



Water chillers

AQUACIAT 2

High energy efficiency with
R410A
 Compact and quiet
Scroll compressors
 Brazed plate heat exchangers
 Self adjusting electronic **control system**



Cooling capacity: 20 to 290 kW
 Heating capacity: 20 to 285 kW



Cooling or heating



Hydraulic pack



Heat recovery



USE

The **AQUACIAT 2 series LD-LDC-LDH** or **ILD-ILDC-ILDH** water chillers or heaters with air-cooled condensers are medium capacity units particularly adapted for heating and air conditioning applications in the fields of Offices, Healthcare, Industry, Administration, Commercial and Residential buildings.

These standard packaged units are designed for outdoor installation; no particular precautions have to be taken against adverse weather conditions.

An optional XTRAFAN version allows if necessary the possibility of mounting an air duct on the fan(s) discharge in the case of air recycling risk or for an acoustic treatment on site.

To operate in **COOLING** or **HEATING** mode, these units use outside air as the only external source; this permits the evacuation of heat in summer or the supply of thermal energy for heating in winter.

Connected to a heating or cooling floor, to fan coil units or to an air handling unit, the reversible Aquaciat 2 Series **ILD-ILDC-ILDH** permits easy heating and air conditioning of buildings.

Each unit is assembled, electrically wired (control and capacity), charged with refrigerant, and tested in factory.

The installation is very simple and the only operations to be carried out on site are the electrical wiring and water connections.

RANGE

AQUACIAT 2 series LD

Cooling only chillers without hydraulic equipment.

AQUACIAT 2 series LDC - LDH

Cooling only chillers with hydraulic equipment, water pump only, or pump and buffer tank.

AQUACIAT 2 series ILD

Reversible air/water cooled models without hydraulic equipment.

AQUACIAT 2 series ILDC - ILDH

Reversible air/water cooled models with hydraulic equipment (circulating water pump only or pump and buffer tank).

DESCRIPTION

The standard **AQUACIAT 2 series LD-LDC-LDH (cooling only)** or **series ILD-ILDC-ILDH (reversible)** are delivered with the following components:

- air-cooled condenser with propeller fan motor assembly,
 - chilled water evaporator (or hot water condenser on reversible models),
 - capacity control system on chilled or hot water,
 - starting automatic control, electrical compartment:
 - . Power supply : 3~50Hz 400V (+6%/- 10%) + earth
 - . Control circuit: 1~50Hz 230V
- (transformers are mounted on the unit in the standard version),
- cabinet for outdoor installation.



80 to 300

■ Conformity with the EC European directives

- Machines EC 98 / 37
- Electromagnetic EMC 2004/108/CE
- Under pressure equipment DESP EC 97 / 23:
 - category 2 for LD - LDC - LDH 80V à 1100V
 - category 2 for ILD - ILDC - ILDH 80V à 700V
 - category 3 for ILD - ILDC - ILDH 702V à 1100V
- Low voltage 2006/95/CE

■ Conformity to standards

- EN 60-204 , EN 378-2 (NFC15 - 100 France).

NOMENCLATURE

ILD	>	reversible version	H	>	hydraulic version with pump and buffer tank
LD	>	cooling only model	540	>	size
C	>	hydraulic version with pump	V	>	refrigerant R410A

STANDARD OR OPTIONAL EQUIPMENT

	LD	LDC-LDH	ILD	ILDC - ILDH
	COOLING ONLY		HEAT PUMP	
3-400V 50hz main supply without neutral with transformer	Std	Std	Std	Std
Coil protective grille	Std ➔ 300	Std ➔ 300	Std ➔ 300	Std ➔ 300
Resilient mounts	Std	Std	Std	Std
Main switch	Std	Std	Std	Std
Water flow switch	Std	Std	Std	Std
Additional potential free contacts board	O	O	O	O
Remote control (Remote console)	O	O	O	O
Phases control system (direction, absence, under & over voltage)	O	O	O	O
Progressive soft start	O	O	O	O
Anti-frost protection	O	O	O	O
All year round operation (min. outdoor temp.: -15°C)	Std	Std	Std	Std
Condenser fan speed control (min. outdoor temp.: -20°C)	O	O	O	O
Partial heat recovery -Desuperheater	O	O	O	O
BLYGOLD coil protective coating	O	O	O	O
Polyurethane fin protective coating	O	O	O	O
Water filter - 800 µm	O	Std	O	Std
Water adjustment kit (manifold, control valve, stop valve)	O	O	O	O
Flexible water connections	O	O	O	O
Twin pump	-	O / 180 ➔ 1100	-	O / 180 ➔ 1100
Additional technical compartment (without equipment)	O / 180 ➔ 300	O / 180 ➔ 300	O / 180 ➔ 300	O / 180 ➔ 300
Electric auxiliary heater kit 15 kW	-	-	O / 80 ➔ 150	O / 80 ➔ 150
Electric auxiliary heater module 15 - 30 - 45 kW	-	-	O / 180 ➔ 300	O / 180 ➔ 300
MULTICONNECT several units management	O	O	O	O
Auxiliary external heater management board (4 stages)	-	-	O	O
XTRAFAN air fans system	O / ➔ 700	O / ➔ 700	O / ➔ 700	O / ➔ 700
Low temperature glycol/water reinforced insulation (0 to -12°C)	O / 350 ➔	O / 350 ➔	O / 350 ➔	O / 350 ➔
LONWORKS communication gateway	O	O	O	O
Handling for container	350 ➔ 1100	350 ➔ 1100	350 ➔ 1100	350 ➔ 1100
Optimised high pressure operation (all-season operation with energy optimisation)	O / 350 ➔ 1100	O / 350 ➔ 1100	-	-
Electronic expansion valve	O / 350 ➔ 1100	O / 350 ➔ 1100	-	-
Total heat recovery	O / 350 ➔ 1100	O / 350 ➔ 1100	-	-

Std: Standard feature

O: Optional equipment

-: Not available

Note: Some technical specifications not appearing on the above list can however be quoted on request (consult us)



COOLING ONLY - TECHNICAL CHARACTERISTICS



LD - LDC - LDH		350V	400V	500V	540V	600V	700V	702V	800V	900V	1000V	1100V	
Cooling capacity ①	kW	92.5	102.6	123.9	135.9	151.1	173.3	189.3	209.9	250.9	270.6	291.5	
Power input	kW	30.9	36.1	46.2	47.5	55.8	64.4	60.3	69.7	81.5	89.6	100.2	
EER Efficiency ②		2.99	2.84	2.68	2.80	2.71	2.69	3.14	3.01	3.08	3.02	2.91	
Seasonal efficiency ESEER		4.16	3.85	3.36	3.90	3.91	3.70	4.24	4.12	4.11	4.08	3.98	
Lw / Lp ③ (High Perf. - HP)	dB(A)	89/57	90/58		90/58	91/59		89/57	90/58				
Lw / Lp ③ (Low Noise version - LN)	dB(A)	83/51		85/53				84/52	85/53	84/52		85/53	
Lw / Lp ③ (Xtra Low Noise version - XLN)	dB(A)	-	-	-	-	-	-	81/49	82/50	81/49	81/49	83/51	
Compressor		Polyester SCROLL 2900 rpm											
Starting mode		Direct in series											
Quantity		2	2	2	4	4	4	4	4	4	4	4	
Capacity control	%	100-57-43-0	100-63-37-0	100-50-0	100-78-72-55-50-45-28-22-0	100-75-50-25-0	100-78-71-57-50-43-28-21-0		100-81-69-62.5-50-37.5-31-19-0	100-83-66-55-33-16-0	100-80-70-60-50-40-30-20-0	100-77-73-54-50-45-27-23-0	
Refrigerant oil type		Polyester POE 3MAF (32cst)											
Oil volume	l	8.8	9.8	11.2	14.8	16.6	17.6	17.6	21.8	20.8	22.2	26.2	
Refrig. circuit number		1				2							
Refrigerant fluid (GWP)		R410A (1890)											
Refrigerant load	kg	18.5	18	11.8 +11.8	13.0 +13.5	13.2 +13.7	17.8 +17.8	18.0 +18.0	17.0 +17.0	21.0 +21.0	22.0 +22.0	23.0 +23.0	
Electric supply	ph/Hz/V	3-50Hz 400V (+6%/-10%) + Earth											
Unit protection index		IP 44											
Circuit control voltage	ph/Hz/V	1-50Hz 230V (+6%/-10%) - transformer mounted											
Evaporator		Braze plates type exchanger											
Water content	l	8.68	9.88	10.66	12.48	15.42	15.42	15.8	15.8	18	20.4	20.4	
Chilled water outlet min. / max.	°C	-12 / +18											
Minimum water flow	m³/h	11.7	13.3	17.3	18.1	20.8	20.8	22.1	24.4	29.3	31.6	34	
Maximum water flow	m³/h	30.7	34.6	41.9	45.9	50.7	50.7	63.2	69.5	77	77	77	
Water connections	≥	Male G 2 1/4"			Flange DN80			Flange DN100					
Maximum pressure (water side)	bar	LD 10 bars / LDC-LDH 4 bars											
Air cooled condenser		Finned heat exchanger											
Fan ≥	mm	800											
Number x Motor rated power High Performance series- HP	nb x kW	2x1.7	2x1.7	2x1.8	2x1.7	2x1.7	2x1.7	4x1.55	4x1.55	4x1.66	4x1.66	4x1.66	
Number x Motor rated power Low Noise series - LN	nb x kW	2x1.6	2x1.2	2x1.2	2x1.1	2x1.1	2x1.1	4x1.06	4x1.06	4x1.1	4x1.1	4x1.1	
High Performance air flow - HP	m³/h	44000	42000	41000	44000	44000	44000	81200		78000			
Low Noise air flow - LN - XLN	m³/h	32000	29000	30500	35000	35000	35000	60000		58400			
Mini water content (ILD-ILDC)	l	220	213	357	164	207	203	213	212	213	290	364	
Water tank content H model	l	250				500				500			
Expansion vessel C & H model	l	18				35				35			
Standard pump	n°	④											
Height without mounts	mm	2117			2117			2080 (+ 205 XLN)					
Standard series length	mm	2190			2740			3698					
C series length	mm	2190			2740			3698					
H series length	mm	2190			2740			3698					
Depth	mm	2129			2129			2200					
Std range weight without charge	kg	1046	1145	1183	1460	1596	1768	2135	2175	2215	2255	2310	
C range weight without charge	kg	1144	1242	1254	1654	1775	1947	2360	2400	2455	2495	2625	
H range weight without charge	kg	1207	1306	1318	1718	1838	2010	2510	2550	2605	2645	2745	
Storage temperature	°C	+ 50°C											

① Capacities of HIGH PERFORMANCE series based on:EUROVENT conditions (EN 14511)

COOLING mode: +12°C/+7°C and condenser air inlet temperature +35°C

② EER in gross values

③ Total Sound power Lw, total sound pressure at 10 m from the unit, in free field, conformity with ISO 3744 norm

④ According to selection.

REVERSIBLE UNIT - HEAT PUMP TECHNICAL CHARACTERISTICS



ILD - ILDC - ILDH		350V	400V	500V	540V	600V	700V	702V	800V	900V	1000V	1100V	
Cooling capacity ①	kW	92.8	105.2	128.1	139.9	155.3	163.1	183,4	201,8	239,8	257,9	278,8	
Power input	kW	31.4	35.2	44.4	46.1	52.5	59.5	61,5	69,8	83,0	91,9	101,5	
EER Efficiency ②		2.96	2.98	2.88	3.03	2.96	2.74	2,98	2,89	2,89	2,81	2,75	
Seasonal efficiency ESEER		3.70	3.84	3.27	3.97	3.95	3.63	3.83	3.81	3.75	3.77	3.63	
Lw / Lp ③ (High Perf. - HP)	dB(A)	89/57	90/58			91/59			92/60				
Lw / Lp ③ (Low Noise version - LN)	dB(A)	83/51		85/53				87/55					
Lw / Lp ③ (Xtra Low Noise version - XLN)	dB(A)	-	-	-	-	-	-	81/49	82/50	81/49	81/49	83/51	
Heating capacity ①	kW	95.0	108.8	132.6	147.1	164.0	181.5	191,1	213,5	247,9	265,2	285,7	
Power input	kW	31.4	36.0	43.1	47.7	53.0	57.1	63,2	71,5	82,7	89,9	97,1	
Performances COP ②		3.03	3.02	3.07	3.08	3.09	3.12	3.02	2.99	3.00	2.95	2.94	
Compressor	Hermetic SCROLL 2900 rpm												
Starting mode	Direct in series												
Quantity		2	2	2	4	4	4	4	4	4	4	4	
Capacity control	%	100-57-43-0	100-63-37-0	100-50-0	100-78-72-55-50-45-28-22-0	100-75-50-25-0	100-78-50-22-0	100-78-71-57-50-43-28-21-0	100-81-69-62.5-50-37.5-31-19-0	100-83-66-55-33-16-0	100-80-70-60-50-40-30-20-0	100-77-73-54-50-45-27-33-0	
Refrigerant oil type	Polyolester POE 3MAF (32cst)												
Oil volume	l	8.8	9.8	11.2	14.8	16.6	17.6	17.6	21.8	20.8	22.2	26.2	
Refrig. circuit number		1			2								
Refrigerant fluid (GWP)	R410A (1890)												
Refrigerant load	kg	21	24	13.0 +13.0	18.0 +18.0	18.2 +19.2	19.5 +19.5	24.2 +23.8	25.4 +25	27 +26.3	27.7 +27	28.5 +27.8	
Electric supply	ph/Hz/V	3~50Hz 400V (+6%/-10%) + Earth											
Unit protection index	IP 44												
Circuit control voltage	ph/Hz/V	1~50Hz 230V (+6%/-10%) - transformer mounted											
Evaporator	Brazed plates type exchanger												
Water content	l	8.68	9.88	10.66	12.48	15.42	15.42	15.8	15.8	18	20.4	20.4	
Chilled water outlet min. / max.	°C	-10 / +18						-12 / +18					
Hot water outlet min. / max.	°C	+30 / +50											
Minimum water flow	m³/h	11.7	13.3	17.3	18.1	20.8	20.8	22.1	24.4	29.3	31.6	34	
Maximum water flow	m³/h	30.7	34.6	41.9	45.9	50.7	50.7	63.2	69.5	77	77	77	
Water connections	≥	Male G 2 1/4"			Flange DN80				Flange DN100				
Maximum pressure (water side)	bar	ILD 10 bars / ILDC-ILDH 4 bars											
Air cooled condenser	Finned heat exchanger												
Fan ≥	mm	800											
Number x Motor rated power High Performance series - HP	nb x kW	2x1.7	2x1.7	2x1.8	2x1.7	2x1.7	2x1.7	4x2.24	4x2.24	4x2.24	4x2.24	4x2.24	
Number x Motor rated power Low Noise series - LN	nb x kW	2x1.2	2x1.2	2x1.2	2x1.1	2x1.1	2x1.1	4x1.48	4x1.48	4x1.48	4x1.48	4x1.48	
High Performance air flow - HP	m³/h	44000	42000	41000	44000	44000	44000	84300					
Low Noise air flow - LN - XLN	m³/h	32000	29000	30500	35000	35000	35000	63180					
Mini water content (ILD-ILDC)	l	220	213	357	164	207	203	213	212	213	290	364	
Water tank content model H	l	250						500					
Expansion vessel model C & H	l	18						34					
Standard pump	n°	④											
Height without mounts	mm	2117			2117			2080 (+205 XLN)					
Standard series length	mm	2190			2740			3698					
C series length	mm	2190			2740			3698					
H series length	mm	2190			2740			3698					
Depth	mm	2129			2129			2200					
Std range weight without charge	kg	1096	1195	1283	1570	1706	1878	2270	2320	2365	2445	2505	
C range weight without charge	kg	1194	1292	1355	1675	1804	1976	2550	2600	2645	2725	2825	
H range weight without charge	kg	1257	1356	1418	1748	1868	2040	2680	2730	2775	2855	2955	
Storage temperature	°C	+ 50°C											

① Capacities of HIGH PERFORMANCE series based on: EUROVENT conditions (EN 14511)

a/ COOLING : +12°C/+7°C and air inlet temp. at condenser +35°C
b/ HEATING: hot water outlet +45°C and outdoor air +7°C DB 86%RH

② EER and COP are gross values

③ Total sound power Lw, total sound pressure at 10 m from the unit, in free field, conformity with ISO 3744 norm

④ Depending on selection



ELECTRICAL SPECIFICATIONS

■ Standard units (pump not included)

		80V	90V	100V	120V	150V	180V	200V	240V	300V	350V
Electrical supply	ph/Hz/V	3~50Hz 400V (+6%/-10%) + Earth									
Control circuit voltage	ph/Hz/V	1~50Hz 230V (+6%/-10%) - transformer mounted									
Starting current without pump	A	95	111	118	135	198	130	143	149	230	256
Starting current SOFT START option	A	57	66	70	81	118	83	90	104	146	163
Circuit breaker (Neutral condition TN-TT)	kA	15			10		15			10	
Maxi wires section	mm ²	10			35			70			95
Maxi rated current ①	A	16.8	17.8	22.7	24.8	30.9	33.0	43.4	49.6	60.0	72.0

		400V	500V	540V	600V	700V	702V	800V	900V	1000V	1100V	
Electrical supply	ph/Hz/V	3~50Hz 400V (+6%/-10%) + Earth										
Control circuit voltage	ph/Hz/V	1~50Hz 230V (+6%/-10%) - transformer mounted										
Starting current without pump	A	303	320	276	286	325	333	388	440	457	474	
Starting current SOFT START option	A	191	209	192	202	237	243	279	317	333	350	
Circuit breaker (Neutral condition TN-TT)	kA	10	35	10			50					
Maxi wires section	mm ²	95			150							
Maxi rated current ①	A	82.0	104.0	110.0	120.0	138	144	161	190	207	224	

① Pump rated current not included

■ Hydraulic pumps (C and H models)

SINGLE PUMP														
	Pump type	n°	44	45	40	41	42	43	117	118	119	102	103	105
Mini flow	m ³ /h	1.0	1.9	5.0	6.0	7.0	8.0	15.0	15.0	15.0	20.0	20.0	20.0	20.0
Maxi pressure	mCE	20.6	20.9	17.5	21.5	22.0	24.5	15.5	26.0	39.0	14.5	18.0	26.0	33.0
Maxi flow	m ³ /h	8.0	13.0	19.0	22.5	30.0	30.0	50.0	50.0	50.0	70.0	86.0	74.0	74.0
Mini pressure	mCE	7.3	9.7	8.5	8.0	10.0	14.0	10.0	21.0	31.0	8.0	10.0	19.5	27.0
Main supply	V	3ph~50Hz 400V (+6%/-10%) + Earth												
Rated output	kW	0.55	0.75	0.75	1.1	1.5	1.85	2.2	4.0	7.5	3.0	4.0	5.5	7.5
Maxi rated current	A	1.7	2.1	1.85	2.67	3.9	4.61	4.5	7.8	13.8	6.3	8.0	10.3	13.8

TWIN PUMP												
	Pump type	n°	2 x 40	2 x 41	2 x 42	2 x 43	217	218	219	202	203	205
Mini flow	m ³ /h	5.0	6.0	7.0	8.0	15.0	15.0	15.0	20.0	20.0	20.0	20.0
Maxi pressure	mCE	17.5	21.5	22.0	24.5	15.5	26.0	39.0	14.5	18.0	26.0	33.0
Maxi flow	m ³ /h	19.0	22.5	30.0	30.0	50.0	50.0	50.0	70.0	86.0	74.0	74.0
Mini pressure	mCE	8.5	8.0	10.0	14.0	10.0	21.0	31.0	8.0	10.0	19.5	27.0
Main supply	V	3ph~50Hz 400V (+6%/-10%) + Earth										
Rated output	kW	0.75	1.1	1.5	1.85	2.2	4.0	7.5	3.0	4.0	5.5	7.5
Maxi rated current	A	1.85	2.67	3.9	4.61	4.5	7.8	13.8	6.3	8.0	10.3	13.8



LOW NOISE - LN

■ Sound power levels ref 2×10^{-12} Pa ± 3 dB

AQUACIAT	SOUND POWER LEVEL SPECTRUM (dB)														Lw global level dB(A)	
	125 Hz		250 Hz		500 Hz		1000 Hz		2000 Hz		4000 Hz		8000 Hz			
	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD
80	78		70		68		66		61		55		50		71	
90	78		70		68		66		61		55		50		71	
100	78		74		73		71		66		61		54		75	
120	77		75		73		71		66		61		54		75	
150	82		77		76		71		67		59		53		77	
180	82		82		76		73		66		64		62		79	
200	81		79		77		73		67		65		62		78	
240	87		87		77		75		68		65		63		82	
300	82		87		80		78		72		64		58		83	
350	76		81		81		78		74		68		62		83	
400	76		81		81		79		75		70		65		83	
500	85		83		84		80		76		71		66		85	
540	78		84		84		81		76		71		67		85	
600	77		83		85		80		75		69		65		85	
700	77		83		85		80		75		69		65		85	
702	85	88	83	87	81	85	79	82	76	76	68	68	61	62	84	87
800	85	88	83	87	81	85	81	83	78	77	70	70	62	62	85	87
900	86	88	83	87	81	85	79	82	76	75	71	70	63	63	84	87
1000	86	88	83	87	81	85	80	82	77	76	71	70	63	63	84	87
1100	86	88	83	87	81	85	81	83	78	77	73	71	63	63	85	87
702 XLN*	78		78		78		76		74		67		59		81	
800 XLN*	78		78		78		78		75		69		60		82	
900 XLN*	79		78		78		77		73		69		61		81	
1000 XLN*	79		78		77		77		74		69		61		81	
1100 XLN*	78		78		77		79		76		71		61		83	

* Xtra LOW NOISE model option

■ Sound pressure levels ref 2×10^{-5} Pa ± 3 dB

Measuring conditions:

- . in free field
- . 10 meters from the unit, 1.50 meters from the ground
- . directivity 2

AQUACIAT	SOUND PRESSURE LEVEL SPECTRUM (dB)														Lp global level dB(A)	
	125 Hz		250 Hz		500 Hz		1000 Hz		2000 Hz		4000 Hz		8000 Hz			
	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD	LD	ILD
80	46		38		36		34		29		23		18		39	
90	46		38		36		34		29		23		18		39	
100	46		42		41		39		34		29		22		43	
120	45		43		41		39		34		29		22		43	
150	50		45		44		39		35		27		21		45	
180	50		50		44		41		34		32		30		47	
200	49		47		45		41		35		33		30		46	
240	55		55		45		43		36		33		31		50	
300	50		55		48		46		40		32		26		51	
350	44		49		49		46		42		36		30		51	
400	44		49		49		47		43		38		33		51	
500	53		51		52		48		44		39		34		53	
540	46		52		52		49		44		39		35		53	
600	45		51		53		48		43		37		33		53	
700	45		51		53		48		43		37		33		53	
702	53	56	51	55	49	53	47	50	44	44	36	36	29	30	52	55
800	53	56	51	55	49	53	49	51	46	45	38	38	30	30	53	55
900	54	56	51	55	49	53	47	50	44	43	39	38	31	31	52	55
1000	54	56	51	55	49	53	48	50	45	44	39	38	31	31	52	55
1100	54	56	51	55	49	53	49	51	46	45	41	39	31	31	53	55
702 XLN*	46		46		46		44		42		35		27		49	
800 XLN*	46		46		46		46		43		37		28		50	
900 XLN*	47		46		46		45		41		37		29		49	
1000 XLN*	47		46		45		45		42		37		29		49	
1100 XLN*	46		46		45		47		44		39		29		51	

* Xtra LOW NOISE model option

NOTE: Acoustic pressure levels depend on installation conditions, and consequently are only given as an indication.

Remember that only the sound power levels are comparable and certified.

Compliance with ISO 3744 standard $L_p = L_w - 10 \log S$



XTRAFAN FAN SYSTEM (OPTIONAL EQUIPMENT)

AquaCiat2 units 80V to 700V models, for chillers only LD-LDC-LDH series or reversible HEAT PUMPS ILD-ILDC-ILDH series, can be equipped with an XTRAFAN option.

In comparison with standard electric motors controlled by a traditional variator of frequency, this type of electric motor with electronic poles switching equipment and permanent magnet rotors, is characterized by excellent mechanical efficiency and a particularly low noise level, regardless of the load on the shaft.

Main description

The XTRAFAN option offers a broad range of functions allowing for particularly flexible installation conditions, notably:

- the possibility of being installed in a cramped space, for example on a terrace surrounded by walls, where only a discharge with a static pressure from 100 to 200 Pascals in a duct allows a use without recycling or mixing air to the condenser intake,
- the installation in a particularly noise-sensitive urban environment, where only a suitable sound trap adapted to the air discharge can allow operation,
- the guarantee of obtaining continued operation during temperature peaks in hot climates such as the Middle East, thanks to an "over-boost" function of the condenser fan speed,
- an auto-adjustable speed variation function allowing a highly protected "all season" operation in cooling mode for the industrial process including rigorous winter periods with an external temperature of -20°C,
- the possibility of precisely adjusting on site the fan speed "just enough" to obtain an optimal air discharge pressure, or a maximum noise level tolerated by the environment of the machine,
- an improvement in terms of the EER efficiency and the electrical consumption of the chiller in cooling mode, directly proportional to the refrigerating load requested by the installation.

Technical specifications and operating range

The XTRAFAN option allows the user to chose one of three possible operating functions of the machine:

- a fortified running of the chiller thanks to the "over boost" fan function in free discharge, in order to extend on full load the outside temperature range from +46 to +50°C,
- reaching an intermediate available static pressure of 100 to 125 Pa with the rated air flow, allowing a duct air discharge at the condenser outlet in order to avoid fan recycling phenomena,
- reaching a maximum static pressure from 130 to 200 Pa according to models at the air discharge with a low air flow, recommended for on-site installation of a sound trap on the air discharge.

	HIGH outside temperature Fan over boost			RATED Static pressure			MAXIMUM Static pressure		
	Available pressure Pa	Air flow m³/h	Operation limits °C	Available pressure Pa	Air flow m³/h	Operation limits °C	Available pressure Pa	Air flow m³/h	Operation limits °C
80V - 90V	0	16500	Operation limits widened to +46°C to +50°C	125	10400	Idem PERFORMANCE mode	160	9000	Idem LOW NOISE mode
100V - 120V		23800		150	17000		200	12000	
150V		23000		150	16200		200	12000	
180 - 200V		23500		150	16500		200	12000	
240V - 300V		26000		100	22100		200	17000	
350V - 400V		50400		100	42000		200	34000	
500V		52000		100	40000		200	34000	
540V - 600V		61200		100	48000		130	43000	
700V		58000		100	46000		130	43000	