



Technical information v.12/05

NOMINAL TECHNICAL INFORMATION

Model	Fan name	Airflow	Capacity	Fan data (2)				Weight	H ₂ O	Sound level	Throw
		m³/h	kW (1)	V	W	A	ES	Kg	L (3)	dBA (4)	m (5)
AE 2 rows											
AE 12-2	DD979th	1000	9,4	230	170	0,9	ESB3	28	0,9	43,4	28
AE 20-2	DD999	2010	18,7	230	365	2,0	ESB3	39	1,4	46,5	30
AE 30-2	DD10109	2770	26,6	230	510	2,6	ESB3	47	2,2	51,2	32
AE 40-2	DD1199	3370	36,3	230	825	4,0	ESB5	57	2,8	53,2	37
AE 60-2	DD1299	4990	45,5	230	1480	7,8	ESB10	68	2,8	64,8	45
AE 80-2	2xDD1199	6430	66,9	230	1505	7,5	ESB10	110	4,3	61,4	38
AE 100-2	2xDD1299	9220	82,2	230	2735	14,5	ESB20	135	4,3	65,7	46
AE 4 rows (low t° water)											
AE 12-4	DD979th	870	9,3	230	155	0,8	ESB3	30	1,7	41,8	26
AE 20-4	DD999	1770	18,6	230	340	1,8	ESB3	41	2,8	47,0	27
AE 30-4	DD10109	2530	27,9	230	480	2,4	ESB3	49	3,8	47,2	28
AE 40-4	DD1199	3240	38,1	230	765	3,7	ESB5	60	5,1	48,8	35
AE 60-4	DD1299	4630	48,4	230	1355	7,3	ESB10	71	5,1	69,1	42
AE 80-4	2xDD1199	6100	71,3	230	1440	7,1	ESB10	114	8,0	61,0	36
AE 100-4	2xDD1299	8460	88,6	230	2635	14,1	ESB20	139	8,0	63,9	43

Never exceed 60°C as outlet air temperature.

- (1): Calorific capacity obtained with 90/70°C water and 12°C air temperature for 2 row AEs, and 70/50°C water and 12°C air temperature for 4 row AEs.
- (2): Nominal values at 230V/50Hz, a speed controller will alter this data
- (3): Water content in liters
- (4): Sound pressure level obtained at 5 m of the microphone in anechoic environment as ISO2204
- (5): Air throws are established for a residual air speed of 0,3m/s.

SELECTION PROGRAM

We have written specific software to allow the simulation of each AE in the application's actual conditions and to make offers. This software runs under Windows®, and calculates thermal capacities, airflows using speed controllers, resulting air throws and noise levels, and prints a fully detailed technical data sheet of the selection with drawing and dimensions and options available. Do not hesitate to ask your local distributor to establish a selection sheet of a unit as applied in the actual working conditions. This software is free of charge and is available from our website.

CONSTRUCTION

The structure is made out of omega shaped anodized aluminum profiles connected by reinforced polypropylene corner pieces. The panels are double skin steel plates insulated with fiberglass (50Kg/m³) between panels. The outside panels are pre-painted gray RAL 9002 color covered with a plastic protection (to be removed after installation). The side panels are removable to enable easy access to the components for maintenance. The standard units are equipped with double deflection outlet grilles to allow control of the airflow orientation and maximal airtthrow.

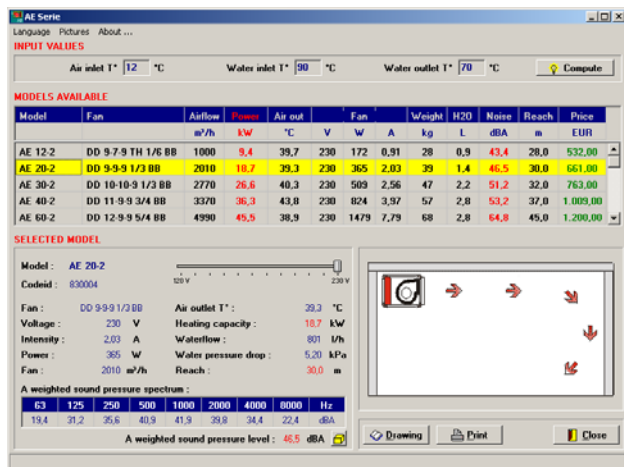
HEAT EXCHANGER

The heat exchangers are aluminium finned and copper tubed manufactured using state of the art technology and standards. All the coils have a distance between the fins of 2,1 mm, and are factory tested at 32 bars. Maximum working pressure is 8 bars. The AE range is available with 2 row coils (standard) and 4 row coils (low temperature water). Never exceed 60°C as air outlet temperature.

FANS, also available with TAC technology

All the standard AE's are equipped with PLC direct drive centrifugal fans. They are class B heat insulation class and mounted with robust 6 poles motors (900 RPM). For more information, consult the DD/DS/DP fans brochure. Models 80 and 100 are equipped with 2 fans in parallel.

All the AEs can be equipped with TAC technology fans allowing all the inherent advantages: substantial energy savings, linking airflow to a 0/10V sensor's value (TACn), programmable performances (TACn), remote control of units through RS485 network and PC freeware (TACn), modem maintenance.... Contact your dealer for more details.

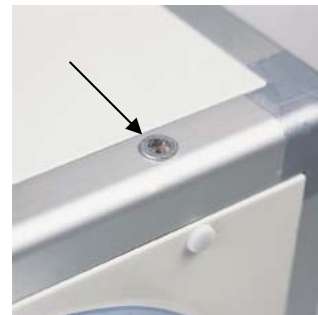


CONFORMITIES

All the AE units are manufactured in conformity to the following european standards : IEC34-1(HD53-1-52), 73/23/EEC, 93/68/EEC, IEC6100-3-2, EN60555-2, CEI77-3, EN55014, 89/336/EEC, 93/68/EEC, 89/392/EEC(IIB). This conformity does not waive from conformity to usual local installation standards.

STANDARD FEATURES

M8 suspension nuts (DP) : M8 nuts are injected in the aluminium profile to allow easy suspension of the units. Each nut is designed (laboratory tested) to withstand more than 60Kg vertical traction. It is a simple, cheap and aesthetic suspension system.



OPTIONS AVAILABLE

The AEs can be delivered equipped with the following options (delivery lead could be altered) :

- Filter (FP)** : All AEs are equipped with synthetic EU3 (G90) panel filters. The filter's frame is made of Ø 5mm steel wire. It is easily removable from the back of the unit. Filter color: white.
- 4-way plenum (PL4)** : Designed for vertical installation the 4-way plenum is placed at the head of the unit in vertical position allowing air diffusion in the 4 directions. See page 4 for construction. The grilles are single deflection grilles.
- 2-way mixing box (MK2)** : the units can be delivered with a 2 way mixing box . This device will allow to mix fresh air with recycled air in desired proportion using the synchronized dampers. A servomotor (SMO) can be mounted if desired. See page 4 for dimensions. The MK2 can be ducted to a certain extent (+/- 100 pa).
- Fan speed controls (ES)** : to optimize your installation we advise to design it from the start with a speed control. Indeed this option allows to control capacity and noise level parameters "at the tip your finger" and this for a very low price. It is possible to group several AEs on one speed controller, just check the nominal amperage of each unit. Each speed controller (ES) is delivered in a separate box with installation instructions.
- Support (ST)**: this support system is designed to 'carry' the AE as opposed to the DP, which suspend the unit. See drawings pages 3-4.

AIR THROW and INDUCTION

The air throws mentioned in the data table are established for a nominal work point and for a residual airspeed of 0,3 m/s. The centrifugal fan, by construction, is designed to create 'long' air throws, much longer than commonly used axial fans. As a consequence the amount of air 'moved' by one AE is approximately **30 times its nominal air volume** . The AE unit heater 'naturally' does not require a « correction device » like a 'high induction grille' to obtain a good temperature distribution (as is the case with axial unit heaters).



AS SERIE

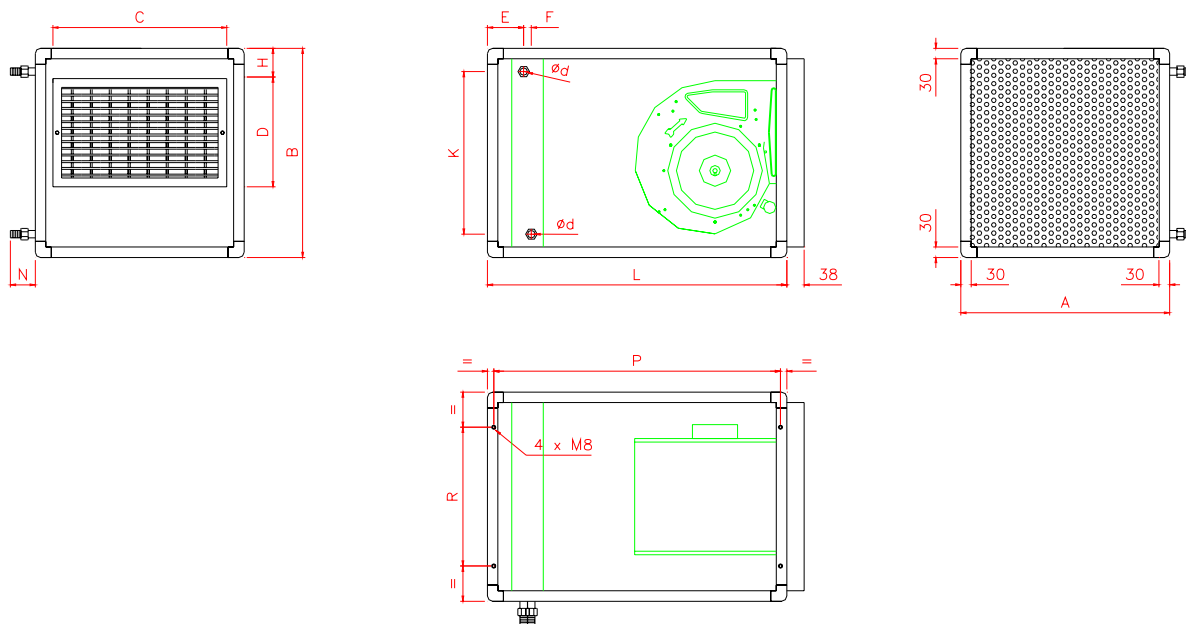
The AS serie unit heaters are specially designed for industrial heating applications where lower noise level is required. All the construction features are the same as for the AE, except that the AS is equipped with a plenum section at the inlet and at the outlet of the unit, and a glider mounted standard EU2 filter. The thermal capacity selection of the unit is the same as for the AE. The noise level is approximately 2 to 3 dBA lower than the AE.

DIMENSIONS

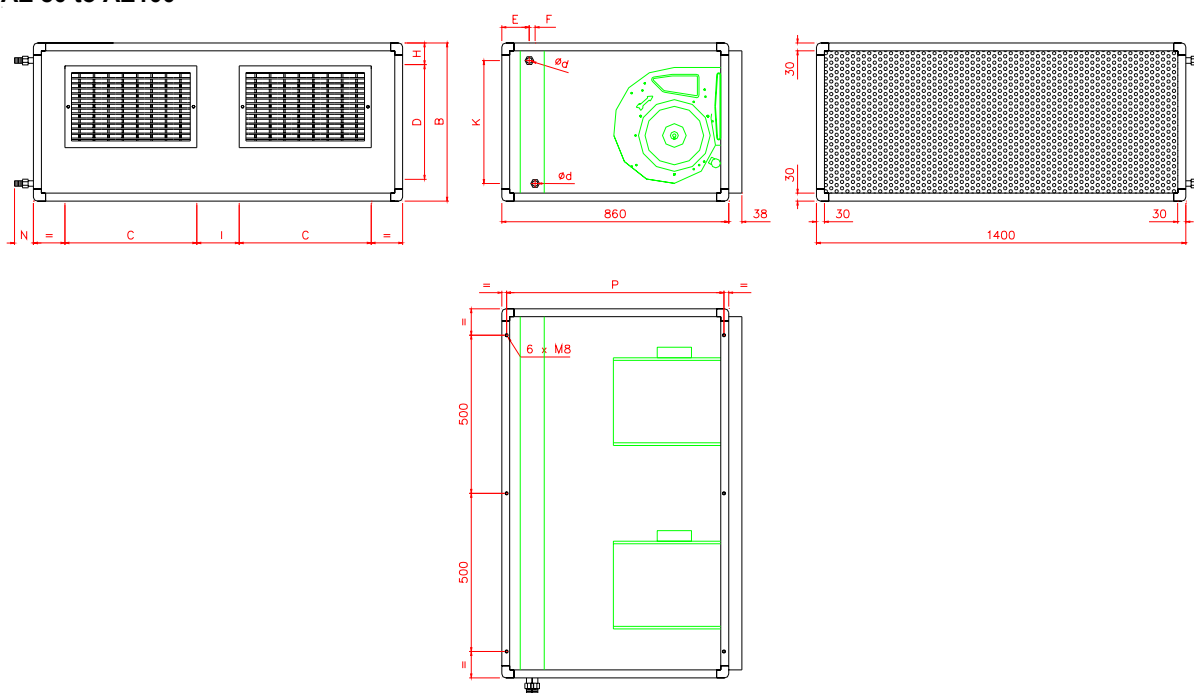
TYPE	A	B	C	D	E	F	G	H	I	K	L	N	M	P	R	Ø d
AE 12-2	400	400	330	190	85	22	335	36	--	245	500	55	612	464	200	1/2"
AE 12-4	400	400	330	190	95	65	335	36	--	244	600	55	712	564	200	3/4"
AE 20-2	500	500	400	250	85	22	435	52	--	348	600	55	712	564	300	1/2"
AE 20-4	500	500	500	250	95	65	435	52	--	342	860	55	972	824	300	3/4"
AE 30-2	600	600	500	310	79	35	535	87	--	439	600	55	712	564	400	3/4"
AE 30-4	600	600	500	310	95	65	535	87	--	441	860	55	972	824	400	3/4"
AE 40/50-2	860	600	500	310	92	35	795	87	--	441	860	57	826	824	660	1"
AE 40/50-4	860	600	500	310	100	65	795	87	--	441	860	57	972	824	660	1"
AE 60-2	860	600	500	310	92	35	795	33	--	441	860	57	826	824	660	1"
AE 60-4	860	600	500	310	100	65	795	33	--	441	860	57	972	824	660	1"
AE 80-2	1400	600	500	310	92	35	1335	33	169	441	860	57	--	824	--	1"
AE 80-4	1400	600	500	310	100	65	1335	33	169	441	860	57	--	824	--	1"
AE 100-2	1400	600	500	310	92	35	1335	33	169	441	860	57	--	824	--	1"
AE 100-4	1400	600	500	310	100	65	1335	33	169	441	860	57	--	824	--	1"

Coil water connections are threaded male.

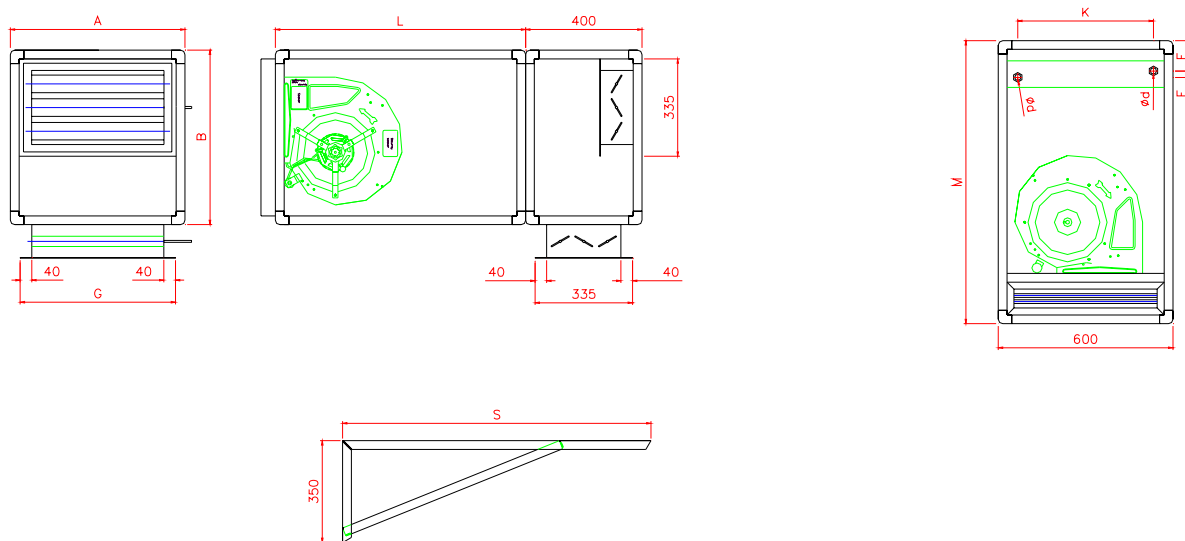
AE 12 to 60



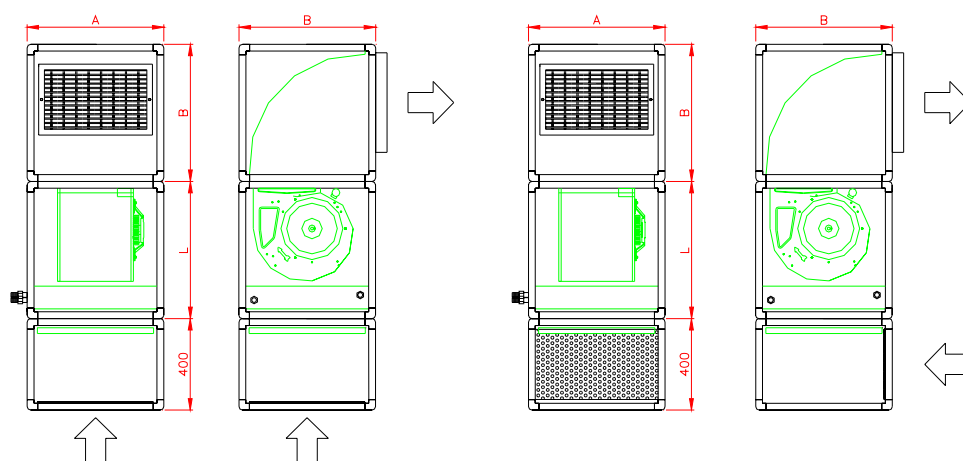
AE 80 to AE100



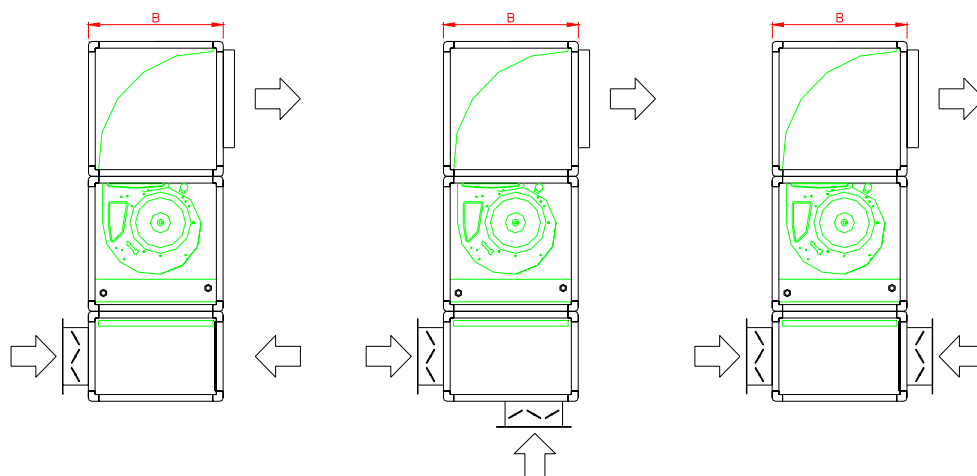
ACCESSORIES



AS SERIES



AS/CT SERIES



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