,8	110,2	131,2	172,3	200,6	222,1	261,9
SHR		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
EER		27,9	30,3	33,4	35,5	37,5	38,6	30,4	31,9
Water inlet temperature 10°C Water outlet temperature 18°C Glycol 0%									
Cooling power	kW	66,0	79,9	102,8	121,4	157,2	189,4	205,2	242,4
SHR		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
EER		25,4	28,5	31,2	32,8	34,2	36,4	28,1	29,6
Water inlet temperature 10°C Water outlet temperature 22°C Glycol 0%									
Cooling power	kW	58,2	70,6	88,4	109,7	135,1	167,7	176,4	218,9
SHR		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
EER		22,4	25,2	26,8	29,6	29,4	32,3	24,2	26,7
		AIR TEMPERATURE 24°C RELATIVE HUMIDITY 50%							
Water inlet temperature 7°C Water outlet temperature 12°C Glycol 0%									
Cooling power	kW	68,9	81,8	104,7	131,2	165,3	200,5	217,9	264,3
SHR		0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8
EER		56,5	29,2	31,7	35,5	35,9	38,6	29,8	32,2
Nominal air flow rate	m3/h	15500	15500	23550	23550	36000	36000	47000	47000
Fan power input	kW	2,6	2,8	3,3	3,7	4,6	5,2	7,3	8,2
Current absorbed by the fan	A	4,1	4,5	5,3	6,0	7,4	8,4	11;7	13,2
Lp @ Nominal rpm ; dist.= 2 m Q=2	dB(A)	69	69	66	67	68	68	69	70
Dimensions (W x H x D)	mm	1270x2000x890		1760x2000x890		2510x2000x890		3160x2000x890	
Minimum dimensions with ventilation module [L x H x D]	mm	1270x2550x890		1760x2550x890		2510x2550x890		3160x2550x890	
Power supply	V/ph/Hz	400/3+N/50							

Also available with 60 Hz power supply