MITSUBISHI ELECTRIC
HYDRONICS & IT COOLING SYSTEMS S.p.A.

IT COOLING

CLOSE CONTROL AIR CONDITIONERS

ACCURATE LEGACY

DIRECT EXPANSION

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

4 Versions available

- Single / Double circuit
- Dual Fluid
- Full inverter
- Free cooling

climaveneta.com

CLIMAVENETA®

THE MOST EFFICIENT AND RELIABLE SOLUTION FOR HIGH PRECISION AIR CONDITIONING IS

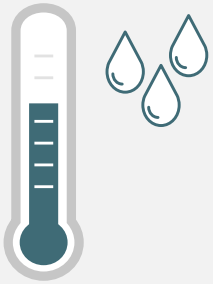
ACCURATE LEGACY

Engineered to the highest standards, ACCURATE LEGACY high precision air conditioners are key in most critical IT environments.

PRECISE TEMPERATURE AND HUMIDITY CONTROL

Complex IT environments are characterized by extremely variable thermal loads, which require very high cooling capacity at full load in order to not compromise the correct operation of the IT machines when they are most needed.

ACCURATE LEGACY range makes it possible to keep temperature and humidity constant even with very strong load variations, ensuring premium sensible cooling capacity values.



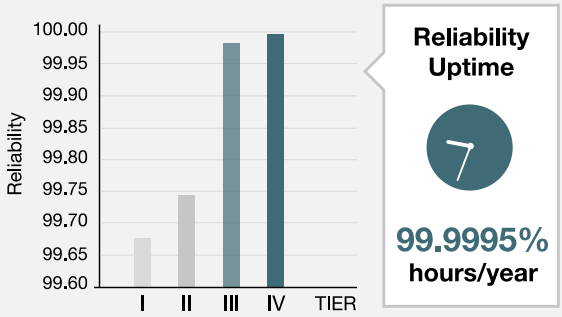
THE PERFECT MATCH BETWEEN EFFICIENCY AND RELIABILITY

Nowadays efficiency is no longer considered to be just saving energy in respect to the single unit, but it takes into account the system's performance, complete reliability and modularity over the years.

By offering ACCURATE LEGACY as a solution to technological cooling problems, the company has put great effort in the use of well-known high quality components:

- EC PUL (Polymeric ULtralight) plug fans made of composite material installed as standard in all units;
- Dual fluid systems to ensure total reliability under all conditions;

Extraordinary advantages in terms of energy savings are achieved thanks to the ultimate DC inverter compressors, with extraordinary advantages in terms of energy savings.



CUSTOMER-ORIENTED APPROACH

ACCURATE LEGACY range features 360° versatility, in terms of capacities (from 6 to 155 kW), as well as technologies applied to the units.

When even this is not enough, the 50-year experience of the RC IT Cooling brand is key to ensuring tailor-made solutions dedicated to specific application requirements.

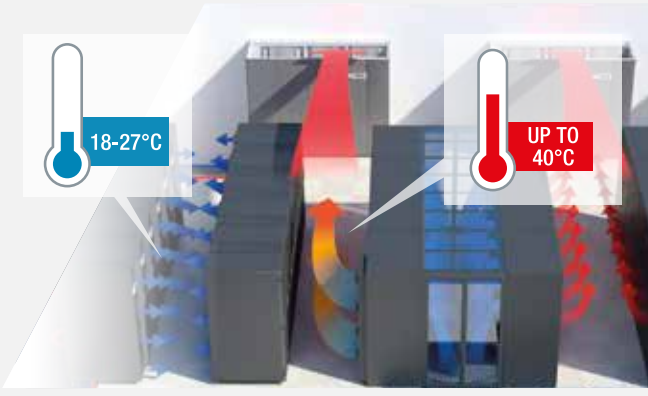
3 Key technologies:

- **Free Cooling**: available as indirect free cooling, it ensures the total switch-off of the compressors when outdoor temperatures are below 5°C
- **Inverter**: Full DC inverter technology applied both to the compressor and EC fans
- **Dual Fluid circuits**: DF versions consisting of two independent cooling systems for the highest reliability

BEYOND TRADITIONAL OPERATING LIMITS

The need for higher efficiency levels and reduced TCO values have led to increasing temperatures (up to 27°C) of intake airflows directed to the IT equipment (ASHRAE, 'Thermal Guidelines for Data Processing Environments'), thus increasing supply air temperatures.

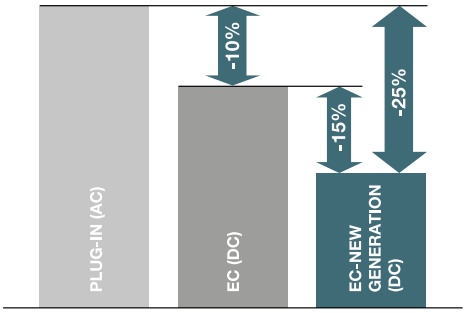
ACCURATE LEGACY range has been designed to manage air suction temperature up to 40°C. Available both as Dual Fluid (DF) and Free Cooling (FC) versions, NEXT air conditioners optimize the primary water circuit performance even with high temperature fluids.
The chiller's efficiency and the free cooling operation are therefore maximized also when outdoor temperatures are high.



TECHNOLOGICAL CHOICES

EC PUL PLUG FANS

PUL POLYMERIC ULTRALIGHT FAN



Aimed at optimizing energy costs, ACCURATE LEGACY range makes use of EC PUL (Polymeric ULtralight) fans made of composite material. Premium energy efficiency levels are achieved by the accurate management of the fan parameters such as flow rate, power and pressure.
The result is the best system operation in any working conditions.

Main features:

- Noise level reduced by 4-5 dB(A) compared to traditional fans
- Power absorption reduced by 25% compared to traditional fans

EC FANS ON THE REMOTE CONDENSERS

The use of EC technology even on the remote condenser fan ensures a further average reduction of noise levels by 10%, together with a strong reduction of energy consumption by 45% compared to traditional condensers with AC technology.

ADVANCED CONTROL SYSTEM

i-AV LEGACY air conditioners features a new intelligent electronic heart to keep constant control over all the operating and environmental parameters of the site.

Designed and developed internally, the new control is highly configurable according to specific user requirements, ensuring:

- Automatic restart from blackout
- Integrated management system up to 10 units (LAN)
- ACTIVE REDUNDANCY management
- Full BMS compatibility (Ethernet, Bacnet, SNMP, Modbus, TCP/IP, LON)
- BLACK BOX for predictive analysis
- DEW POINT control
- ADAPTIVE SET POINT management
- ACTIVE FREE COOLING management

THE UNBEATABLE EFFICIENCY OF THE TOTAL INVERTER TECHNOLOGY

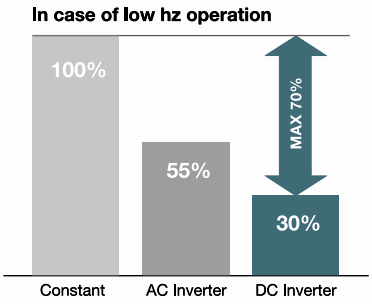
i-AV

DC INVERTER COMPRESSOR

INV.COMP.

The INVERTER technology on the compressor regulates the power capacity according to the real requirements of the servers.

The unit performance at partial loads is optimized, rapidly increasing its efficiency and reducing its consumption. This complete compressor modulation allows the unit to follow the increasing cooling requests of the data center without damaging the overall unit efficiency.



i-AV units adopts this technology as standard in all its models, with several benefits in terms of:

- **Regulation of the power capacity according to the load requirements**
- **No in-rush starting current**
- **Energy savings of up to 50% compared to on/off units**
- **Reduced noise levels**

EER UP TO 8,17

ELECTRONIC EXPANSION VALVE

EEV

The new generation i-AV air conditioners with electronic expansion valves. These valves ensure optimal operation of the refrigeration cycle in every environmental condition.

Main features:

- Great control and wider modulation capacity
- Quickly reaches and maintains operating stability
- Accurate adjustment to load variations

AV DF

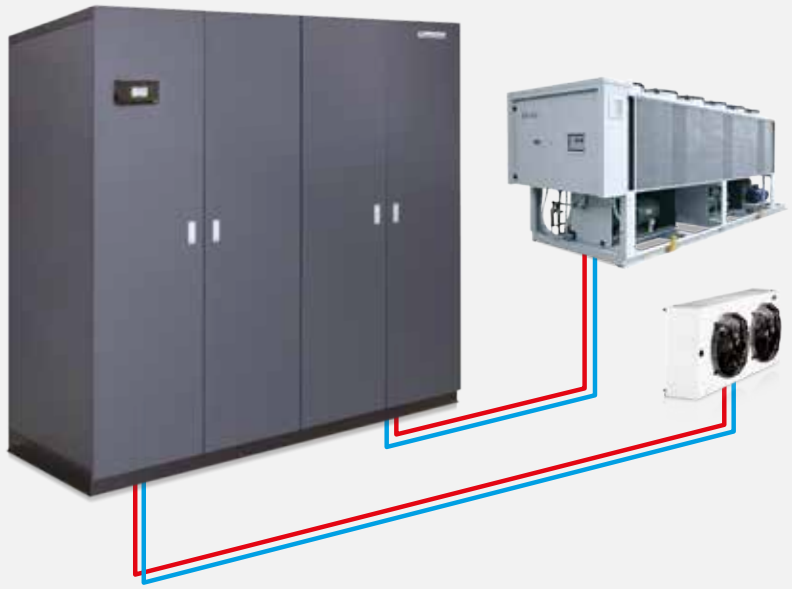
THE DUAL FLUID VERSION FOR THE CUSTOMER PEACE OF MIND

t-AV DF / i-AV DF
Direct expansion air conditioners with chilled water coil

- **t-AV** DF DX / **i-AV** DF DX
  Direct Expansion, air cooled
- **t-AV** DF DW / **i-AV** DF DW
  Direct Expansion, water cooled

These units are provided as standard with two cooling circuits - one direct expansion type and the other chilled water type, which never work simultaneously.
Such circuits are connected to two different chiller lines completely independent of one another.

The Dual Fluid version is the perfect solution for those systems where reliability, safety and redundancy are at utmost importance.



MANAGEMENT AND CONTROL SYSTEMS

In a policy of 'total communication', ACCURATE LEGACY range features several interconnection solutions with the lates BMS systems.

Data Center Manager

Group device

DATA CENTER MANAGER is a centralized management system that ensures a smart communication between indoor chilled water units and the outdoor chillers.

The device manages the outdoor units according to the inlet and outlet temperature registered by the probes and by request of the indoor unit.

Main features:

- All-in-one solution for an easy installation
- Management of up to 8 units (with the same or different power ratings), on 2-pipe systems
- 8.4" touch-screen display
- Some units can be given priority
- Possibility of choosing the number of units on standby - dynamic standby
- Evenly distributes operating hours of each unit

AV FC

INDIRECT FREE COOLING TECHNOLOGY TO HARNESS THE FULL POTENTIAL OF OUTDOOR AIR

t-AV FC / i-AV FC
Direct expansion air conditioners with chilled water coil

- **t-AV** FC DW / **i-AV** FC DW
  Direct Expansion with free cooling technology, water cooled

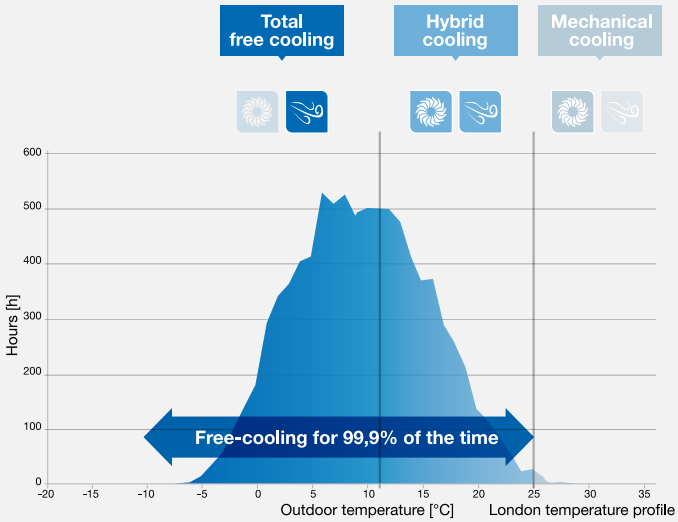
The indirect free cooling system consists of a smart combination between the total free cooling and the direct expansion working modes.

Total free cooling mode

When the ambient temperatures are below 5°C, the total cooling capacity is provided by the outdoor air in the free cooling coils while the compressors are off.

Hybrid free cooling

At ambient temperatures ranging from 5°C to 21°C, free cooling provides pre-cooling of the handled air. The compressors are activated to provide the cooling capacity necessary for the full balance of the room load.



ClimaPRO DCO

clima PRO DCO
PERFORMANCE RELIABILITY OPTIMISATION DATA CENTER OPTIMISER

Chiller plant control and data center optimisation system

ClimaPRO DCO ensures perfect HVAC plant room control by managing each single component involved in the production and distribution of the thermal and cooling energy.

According to the actual efficiency values of the units, this advanced management system optimally balances the unit loads, regulates the operating set-points and dynamically manages the water flow of the entire system.

ClimaPRO DCO can be integrated to a BMS system or it can be completely independent.

Main features:

- Acquisition of real-time data from the plant
- Measurement of energy indices for the units and the entire system
- Control and management of each single unit or at a plant room level
- Active Optimization based on real time data measurement
- Detailed energy reporting and customized analysis
- Chart building for trend analysis

COOLING MODES

360° flexibility as a service offered for any type of system

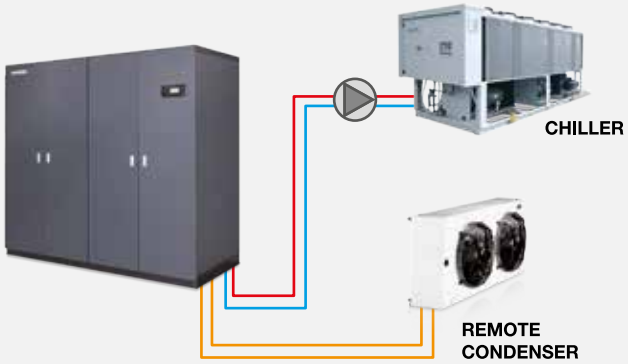
AIR COOLED

b-AV DX / t-AV DX / i-AV DX
Air cooled direct expansion air conditioners

Direct expansion air conditioners to be coupled with a remote condenser. The air is treated in the evaporating coil and the condensed heat is released by means of an outdoor condenser. The condenser features a fan speed controller aimed at optimising the condensation pressure even with the most adverse climate conditions.

t-AV DF DX / i-AV DF DX
Air cooled direct expansion air conditioners with Dual Fluid system

Air cooled direct expansion air conditioners with two cooling systems which are completely independent from each other.
A primary chilled water circuit connected to an outdoor chiller, is combined with a secondary direct expansion air cooled circuit.



AIRFLOW CONFIGURATIONS

OVER

The versions called OVER with air outflow from the top generally have the air intake at the front, rear or bottom of the unit, according to the customers' choice, and the outflow from the top is along ducts behind suspended ceilings or front delivery plenums.

Airflow: OVER, air discharged from the top, frontal air intake

Raised floor: absent
Room Height < 3m

Airflow: OVER, air discharged from the top, air intake under the floor

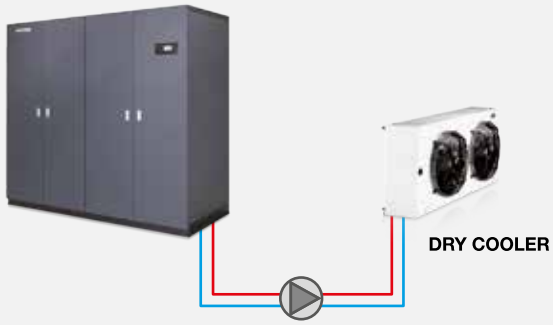
Raised floor > 400 mm
Room Height < 3m

ACCURATE LEGACY comes with a full range of solutions ranging from 3 to 155 kW, available with over or under airflow configurations.

WATER COOLED

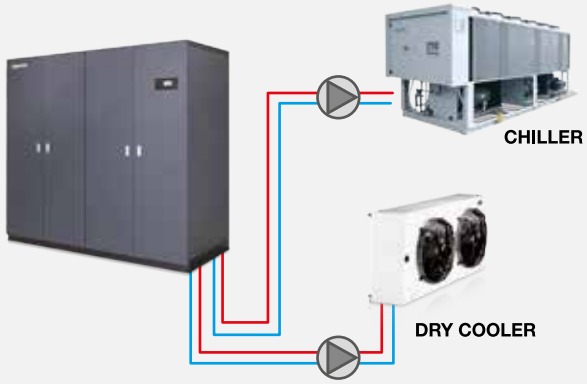
b-AV DW / t-AV DW / i-AV DW
Water cooled direct expansion air conditioners

Direct expansion water cooled conditioners with built-in water cooled condenser. The air is treated in the evaporating coil and the condensation heat is released by means of a plate type exchanger connected to a water citcuit. Condensation water can be extracted from a well, a local water system or from closed circuits such as cooling towers or dry coolers.



t-AV DF DX / i-AV DF DW
Water cooled direct expansion air conditioners with Dual Fluid system

Water cooled direct expansion air conditioners with two cooling systems which are completely independent one to each other. The units are equipped with a built-in water cooled condenser.
The primary chilled water circuit consisting of a chilled water coil is connected to an outdoor chiller. The secondary circuit is direct expansion type.



t-AV FC DW / i-AV FC DW
Water cooled direct expansion air conditioners with Free Cooling system

Water cooled direct expansion air conditioners equipped with a built-in water cooled condenser, featuring two cooling systems. The primary direct expansion circuit is combined with a secondary chilled water circuit generally connected to an outdoor dry cooler. The two circuits are often working together in partial free cooling mode.

Airflow: OVER, air discharged from the top, air intake from the rear/bottom of the unit

Raised floor: absent
Room Height < 3m

UNDER

UNDER version feature air suction from the top of the unit and air delivery in the underfloor void.

Airflow: UNDER, air discharged from the bottom under the floor with air intake from the top

Raised floor > 400 mm
Room Height < 3m

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

AIR COOLED

b-AV DX Air Cooled Direct Expansion Air Conditioners (AC fans)

b-AV-UNDER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S
Frame			E0	E0	E1	E2	E2	E3	E3	E3	E4	E4	E4
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	6,37	7,73	10,7	14,0	15,0	20,6	22,5	26,3	31,8	36,4	40,9
Sensible cooling capacity gross	(1)	kW	6,29	7,05	10,7	14,0	15,0	20,6	22,5	25,8	31,7	34,2	39,3
Total power input (Comp.+fans)	(1)	kW	1,65	2,02	2,75	3,45	3,84	5,15	5,94	7,03	7,48	8,43	9,86
EER (Indoor unit)	(1)	kW/kW	3,86	3,83	3,89	4,06	3,91	4,00	3,79	3,74	4,25	4,32	4,15
SHR	(2)		0,99	0,91	1,00	1,00	1,00	1,00	1,00	0,98	1,00	0,94	0,96
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	2,30	2,30	3,20	3,40	3,40	4,00	4,00	4,00	5,70	5,70	8,60
FANS													
Fans type			PLUG FAN	PLUG FAN	AC RADIAL	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	1660	1660	3120	4340	4340	6650	6650	6650	8150	8150	9800
NOISE LEVEL													
Sound Power		dB(A)	57	57	57	65	65	67	67	67	71	71	75
Sound Pressure	(4)	dB(A)	42	42	41	49	49	51	51	51	54	54	58
SIZE AND WEIGHT													
A	(3)	mm	655	655	650	785	785	1085	1085	1085	1305	1305	1305
B	(3)	mm	445	445	675	675	675	775	775	775	930	930	930
H	(3)	mm	1680	1680	1925	1925	1925	1925	1925	1925	1980	1980	1980
Weight	(3)	kg	160	160	238	270	275	320	325	325	420	425	437
COUPLING UNIT EXTERNAL													
Standard remote condenser linked													
Voltage													
Quantity		N°											

b-AV-UNDER			045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D	117 P4 D	146 P4 D
Frame			E4	E5	E5	E6	E6	E7	E7	E8	E8	E9	E9
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	44,8	36,9	47,7	56,5	63,2	74,7	82,0	91,1	103	119	147
Sensible cooling capacity gross	(1)	kW	41,6	35,3	44,4	53,6	58,7	74,1	78,1	85,2	91,5	115	134
Total power input (Comp.+fans)	(1)	kW	10,9	8,69	11,8	13,9	15,1	17,9	19,8	21,6	25,4	30,0	37,6
EER (Indoor unit)	(1)	kW/kW	4,11	4,25	4,04	4,06	4,19	4,17	4,14	4,22	4,06	3,97	3,91
SHR	(2)		0,93	0,96	0,93	0,95	0,93	0,99	0,95	0,94	0,89	0,97	0,91
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	2	2	2	2	2	2	2	2	4	4
No. Circuits		N°	1	2	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	8,60	9,00	9,00	9,80	9,80	16,2	16,2	17,4	17,4	21,6	21,6
FANS													
Fans type			PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	2	2	2	2	2	2	3	3
Air flow	(3)	m³/h	9800	8450	10350	15200	15200	19200	19200	20350	20350	29400	29400
NOISE LEVEL													
Sound Power		dB(A)	75	72	76	73	73	73	78	80	80	81	81
Sound Pressure	(4)	dB(A)	58	55	59	56	56	56	61	62	62	63	63
SIZE AND WEIGHT													
A	(3)	mm	1305	1630	1630	1875	1875	2175	2175	2499	2499	2899	2899
B	(3)	mm	930	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	445	530	540	620	640	745	750	845	845	1020	1080
COUPLING UNIT EXTERNAL													
Standard remote condenser linked													
Voltage													
Quantity		N°											

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

b-AV DX Air Cooled Direct Expansion Air Conditioners (AC fans)

b-AV-OVER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S
Frame			E0	E0	E1	E2	E2	E3	E3	E3	E4	E4
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	6,37	7,73	10,7	14,0	15,0	20,6	22,5	26,3	31,8	36,4
Sensible cooling capacity gross	(1)	kW	6,29	7,05	10,7	14,0	15,0	20,6	22,5	25,8	31,7	34,2
Total power input (Comp.+fans)	(1)	kW	1,65	2,02	2,74	3,45	3,84	5,15	5,94	7,03	7,48	8,43
EER (Indoor unit)	(1)	kW/kW	3,86	3,83	3,91	4,06	3,91	4,00	3,79	3,74	4,25	4,32
SHR	(2)		0,99	0,91	1,00	1,00	1,00	1,00	1,00	0,98	1,00	0,94
REFRIGERANT CIRCUIT												
Compressors nr.		N°	1	1	1	1	1	1	1	1	1	1
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	2,30	2,30	3,20	3,40	3,40	4,00	4,00	4,00	5,70	5,70
FANS												
Fans type			PLUG FAN	PLUG FAN	AC RADIAL	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	1660	1660	3120	4340	4340	6650	6650	6650	8150	8150
NOISE LEVEL												
Sound Power		dB(A)	56	56	56	66	66	67	67	67	71	71
Sound Pressure	(4)	dB(A)	41	41	40	50	50	51	51	51	54	54
SIZE AND WEIGHT												
A	(3)	mm	655	655	650	785	785	1085	1085	1085	1305	1305
B	(3)	mm	445	445	675	675	675	775	775	775	930	930
H	(3)	mm	1680	1680	1925	1925	1925	1925	1925	1925	1980	1980
Weight	(3)	kg	160	160	228	260	265	300	305	305	410	415
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

b-AV-OVER			041 P1 S	045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D
Frame			E4	E4	E5	E5	E6	E6	E7	E7	E8	E8
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	40,9	44,8	36,9	47,7	56,5	63,2	74,7	82,0	91,1	103
Sensible cooling capacity gross	(1)	kW	39,3	41,6	35,3	44,4	53,6	58,7	74,1	78,1	85,2	91,5
Total power input (Comp.+fans)	(1)	kW	9,86	10,9	8,69	11,8	13,9	15,1	17,9	19,8	21,6	25,4
EER (Indoor unit)	(1)	kW/kW	4,15	4,11	4,25	4,04	4,06	4,19	4,17	4,14	4,22	4,06
SHR	(2)		0,96	0,93	0,96	0,93	0,95	0,93	0,99	0,95	0,94	0,89
REFRIGERANT CIRCUIT												
Compressors nr.		N°	1	1	2	2	2	2	2	2	2	2
No. Circuits		N°	1	1	2	2	2	2	2	2	2	2
Refrigerant charge		kg	8,60	8,60	9,00	9,00	9,80	9,80	16,2	16,2	17,4	17,4
FANS												
Fans type			PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	1	2	2	2	2	2	2
Air flow	(3)	m³/h	9800	9800	8450	10350	15200	15200	19200	19200	20350	20350
NOISE LEVEL												
Sound Power		dB(A)	75	75	71	76	75	75	78	78	80	80
Sound Pressure	(4)	dB(A)	58	58	54	59	58	58	61	61	62	62
SIZE AND WEIGHT												
A	(3)	mm	1305	1305	1630	1630	1875	1875	2175	2175	2499	2499
B	(3)	mm	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	427	435	520	530	610	610	688	695	785	785
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP $_{100}$ 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

WATER COOLED

b-AV DW Water Cooled Direct Expansion Air Conditioners (AC fans)

b-AV DW-UNDER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S
Frame			E1	E1	E1	E2	E2	E3	E3	E3	E4L	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	8,50	10,1	11,6	15,4	16,4	21,9	23,9	28,6	34,3	39,0	44,3
Sensible cooling capacity gross	(1)	kW	7,96	9,35	10,6	14,3	15,1	21,4	23,0	26,4	32,3	35,1	40,4
Total power input (Comp.+fans)	(1)	kW	1,71	2,06	2,49	3,07	3,43	4,66	5,38	6,31	6,70	7,57	8,76
EER (Indoor unit)	(1)	kW/kW	4,97	4,90	4,66	5,02	4,78	4,70	4,44	4,53	5,12	5,15	5,06
SHR	(2)		0,94	0,93	0,91	0,93	0,92	0,98	0,96	0,92	0,94	0,90	0,91
PLATE CAPACITOR													
Capacitors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,47	0,56	0,66	0,86	0,92	1,21	1,34	1,61	1,91	2,18	2,47
Pressure drop	(1)	kPa	25,1	34,8	27,9	22,5	25,6	22,3	26,6	19,7	27,3	34,6	27,8
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,30	3,30	3,30	3,40	3,40	4,40	4,40	4,50	6,20	6,20	9,30
FANS													
Fans type			AC RADIAL	AC RADIAL	AC RADIAL	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	3120	3120	3120	4340	4340	6650	6650	6650	8150	8150	9800
NOISE LEVEL													
Sound Power		dB(A)	68	68	57	65	65	67	67	67	71	71	75
Sound Pressure	(4)	dB(A)	52	52	41	49	49	51	51	51	54	54	58
SIZE AND WEIGHT													
A	(3)	mm	650	650	650	785	785	1085	1085	1085	1630	1630	1630
B	(3)	mm	675	675	675	675	675	775	775	775	930	930	930
H	(3)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980	1980
Weight	(3)	kg	245	247	250	285	290	340	345	345	510	510	515

b-AV DW-UNDER			045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D	117 P4 D	146 P4 D
Frame			E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L	E9L	E9L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	47,3	39,7	49,3	59,3	66,4	80,5	88,4	98,3	110	125	155
Sensible cooling capacity gross	(1)	kW	42,8	35,9	42,2	56,3	60,9	74,7	80,0	88,4	94,9	120	139
Total power input (Comp.+fans)	(1)	kW	9,70	7,73	10,4	12,4	13,6	15,9	17,7	19,4	22,6	27,0	33,9
EER (Indoor unit)	(1)	kW/kW	4,88	5,14	4,74	4,78	4,88	5,06	4,99	5,07	4,87	4,63	4,57
SHR	(2)		0,90	0,90	0,86	0,95	0,92	0,93	0,90	0,90	0,86	0,96	0,90
PLATE CAPACITOR													
Capacitors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,66	2,22	2,81	3,32	3,72	4,47	4,94	5,50	6,22	7,08	8,82
Pressure drop	(1)	kPa	31,7	27,4	42,0	23,3	28,5	24,1	28,9	22,9	28,9	33,6	50,5
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	2	2	2	2	2	2	2	2	4	4
No. Circuits		N°	1	2	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	9,30	9,70	9,70	9,80	9,80	16,2	16,2	17,4	17,4	21,6	21,6
FANS													
Fans type			PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	2	2	2	2	2	2	3	3
Air flow	(3)	m³/h	9800	8450	8798	15200	15200	19200	19200	20350	20350	29400	29400
NOISE LEVEL													
Sound Power		dB(A)	75	72	72	73	73	73	78	80	80	81	81
Sound Pressure	(4)	dB(A)	58	55	55	56	56	55	60	62	62	63	63
SIZE AND WEIGHT													
A	(3)	mm	1630	1955	1955	2198	2198	2499	2499	2899	2899	3299	3299
B	(3)	mm	930	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	515	645	645	710	710	775	775	990	990	1140	1190

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

b-AV DW-OVER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S
Frame			E1	E1	E1	E2	E2	E3	E3	E3	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	8,50	10,1	11,6	15,4	16,4	21,9	23,9	28,6	34,3	39,0
Sensible cooling capacity gross	(1)	kW	7,96	9,35	10,6	14,3	15,1	21,4	23,0	26,4	32,3	35,1
Total power input (Comp.+fans)	(1)	kW	1,65	2,00	2,43	3,07	3,43	4,66	5,38	6,31	6,70	7,57
EER (Indoor unit)	(1)	kW/kW	5,15	5,05	4,77	5,02	4,78	4,70	4,44	4,53	5,12	5,15
SHR	(2)		0,94	0,93	0,91	0,93	0,92	0,98	0,96	0,92	0,94	0,90
PLATE CAPACITOR												
Capacitors nr.		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,47	0,56	0,66	0,86	0,92	1,21	1,34	1,61	1,91	2,18
Pressure drop	(1)	kPa	25,0	34,5	27,9	22,5	25,6	22,3	26,6	19,7	27,3	34,6
REFRIGERANT CIRCUIT												
Compressors nr.		N°	1	1	1	1	1	1	1	1	1	1
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,30	3,30	3,20	3,60	3,60	4,40	4,40	4,50	6,20	6,20
FANS												
Fans type			AC RADIAL	AC RADIAL	AC RADIAL	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	3120	3120	3120	4340	4340	6650	6650	6650	8150	8150
NOISE LEVEL												
Sound Power		dB(A)	69	69	56	66	66	67	67	67	71	71
Sound Pressure	(4)	dB(A)	53	53	40	50	50	51	51	51	54	54
SIZE AND WEIGHT												
A	(3)	mm	650	650	650	785	785	1085	1085	1085	1630	1630
B	(3)	mm	675	675	675	675	675	775	775	775	930	930
H	(3)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980
Weight	(3)	kg	235	237	240	275	280	320	325	325	500	500

b-AV DW-OVER			041 P1 S	045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D
Frame			E4L	E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	44,3	47,3	39,7	49,3	59,3	66,4	80,5	88,4	98,3	110
Sensible cooling capacity gross	(1)	kW	40,4	42,8	35,9	42,2	56,3	60,9	74,7	80,0	88,4	94,9
Total power input (Comp.+fans)	(1)	kW	8,76	9,70	7,73	10,4	12,4	13,6	15,9	17,7	19,4	22,6
EER (Indoor unit)	(1)	kW/kW	5,06	4,88	5,14	4,78	4,78	4,88	5,06	4,99	5,07	4,87
SHR	(2)		0,91	0,90	0,90	0,86	0,95	0,92	0,93	0,90	0,90	0,86
PLATE CAPACITOR												
Capacitors nr.		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,47	2,66	2,22	2,81	3,32	3,72	4,47	4,94	5,50	6,22
Pressure drop	(1)	kPa	27,8	31,7	27,4	42,0	23,3	28,5	24,1	28,9	22,9	28,9
REFRIGERANT CIRCUIT												
Compressors nr.		N°	1	1	2	2	2	2	2	2	2	4
No. Circuits		N°	1	1	2	2	2	2	2	2	2	2
Refrigerant charge		kg	9,30	9,30	9,70	9,70	9,80	9,80	16,2	16,2	17,4	17,4
FANS												
Fans type			PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN	PLUG FAN
Quantity		N°	1	1	1	1	2	2	2	2	2	2
Air flow	(3)	m³/h	9800	9800	8450	8798	15200	15200	19200	19200	20350	20350
NOISE LEVEL												
Sound Power		dB(A)	75	75	71	72	75	75	78	78	80	80
Sound Pressure	(4)	dB(A)	58	58	54	55	58	58	60	60	62	62
SIZE AND WEIGHT												
A	(3)	mm	1630	1630	1955	1955	2198	2198	2499	2499	2899	2899
B	(3)	mm	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	505	505	635	635	690	690	725	725	930	930

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

AIR COOLED

t-AV DX Air Cooled Direct Expansion Air Conditioners (EC fans)

t-AV DX-OVER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S
Frame			E0	E0	E1	E2	E2	E3	E3	E3	E4	E4
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	6,59	7,73	10,3	13,8	16,0	20,3	22,1	26,2	32,5	37,6
Sensible cooling capacity gross	(1)	kW	6,29	7,05	10,2	13,8	14,8	20,3	22,1	25,3	32,5	37,6
Total power input (Comp,+fans)	(1)	kW	1,62	1,99	2,57	3,26	3,71	4,52	5,47	6,71	7,59	9,22
EER (Indoor unit)	(1)	kW/kW	4,07	3,88	4,01	4,23	4,31	4,49	4,04	3,90	4,28	4,08
SHR	(2)		0,95	0,91	0,99	1,00	0,92	1,00	1,00	0,97	1,00	1,00
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,20	3,20	3,20	3,40	3,40	4,00	4,00	4,00	5,70	5,70
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	1660	1660	2800	4000	4200	5700	6100	6400	8700	10000
NOISE LEVEL												
Sound Power		dB(A)	58	58	58	63	64	63	65	64	71	74
Sound Pressure	(4)	dB(A)	43	43	42	47	48	47	49	48	54	57
SIZE AND WEIGHT												
A	(3)	mm	655	655	650	785	785	1085	1085	1085	1305	1305
B	(3)	mm	445	445	675	675	675	775	775	775	930	930
H	(3)	mm	1680	1680	1925	1925	1925	1925	1925	1925	1980	1980
Weight	(3)	kg	160	160	228	260	265	300	305	305	410	415
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

t-AV DX-OVER			041 P1 S	045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D
Frame			E4	E4	E5	E5	E6	E6	E7	E7	E8	E8
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	41,4	45,4	38,1	48,6	55,1	61,9	75,4	82,5	92,0	104
Sensible cooling capacity gross	(1)	kW	41,2	43,4	38,1	47,4	55,1	60,6	75,4	79,5	88,1	94,9
Total power input (Comp,+fans)	(1)	kW	10,1	11,2	9,19	12,4	13,5	15,0	17,8	19,7	22,0	25,7
EER (Indoor unit)	(1)	kW/kW	4,10	4,05	4,15	3,92	4,08	4,13	4,24	4,19	4,18	4,05
SHR	(2)		1,00	0,96	1,00	0,98	1,00	0,98	1,00	0,96	0,96	0,91
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	2	2	2	2	2	2	2	2
No, Circuits		N°	1	1	2	2	2	2	2	2	2	2
Refrigerant charge		kg	8,60	8,60	9,00	9,00	9,80	9,80	16,2	16,2	17,4	17,4
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	2	2	2	2	2	2
Air flow	(3)	m³/h	10800	10800	10000	12000	15200	15600	20000	20000	22000	22000
NOISE LEVEL												
Sound Power		dB(A)	74	74	75	76	71	73	75	75	78	78
Sound Pressure	(4)	dB(A)	57	57	58	59	54	56	58	58	60	60
SIZE AND WEIGHT												
A	(3)	mm	1305	1305	1630	1630	1875	1875	2175	2175	2499	2499
B	(3)	mm	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	427	435	520	530	610	630	688	695	785	785
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

t-AV DX-UNDER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S
Frame			E0	E0	E1	E2	E2	E3	E3	E3	E4	E4	E4
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	6,59	7,73	10,3	13,8	16,0	20,3	22,1	26,2	32,5	37,6	41,4
Sensible cooling capacity gross	(1)	kW	6,29	7,05	10,2	13,8	14,8	20,3	22,1	25,3	32,5	37,6	41,2
Total power input (Comp.+fans)	(1)	kW	1,62	1,99	2,57	3,26	3,71	4,52	5,47	6,71	7,59	9,22	10,1
EER (Indoor unit)	(1)	kW/kW	4,07	3,88	4,01	4,23	4,31	4,49	4,04	3,90	4,28	4,08	4,10
SHR	(2)		0,95	0,91	0,99	1,00	0,92	1,00	1,00	0,97	1,00	1,00	1,00
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,20	3,20	3,20	3,40	3,40	4,40	4,40	4,00	5,70	5,70	8,60
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	1660	1660	2800	4000	4200	5700	6100	6400	8700	10000	10800
NOISE LEVEL													
Sound Power		dB(A)	58	58	58	64	65	64	66	66	72	75	74
Sound Pressure	(4)	dB(A)	43	43	42	48	49	48	50	50	55	58	57
SIZE AND WEIGHT													
A	(3)	mm	655	655	650	785	785	1085	1085	1085	1305	1305	1305
B	(3)	mm	445	445	675	675	675	775	775	775	930	930	930
H	(3)	mm	1680	1680	1925	1925	1925	1925	1925	1925	1980	1980	1980
Weight	(3)	kg	160	160	238	270	275	320	325	325	420	425	437
COUPLING UNIT EXTERNAL													
Standard remote condenser linked													
Voltage													
Quantity		N°											

t-AV DX-UNDER			045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D	117 P4 D	146 P4 D
Frame			E4	E5	E5	E6	E6	E7	E7	E8	E8	E9	E9
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	45,4	38,1	48,6	55,1	61,9	75,4	82,5	92,0	104	121	149
Sensible cooling capacity gross	(1)	kW	43,4	38,1	47,4	55,1	60,6	75,4	79,5	88,1	94,9	119	139
Total power input (Comp.+fans)	(1)	kW	11,2	9,19	12,4	13,5	15,0	17,8	19,7	22,0	25,7	30,4	38,0
EER (Indoor unit)	(1)	kW/kW	4,05	4,15	3,92	4,08	4,13	4,24	4,19	4,18	4,05	3,98	3,92
SHR	(2)		0,96	1,00	0,98	1,00	0,98	1,00	0,96	0,96	0,91	0,98	0,93
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	2	2	2	2	2	2	2	2	4	4
No. Circuits		N°	1	2	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	8,60	9,00	9,00	9,80	9,80	16,2	16,2	17,4	17,4	21,6	21,6
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	2	2	2	2	2	2	3	3
Air flow	(3)	m³/h	10800	10000	12000	15000	15600	20000	20000	22000	22000	32000	32000
NOISE LEVEL													
Sound Power		dB(A)	74	75	77	72	73	75	75	79	79	80	80
Sound Pressure	(4)	dB(A)	57	58	60	55	56	58	58	61	61	62	62
SIZE AND WEIGHT													
A	(3)	mm	1305	1630	1630	1875	1875	2175	2175	2499	2499	2899	2899
B	(3)	mm	930	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	445	530	540	620	640	745	750	845	845	1020	1080
COUPLING UNIT EXTERNAL													
Standard remote condenser linked													
Voltage													
Quantity		N°											

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

WATER COOLED

t-AV DW Water Cooled Direct Expansion Air Conditioners (EC fans)

t-AV DW-OVER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S
Frame			E1	E1	E1	E2	E2	E3	E3	E3	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	7,89	9,39	11,0	14,5	15,5	21,2	23,0	27,8	34,4	39,5
Sensible cooling capacity gross	(1)	kW	7,89	9,39	10,5	14,5	15,5	21,2	23,0	26,5	34,4	39,5
Total power input (Comp,+fans)	(1)	kW	1,42	1,77	2,28	2,87	3,30	4,00	4,86	5,97	6,71	8,20
EER (Indoor unit)	(1)	kW/kW	5,56	5,31	4,82	5,05	4,70	5,30	4,73	4,66	5,13	4,82
SHR	(2)		1,00	1,00	0,95	1,00	1,00	1,00	1,00	0,95	1,00	1,00
PLATE CAPACITOR												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,44	0,53	0,62	0,81	0,88	1,17	1,29	1,57	1,91	2,20
Pressure drop	(1)	kPa	22,1	30,9	25,5	20,4	23,4	20,8	24,6	18,9	27,3	35,4
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,30	3,30	3,30	3,60	3,60	4,40	4,40	4,50	5,70	5,70
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	2500	2700	2800	4000	4200	5700	6100	6400	8700	10000
NOISE LEVEL												
Sound Power		dB(A)	60	62	58	63	64	63	65	64	71	74
Sound Pressure	(4)	dB(A)	44	46	42	47	48	47	49	48	54	57
SIZE AND WEIGHT												
A	(3)	mm	650	650	650	785	785	1085	1085	1085	1630	1630
B	(3)	mm	675	675	675	675	675	775	775	775	930	930
H	(3)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980
Weight	(3)	kg	235	237	240	275	280	320	325	325	500	500

t-AV DW-OVER			041 P1 S	045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D
Frame			E4L	E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L
ower supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	44,1	48,0	39,8	50,3	57,7	65,2	79,4	87,2	97,5	109
Sensible cooling capacity gross	(1)	kW	42,6	44,8	39,2	46,0	57,5	62,5	77,7	82,1	91,0	97,2
Total power input (Comp,+fans)	(1)	kW	8,85	9,87	8,23	11,2	12,0	13,3	15,7	17,5	19,5	22,8
EER (Indoor unit)	(1)	kW/kW	4,98	4,86	4,84	4,49	4,81	4,90	5,06	4,98	5,00	4,78
SHR	(2)		0,97	0,93	0,98	0,91	1,00	0,96	0,98	0,94	0,93	0,89
PLATE CAPACITOR												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,46	2,70	2,23	2,86	3,25	3,66	4,41	4,88	5,46	6,18
Pressure drop	(1)	kPa	27,5	32,5	27,5	43,7	22,1	27,6	23,5	28,2	22,6	28,5
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	2	2	2	2	2	2	2	2
No, Circuits		N°	1	1	2	2	2	2	2	2	2	2
Refrigerant charge		kg	8,60	8,60	9,00	9,00	9,80	9,80	16,2	16,2	17,4	17,4
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	2	2	2	2	2	2
Air flow	(3)	m³/h	10800	10800	10000	12000	15000	15600	20000	20000	22000	22000
NOISE LEVEL												
Sound Power		dB(A)	75	75	75	77	71	73	75	75	79	79
Sound Pressure	(4)	dB(A)	58	58	58	60	54	56	57	57	61	61
SIZE AND WEIGHT												
A	(3)	mm	1630	1630	1955	1955	2198	2198	2499	2499	2899	2899
B	(3)	mm	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	505	505	635	635	690	725	725	725	930	930

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

t-AV DW-UNDER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S
Frame			E1	E1	E1	E2	E2	E3	E3	E3	E4L	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	7,89	9,39	11,0	14,5	16,3	21,2	23,0	27,8	34,4	39,5	44,1
Sensible cooling capacity gross	(1)	kW	7,89	9,39	10,5	14,5	14,8	21,2	23,0	26,5	34,4	39,5	42,6
Total power input (Comp,+fans)	(1)	kW	1,42	1,77	2,28	2,87	3,31	4,00	4,86	5,97	6,71	8,20	8,85
EER (Indoor unit)	(1)	kW/kW	5,56	5,31	4,82	5,05	4,92	5,30	4,73	4,66	5,13	4,82	4,98
SHR	(2)		1,00	1,00	0,95	1,00	0,91	1,00	1,00	0,94	1,00	1,00	0,97
PLATE CAPACITOR													
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,44	0,53	0,62	0,81	0,91	1,17	1,29	1,57	1,91	2,20	2,46
Pressure drop	(1)	kPa	22,1	30,9	25,5	20,4	25,4	20,8	24,6	18,9	27,3	35,4	27,5
REFRIGERANT CIRCUIT													
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,30	3,30	3,30	3,60	3,60	4,40	4,40	4,50	6,20	6,20	9,30
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1	1
Air flow	(3)	m³/h	2500	2700	2800	4000	4200	5700	6100	6400	8700	10000	10800
NOISE LEVEL													
Sound Power		dB(A)	60	62	58	64	65	64	66	66	72	75	75
Sound Pressure	(4)	dB(A)	44	46	42	48	49	48	50	50	55	58	58
SIZE AND WEIGHT													
A	(3)	mm	650	650	650	785	785	1085	1085	1085	1630	1630	1630
B	(3)	mm	675	675	675	675	675	775	775	775	930	930	930
H	(3)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980	1980
Weight	(3)	kg	245	247	250	285	290	340	345	345	420	425	437

t-AV DW-UNDER			045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D	117 P4 D	146 P4 D
Frame			E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L	E9L	E9L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
Total cooling capacity gross	(1)	kW	48,0	39,8	50,3	57,7	65,2	79,4	87,2	97,5	109	126	156
Sensible cooling capacity gross	(1)	kW	44,8	39,2	46,0	57,5	62,5	77,7	82,1	91,0	97,2	126	144
Total power input (Comp,+fans)	(1)	kW	9,87	8,23	11,2	12,0	13,3	15,9	17,5	19,5	22,8	27,7	34,7
EER (Indoor unit)	(1)	kW/kW	4,86	4,84	4,49	4,81	4,90	5,06	4,98	5,00	4,78	4,55	4,50
SHR	(2)		0,93	0,98	0,91	1,00	0,96	0,93	0,94	0,93	0,89	1,00	0,92
PLATE CAPACITOR													
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,70	2,23	2,86	3,25	3,66	4,41	4,88	5,46	6,18	7,10	8,87
Pressure drop	(1)	kPa	32,5	27,5	43,7	22,1	27,6	23,5	28,2	22,9	28,5	33,8	51,2
REFRIGERANT CIRCUIT													
Compressors nr,		N°	1	2	2	2	2	2	2	2	2	4	4
No, Circuits		N°	1	2	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	9,30	9,00	9,00	9,80	9,80	16,2	16,2	17,4	17,4	21,6	21,6
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	2	2	2	2	2	2	3	3
Air flow	(3)	m³/h	10800	10000	12000	15200	15600	20000	20000	22000	22000	33100	33100
NOISE LEVEL													
Sound Power		dB(A)	75	75	78	72	73	75	75	80	80	81	81
Sound Pressure	(4)	dB(A)	58	58	61	55	56	57	57	62	62	63	63
SIZE AND WEIGHT													
A	(3)	mm	1630	1955	1955	2198	2198	2499	2499	2899	2899	3299	3299
B	(3)	mm	930	930	930	930	930	930	930	930	930	930	930
H	(3)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	435	645	645	710	710	775	775	990	990	1140	1190

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

DUAL FLUID AIR COOLED

t-AV DF DX Air Cooled Dual Fluid Air Conditioners

t-AV DF DX-OVER			011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S
Frame			E1	E2	E3	E3	E3	E3	E4	E4	E4
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE											
DIRECT EXPANSION											
Total cooling capacity gross	(1)	kW	10,3	13,8	16,0	20,3	22,1	26,2	32,5	37,6	41,4
Sensible cooling capacity gross	(1)	kW	10,2	13,8	14,8	20,3	22,1	25,3	32,5	37,6	41,2
Total power input (Comp,+fans)	(1)	kW	2,64	3,37	3,85	4,54	5,50	6,74	7,62	9,25	10,2
EER (Indoor unit)	(1)	kW/kW	3,90	4,09	4,16	4,47	4,02	3,89	4,27	4,06	4,06
SHR	(2)		0,99	1,00	0,92	1,00	1,00	0,97	1,00	1,00	1,00
CHILLED WATER											
Total cooling capacity gross	(3)	kW	12,2	17,8	18,4	25,4	26,5	27,4	39,0	43,4	46,0
Sensible cooling capacity gross	(3)	kW	11,8	17,2	18,0	24,6	25,6	26,8	38,3	42,0	44,9
SHR	(2)		0,97	0,97	0,98	0,97	0,97	0,98	0,98	0,97	0,98
Fluid flow	(3)	l/s	0,59	0,85	0,88	1,21	1,27	1,31	1,86	2,07	2,20
Total pressure drop (Coil + Valve)	(3)	kPa	15,0	33,5	35,6	24,7	26,6	28,3	14,2	17,1	19,0
REFRIGERANT CIRCUIT											
Compressors nr,		N°	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg									
FANS											
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1
Air flow	(4)	m³/h	2800	4000	4200	5700	6100	6400	8700	10000	10800
NOISE LEVEL											
Sound Power		dB(A)	59	63	64	63	65	64	71	74	74
Sound Pressure	(5)	dB(A)	43	47	48	47	49	48	54	57	57
SIZE AND WEIGHT											
A	(4)	mm	650	785	785	1085	1085	1085	1305	1305	1305
B	(4)	mm	675	675	675	775	775	775	930	930	930
H	(4)	mm	1925	1925	1925	1925	1925	1925	1980	1980	1980
Weight	(4)	kg	248	283	288	333	338	338	462	467	479
COUPLING UNIT EXTERNAL											
Standard remote condenser linked											
Voltage											
Quantity		N°									

t-AV DF DX-OVER			045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D
Frame			E4	E5	E5	E6	E6	E7	E7	E8	E8
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE											
DIRECT EXPANSION											
Total cooling capacity gross	(1)	kW	45,4	38,1	48,6	55,1	61,9	75,4	82,5	92,0	104
Sensible cooling capacity gross	(1)	kW	43,4	38,1	47,4	55,1	60,6	75,4	79,5	88,1	94,9
Total power input (Comp,+fans)	(1)	kW	11,2	9,21	12,5	13,5	15,1	17,9	19,8	22,1	25,8
EER (Indoor unit)	(1)	kW/kW	4,05	4,14	3,89	4,08	4,10	4,21	4,17	4,16	4,03
SHR	(2)		0,96	1,00	0,98	1,00	0,98	1,00	0,96	0,96	0,91
CHILLED WATER											
Total cooling capacity gross	(3)	kW	46,0	48,8	55,5	65,3	67,3	101	101	116	116
Sensible cooling capacity gross	(3)	kW	44,9	48,8	55,2	63,2	65,4	95,3	95,3	108	108
SHR	(2)		0,98	1,00	0,99	0,97	0,97	0,94	0,94	0,93	0,93
Fluid flow	(3)	l/s	2,20	2,33	2,65	3,12	3,22	4,84	4,84	5,53	5,53
Total pressure drop (Coil + Valve)	(3)	kPa	19,0	26,3	33,1	15,7	16,6	38,8	38,8	49,3	49,3
REFRIGERANT CIRCUIT											
Compressors nr,		N°	1	2	2	2	2	2	2	2	2
No, Circuits		N°	1	2	2	2	2	2	2	2	2
Refrigerant charge		kg									
FANS											
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	2	2	2	2	2	2
Air flow	(4)	m³/h	10800	10000	12000	15000	15600	20000	20000	22000	22000
NOISE LEVEL											
Sound Power		dB(A)	74	75	76	71	73	75	75	78	78
Sound Pressure	(5)	dB(A)	57	58	59	54	56	58	58	60	60
SIZE AND WEIGHT											
A	(4)	mm	1305	1630	1630	1875	1875	2175	2175	2499	2499
B	(4)	mm	930	930	930	930	930	930	930	930	930
H	(4)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	487	584	594	684	704	777	784	886	886
COUPLING UNIT EXTERNAL											
Standard remote condenser linked											
Voltage											
Quantity		N°									

t-AV DF DX-UNDER			011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S	045 P1 S
Frame			E1	E2	E3	E3	E3	E3	E4	E4	E4	E4
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	10,3	13,8	16,0	20,3	22,1	26,2	32,5	37,6	41,4	45,4
Sensible cooling capacity gross	(1)	kW	10,2	13,8	14,8	20,3	22,1	25,3	32,5	37,6	41,2	43,4
Total power input (Comp,+fans)	(1)	kW	2,64	3,27	3,74	4,54	5,50	6,74	7,62	9,25	10,2	11,2
EER (Indoor unit)	(1)	kW/kW	3,90	4,22	4,28	4,47	4,02	3,89	4,27	4,06	4,06	4,05
SHR	(2)		0,99	1,00	0,92	1,00	1,00	0,97	1,00	1,00	1,00	0,96
CHILLED WATER												
Total cooling capacity gross	(3)	kW	12,2	17,8	18,4	25,4	26,5	27,4	39,0	43,4	46,0	46,0
Sensible cooling capacity gross	(3)	kW	11,8	17,2	18,0	24,6	25,6	26,8	38,3	42,0	44,9	44,9
SHR	(2)		0,97	0,97	0,98	0,97	0,97	0,98	0,98	0,97	0,98	0,98
Fluid flow	(3)	l/s	0,59	0,85	0,88	1,21	1,27	1,31	1,86	2,07	2,20	2,20
Total pressure drop (Coil + Valve)	(3)	kPa	15,0	33,5	35,6	24,7	26,6	28,3	14,2	17,1	19,0	19,0
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg										
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1
Air flow	(4)	m³/h	2800	4000	4200	5700	6100	6400	8700	10000	10800	10800
NOISE LEVEL												
Sound Power		dB(A)	59	64	65	64	66	66	72	75	74	74
Sound Pressure	(5)	dB(A)	43	48	49	48	50	50	55	58	57	57
SIZE AND WEIGHT												
A	(4)	mm	650	785	785	1085	1085	1085	1305	1305	1305	1305
B	(4)	mm	675	675	675	775	775	775	930	930	930	930
H	(4)	mm	1925	1925	1925	1925	1925	1925	1980	1980	1980	1980
Weight	(4)	kg	258	293	298	353	358	358	472	477	489	497
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

t-AV DF DX-UNDER			039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D	117 P4 D	146 P4 D
Frame			E5	E5	E6	E6	E7	E7	E8	E8	E9	E9
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	38,1	48,6	55,1	61,9	75,4	82,5	92,0	104	122	147
Sensible cooling capacity gross	(1)	kW	38,1	47,4	55,1	60,6	75,4	79,5	88,1	94,9	122	140
Total power input (Comp,+fans)	(1)	kW	9,21	12,5	13,5	15,1	17,9	19,8	22,2	26,0	30,6	38,2
EER (Indoor unit)	(1)	kW/kW	4,14	3,89	4,08	4,10	4,21	4,17	4,14	4,00	3,99	3,85
SHR	(2)		1,00	0,98	1,00	0,98	1,00	0,96	0,96	0,91	1,00	0,95
CHILLED WATER												
Total cooling capacity gross	(3)	kW	48,8	55,5	65,3	67,3	101	101	116	116	326	326
Sensible cooling capacity gross	(3)	kW	48,8	55,2	63,2	65,4	95,3	95,3	108	108	236	236
SHR	(2)		1,00	0,99	0,97	0,97	0,94	0,94	0,93	0,93	0,72	0,72
Fluid flow	(3)	l/s	2,33	2,65	3,12	3,22	4,84	4,84	5,53	5,53	15,6	15,6
Total pressure drop (Coil + Valve)	(3)	kPa	26,3	33,1	15,7	16,6	38,8	38,8	49,3	49,3	177	177
REFRIGERANT CIRCUIT												
Compressors nr,		N°	2	2	2	2	2	2	2	2	4	4
No, Circuits		N°	2	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg										
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	2	2	2	2	2	2	3	3
Air flow	(4)	m³/h	10000	12000	15000	15600	20000	20000	22000	22000	32000	32000
NOISE LEVEL												
Sound Power		dB(A)	75	77	72	73	75	75	79	79	80	80
Sound Pressure	(5)	dB(A)	58	60	55	56	58	58	61	61	62	62
SIZE AND WEIGHT												
A	(4)	mm	1630	1630	1875	1875	2175	2175	2499	2499	2899	2899
B	(4)	mm	930	930	930	930	930	930	930	930	930	930
H	(4)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	594	604	694	714	834	839	946	946	1150	1210
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 7°C/12°C; ESP= 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.

The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

DUAL FLUID WATER COOLED

t-AV DF DW Water Cooled Dual Fluid Air Conditioners

t-AV DF DW-OVER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S
Frame			E1	E2	E3	E3	E3	E3	E4	E3	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	7,89	9,39	11,0	14,5	16,3	21,2	23,0	27,8	34,4	39,5
Sensible cooling capacity gross	(1)	kW	7,89	9,39	10,5	14,5	14,8	21,2	23,0	26,5	34,4	39,5
Total power input (Comp,+fans)	(1)	kW	1,47	1,84	2,23	2,99	3,44	4,14	5,03	6,16	6,87	8,43
EER (Indoor unit)	(1)	kW/kW	5,37	5,10	4,93	4,85	4,74	5,12	4,57	4,51	5,01	4,69
SHR	(2)		1,00	1,00	0,95	1,00	0,91	1,00	1,00	0,95	1,00	1,00
CHILLED WATER												
Total cooling capacity gross	(3)	kW	11,2	11,8	12,2	17,6	18,3	25,4	26,5	27,4	39,0	43,4
Sensible cooling capacity gross	(3)	kW	11,2	11,8	12,2	17,6	18,3	24,6	25,6	26,8	38,3	42,0
SHR	(2)	1,00	1,00	1,00	1,00	1,00	0,97	0,97	0,97	0,98	0,98	0,97
Fluid flow	(3)	l/s	0,54	0,57	0,58	0,84	0,88	1,21	1,27	1,31	1,86	2,07
Total pressure drop (Coil + Valve)	(3)	kPa	12,8	14,1	14,9	32,9	35,2	24,7	26,6	28,3	14,2	17,1
EXCHANGERS												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,44	0,53	0,62	0,81	0,91	1,17	1,29	1,57	1,91	2,20
Pressure drop	(1)	kPa	22,1	30,9	25,5	20,4	25,4	20,8	24,6	18,9	27,3	35,4
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg										
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1
Air flow	(4)	m³/h	2500	2700	2800	4000	4200	5700	6100	6400	8700	10000
NOISE LEVEL												
Sound Power		dB(A)	61	63	58	63	64	63	65	64	71	74
Sound Pressure	(5)	dB(A)	45	47	42	47	48	47	49	48	54	57
SIZE AND WEIGHT												
A	(4)	mm	650	650	650	785	785	1085	1085	1085	1630	1630
B	(4)	mm	675	675	675	675	675	775	775	775	930	930
H	(4)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980
Weight	(4)	kg	280	282	285	328	333	393	398	398	612	612

t-AV DF DW-OVER			041 P1 S	045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D
Frame			E4L	E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	44,1	48,0	40,8	50,3	57,7	65,2	79,4	87,2	97,5	109
Sensible cooling capacity gross	(1)	kW	42,6	44,8	38,0	46,0	57,5	62,5	77,7	82,1	91,0	97,2
Total power input (Comp,+fans)	(1)	kW	9,12	10,1	8,35	11,5	12,3	13,7	16,2	18,0	20,0	23,3
EER (Indoor unit)	(1)	kW/kW	4,84	4,75	4,89	4,37	4,69	4,76	4,90	4,84	4,88	4,68
SHR	(2)		0,97	0,93	0,93	0,91	1,00	0,96	0,98	0,94	0,93	0,89
CHILLED WATER												
Total cooling capacity gross	(3)	kW	45,6	46,0	49,9	55,5	65,3	67,3	101	101	116	116
Sensible cooling capacity gross	(3)	kW	45,6	44,9	48,2	55,2	63,2	65,4	95,3	95,3	108	108
SHR	(2)	1,00	1,00	0,98	0,97	0,99	0,97	0,97	0,94	0,98	0,93	0,93
Fluid flow	(3)	l/s	2,18	2,20	2,39	2,65	3,12	3,22	4,84	4,84	5,53	5,53
Total pressure drop (Coil + Valve)	(3)	kPa	18,7	19,0	27,4	33,1	15,7	16,6	38,8	38,8	49,3	49,3
EXCHANGERS												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,46	2,70	2,27	2,86	3,25	3,66	4,41	4,88	5,46	6,18
Pressure drop	(1)	kPa	27,5	32,5	28,7	43,7	22,1	27,6	23,5	28,2	22,6	28,5
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	2	2	2	2	2	2	2	2
No, Circuits		N°	1	1	2	2	2	2	2	2	2	2
Refrigerant charge		kg										
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	2	2	2	2	2	2
Air flow	(4)	m³/h	10800	10800	10000	12000	15000	15600	20000	20000	22000	22000
NOISE LEVEL												
Sound Power		dB(A)	74	74	75	76	71	73	75	75	78	78
Sound Pressure	(5)	dB(A)	57	57	58	59	54	56	57	57	60	60
SIZE AND WEIGHT												
A	(4)	mm	1630	1630	1955	1955	2198	2198	2499	2499	2899	2899
B	(4)	mm	930	930	930	930	930	930	930	930	930	930
H	(4)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	617	617	769	769	844	844	906	906	1137	1137

t-AV DF DW-UNDER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S
Frame			E1	E1	E1	E2	E2	E3	E3	E3	E4L	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
DIRECT EXPANSION													
Total cooling capacity gross	(1)	kW	7,89	9,39	11,0	14,5	16,3	21,2	23,0	27,8	34,4	39,5	44,1
Sensible cooling capacity gross	(1)	kW	7,89	9,39	10,5	14,5	14,8	21,2	23,0	26,5	34,4	39,5	42,6
Total power input (Comp,+fans)	(1)	kW	1,47	1,84	2,35	2,99	3,44	4,14	5,03	6,16	6,87	8,43	9,12
EER (Indoor unit)	(1)	kW/kW	5,37	5,10	4,68	4,85	4,74	5,12	4,57	4,51	5,01	4,69	4,84
SHR	(2)		1,00	1,00	0,95	1,00	0,91	1,00	1,00	0,95	1,00	1,00	0,97
CHILLED WATER													
Total cooling capacity gross	(3)	kW	11,2	11,8	12,2	17,6	18,3	25,4	26,5	27,4	39,0	43,4	45,6
Sensible cooling capacity gross	(3)	kW	11,2	11,8	12,2	17,6	18,3	24,6	25,6	26,8	38,3	42,0	45,6
SHR	(2)		1,00	1,00	1,00	1,00	1,00	0,97	0,97	0,98	0,98	0,97	1,00
Fluid flow	(3)	l/s	0,54	0,57	0,58	0,84	0,88	1,21	1,27	1,31	1,86	2,07	2,18
Total pressure drop (Coil + Valve)	(3)	kPa	12,8	14,1	14,9	32,9	35,2	24,7	26,6	28,3	14,2	17,1	18,7
EXCHANGERS													
Capacitors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,44	0,53	0,62	0,81	0,91	1,17	1,29	1,57	1,91	2,20	2,46
Pressure drop	(1)	kPa	22,1	30,9	25,5	20,4	25,4	20,8	24,6	18,9	27,3	35,4	27,5
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant charg		kg											
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1	1
Air flow	(4)	m³/h	2500	2700	2800	4000	4200	5700	6100	6400	8700	10000	10800
NOISE LEVEL													
Sound Power		dB(A)	61	63	59	64	65	64	66	66	72	75	74
Sound Pressure	(5)	dB(A)	45	47	43	48	49	48	50	50	55	58	57
SIZE AND WEIGHT													
A	(4)	mm	650	650	650	785	785	1085	1085	1085	1630	1630	1630
B	(4)	mm	675	675	675	675	675	775	775	775	930	930	930
H	(4)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980	1980
Weight	(4)	kg	290	292	295	338	343	413	418	418	622	622	627

t-AV DF DW-UNDER			045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D	117 P4 D	146 P4 D
Frame			E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L	E9L	E9L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
DIRECT EXPANSION													
Total cooling capacity gross	(1)	kW	48,0	40,8	50,3	57,7	65,2	79,4	87,2	97,5	109	127	157
Sensible cooling capacity gross	(1)	kW	44,8	38,0	46,0	57,5	62,5	77,7	82,1	91,0	97,2	123	143
Total power input (Comp,+fans)	(1)	kW	10,1	8,35	11,5	12,3	13,7	16,2	18,0	20,0	23,3	28,8	35,8
EER (Indoor unit)	(1)	kW/kW	4,75	4,89	4,37	4,69	4,76	4,90	4,84	4,88	4,68	4,41	4,39
SHR	(2)		0,93	0,93	0,91	1,00	0,96	0,98	0,94	0,93	0,89	0,97	0,91
CHILLED WATER													
Total cooling capacity gross	(3)	kW	46,0	49,9	55,5	65,3	67,3	101	101	116	116	145	145
Sensible cooling capacity gross	(3)	kW	44,9	48,2	55,5	63,2	65,4	95,3	95,3	108	108	145	145
SHR	(2)		0,98	0,97	0,99	0,97	0,97	0,94	0,94	0,93	0,93	1,00	1,00
Fluid flow	(3)	l/s	2,20	2,39	2,65	3,12	3,22	4,84	4,84	5,53	5,53	6,95	6,95
Total pressure drop (Coil + Valve)	(3)	kPa	19,0	27,4	33,1	15,7	16,6	38,8	38,8	49,3	49,3	42,4	42,4
EXCHANGERS													
Capacitors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,70	2,27	2,86	3,25	3,66	4,41	4,88	5,46	6,18	7,16	8,93
Pressure drop	(1)	kPa	32,5	28,7	43,7	22,1	27,6	23,5	28,2	22,6	28,5	34,4	51,9
REFRIGERANT CIRCUIT													
Compressors nr.		N°	1	2	2	2	2	2	2	2	2	4	4
No. Circuits		N°	1	2	2	2	2	2	2	2	2	2	2
Refrigerant charg		kg											
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	2	2	2	2	2	2	3	3
Air flow	(4)	m³/h	10800	10000	12000	15000	15600	20000	20000	22000	22000	33100	33100
NOISE LEVEL													
Sound Power		dB(A)	74	75	77	72	73	75	75	79	79	81	81
Sound Pressure	(5)	dB(A)	57	58	60	55	56	57	57	61	61	63	63
SIZE AND WEIGHT													
A	(4)	mm	1630	1955	1955	2198	2198	2499	2499	2899	2899	3299	3299
B	(4)	mm	930	930	930	930	930	930	930	930	930	930	930
H	(4)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	627	779	779	864	864	956	956	1197	1197	1395	1445

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 7°C/12°C; ESP= 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

FREE COOLING WATER COOLED

t-AV FC DW Water Cooled Free Cooling Air Conditioners

t-AV FC DW-OVER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S
Frame			E1	E1	E1	E2	E2	E3	E3	E3	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	7,88	9,79	11,4	15,2	15,4	21,2	23,5	27,9	34,0	39,4
Sensible cooling capacity gross	(1)	kW	7,88	8,95	10,3	13,9	15,4	21,2	22,2	26,3	33,8	33,9
Total power input (Comp,+fans)	(1)	kW	1,44	1,82	2,20	2,90	3,32	4,02	4,93	6,00	6,73	8,23
EER (Indoor unit)	(1)	kW/kW	5,47	5,38	5,18	5,24	4,64	5,27	4,77	4,65	5,05	4,79
SHR	(2)		1,00	0,91	0,90	0,91	1,00	1,00	0,94	1,00	0,99	0,99
FREECOOLING												
FC total capacity	(3)	kW	9,20	10,1	10,6	15,1	15,7	21,4	22,5	24,2	33,2	37,5
FC sensible capacity	(3)	kW	9,20	10,1	10,6	15,1	15,7	21,4	22,5	24,2	33,2	37,5
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PLATE CAPACITOR												
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,44	0,55	0,64	0,85	0,88	1,17	1,32	1,57	1,89	2,20
Pressure drop	(1)	kPa	22,1	33,2	27,2	21,9	23,4	20,9	25,7	18,9	26,7	35,1
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,30	3,30	3,30	3,60	3,60	4,40	4,40	4,50	6,20	6,20
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1
Air flow	(4)	m³/h	2500	2700	2800	4000	4200	5700	6100	6400	8700	10000
NOISE LEVEL												
Sound Power		dB(A)	61	62	57	63	64	63	65	64	71	74
Sound Pressure	(5)	dB(A)	45	46	41	47	48	47	49	48	54	57
SIZE AND WEIGHT												
A	(4)	mm	650	650	650	785	785	1085	1085	1085	1630	1630
B	(4)	mm	675	675	675	675	675	775	775	775	930	930
H	(4)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980
Weight	(4)	kg	280	282	285	328	333	393	398	398	612	612
COUPLING UNIT EXTERNAL												
Standard dry cooler linked												
Voltage		V/ph/Hz										
Quantity		N°										

t-AV FC DW-OVER			041 P1 S	045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D
Frame			E4L	E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	44,1	48,0	40,8	51,1	59,2	65,2	79,4	87,2	99,7	112
Sensible cooling capacity gross	(1)	kW	42,6	44,8	38,0	46,1	56,1	62,5	77,7	82,1	90,9	97,9
Total power input (Comp,+fans)	(1)	kW	8,89	9,92	8,22	10,9	12,0	13,4	15,8	17,5	19,7	22,9
EER (Indoor unit)	(1)	kW/kW	4,96	4,84	4,96	4,69	4,93	4,87	5,03	4,98	5,06	4,89
SHR	(2)		0,97	0,93	0,93	0,90	0,95	0,96	0,98	0,94	0,91	0,87
FREECOOLING												
FC total capacity	(3)	kW	40,1	40,3	40,5	44,8	56,4	58,8	79,2	80,3	90,6	92,0
FC sensible capacity	(3)	kW	40,1	40,3	40,5	44,8	56,4	58,8	79,2	80,3	90,6	92,0
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PLATE CAPACITOR												
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,46	2,70	2,27	2,90	3,32	3,66	4,41	4,88	5,57	6,30
Pressure drop	(1)	kPa	27,5	32,5	28,7	44,7	23,2	27,6	23,5	28,2	23,5	29,6
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	2	2	2	2	2	2	2	2
No, Circuits		N°	1	1	2	2	2	2	2	2	2	2
Refrigerant charge		kg	9,30	9,30	9,70	9,70	11,0	11,4	17,8	17,8	19,1	19,1
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	2	2	2	2	2	2
Air flow	(4)	m³/h	10800	10800	10000	11000	15000	15600	20000	20000	22000	22000
NOISE LEVEL												
Sound Power		dB(A)	75	75	75	75	71	73	75	75	78	78
Sound Pressure	(5)	dB(A)	58	58	58	58	54	56	57	57	60	60
SIZE AND WEIGHT												
A	(4)	mm	1630	1630	1955	1955	2198	2198	2499	2499	2899	2899
B	(4)	mm	930	930	930	930	930	930	930	930	930	930
H	(4)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	617	617	769	769	844	844	906	906	1137	1137
COUPLING UNIT EXTERNAL												
Standard dry cooler linked												
Voltage		V/ph/Hz										
Quantity		N°										

t-AV FC DW-UNDER			007 P1 S	009 P1 S	011 P1 S	014 P1 S	016 P1 S	020 P1 S	022 P1 S	026 P1 S	032 P1 S	037 P1 S	041 P1 S
Frame			E1	E1	E1	E2	E2	E3	E3	E3	E4L	E4L	E4L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
DIRECT EXPANSION													
Total cooling capacity gross	(1)	kW	7,88	9,79	11,4	15,2	15,4	21,2	23,5	27,9	34,0	39,4	44,1
Sensible cooling capacity gross	(1)	kW	7,88	8,95	10,3	13,9	15,4	21,2	22,2	26,3	33,8	38,9	42,6
Total power input (Comp,+fans)	(1)	kW	1,44	1,82	2,34	2,90	3,32	4,02	4,93	6,00	6,73	8,23	8,89
EER (Indoor unit)	(1)	kW/kW	5,47	5,38	4,87	5,24	4,64	5,27	4,77	4,65	5,05	4,79	4,96
SHR	(2)		1,00	0,91	0,90	0,91	1,00	1,00	0,94	0,94	0,99	0,99	0,97
FREECOOLING													
FC total capacity	(3)	kW	9,20	10,1	10,6	15,1	15,7	21,4	22,5	24,2	33,2	37,5	40,1
FC sensible capacity	(3)	kW	9,20	10,1	10,6	15,1	15,7	21,4	22,5	24,2	33,2	37,5	40,1
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PLATE CAPACITOR													
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,44	0,55	0,64	0,85	0,88	1,17	1,32	1,57	1,89	2,20	2,46
Pressure drop	(1)	kPa	22,1	33,2	27,2	21,9	23,4	20,9	25,7	18,9	26,7	35,1	27,5
REFRIGERANT CIRCUIT													
Compressors nr,		N°	1	1	1	1	1	1	1	1	1	1	1
No, Circuits		N°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,30	3,30	3,30	3,60	3,60	4,40	4,40	4,50	6,20	6,20	9,30
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	1	1	1	1	1
Air flow	(4)	m³/h	2500	2700	2800	4000	4200	5700	6100	6400	8700	10000	10800
NOISE LEVEL													
Sound Power		dB(A)	61	62	58	64	65	64	66	66	72	75	75
Sound Pressure	(5)	dB(A)	45	46	42	48	49	48	50	50	52	58	58
SIZE AND WEIGHT													
A	(4)	mm	650	650	650	785	785	1085	1085	1085	1630	1630	1630
B	(4)	mm	675	675	675	675	675	775	775	775	930	930	930
H	(4)	mm	1925	1925	1925	1925	1925	1925	1925	1925	1980	1980	1980
Weight	(4)	kg	290	292	295	338	343	413	418	418	622	622	627
COUPLING UNIT EXTERNAL													
Standard dry cooler linked													
Voltage		V/ph/Hz											
Quantity		N°											

t-AV FC DW-UNDER			045 P1 S	039 P2 D	048 P2 D	055 P2 D	062 P2 D	075 P2 D	082 P2 D	092 P2 D	102 P2 D	117 P4 D	146 P4 D
Frame			E4L	E5L	E5L	E6L	E6L	E7L	E7L	E8L	E8L	E9L	E9L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE													
DIRECT EXPANSION													
Total cooling capacity gross	(1)	kW	48,0	40,8	51,1	59,2	65,2	79,4	87,2	99,7	112	127	157
Sensible cooling capacity gross	(1)	kW	44,8	38,0	46,1	56,1	62,5	77,7	82,1	90,9	97,9	123	143
Total power input (Comp,+fans)	(1)	kW	9,92	8,22	10,9	12,0	13,4	15,8	17,5	19,7	22,9	28,0	34,9
EER (Indoor unit)	(1)	kW/kW	4,84	4,96	4,69	4,93	4,87	5,03	4,98	5,06	4,89	4,54	4,50
SHR	(2)		0,93	0,93	0,90	0,95	0,96	0,98	0,94	0,91	0,87	0,97	0,91
FREECOOLING													
FC total capacity	(3)	kW	40,3	40,5	44,8	56,4	58,8	79,2	80,3	90,6	92,0	124	128
FC sensible capacity	(3)	kW	40,3	40,5	44,8	56,4	58,8	79,2	80,3	90,6	92,0	124	128
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PLATE CAPACITOR													
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	2,70	2,27	2,90	3,32	3,66	4,41	4,88	5,57	6,30	7,16	8,93
Pressure drop	(1)	kPa	32,5	28,7	45,1	23,2	27,6	23,5	28,2	23,5	29,6	34,4	51,9
REFRIGERANT CIRCUIT													
Compressors nr,		N°	1	2	2	2	2	2	2	2	2	4	4
No, Circuits		N°	1	2	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	9,30	9,70	9,70	11,0	11,4	16,2	16,2	19,1	19,1	21,6	21,6
FANS													
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	2	2	2	2	2	2	3	3
Air flow	(4)	m³/h	10800	10000	11000	15000	15600	20000	20000	22000	22000	33100	33100
NOISE LEVEL													
Sound Power		dB(A)	75	75	76	72	73	75	75	79	79	81	81
Sound Pressure	(5)	dB(A)	58	58	59	55	56	57	57	61	61	63	63
SIZE AND WEIGHT													
A	(4)	mm	1630	1955	1955	2198	2198	2499	2499	2899	2899	3299	3299
B	(4)	mm	930	930	930	930	930	930	930	930	930	930	930
H	(4)	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	627	779	779	864	864	956	956	1197	1197	1395	1445
COUPLING UNIT EXTERNAL													
Standard dry cooler linked													
Voltage		V/ph/Hz											
Quantity		N°											

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor air (in) 26°C - R.H. 40%; Water (in) 10°C and water flow of DX mode; ESP = 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

INVERTER AIR COOLED

i-AV DX Air Cooled Direct Expansion Air Conditioners with inverter technology

i-AV DX-OVER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D
Frame			E1	E2	E3	E4	E5	E5	E7	E8
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE										
Total cooling capacity gross	(1)	kW	9,12	17,8	22,2	30,7	43,8	48,2	68,6	93,9
Sensible cooling capacity gross	(1)	kW	9,12	17,7	22,2	30,7	43,8	48,2	68,6	93,9
Total power input (Comp,+fans)	(1)	kW	2,12	4,80	6,01	7,73	11,5	12,9	17,7	25,1
EER (Indoor unit)	(1)	kW/kW	4,30	3,71	3,69	3,97	3,81	3,74	3,88	3,74
SHR	(2)		1,00	0,99	1,00	1,00	1,00	1,00	1,00	1,00
REFRIGERANT CIRCUIT										
Compressors nr,		N°	1	1	1	1	2	1	2	2
No, Circuits		N°	1	1	1	1	2	1	2	2
Refrigerant charge		kg	3,24	3,60	4,30	6,10	8,60	9,20	12,2	18,4
FANS										
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2
Air flow	(3)	m³/h	2700	4100	5000	7500	12000	12000	17500	22000
NOISE LEVEL										
Sound Power		dB(A)	57	63	60	67	82	76	72	78
Sound Pressure	(4)	dB(A)	41	47	44	50	65	59	55	60
SIZE AND WEIGHT										
A	(3)	mm	650	785	1085	1305	1630	1630	2175	2499
B	(3)	mm	675	675	775	930	930	930	930	930
H	(3)	mm	1925	1925	1925	1980	1980	1980	1980	1980
Weight	(3)	kg	210	240	320	430	565	480	650	805
COUPLING UNIT EXTERNAL										
Standard remote condenser linked										
Voltage										
Quantity		N°								

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases

i-AV DX-UNDER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D	120 M4 D	150 M4 D
Frame			E1	E2	E3	E4	E5	E5	E7	E8	E9	E9
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	9,12	17,8	22,2	30,7	43,8	48,2	68,6	93,9	100	129
Sensible cooling capacity gross	(1)	kW	9,12	17,7	22,2	30,7	43,8	48,2	68,6	93,9	100	129
Total power input (Comp,+fans)	(1)	kW	2,12	4,81	6,01	7,73	11,7	12,9	17,7	25,1	28,3	38,7
EER (Indoor unit)	(1)	kW/kW	4,30	3,70	3,69	3,97	3,74	3,74	3,88	3,74	3,53	3,33
SHR	(2)		1,00	0,99	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	2	1	2	2	4	4
No, Circuits		N°	1	1	1	1	2	1	2	2	2	2
Refrigerant charge		kg	3,24	3,60	4,30	6,10	8,60	9,20	12,2	18,4	20,8	20,8
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2	3	3
Air flow	(3)	m³/h	2700	4100	5000	7500	12000	12000	17500	22000	28000	32000
NOISE LEVEL												
Sound Power		dB(A)	57	64	61	68	75	77	72	79	77	80
Sound Pressure	(4)	dB(A)	41	48	45	51	58	60	55	61	59	62
SIZE AND WEIGHT												
A	(3)	mm	650	785	1085	1305	1630	1630	2175	2499	2899	2899
B	(3)	mm	675	675	775	930	930	930	930	930	930	930
H	(3)	mm	1925	1925	1925	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	220	250	330	440	575	490	705	865	985	1010
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated basedon the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

i-AV

INVERTER WATER COOLED

i-AV DW Water Cooled Direct Expansion Air Conditioners with inverter technology

i-AV DW-OVER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D
Frame			E1	E2	E3	E4L	E5L	E5L	E7L	E8L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE										
Total cooling capacity gross	(1)	kW	9,73	19,2	23,9	32,6	46,2	50,9	72,3	99,5
Sensible cooling capacity gross	(1)	kW	9,72	17,8	22,3	31,2	45,1	48,0	69,8	92,6
Total power input (Comp,+fans)	(1)	kW	1,77	4,24	5,32	6,77	10,6	11,7	15,7	22,3
EER (Indoor unit)	(1)	kW/kW	5,50	4,53	4,49	4,82	4,36	4,35	4,61	4,46
SHR	(2)		1,00	0,93	0,93	0,96	0,98	0,94	0,97	0,93
PLATE CAPACITOR										
Capacitors nr,		N°	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,54	1,10	1,38	1,85	2,63	2,90	4,12	5,68
Pressure drop	(1)	kPa	21,0	30,9	29,4	17,2	18,0	40,5	22,2	26,4
REFRIGERANT CIRCUIT										
Compressors nr,		N°	1	1	1	1	2	1	2	2
No, Circuits		N°	1	1	1	1	2	1	1	2
Refrigerant charge		kg	3,20	3,80	4,60	6,80	9,40	9,90	13,8	20,2
FANS										
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2
Air flow	(3)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000
NOISE LEVEL										
Sound Power		dB(A)	57	63	61	67	76	76	72	78
Sound Pressure	(4)	dB(A)	41	47	45	50	59	59	54	60
SIZE AND WEIGHT										
A	(3)	mm	650	785	1085	1630	1955	1955	2499	2899
B	(3)	mm	675	675	775	930	930	930	930	930
H	(3)	mm	1925	1925	1925	1980	1980	1980	1980	1980
Weight	(3)	kg	230	280	325	480	610	580	730	900

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

i-AV DW-UNDER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D	120 M4 D	150 M4 D
Frame			E1	E2	E3	E4L	E5L	E5L	E7L	E8L	E9L	E9L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
Total cooling capacity gross	(1)	kW	9,73	19,2	23,9	32,6	46,2	50,9	72,3	99,5	117	141
Sensible cooling capacity gross	(1)	kW	9,72	17,8	22,3	31,2	45,1	48,0	69,8	92,6	114	133
Total power input (Comp,+fans)	(1)	kW	1,77	4,24	5,32	6,77	10,6	11,7	15,7	22,3	27,2	32,8
EER (Indoor unit)	(1)	kW/kW	5,50	4,53	4,49	4,82	4,36	4,35	4,61	4,46	4,30	4,30
SHR	(2)		1,00	0,93	0,93	0,96	0,98	0,94	0,97	0,93	0,97	0,94
PLATE CAPACITOR												
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,54	1,10	1,38	1,85	2,63	2,90	4,12	5,68	6,64	8,09
Pressure drop	(1)	kPa	21,0	30,9	29,4	17,2	18,0	40,5	22,2	26,4	29,6	42,9
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	2	1	2	2	4	4
No, Circuits		N°	1	1	1	1	2	1	2	2	2	2
Refrigerant charge		kg	3,20	3,80	4,60	6,80	9,40	9,90	13,8	20,2	21,6	21,6
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2	3	3
Air flow	(3)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000	32000	32000
NOISE LEVEL												
Sound Power		dB(A)	57	64	62	68	74	77	72	78	80	80
Sound Pressure	(4)	dB(A)	41	48	46	51	57	60	54	60	62	62
SIZE AND WEIGHT												
A	(3)	mm	650	785	1085	1630	1955	1955	2499	2899	3299	3299
B	(3)	mm	675	675	775	930	930	930	930	930	930	930
H	(3)	mm	1925	1925	1925	1980	1980	1980	1980	1980	1980	1980
Weight	(3)	kg	240	290	345	490	620	590	785	960	1100	1125

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Unit in standard configuration/execution, without optional accessories.
4 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated basedon the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

INVERTER AIR COOLED DUAL FLUID

i-AV DF DX Air Cooled Direct Fluid Air Conditioners with inverter technology

i-AV DF DX-UNDER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D
Frame			E1	E2	E3	E4	E5	E5	E7	E8
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE										
DIRECT EXPANSION										
Total cooling capacity gross	(1)	kW	9,12	17,8	22,2	30,7	43,8	48,2	68,6	93,9
Sensible cooling capacity gross	(1)	kW	9,12	17,7	22,2	30,7	43,8	48,2	68,6	93,9
Total power input (Comp,+fans)	(1)	kW	2,14	4,95	6,05	7,75	11,5	13,0	17,8	25,1
EER (Indoor unit)	(1)	kW/kW	4,26	3,60	3,67	3,96	3,81	3,71	3,85	3,74
SHR	(2)		1,00	0,99	1,00	1,00	1,00	1,00	1,00	1,00
CHILLED WATER										
Total cooling capacity gross	(3)	kW	11,8	18,0	23,2	34,9	55,9	55,9	92,3	116
Sensible cooling capacity gross	(3)	kW	11,8	18,0	23,2	34,9	55,7	55,7	85,3	107
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	0,92	0,92
Fluid flow	(3)	l/s	0,57	0,86	1,11	1,67	2,67	2,67	4,42	5,55
Total pressure drop (Coil + Valve)	(3)	kPa	14,1	34,1	21,1	11,7	33,5	33,5	33,1	56,7
REFRIGERANT CIRCUIT										
Compressors nr,		N°	1	1	1	1	2	1	2	2
No, Circuits		N°	1	1	1	1	2	1	2	2
Refrigerant charge		kg								
FANS										
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2
Air flow	(4)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000
NOISE LEVEL										
Sound Power		dB(A)	58	64	61	68	82	76	72	78
Sound Pressure	(5)	dB(A)	42	48	45	51	65	59	55	60
SIZE AND WEIGHT										
A	(4)	mm	650	785	1085	1305	1630	1630	2175	2499
B	(4)	mm	675	675	775	930	930	930	930	930
H	(4)	mm	1925	1925	1925	1980	1980	1980	1980	1980
Weight	(4)	kg	230	263	353	473	629	532	724	894
COUPLING UNIT EXTERNAL										
Standard remote condenser linked										
Voltage										
Quantity		N°								

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 7°C/12°C; ESP= 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

i-AV

TOTAL INVERTER TECHNOLOGY

i-AV DF DX-UNDER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D	120 M4 D	150 M4 D
Frame			E1	E2	E3	E4	E5	E5	E7	E8	E9	E9
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	9,12	17,8	22,2	30,7	43,8	48,2	68,6	93,9	111	134
Sensible cooling capacity gross	(1)	kW	9,12	17,7	22,2	30,7	43,8	48,2	68,6	93,9	111	134
Total power input (Comp,+fans)	(1)	kW	2,14	4,83	6,05	7,75	11,7	13,0	17,8	25,1	30,0	36,1
EER (Indoor unit)	(1)	kW/kW	4,26	3,69	3,67	3,96	3,74	3,71	3,85	3,74	3,70	3,71
SHR	(2)		1,00	0,99	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
CHILLED WATER												
Total cooling capacity gross	(3)	kW	11,8	18,0	23,2	34,9	55,9	55,9	92,3	116	141	141
Sensible cooling capacity gross	(3)	kW	11,8	18,0	23,2	34,9	55,7	55,7	85,3	107	141	141
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	0,92	0,92	1,00	1,00
Fluid flow	(3)	l/s	0,57	0,86	1,11	1,67	2,67	2,67	4,42	5,55	6,75	6,75
Total pressure drop (Coil + Valve)	(3)	kPa	14,1	34,1	21,1	11,7	33,5	33,5	33,1	56,7	40,5	40,4
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	2	1	2	2	4	4
No, Circuits		N°	1	1	1	1	2	1	2	2	2	2
Refrigerant charge		kg										
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2	3	3
Air flow	(4)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000	32000	32000
NOISE LEVEL												
Sound Power		dB(A)	58	64	62	69	75	77	72	79	80	80
Sound Pressure	(5)	dB(A)	42	48	46	52	58	60	55	61	62	62
SIZE AND WEIGHT												
A	(4)	mm	650	785	1085	1305	1630	1630	2175	2499	2899	2899
B	(4)	mm	675	675	775	930	930	930	930	930	930	930
H	(4)	mm	1925	1925	1925	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	240	273	363	483	639	542	779	954	1110	1135
COUPLING UNIT EXTERNAL												
Standard remote condenser linked												
Voltage												
Quantity		N°										

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Condensing temperature 45°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 7°C/12°C; ESP= 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

INVERTER | WATER COOLED | DUAL FLUID

i-AV DF DW Water Cooled Dual Fluid Air Conditioners with inverter technology

i-AV DF DW-OVER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D
Frame			E1	E2	E3	E4L	E5L	E5L	E7L	E8L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE										
DIRECT EXPANSION										
Total cooling capacity gross	(1)	kW	9,73	19,2	23,9	32,6	46,2	50,9	72,3	99,5
Sensible cooling capacity gross	(1)	kW	9,72	17,8	22,3	31,2	45,1	48,0	69,8	92,6
Total power input (Comp,+fans)	(1)	kW	1,72	4,26	5,42	6,79	10,7	11,9	15,8	22,8
EER (Indoor unit)	(1)	kW/kW	5,66	4,51	4,41	4,80	4,32	4,28	4,58	4,36
SHR	(2)		1,00	0,93	0,93	0,96	0,98	0,94	0,97	0,93
CHILLED WATER										
Total cooling capacity gross	(3)	kW	13,3	19,8	25,6	38,7	61,4	61,4	97,9	123
Sensible cooling capacity gross	(3)	kW	10,2	17,3	22,5	33,3	50,0	50,0	79,9	97,1
SHR	(2)		0,77	0,87	0,88	0,86	0,81	0,81	0,82	0,79
Fluid flow	(3)	l/s	0,63	0,95	1,22	1,85	2,94	2,94	4,68	5,88
Total pressure drop (Coil + Valve)	(3)	kPa	17,3	40,5	25,2	14,0	39,7	39,7	36,8	62,7
EXCHANGERS										
Capacitors nr,		N°	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,54	1,10	1,38	1,85	2,63	2,90	4,12	5,68
Pressure drop	(1)	kPa	21,0	30,9	29,4	17,2	18,0	40,5	22,2	26,4
REFRIGERANT CIRCUIT										
Compressors nr,		N°	1	1	1	1	2	1	2	2
No, Circuits		N°	1	1	1	1	2	1	1	2
Refrigerant charge		kg								
FANS										
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2
Air flow	(4)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000
NOISE LEVEL										
Sound Power		dB(A)	57	63	61	67	76	76	72	78
Sound Pressure	(5)	dB(A)	41	47	45	50	59	59	54	60
SIZE AND WEIGHT										
A	(4)	mm	650	785	1085	1630	1955	1955	2499	2899
B	(4)	mm	675	675	775	930	930	930	930	930
H	(4)	mm	1925	1925	1925	1980	1980	1980	1980	1980
Weight	(4)	kg	230	280	325	480	610	580	730	900

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 7°C/12°C; ESP= 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

i-AV

TOTAL INVERTER TECHNOLOGY

i-AV DF DW-UNDER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D	120 M4 D	150 M4 D
Frame			E1	E2	E3	E4L	E5L	E5L	E7L	E8L	E9L	E9L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	9,73	19,2	23,9	32,6	46,2	50,9	72,3	99,5	117	141
Sensible cooling capacity gross	(1)	kW	9,72	17,8	22,3	31,2	45,1	48,0	69,8	92,6	114	133
Total power input (Comp,+fans)	(1)	kW	1,72	4,37	5,34	6,79	10,7	11,7	15,8	22,8	27,0	32,8
EER (Indoor unit)	(1)	kW/kW	5,66	4,39	4,48	4,80	4,32	4,35	4,58	4,36	4,33	4,30
SHR	(2)		1,00	0,93	0,93	0,96	0,98	0,94	0,97	0,93	0,97	0,94
CHILLED WATER												
Total cooling capacity gross	(3)	kW	13,3	19,8	25,6	38,7	61,4	61,4	97,9	123	150	150
Sensible cooling capacity gross	(3)	kW	10,2	17,3	22,5	33,3	50,0	50,0	79,9	97,1	128	128
SHR	(2)		0,77	0,87	0,88	0,86	0,81	0,81	0,82	0,79	0,85	0,85
Fluid flow	(3)	l/s	0,63	0,95	1,22	1,85	2,94	2,94	4,68	5,88	7,17	7,17
Total pressure drop (Coil + Valve)	(3)	kPa	17,3	40,5	25,2	14,0	39,7	39,7	36,8	62,7	45,0	45,0
EXCHANGERS												
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,54	1,10	1,38	1,85	2,63	2,90	4,12	5,68	6,64	8,09
Pressure drop	(1)	kPa	20,8	30,9	29,4	17,2	18,0	40,5	22,2	26,4	29,6	42,9
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	2	1	2	2	4	4
No, Circuits		N°	1	1	1	1	2	1	2	2	2	2
Refrigerant charge		kg										
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2	3	3
Air flow	(4)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000	32000	32000
NOISE LEVEL												
Sound Power		dB(A)	57	65	62	68	74	77	72	78	80	80
Sound Pressure	(5)	dB(A)	41	49	46	51	57	60	54	60	62	62
SIZE AND WEIGHT												
A	(4)	mm	650	785	1085	1630	1955	1955	2499	2899	3299	3299
B	(4)	mm	675	675	775	930	930	930	930	930	930	930
H	(4)	mm	1925	1925	1925	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	240	290	345	490	620	590	785	960	1100	1125

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 7°C/12°C; ESP= 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

ACCURATE LEGACY

HIGH PRECISION AIR CONDITIONERS, FROM 3 TO 155 kW

INVERTER FREE COOLING WATER COOLED

i-AV FC DW Water Cooled Free Cooling Air Conditioners with inverter technology

i-AV FC DW-OVER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D
Frame			E1	E2	E3	E4L	E5L	E5L	E7L	E8L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE										
DIRECT EXPANSION										
Total cooling capacity gross	(1)	kW	9,73	19,2	23,9	32,6	46,2	50,9	72,3	99,5
Sensible cooling capacity gross	(1)	kW	9,72	17,8	22,3	31,2	45,1	48,0	69,8	92,6
Total power input (Comp,+fans)	(1)	kW	1,77	4,24	5,32	6,77	10,6	11,7	15,7	22,3
EER (Indoor unit)	(1)	kW/kW	5,50	4,53	4,49	4,82	4,36	4,35	4,61	4,46
SHR	(2)		1,00	0,93	0,93	0,96	0,98	0,94	0,97	0,93
FREECOOLING										
FC total capacity	(3)	kW	10,0	15,9	20,2	29,7	46,6	47,8	71,2	90,9
FC sensible capacity	(3)	kW	10,0	15,9	20,2	29,7	46,6	47,8	71,2	90,9
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PLATE CAPACITOR										
Capacitors nr,		N°	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,54	1,10	1,38	1,85	2,63	2,90	4,12	5,68
Pressure drop	(1)	kPa	21,0	30,9	29,4	17,2	18,0	40,5	22,2	26,4
REFRIGERANT CIRCUIT										
Compressors nr,		N°	1	1	1	1	2	1	3	2
No, Circuits		N°	1	1	1	1	2	1	1	2
Refrigerant charge		kg	3,20	3,80	4,60	6,80	9,40	9,90	13,8	20,2
FANS										
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2
Air flow	(4)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000
NOISE LEVEL										
Sound Power		dB(A)	57	63	61	67	76	76	72	78
Sound Pressure	(5)	dB(A)	41	47	45	50	59	59	54	60
SIZE AND WEIGHT										
A	(4)	mm	650	785	1085	1630	1955	1955	2499	2899
B	(4)	mm	675	675	775	930	930	930	930	930
H	(4)	mm	1925	1925	1925	1980	1980	1980	1980	1980
Weight	(4)	kg	250	293	358	523	674	632	805	979
COUPLING UNIT EXTERNAL										
Standard dry cooler linked										
Voltage		V/ph/Hz								
Quantity		N°								

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor air (in) 26°C - R.H. 40%; Water (in) 10°C and water flow of DX mode; ESP = 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
5 Average sound pressure level, at a distance of 1m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
The units highlighted in this publication contain HFC R410A [GWP_{100} 2088] fluorinated greenhouse gases.

i-AV

TOTAL INVERTER TECHNOLOGY

i-AV FC DW-UNDER			012 M1 S	018 M1 S	022 M1 S	030 M1 S	042 M2 D	047 M1 S	068 M2 D	094 M2 D	120 M4 D	150 M4 D
Frame			E1	E2	E3	E4L	E5L	E5L	E7L	E8L	E9L	E9L
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE												
DIRECT EXPANSION												
Total cooling capacity gross	(1)	kW	9,73	19,2	23,9	32,6	46,2	50,9	72,3	99,5	117	141
Sensible cooling capacity gross	(1)	kW	9,72	17,8	22,3	31,2	45,1	48,0	69,8	92,6	114	133
Total power input (Comp,+fans)	(1)	kW	1,77	4,24	5,32	6,77	10,6	11,7	15,7	22,3	27,2	32,8
EER (Indoor unit)	(1)	kW/kW	5,50	4,53	4,49	4,82	4,36	4,35	4,61	4,46	4,30	4,30
SHR	(2)		1,00	0,93	0,93	0,96	0,98	0,94	0,97	0,93	0,97	0,94
FREECOOLING												
FC total capacity	(3)	kW	10,0	15,9	20,2	29,7	47,2	47,8	71,2	90,9	120	124
FC sensible capacity	(3)	kW	10,0	15,9	20,2	29,7	47,2	47,8	71,2	90,9	120	124
SHR	(2)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
PLATE CAPACITOR												
Capacitors nr,		N°	1	1	1	1	1	1	1	1	1	1
Condenser fluid flow	(1)	l/s	0,54	1,10	1,38	1,85	2,63	2,90	4,12	5,68	6,64	8,09
Pressure drop	(1)	kPa	20,8	30,9	29,4	17,2	18,0	40,5	22,2	26,4	29,6	42,9
REFRIGERANT CIRCUIT												
Compressors nr,		N°	1	1	1	1	2	1	2	2	4	4
No, Circuits		N°	1	1	1	1	2	1	2	2	2	2
Refrigerant charge		kg	3,20	3,80	4,60	6,80	9,40	9,90	13,8	20,2	21,6	21,6
FANS												
Fans type			EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN	EC FAN
Quantity		N°	1	1	1	1	1	1	2	2	2	2
Air flow	(4)	m³/h	2700	4100	5100	7500	12000	12000	17500	22000	32000	32000
NOISE LEVEL												
Sound Power		dB(A)	57	64	62	68	74	77	72	78	80	80
Sound Pressure	(5)	dB(A)	41	48	46	51	57	60	54	60	62	62
SIZE AND WEIGHT												
A	(4)	mm	650	785	1085	1630	1955	1955	2499	2899	3299	3299
B	(4)	mm	675	675	775	930	930	930	930	930	930	930
H	(4)	mm	1925	1925	1925	1980	1980	1980	1980	1980	1980	1980
Weight	(4)	kg	260	313	378	533	684	642	859	1049	1225	1250
COUPLING UNIT EXTERNAL												
Standard dry cooler linked												
Voltage		V/ph/Hz										
Quantity		N°										

Notes:
1 Indoor conditions (in) 26°C - R.H. 40%; Water temperature (in/out) 30°C/35°C; ESP= 20Pa.
2 SHR = Sensible cooling capacity gross / Total cooling capacity gross.
3 Indoor air (in) 26°C - R.H. 40%; Water (in) 10°C and water flow of DX mode; ESP = 20Pa.
4 Unit in standard configuration/execution, without optional accessories.
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