

Water chiller

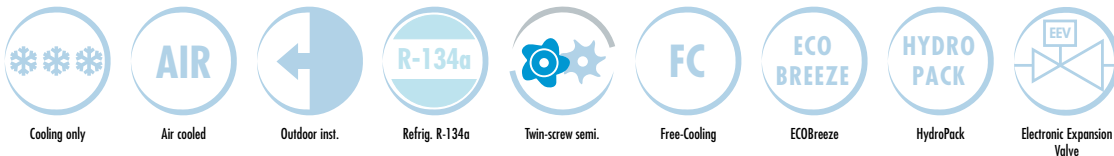
Air cooled

Outdoor installation

Capacity from 365 to 1525 kWOn Line Monitoring Service available

The experience gained by Clivet in the high-capacity chiller sector has resulted in the **WDAT** range, with the following features:

- ▶ **EFFICIENCY** - New high capacity screw compressors (over 1000 kW with just 2 compressors, 1500 kW with 3 compressors), water-cooled shell-and-tube exchangers specially developed for the gas R-134a. The air-cooled exchangers have been designed and made directly by CLIVET to ensure best adaptation to the other refrigerant circuit parts. The compressors are managed with continual adjustment of the capacity and are fitted with an economiser circuit for further operating efficiency. The best compromise is thus reached to boost efficiency while limiting costs;
- ▶ **SELF-ADAPTATION** - New, modern and intelligent electronic control directly developed by Clivet. This customisation allows better management of all the circuit components. Continual adapting of chiller operating parameters to the load conditions of the system in which it is installed reduces consumption and noise level, while the working life of the parts increases;
- ▶ **STURDINESS** - Load-bearing frame in enamelled hot-galvanised sheet metal with semi-hermetic double-screw compressors and shell-and-tube evaporator ensuring reliability and constant performance. All the finishes are meticulously applied to ensure the utmost weathering resistance even under extreme conditions of use.

functions and features**available configurations**

WDAT-3	(1)	(2)	(3)	(4)	(5)	(6)
D	S	FCD	2.300	LN	H	CE

(1) ENERGY RECOVERY:

- ▶ **S** Standard
- ▶ **D** Partial recovery
Carried out using tube bundle exchangers suited for recovering the desuperheating heat up to a maximum of 20% of the total unit heat.
- ▶ **R** Total recovery
Carried out using tube bundle exchangers suited for 100% recovery of condensation heat for producing hot water. This version is supplied as standard with a variable-speed low temperature device.

(2) LOW TEMPERATURE:

- ▶ **B** Low water temperature
This version allows unit operation within the water and glycol mixing temperature range between +4°C and -8°C inclusive.
Two versions are available
- Unit for low temperatures only
- Unit with double operating setpoint
The possibility of reducing the cooling capacity depends on the working temperature. Check with our sales office.

(3) ENERGY SAVING:

- ▶ **FCD** Direct Free-Cooling
Version that allows cold to be recovered at no cost from the ambient when the external air temperature is lower than the system return water temperature.

(4) ACOUSTIC CONFIGURATION:

- ▶ **ST** Standard
- ▶ **SC** Compressor soundproofing
This setup is obtained by inserting the compressors in a soundproofed compartment.
- ▶ **LN** Silenced
This setup is obtained by inserting the compressors in a soundproofed compartment and reducing the fan speed of rotation with an uprated condensing section.
- ▶ **EN** Super Silenced
With reference to the LN setup, the fan speed of rotation is reduced even more with a larger condensing section and the Kit for Low Outdoor Temperature is standard supply with variable speed fans.
The compressors are enclosed in a soundproofed compartment and fitted with rubber antivibration mounts and flexible joints on return and supply sides.

(5) ENERGY EFFICIENCY:

- ▶ **H** High efficiency (Standard)

(6) EXCHANGER APPROVALS:

- ▶ **CE** PED (European test)
- ▶ **C** Clivet (In-house test)

accessories

- ▶ Condenser coil in copper/aluminium with acrylic coating
- ▶ Copper/copper condenser coil
- ◆ Spring antivibration mounts
- ▶ Compressor compartment and condenser coil protection grilles
- ▶ Hail grilles
- ▶ Shutoff valve on compressor supply and return
- ▶ HydroPack with 2 pumps
- ▶ HydroPack with 3 pumps
- ▶ User side anti-ice electric heaters for hydronic group
- ▶ Set point compensation with 4-20 mA signal
- ▶ Set point compensation with fresh air sensor
- ▶ Set point compensation with according to outdoor enthalpy
- ▶ Device for reducing consumption of the outdoor section variable speed fans (phase-cut)
- ▶ Device for reducing consumption of the outdoor section fans of the ECOBreeze
- ▶ General isolating switch
- ▶ Magneto-thermal circuit breakers
- ▶ Shunt capacitors (power factor > 0,9)
- ▶ CAN/MODBUS serial converter kit
- ▶ CAN/LON WORKS serial converter kit
- ◆ Data logger
- ◆ Master-slave operation
- ▶ Free contacts for compressor status
- ▶ Free contacts for compressor status and enabling
- ◆ Remote control with remote microprocessor control

Key to symbols:

◆ Accessories supplied separately.

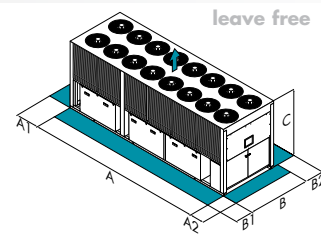
technical data

Sizes			2.160	2.180	2.200	2.220	2.250	2.280	2.300	2.320	2.340	2.360	2.390	2.420	2.450	2.480	3.480	3.500	3.540	3.630	3.660	
ST/SC	▶ Cooling capacity	(1)	kW	365	406	474	527	584	675	736	801	869	915	954	1015	1085	1116	1196	1268	1367	1456	1525
ST/SC	Total input		kW	125	139	163	181	200	223	242	267	278	293	305	332	365	382	375	393	415	431	469
ST/SC	Total EER at 100%		-	2,92	2,92	2,92	2,91	2,92	3,03	3,04	3,00	3,13	3,12	3,13	3,06	2,97	2,92	3,19	3,23	3,29	3,38	3,25
ST/SC	ESEER		-	4,03	4,02	4,03	4,01	4,03	4,18	4,19	4,13	4,32	4,31	4,32	4,11	4,02	4,09	4,12	4,22	4,31	4,22	4,18
ST	Sound pressure level	(2)	dB(A)	80	81	81	81	81	81	81	81	82	83	83	84	84	85	83	84	85	86	87
SC	Sound pressure level	(2)	dB(A)	77	78	78	78	78	78	78	78	79	80	80	81	81	82	80	81	82	83	84
LN	▶ Cooling capacity	(1)	kW	363	399	469	526	576	670	738	802	857	896	939	1018	1102	1137	1207	1271	1344	1450	-
LN	Total input		kW	124	137	161	181	197	222	240	262	277	293	304	336	361	374	379	395	421	454	-
LN	Total EER at 100%		-	2,92	2,91	2,92	2,91	2,92	3,01	3,07	3,06	3,09	3,06	3,09	3,03	3,05	3,04	3,19	3,21	3,20	3,19	-
LN	ESEER		-	4,18	4,18	4,18	4,18	4,17	4,31	4,38	4,37	4,42	4,38	4,43	4,33	4,36	4,36	4,27	4,32	4,29	4,31	-
LN	Sound pressure level	(2)	dB(A)	74	74	74	74	75	75	75	75	76	76	77	77	78	78	79	79	80	81	-
EN	▶ Cooling capacity	(1)	kW	353	387	447	504	567	655	709	771	815	851	918	1008	1076	1105	1158	1208	1291	-	-
EN	Total input		kW	133	146	169	193	208	238	266	290	309	326	331	352	392	407	407	427	460	-	-
EN	Total EER at 100%		-	2,65	2,65	2,65	2,61	2,73	2,75	2,67	2,66	2,64	2,62	2,78	2,86	2,74	2,72	2,84	2,83	2,81	-	-
EN	ESEER		-	3,98	3,98	3,98	3,91	4,10	4,12	4,00	3,99	3,96	3,93	4,16	4,29	4,12	4,07	4,05	4,03	4,00	-	-
EN	Sound pressure level	(2)	dB(A)	67	68	68	68	68	69	70	70	70	70	70	71	71	72	72	72	72	-	-
FREE-COOLING																						
ST/SC	Free-Cooling rated output	(3)	kW	379	420	493	546	605	697	760	829	900	948	989	1052	1119	1151	-	-	-	-	-
ST/SC	Air temp. with Free-Cooling at 100%		°C	1,0	0,0	0,5	0,0	0,5	-0,5	-1,5	-2,5	-2,5	-3,5	-3,5	-4,5	-5,5	-5,5	-	-	-	-	-
LN	Free-Cooling rated output	(3)	kW	377	412	486	539	597	692	763	831	886	926	972	1053	1138	1174	-	-	-	-	-
LN	Air temp. with Free-Cooling at 100%		°C	-1,0	-2,5	-3,5	-2,5	-1,5	-3,0	-3,5	-4,0	-5,0	-5,0	-3,5	-2,5	-3,5	-3,5	-	-	-	-	-
Number of refrigerant circuits			-	2													3					
Number and type of compressors			(4)	2 DSW													3 DSW					
Power supply			V/Ph/Hz	400/3/50																		

Data referred to the following conditions:

- (1) Internal exchanger water = 12/7°C; external air temperature 35°C
- (2) Sound levels refer to units with full load under nominal test conditions. The sound pressure is measured at 1 m from the external surface of the unit in open field conditions.
- (3) Internal exchanger water = 15/10°C; glycol 30%
- (4) DSW = twin-screw compressor

dimensions and clearances



CAUTION!
For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Sizes		2.160	2.180	2.200	2.220	2.250	2.280	2.300	2.320	2.340	2.360	2.390	2.420	2.450	2.480	3.480	3.500	3.540	3.630	3.660	
ST/SC	Length (A)	mm	3950	3950	4880	4880	5900	5900	5900	7050	7050	7050	7050	7050	7050	8940	9840	10990	10990	10990	
ST/SC	Width (B)	mm	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	
ST/SC	Height (C)	mm	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	
ST/SC	▶ (A1)	mm	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	
ST/SC	(A2)	mm	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	
ST/SC	(B1)	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	
ST/SC	(B2)	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	
ST	Weight in oper.	Kg	4402	4418	5257	5772	6072	6397	7105	7696	8442	8862	8983	9043	9216	9236	11136	12242	13235	13987	14087
SC	Weight in oper.	Kg	4817	4833	5757	6272	6487	6812	7520	8111	8852	9082	9203	9463	9436	9656	11806	12907	13905	14657	14757
LN	Length (A)	mm	3950	3950	4880	4880	5900	5900	7050	7050	7050	7050	8830	9760	9760	9760	10990	10990	10990	11920	-
EN	Length (A)	mm	3950	3950	4880	4880	5900	5900	7050	7050	7050	7050	9760	9760	9760	10990	10990	10990	-	-	-
LN/EN	Width (B)	mm	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	-
LN/EN	Height (C)	mm	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	2510	-
LN/EN	▶ (A1)	mm	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	-
LN/EN	(A2)	mm	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	-
LN/EN	(B1)	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	-
LN/EN	(B2)	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	-
LN	Weight in oper.	Kg	4997	5013	5867	6492	6747	7072	8115	8796	9162	9262	10677	11077	11470	11710	13478	13812	13925	14657	-
EN	Weight in oper.	Kg	4997	5013	5867	6492	6747	7072	8115	8796	9162	9262	11237	11517	11690	11710	13498	13812	13925	-	-

The above data refer to standard units.