



AFO / AFU

Close control air conditioner

Type: FREECOOLING, WATER COOLED, upflow or downflow version

Configurations

BASIC
For applications up to 32°C air intake

SMART
For applications up to 40°C air intake

Versions

BASIC Cooling only with condensation control device through flooding valve

MOD_A Cooling only with condensation control device through flooding valve and speed regulator for external unit

UNIT DESCRIPTION

Ductable close control air-conditioning units with capacity ranging from 25 to 102 kW for vertical installation and cooling only, with optional heating by means of heating elements and hot water, optional humidifier and dehumidifier for precise temperature and humidity control. Units are fitted with EC fans (upflow or downflow) and are connected to two circuits: a PRIMARY chilled water circuit connected to an external chiller, a SECONDARY circuit working as back-up.

Particularly suitable for IT environments and technological applications, ACCURATE AF is available standard with 50Hz and 60Hz power supply (400V/3N/50Hz, 230V/3/60Hz, 380V/3/60Hz, 460V/3/60Hz).

STANDARD UNIT COMPOSITION

- Unit for indoor or outdoor installation
- Maximum resistance to rust thanks to galvanized sheet metal structures and panels with powder-coated paint finish. The panels are lined with sound-insulating material.
- The reliability of all the components is guaranteed by partners who are world leaders in their sector.
- NEW EC fans with electronic commutation in order to maximize the energy savings and reduce the noise emissions.
- Standard G4 filtering section, F5-F8 optional, under CEN-EN 779 rule with 90,1% degrees of separation ASHRAE. The filter is the self-extinguishing type.
- The microprocessor controls all the main functions of the air conditioners; it also controls the operating alarms with the possibility of interfacing to supervisor and remote servicing systems.
- Electrical box under IEC 204-1/EN60204-1 rules.



Model		20	26	29	39	30	40	50	60	70	80	90
Frame		F3			F4				F5		F6	
No. Circuits/ No. Compressors		1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		R410A			R410A				R410A		R410A	
Nominal air flow	mc/h	6000	7500	8000	13000	10000	13000	13500	18000	19000	24000	25000
Power supply	V/Ph/Hz	400/3N/50			400/3N/50				400/3N/50		400/3N/50	
BASIC CONFIGURATION												
DX PERFORMANCE												
Total cooling capacity	(1) kW	24,9	30,6	32,3	47,3	38,1	50,0	54,5	70,3	76,7	91,8	102,0
Sensible cooling capacity	(1) kW	22,8	28,3	30,0	46,9	36,7	47,9	50,7	66,8	71,1	88,2	92,2
SHR	(1)	0,92	0,92	0,93	0,99	0,96	0,96	0,93	0,95	0,93	0,96	0,90
Compressors absorbed power	kW	4,4	5,4	6,1	8,0	6,4	8,6	10,6	12,3	13,3	16,0	19,3
EC radial fans power abs.	kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.	kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
PERFORMANCE IN FREE-COOLING												
Total cooling capacity	(2) kW	19,9	24,0	25,1	40,9	33,6	41,5	43,8	56,6	58,0	76,7	78,2
Sensible cooling capacity	(2) kW	19,9	24,0	25,1	40,9	33,6	41,5	43,8	56,6	58,0	76,7	78,2
SHR		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Pressure drop	kPa	64	89	84	86	63	83	128	89	100	99	124
SMART CONFIGURATION												
DX PERFORMANCE												
Total cooling capacity	(3) kW	27,3	33,3	36,5	48,1	41,3	52,7	61,2	75,6	86,1	104,9	114,7
Sensible cooling capacity	(3) kW	27,3	33,3	36,5	48,1	41,3	52,7	61,2	75,6	86,1	104,3	114,2
SHR	(3)	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	0,99	1,00
Compressors absorbed power	kW	4,9	5,9	7,4	7,5	6,9	9,8	11,9	15,0	14,7	17,6	21,0
EC radial fans power abs.	kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.	kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
PERFORMANCE IN FREE-COOLING												
Total cooling capacity	(4) kW	39,1	47,1	50,0	81,2	66,5	83,0	87,4	109,6	115,9	153,2	155,9
Sensible cooling capacity	(4) kW	37,5	45,9	48,7	80,5	64,0	81,1	84,4	107,2	113,0	149,8	150,6
SHR		0,96	0,97	0,97	0,99	0,96	0,98	0,97	0,98	0,97	0,98	0,97
Pressure drop	kPa	59	86	63	69	60	53	72	67	59	58	70
VENTILATION												
No. EC radial fans		1	1	1	2	2	2	2	3	3	3	3
No. HP EC radial fans		1	1	1	2	2	2	2	3	3	3	3
Sound pressure level	(5) dB(A)	56	60	60	64	59	64	64	67	67	67	67
HUMIDIFIER												
Capacity	kg/h	5	5	5	5	5	5	5	8	8	8	8
ELECTRICAL HEATERS												
Steps		3	3	3	3	3	3	3	3	3	3	3
Heating capacity	kW	9	9	9	15	15	15	15	18	18	18	18
DIMENSIONS												
Length	mm	1000	1000	1000	1550	1550	1550	1550	2100	2100	2650	2650
Depth	mm	790	790	790	790	790	790	790	790	790	790	790
Height	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980

NOTES

- 1) Air IN 24°C/50%, cond. water temperature 30-35°C - ESP 20Pa
- 2) Air IN 24°C/50% , water temperature 10°C , same water flow as in the DX operation ESP 20Pa
- 3) Air IN 35°C/30%, cond. temp. 30-35°C - ESP 20Pa
- 4) Air IN 35°C/30%, water temperature 10°C , same water flow as in the DX operation ESP 20Pa
- 5) Measured at 1,5m height in front of the unit in free field

The units highlighted in this publication contain HFC R410A [GWP₁₀₀ 1975] fluorinated greenhouse gases.

OPTIONS/ACCESSORIES

- Remote user terminal
- Electric heating coil
- Water heating coil
- Humidifier
- HP EC radial fans (High Pressure)
- Vibration isolation frame with rubber mountings
- Air distribution plenum
- Soundproof plenum
- Interface electronic board