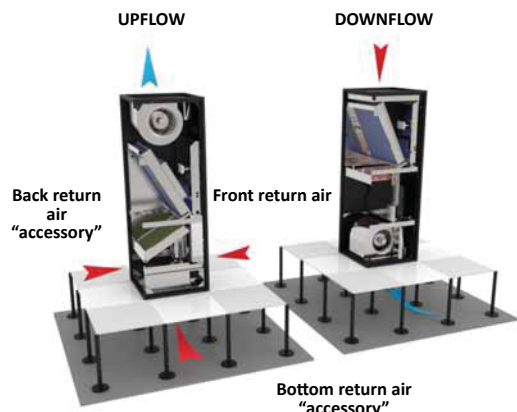


## DAS 06/60

### R410A

**Precision Air Conditioning units:**  
**AX** Air condensed direct expansion  
**WX** Water condensed direct expansion  
**CW** cooled water  
 Scroll compressors  
 Cooling capacity 6÷65kW



- **DUCTABLE PRECISION AIR CONDITIONERS**
- **DEDICATED TO STRUCTURES FOR TELECOMMUNICATIONS, COMPUTER ROOMS, DATA CENTERS, STERILIZED ROOMS AND LABORATORIES**
- **POSSIBILITY OF TOTAL CONTROL OF TEMPERATURE, HUMIDIFICATION, DEHUMIDIFICATION, AFTER HEATING AND FILTRATION**

### FEATURES

#### MODELS

- **DAS\_D** down flow
- **DAS\_U** up flow

#### VERSIONS

- **DAS\_AX** Air condensed direct expansion
- **DAS\_WX** Water condensed direct expansion
- **DAS\_CW** cooled water

#### FEATURES

The units Precision Air Conditioning DAS are designed for precision air conditioning of technological medium-small rooms characterized from elevated thermal loads to eliminate, such as computing centres and other applications where high performances and maximum reliability are required in a restrained area. Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating (with electric coil, water-coil or hot gas) and high efficiency filters.

They are available in three different versions: with air condensed direct expansion (standard supplied with external remote condenser), with water or cooled water condensed direct expansion.

#### STRUCTURE

The structure is composed by a painted aluminium frame with black aluminium angles and removable panels made of painted plate galvanized with epoxy powders, which can grant a lasting finish. The standard supplied unit is of grey-black colour (RAL 7021). The colour light grey (RAL 7035) is optional.

#### FANS

- **DAS 6÷26**

The units are equipped with centrifugal fans with double aspiration forward curved blades and EC motor directly coupled with electronic control.

- **DAS 28÷60**

The units are equipped with centrifugal fans with double aspiration forward curved blades, 3-phase asynchronous motor connected to the fan through "belt and pulley".

Centrifugal fans with back curved blades are available for all the units (plug-fan) with EC motor directly coupled with electronic control to minimize electric consumption and sound emissions.

#### FILTERS

Filters with corrugated separator, class of efficiency G4 (according to EN 779). There are available as optional, high efficiency filters with pre-filter, class G3+F6.

#### ELECTRONIC REGULATION

The microprocessor regulation permits to visualize: return air temperature, air temperature humidity (optional), condensation pressure (optional) and cooled coil temperature and to regulate the load on return air. The microprocessor manages also the working alarms.

Possibility of interfacing with supervision system (there are different communication protocols available, ModBus, BACnet...). Visualisation of all working parameters in 4 languages.

#### COMPRESSOR

(ONLY FOR VERSIONS AX, WX)

High efficiency Scroll compressors with low electric absorption.

#### EVAPORATOR

(ONLY FOR VERSIONS AX, WX)

The finned pack evaporation coil is with copper pipes internally corrugated and aluminium fins blocked through pipes' mechanical expansion. The fins are covered with hydrophilic film, which, by guaranteeing a successful removal of water drops from the surface, it permits to increase the coil's performances.

#### CONDENSER

(ONLY FOR VERSIONS WX)

Braze welded plate heat exchanger in steel AISI 316. The heat exchanger is externally coated with closed cells neoprene anticondensate material.

#### COOLED WATER COIL

(ONLY FOR VERSIONS CW)

The finned pack cooling coil is with internally lined copper pipes and aluminium fins blocked through mechanical expansion of pipes. The fins are coated with hydrophilic film which guarantees a successful removal of water drops from the surface and permits to increase the coil's performances. Modulating 3-way valve is standard supplied.

### ACCESSORIES

Wide range of accessories, which can be chosen by using the selection programme, that permits also a real time-fast dimensioning of the units.

## CONFIGURATOR

### Field DESCRIPTION

1, 2, 3 DAS

### 4 MODELS

D down flow

U up flow

### 5, 6 SIZES

06-08-10-13-15-17-20-22-26-28-31-35-40-45-50-55-60

### 7, 8 VERSIONS

AX Air condensed

WX Water condensed

CW cooled water

### 9 NUMBER OF COMPRESSORS

0 without compressor (only for CW versions)

1 n. 1 compressor (can be selected for versions AX and WX)

2 n. 2 Tandem compressors (can be selected for versions AX and WX)

### 10 POWER SUPPLY

0 400V/3/50Hz

| TABLE OF COMPRESSORS' COMPATIBILITY |                   |             |
|-------------------------------------|-------------------|-------------|
| DAS_U<br>"all versions"             | N. of compressors |             |
|                                     | 1<br>single       | 2<br>tandem |
| 6                                   | •                 |             |
| 8                                   | •                 |             |
| 10                                  | •                 |             |
| 13                                  | •                 |             |
| 15                                  | •                 |             |
| 17                                  | •                 |             |
| 20                                  |                   | •           |
| 22                                  |                   | •           |
| 26                                  |                   | •           |
| 28                                  | •                 | •           |
| 31                                  | •                 | •           |
| 35                                  | •                 | •           |
| 40                                  | •                 | •           |
| 45                                  |                   | •           |
| 50                                  |                   | •           |
| 55                                  |                   | •           |
| 60                                  |                   | •           |

- Possible configurations

| TABLE OF COMPRESSORS' COMPATIBILITY |                   |             |
|-------------------------------------|-------------------|-------------|
| DAS_D<br>"all versions"             | N. of compressors |             |
|                                     | 1<br>single       | 2<br>tandem |
| 6                                   | •                 |             |
| 8                                   | •                 |             |
| 10                                  | •                 |             |
| 13                                  | •                 |             |
| 15                                  | •                 |             |
| 17                                  | •                 |             |
| 20                                  |                   | •           |
| 22                                  |                   | •           |
| 26                                  |                   | •           |
| 28                                  | •                 |             |
| 31                                  | •                 |             |
| 35                                  | •                 |             |
| 40                                  | •                 |             |
| 45                                  | •                 |             |
| 50                                  |                   | •           |
| 55                                  |                   | •           |
| 60                                  |                   | •           |

- Possible configurations

TECHNICAL DATA

| DAS                                | VERSIONS | MOD | U.M.  | 06   | 08   | 10   | 13   | 15   | 17   | 20   | 22   | 26   | 28   | 31    | 35    | 40    | 45    | 50    | 55    | 60    |
|------------------------------------|----------|-----|-------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                   | AX       | U   | kW    | 6,4  | 8,2  | 10,6 | 13,7 | 15,4 | 17,8 | 21,1 | 22,5 | 27,4 | 26,5 | 29,8  | 34,2  | 38,7  | 43,0  | 50,3  | 56,0  | 62,2  |
|                                    |          | D   | kW    | 6,5  | 8,4  | 10,8 | 13,9 | 15,6 | 18,0 | 21,5 | 22,9 | 27,4 | 26,1 | 29,4  | 33,7  | 38,2  | 43,2  | 49,6  | 55,3  | 61,5  |
|                                    | WX       | U   | kW    | 6,5  | 8,2  | 10,8 | 13,9 | 15,8 | 18,1 | 21,8 | 22,5 | 27,5 | 26,5 | 30,1  | 35,0  | 39,0  | 43,0  | 50,9  | 57,4  | 64,7  |
|                                    |          | D   | kW    | 6,6  | 8,4  | 11,0 | 14,1 | 16,0 | 18,3 | 22,2 | 22,9 | 27,5 | 26,1 | 29,7  | 34,5  | 38,5  | 43,2  | 50,2  | 56,6  | 63,8  |
|                                    | CW       | U   | kW    | 7,6  | 9,2  | 11,2 | 14,7 | 16,6 | 18,1 | 21,8 | 23,4 | 25,6 | 34,2 | 38,0  | 43,7  | 47,6  | 50,6  | 51,3  | 58,5  | 62,3  |
|                                    |          | D   | kW    | 7,6  | 9,7  | 11,7 | 14,7 | 16,6 | 18,1 | 21,8 | 23,4 | 25,6 | 34,2 | 38,0  | 43,7  | 47,6  | 50,6  | 51,3  | 58,5  | 62,3  |
| FANS                               |          |     |       |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |
| Type                               | All      | U/D | -     | EC   | EC   | EC   | EC   | EC   | EC   | EC   | EC   | EC   | AC   | AC    | AC    | AC    | AC    | AC    | AC    | AC    |
| Number of fans                     | All      | U/D | n°    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 1    | 1     | 1     | 1     | 1     | 2     | 2     | 2     |
| Air flow rate                      | All      | U/D | m³/h  | 1980 | 2700 | 3420 | 3600 | 4320 | 5040 | 6120 | 7200 | 7200 | 8640 | 10080 | 11880 | 13320 | 13320 | 15120 | 15120 | 16560 |
| Maximum available static pressure  | All      | U   | Pa    | 564  | 507  | 295  | 315  | 415  | 198  | 335  | 185  | 70   | 160  | 35    | 35    | 25    | 25    | 255   | 255   | 35    |
|                                    | All      | D   | Pa    | 523  | 442  | 191  | 307  | 405  | 190  | 327  | 177  | 57   | 75   | 265   | 165   | 175   | 175   | 35    | 35    | 75    |
| SOUND DATA                         |          |     |       |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |
| Discharge sound power              | All      | U   | dB(A) | 72   | 78   | 81   | 78   | 74   | 78   | 82   | 86   | 86   | 90   | 93    | 92    | 94    | 94    | 97    | 97    | 98    |
|                                    | All      | D   | dB(A) | 71   | 77   | 80   | 77   | 73   | 77   | 81   | 85   | 85   | 87   | 91    | 90    | 92    | 92    | 89    | 89    | 91    |
| Intake sound power                 | All      | U   | dB(A) | 58   | 63   | 66   | 63   | 62   | 65   | 67   | 71   | 71   | 79   | 81    | 81    | 83    | 83    | 84    | 84    | 86    |
|                                    | All      | D   | dB(A) | 62   | 68   | 71   | 67   | 66   | 70   | 72   | 76   | 76   | 68   | 71    | 71    | 73    | 73    | 69    | 70    | 71    |
| Sound power radiated from the unit | All      | U   | dB(A) | 58   | 63   | 66   | 63   | 62   | 65   | 67   | 71   | 71   | 79   | 81    | 81    | 83    | 83    | 84    | 84    | 86    |
|                                    | All      | D   | dB(A) | 58   | 63   | 66   | 63   | 62   | 65   | 67   | 71   | 71   | 70   | 73    | 72    | 75    | 75    | 71    | 71    | 73    |
| Sound pressure at 3m               | All      | U   | dB(A) | 43   | 49   | 51   | 48   | 47   | 50   | 53   | 57   | 57   | 64   | 66    | 67    | 68    | 69    | 70    | 70    | 72    |
|                                    | All      | D   | dB(A) | 43   | 48   | 51   | 48   | 47   | 50   | 52   | 56   | 56   | 55   | 58    | 58    | 60    | 60    | 56    | 57    | 58    |

- EC

Centrifugal fan with forward curved blades and motor directly coupled with electronic control.
- AC

Centrifugal fan with forward curved blades and 3-phase asynchronous motor connected through belt and pulley.

COOLING

External air temperature

24°C

Relative humidity temperature

45%

External air temperature

35°C

**Sound power**  
All the quoted sound data have been measured relatively to the values limited to the third-octave-band, using a sound intensity measurer regulated by a real time analyser, in accordance with the regulation BS EN ISO9614 Part 1: 1995.  
All the quoted sound power levels are calculated according to the sound intensity measured in compliance with BS EN ISO9614 Part 1: 1995.

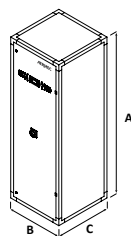
**Sound pressure**  
The sound pressure levels are calculated according to the sound power by using the half-hemisferic method in which the source of noise is situated on a crossing point compared with two delimitations, for example the floor and a single wall.

**Note:** For further informations, please refer to the selection software “Aermec Performance Selection”.

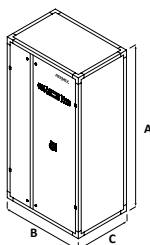
## DIMENSIONS

| DAS    | VERSIONS | MOD.     | U.M. | 06  | 08   | 10   | 13   | 15   | 17   | 20   | 22   | 26   | 28   | 31   | 35   | 40   | 45   | 50   | 55   | 60   |
|--------|----------|----------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Height | A        | AX-WX-CW | U-D  | mm  | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 | 1940 |
| Width  | B        | AX-WX-CW | U-D  | mm  | 670  | 670  | 670  | 990  | 990  | 990  | 1310 | 1310 | 1310 | 1460 | 1460 | 1835 | 1835 | 1835 | 2170 | 2170 |
| Depth  | C        | AX-WX-CW | U-D  | mm  | 670  | 670  | 670  | 670  | 670  | 670  | 670  | 670  | 670  | 750  | 750  | 750  | 750  | 750  | 750  | 750  |
| Weight | AX       | U-D      | Kg   | 173 | 179  | 184  | 220  | 231  | 232  | 303  | 303  | 307  | 412  | 412  | 474  | 497  | 563  | 619  | 636  | 640  |
|        | WX       | U-D      | Kg   | 188 | 199  | 203  | 243  | 261  | 264  | 340  | 340  | 343  | 468  | 468  | 534  | 562  | 652  | 709  | 729  | 733  |
|        | CW       | U-D      | Kg   | 138 | 147  | 150  | 190  | 195  | 195  | 246  | 246  | 246  | 349  | 347  | 408  | 429  | 440  | 485  | 498  | 498  |

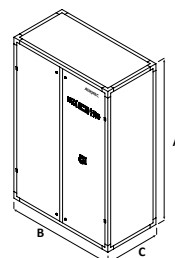
DAS 6-8-10



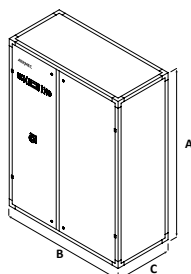
DAS 13-15-17



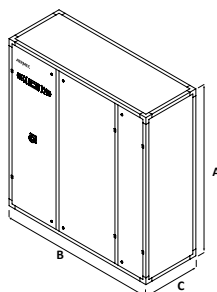
DAS 20-22-26



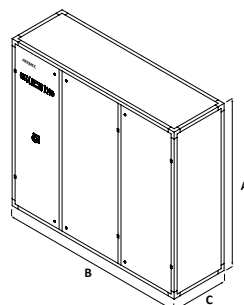
DAS 28-31



DAS 35-40-45



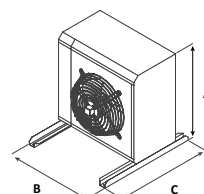
DAS 50-55-60



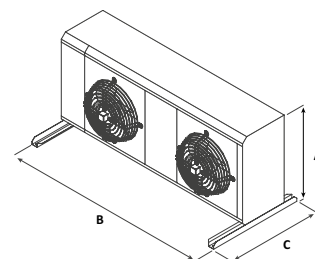
## COUPLING

| Sizes  | Code of remote condenser | Dimensions in horizontal position |              |              | Wasted thermal power kW | Sound power dB(A) | Sound pressure dB(A) @10m |
|--------|--------------------------|-----------------------------------|--------------|--------------|-------------------------|-------------------|---------------------------|
|        |                          | A Height (mm)                     | B Width (mm) | C Depth (mm) |                         |                   |                           |
| DAS 06 | CR12                     | 972                               | 907          | 1000         | 14                      | 74                | 46                        |
|        | CR16                     | 972                               | 907          | 1000         | 19                      | 74                | 46                        |
| DAS 08 | CR16                     | 972                               | 907          | 1000         | 19                      | 74                | 46                        |
|        | CR22                     | 1167                              | 1102         | 1000         | 25                      | 78                | 50                        |
| DAS 13 | CR22                     | 1167                              | 1102         | 1000         | 25                      | 78                | 50                        |
|        | CR30                     | 1167                              | 1102         | 1000         | 31                      | 78                | 50                        |
| DAS 15 | CR22                     | 1167                              | 1102         | 1000         | 25                      | 78                | 50                        |
|        | CR30                     | 1167                              | 1102         | 1000         | 31                      | 78                | 50                        |
| DAS 17 | CR30                     | 1167                              | 1102         | 1000         | 31                      | 78                | 50                        |
|        | CR50                     | 1167                              | 2184         | 1000         | 54                      | 81                | 53                        |
| DAS 20 | CR30                     | 1167                              | 1102         | 1000         | 31                      | 78                | 50                        |
|        | CR50                     | 1167                              | 2184         | 1000         | 54                      | 81                | 53                        |
| DAS 22 | CR50                     | 1167                              | 2184         | 1000         | 54                      | 81                | 53                        |
|        | CR65                     | 1167                              | 2184         | 1000         | 71                      | 81                | 53                        |
| DAS 26 | CR50                     | 1167                              | 2184         | 1000         | 54                      | 81                | 53                        |
|        | CR65                     | 1167                              | 2184         | 1000         | 71                      | 81                | 53                        |
| DAS 28 | CR50                     | 1167                              | 2184         | 1000         | 54                      | 81                | 53                        |
|        | CR65                     | 1167                              | 2184         | 1000         | 71                      | 81                | 53                        |
| DAS 31 | CR50                     | 1167                              | 2184         | 1000         | 54                      | 81                | 53                        |
|        | CR65                     | 1167                              | 2184         | 1000         | 71                      | 81                | 53                        |
| DAS 35 | CR50                     | 1167                              | 2184         | 1000         | 54                      | 81                | 53                        |
|        | CR65                     | 1167                              | 2184         | 1000         | 71                      | 81                | 53                        |
| DAS 40 | CR65                     | 1167                              | 2184         | 1000         | 71                      | 81                | 53                        |
|        | CR80                     | 1167                              | 3565         | 1000         | 88                      | 83                | 55                        |
| DAS 45 | CR80                     | 1167                              | 3565         | 1000         | 88                      | 83                | 55                        |
|        | CR105                    | 1167                              | 3565         | 1000         | 113                     | 82                | 55                        |
| DAS 50 | CR80                     | 1167                              | 3565         | 1000         | 88                      | 83                | 55                        |
|        | CR105                    | 1167                              | 3565         | 1000         | 113                     | 82                | 55                        |
| DAS 55 | CR80                     | 1167                              | 3565         | 1000         | 88                      | 83                | 55                        |
|        | CR105                    | 1167                              | 3565         | 1000         | 113                     | 82                | 55                        |
| DAS 60 | CR80                     | 1167                              | 3565         | 1000         | 88                      | 83                | 55                        |
|        | CR105                    | 1167                              | 3565         | 1000         | 113                     | 82                | 55                        |

CR 12-16-22-30



CR 50-65



CR 80-105

