DC Series

Universal drycoolers

- **Multi-usable:** suitable for cooling any liquid not reacting with copper
- **Reduced energy absorption and lower noise levels:** high eficiency fans, frequency control available
- **High efficiënt heat exchange:** aluminium fins with profiled surface
- **Thermal stress free design:** floating coil construction reduces failure due to thermal expansion
- **Eco-friendly:** closed circuit, often the perfect alternative for cooling towers
- **Maximum relaibility:** reliable fans and controller
- **Easy to connect:** stainless steel connection pipes with Victaulic
- **Energy boost:** adiabatic cooling with efficient sprinklersystem

Drycoolers are suitable for closed circuit cooling of various process liquids. Generally every liquid which not corrode copper or stainless steel can be cooled. A drycooler is an air/water exchangers cooling water with colder ambient air, deplaced by fans.
Drycoolers does not consume water and chemicals, giving them a major advantage compared to cooling towers. Thermotec drycoolers are specially designed for process industry where reliability and performance are the key features. Small air to water temperature differences gives the drycooler a main advantage at higher ambient temperatures.
Typical applications include:

- oil cooling of injection machinery
- cooling of high pressure compressors
- cooling of industrial diesel engines
- cooling of casting processes
- cooling of galvanisation processes
- oil cooling in general

DC Series

MAXIMUM PERFORMANCE AND RELIABILITY

Fin blocks

- Aluminium fins, with wavy fin structure
- Efficient pattern with 1/2 ” copper tubes
- Compartimentation between fans (horizontal only)
- Thermal stress free design

Hydraulic circuit

- Stainless steel connections (victaulic / flange)
- Stainless steel collectors (optional)

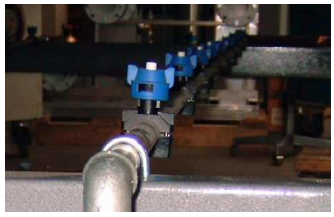
Electrical and control circuits

- Robust, reliable and low noise fans
- Automatic circuit breakers
- Alarm / warning voltage free contact

Options

- Frequency controlled temperature control
- Powder coated casing
- Bypass switch (for frequency controlled systems)
- Adiabatic spraying system
- Pump groups (contact your Thermotec sales representative)
- Customer specific needs

Robust, reliable and low noise fans


Adiabatic spraying system

Frequency controlled temperature control

DC - H F S 4 /12 . G V R E I

H — **Design**
H = horizontal design
V = V-shape design

F — **Model**
F = 36 holes
H = 48 holes
L = 72 holes
N = 84 holes

S — **Step**
S = standard

4 — **Number of fans**

/12 — **Number of tubes per circuit**

G — **Casing**
G = galvanised
P = powder coated

V — **Hydraulic connections**
C = collector
F = flange
V = Victaulic (standard)

R — **Repair switch**

E — **Control**
E = on/off control
F = frequency control
B = frequency control + bypass

I — **Display**
I = integrated
E = external

Model	Capacity[1] (W)	Fluid flow[1] (m³/h)	Air flow (m³/h)	Pressure drop[1] (kPa)	Noise level (dB(A) 10m)	Surface (m²)	Tube vol. (dm³)	Weight (kg)	Connections (Victaulic)
Single row, type HF									
DC-HFS1/06	53759	9,7	22500	23,1	61	225	45	285	2 x DN50
DC-HFS1/08	55446	10	22500	53,6	61	225	45	285	2 x DN50
DC-HFS2/04	110088	19,9	45000	47	64	441	83	493	2 x DN65
DC-HFS3/02	159456	28,8	67500	19,3	65,5	657	121	700	2 x DN80
DC-HFS4/02	219383	39,6	90000	43,8	67	873	156	908	2 x DN80
Single row, type HH									
DC-HHS1/08	54019	9,8	22500	25,1	61	228	49	310	2 x DN50
DC-HHS1/12	56324	10,2	22500	81,9	61	228	49	310	2 x DN50
DC-HHS2/04	106800	19,3	45000	21,2	64	444	87	518	2 x DN65
DC-HHS2/06	111437	20,1	45000	69,2	64	444	87	518	2 x DN65
DC-HHS3/02	153174	27,7	67500	8,5	65,5	660	127	726	2 x DN80
DC-HHS3/04	167014	30,2	67500	65,4	65,5	660	127	726	2 x DN80
DC-HHS4/02	212604	38,4	90000	19,3	67	876	162	933	2 x DN80
DC-HHS5/02	272480	49,2	112500	36,5	68	1092	197	1141	2 x DN80
Double row, type HL									
DC-HLS2/06	107518	19,4	45000	23,1	64	450	90	505	4 x DN50
DC-HLS2/08	110892	20	45000	53,6	64	450	90	505	4 x DN50
DC-HLS4/04	220176	39,8	90000	47	67	882	166	873	4 x DN65
DC-HLS6/02	318912	57,6	135000	19,3	68,5	1314	243	1239	4 x DN80
DC-HLS8/02	438766	79,3	180000	43,8	70	1746	312	1608	4 x DN80
Single row, type VN									
DC-VNS1/14	61798	11,2	22500	42,1	61	315	59	295	4 x DN40
DC-VNS2/08	123475	22,3	45000	49,5	64	607	105	460	4 x DN50
DC-VNS3/04	179307	32,4	67500	19,7	65,5	898	146	625	4 x DN50
DC-VNS3/06	186574	33,7	67500	64,1	65,5	898	146	625	4 x DN50
DC-VNS4/04	245770	44,4	90000	43,6	67	1190	194	790	4 x DN65
DC-VNS5/02	290610	52,5	112500	10,7	68	1482	234	955	4 x DN65
DC-VNS5/04	312581	56,5	112500	80,8	68	1482	243	955	4 x DN80
DC-VNS6/02	356822	64,8	135000	17,9	68,5	1773	283	1120	4 x DN80
DC-VNS7/02	423305	76,5	157500	27,8	69,5	2065	324	1285	4 x DN80
DC-VNS8/02	490000	88,5	180000	40,6	70	2357	364	1450	4 x DN80

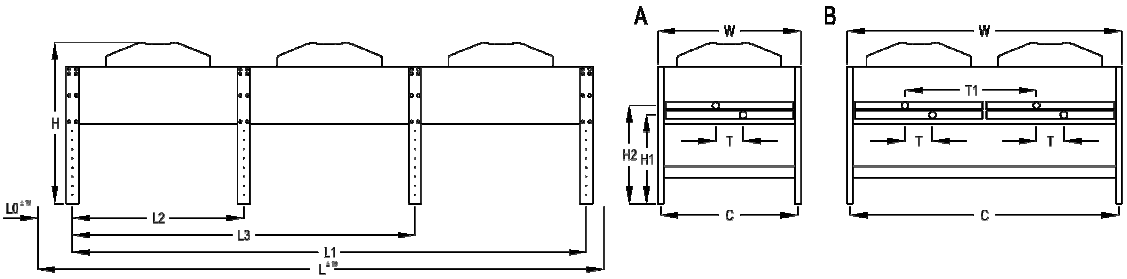
The values indicated in the table are given according to following working conditions:

Air inlet temperature	T_{air}	29°C
Brine inlet temperature	T_{in}	40°C
Brine outlet temperature	T_{out}	35°C
Ethylene Glycol		30 Vol.%
$\Delta T_{out-air}$	T_{out} - T_{air}	6°C
ΔT_{in-out}	T_{in} - T_{out}	5°C

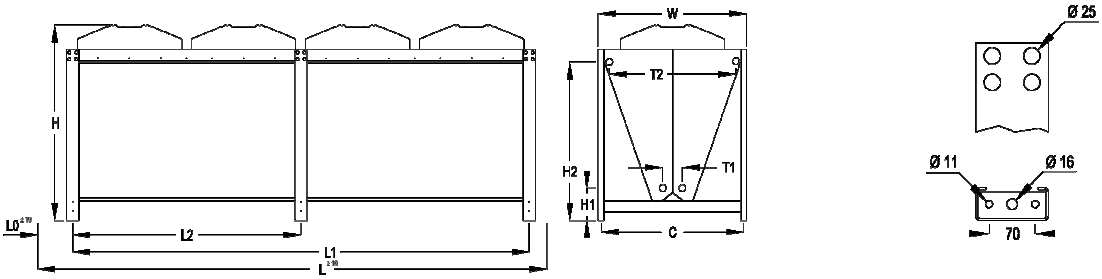
If the water-air difference differs from 6°C, please correct the given capacity with the correct multiplier factor:

$\Delta T_{out-air}$	1	2	3	4	5	6	7	8	9	10
correction	0,32	0,48	0,62	0,75	0,87	1,00	1,12	1,25	1,37	1,50

DC Series



Model		L	W	H	L0	L1	L2	L3	C	H1	H2	T	T1
DC-HFS1	A	2250	1252	1415	180	2000	—	—	1202	779	861	240	—
DC-HFS2	A	4250	1252	1415	180	4000	—	—	1202	779	861	240	—
DC-HFS3	A	6250	1252	1415	180	6000	4000	—	1202	779	861	240	—
DC-HFS4	A	8250	1252	1415	180	8000	4000	—	1202	779	861	240	—
DC-HHS1	A	1750	1633	1415	180	1500	—	—	1583	779	861	240	—
DC-HHS2	A	3250	1633	1415	180	3000	—	—	1583	779	861	240	—
DC-HHS3	A	4750	1633	1415	180	4500	3000	—	1583	779	861	240	—
DC-HHS4	A	6250	1633	1415	180	6000	3000	—	1583	779	861	240	—
DC-HHS5	A	7750	1633	1415	180	7500	3000	6000	1583	779	861	240	—
DC-HLS2	B	2250	2395	1415	180	2000	—	—	2345	779	861	240	1143
DC-HLS4	B	4250	2395	1415	180	4000	—	—	2345	779	861	240	1143
DC-HLS6	B	6250	2395	1415	180	6000	4000	—	2345	779	861	240	1143
DC-HLS8	B	8250	2395	1415	180	8000	4000	—	2345	779	861	240	1143



Model	L	W	H	L0	L1	L2	C	H1	H2	T1	T2
DC-VNS1	1250	1300	1715	180	1000	—	1250	293	1405	170	1110
DC-VNS2	2250	1300	1715	180	2000	—	1250	293	1405	170	1110
DC-VNS3	3250	1300	1715	180	3000	—	1250	293	1405	170	111
DC-VNS4	4250	1300	1715	180	4000	—	1250	293	1405	170	1110
DC-VNS5	5250	1300	1715	180	5000	3000	1250	293	1405	170	1110
DC-VNS6	6250	1300	1715	180	6000	3000	1250	293	1405	170	1110
DC-VNS7	7250	1300	1715	180	7000	4000	1250	293	1405	170	1110
DC-VNS8	8250	1300	1715	180	8000	4000	1250	293	1405	170	1110

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Thermotec NV
Luipegem 146B
2880 Bornem - Belgium
Tel. +32 (0)3 740.50.30
info@thermotec.be
www.thermotec.be