

## CAAC(H)S 20÷120

Cooling capacity: 19.9÷122 kW

Heating capacity: 23.1÷136.3 kW



### FEATURES

- 12 sizes available ranging from 19.9 kW to 122 kW cooling capacity.
- Cooling only and heat pump version.
- Wide application as hotel, apartment, villa, factory, shopping center, office building, school, gymnasium etc.
- Panels and frame are made from galvanized steel protected with polyester powder painting to ensure total resistance to atmospheric agents.
- High efficiency scroll compressor for the whole range, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.
- Compact indoor design, long air supply distance.
- Outdoor units are equipped with low noise axial fans.
- Indoor units are equipped with quiet centrifugal fans.
- Split installation, connected by means of flare/welding coupling.
- Easy operation line controller:
  - Cooling/Heating/Fan/Auto
  - Error indication
  - Timing On/Off
- Multi safety protection
  - High/low pressure protection
  - Overheat protection
  - Current overload protection
  - Phase sequence relay
  - Time delay and antifreeze switch

### OPTIONAL

- Additional electric heater on indoor unit
- Additional heating coil on indoor unit

### NOMENCLATURE

C AA H C S 20 W  
① ② ③ ④ ⑤ ⑥ ⑦

- ① **C: Cardiff**
- ② Unit type
- AA: Air to Air**
- AW: Air to Water**
- WA: Water to Air**
- WW: Water to Water**

- ③ **C: Cooling only**  
**H: Heat pump**
- ④ Refrigerant type
  - : R22
  - A: R410a**
  - B: R134a**
  - C: R407c**
- ⑤ Type of unit
  - P: Packaged type**
  - S: Split type(Ducted split)**

- ⑥ Model
- ⑦ Unit Name:
  - W: Outdoor unit**
  - N: Indoor unit**
  - WN: The Whole unit**

## TECHNICAL DATA

| Mod. CAAHS                         |                   | 20      | 25      | 32      | 36      | 42         | 48         |
|------------------------------------|-------------------|---------|---------|---------|---------|------------|------------|
| <b>Nominal cooling capacity*</b>   | kW                | 19.9    | 25.3    | 31.8    | 36.3    | 42.1       | 48.3       |
| <b>Nominal heating capacity**</b>  | kW                | 23.1    | 29.5    | 36.5    | 41.6    | 47.8       | 55.5       |
| Connection Method                  | /                 | Flare   | Flare   | Flare   | Welding | Welding    | Welding    |
| Liquid pipe diameter               | ∅ mm              | 9.52x2  | 12.7x2  | 12.7x2  | 15.88x1 | 15.88/12.7 | 15.88/12.7 |
| Gas pipe diameter                  | ∅ mm              | 15.88x2 | 19.05x2 | 19.05x2 | 28x1    | 28/19.05   | 28/19.05   |
| <b>Compressor</b>                  |                   |         |         |         |         |            |            |
| Qty/circuit nr.                    | Nr.               | 2/2     | 2/2     | 2/2     | 1/1     | 2/2        | 2/2        |
| Cooling power input*               | kW                | 7.13    | 9.21    | 11.68   | 12.67   | 14.95      | 17.72      |
| Heating power input**              | kW                | 7.06    | 9.12    | 11.56   | 12.54   | 14.80      | 17.54      |
| Energy adjustment                  | %                 | 50-100  | 50-100  | 50-100  | 0-100   | 40-60-100  | 33-66-100  |
| <b>Axial fans</b>                  |                   |         |         |         |         |            |            |
| Quantity                           | Nr.               | 1       | 1       | 1       | 1       | 2          | 2          |
| Airflow                            | m <sup>3</sup> /h | 9400    | 9400    | 12500   | 14200   | 18800      | 18800      |
| <b>Sound pressure level***</b>     | dB(A)             | 67      | 67      | 68      | 70      | 71         | 71         |
| <b>Net weight</b>                  | kg                | 170     | 180     | 220     | 230     | 260        | 280        |
| <b>Indoor Unit</b>                 |                   |         |         |         |         |            |            |
| <b>Centrifugal fans</b>            |                   |         |         |         |         |            |            |
| Quantity                           | Nr.               | 2       | 2       | 2       | 2       | 2          | 2          |
| Air flow                           | m <sup>3</sup> /h | 3500    | 4500    | 5650    | 6450    | 7400       | 8550       |
| ESP                                | Pa                | 120     | 100     | 150     | 130     | 180        | 200        |
| <b>Sound pressure level***</b>     | dB(A)             | 64      | 64      | 66      | 66      | 68         | 68         |
| <b>Net weight</b>                  | kg                | 90      | 100     | 150     | 160     | 180        | 200        |
| <b>Additional heating coil****</b> | kW                | 22.2    | 28.4    | 35.1    | 40.0    | 46.0       | 53.3       |

| Mod. CAAHS                         |                   | 52         | 62      | 72      | 88      | 104     | 120     |
|------------------------------------|-------------------|------------|---------|---------|---------|---------|---------|
| <b>Nominal cooling capacity*</b>   | kW                | 52.3       | 64.6    | 72.7    | 89.7    | 105.8   | 122.0   |
| <b>Nominal heating capacity**</b>  | kW                | 60.1       | 74.1    | 83.5    | 102.0   | 118.1   | 136.3   |
| Connection Method                  | /                 | Welding    | Welding | Welding | Welding | Welding | Welding |
| Liquid pipe diameter               | ∅ mm              | 15.88/12.7 | 15.88x2 | 15.88x2 | 15.88x2 | 19.05x2 | 19.05x2 |
| Gas pipe diameter                  | ∅ mm              | 28/19.05   | 28x2    | 28x2    | 28x2    | 35x2    | 35x2    |
| <b>Compressor</b>                  |                   |            |         |         |         |         |         |
| Qty/circuit nr.                    | Nr.               | 2/2        | 2/2     | 2/2     | 2/2     | 2/2     | 2/2     |
| Cooling power input*               | kW                | 18.4       | 23.1    | 26.6    | 28.1    | 39.3    | 45.3    |
| Heating power input**              | kW                | 18.22      | 22.87   | 26.33   | 27.82   | 38.91   | 44.9    |
| Energy adjustment                  | %                 | 30-70-100  | 50-100  | 50-100  | 50-100  | 50-100  | 50-100  |
| <b>Axial fans</b>                  |                   |            |         |         |         |         |         |
| Quantity                           | Nr.               | 2          | 2       | 2       | 2       | 2       | 2       |
| Airflow                            | m <sup>3</sup> /h | 21500      | 26500   | 29880   | 36500   | 43500   | 53800   |
| <b>Sound pressure level***</b>     | dB(A)             | 71         | 71      | 71      | 71      | 71      | 71      |
| <b>Net weight</b>                  | kg                | 330        | 340     | 460     | 780     | 800     | 830     |
| <b>Indoor Unit</b>                 |                   |            |         |         |         |         |         |
| <b>Centrifugal fans</b>            |                   |            |         |         |         |         |         |
| Quantity                           | Nr.               | 2          | 2       | 2       | 2       | 2       | 2       |
| Airflow                            | m <sup>3</sup> /h | 9250       | 11450   | 12900   | 14800   | 17100   | 19700   |
| ESP                                | Pa                | 200        | 300     | 300     | 280     | 500     | 500     |
| <b>Sound pressure level***</b>     | dB(A)             | 68         | 68      | 69      | 69      | 70      | 70      |
| <b>Net weight</b>                  | kg                | 220        | 230     | 300     | 320     | 400     | 420     |
| <b>Additional heating coil****</b> | kW                | 57.8       | 71.2    | 80.3    | 98      | 113.5   | 130.9   |

Performance values refer to the following conditions:

\* Cooling capacity is measured under the condition: indoor temperature DB 27°C / WB 19°C, ambient temperature DB 35°C / WB 24°C.

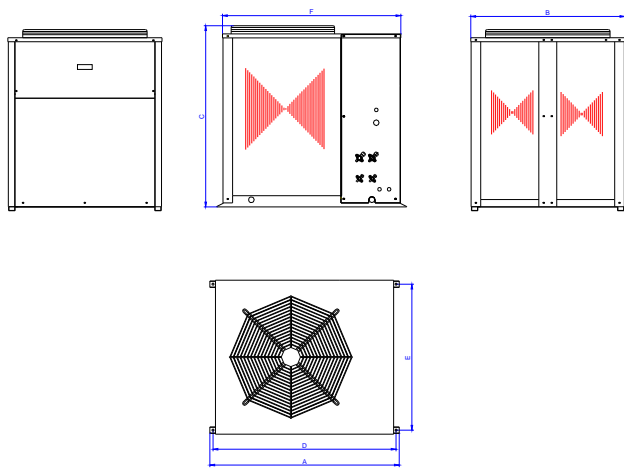
\*\* Heating capacity is measured under the condition: indoor temperature DB 20°C / WB 15°C, ambient temperature DB 7°C / WB 6°C.

\*\*\* Sound pressure measured at a distance of 1 m and a height of 1.5 m above the ground in a dear field.

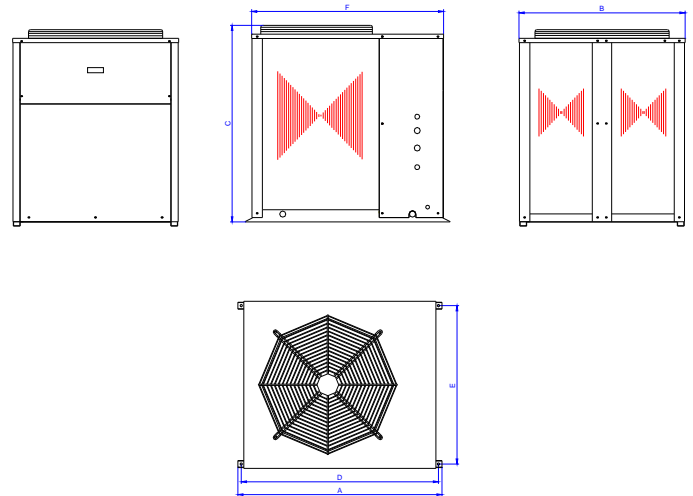
\*\*\*\* Optional as request.

## OVERALL DIMENSIONS

### CAAHS 20W ÷ 25W

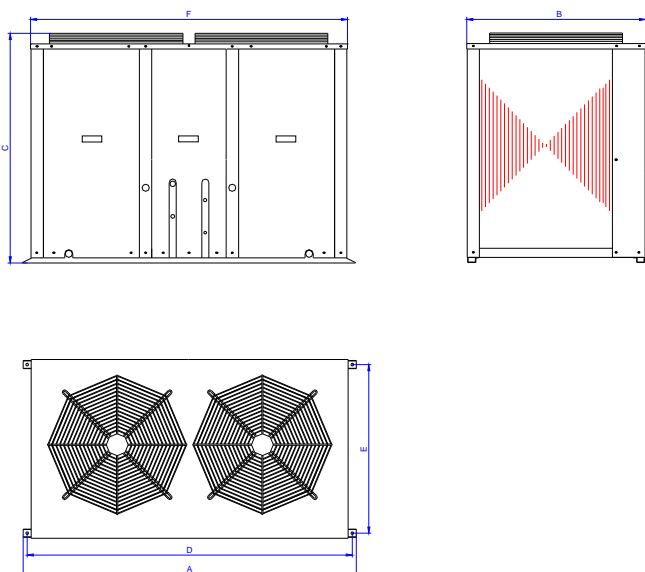


### CAAHS 32W ÷ 36W

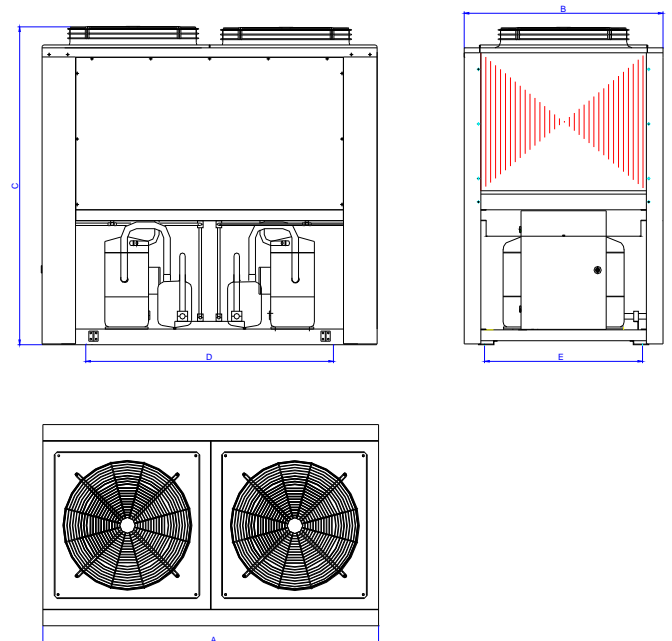


| Mod. | A    | B   | C    | D    | E   | F    | Mod. | A    | B   | C    | D    | E   | F    |
|------|------|-----|------|------|-----|------|------|------|-----|------|------|-----|------|
| 20W  | 1120 | 830 | 1030 | 1080 | 780 | 1050 | 32W  | 1180 | 960 | 1130 | 1140 | 910 | 1110 |
| 25W  | 1120 | 830 | 1030 | 1080 | 780 | 1050 | 36W  | 1180 | 960 | 1130 | 1140 | 910 | 1110 |

### CAAHS 42W ÷ 72W



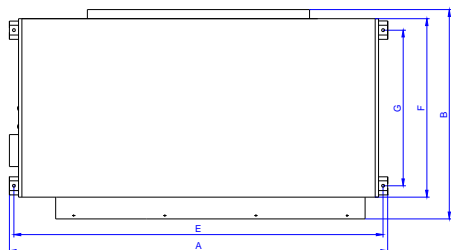
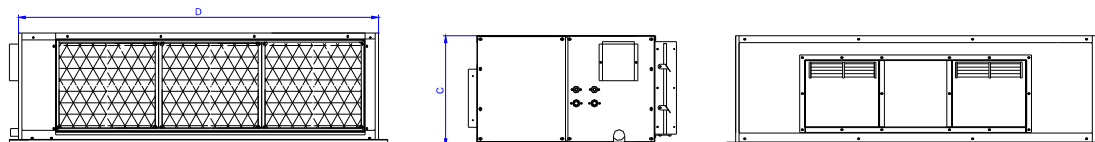
### CAAHS 88W ÷ 120W



| Mod. | A    | B   | C    | D    | E   | F    | Mod. | A    | B    | C    | D    | E    | F    |
|------|------|-----|------|------|-----|------|------|------|------|------|------|------|------|
| 42W  | 1640 | 880 | 1130 | 1600 | 830 | 1560 | 72W  | 2120 | 970  | 1130 | 2080 | 920  | 2050 |
| 48W  | 1640 | 880 | 1130 | 1600 | 830 | 1560 | 88W  | 2165 | 1285 | 2030 | 1600 | 1020 | 2090 |
| 52W  | 1840 | 970 | 1130 | 1800 | 920 | 1760 | 104W | 2165 | 1285 | 2105 | 1600 | 1020 | 2090 |
| 62W  | 1840 | 970 | 1130 | 1800 | 920 | 1760 | 120W | 2165 | 1300 | 2105 | 1600 | 1020 | 2090 |

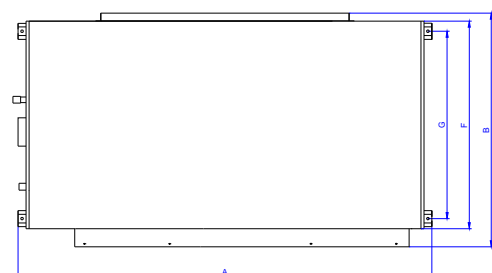
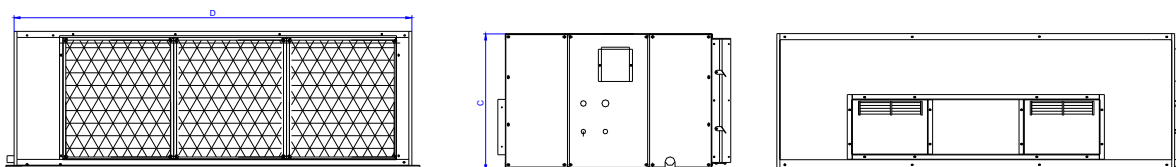
## OVERALL DIMENSIONS

### CAAHS20N ÷ 32N



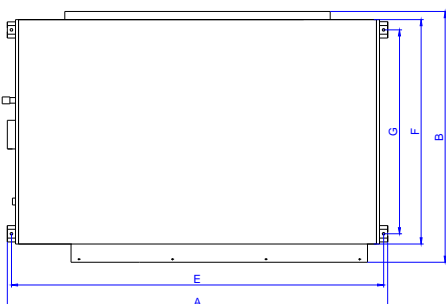
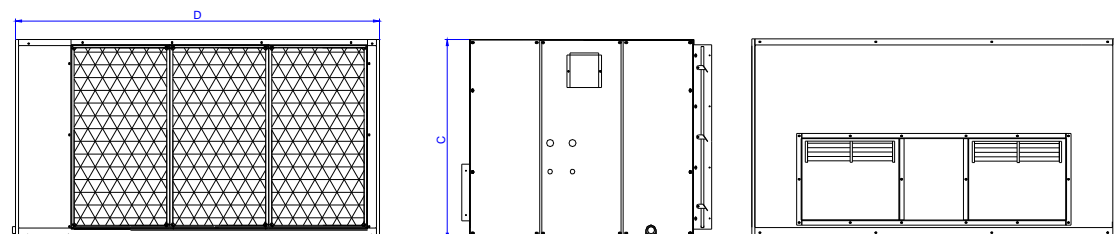
| Mod.       | A    | B   | C   | D    | E    | F   | G   |
|------------|------|-----|-----|------|------|-----|-----|
| <b>20N</b> | 1660 | 915 | 480 | 1580 | 1620 | 780 | 680 |
| <b>25N</b> | 1660 | 915 | 480 | 1580 | 1620 | 780 | 680 |
| <b>32N</b> | 1660 | 915 | 580 | 1580 | 1620 | 780 | 680 |

### CAAHS36N ÷ 52N



| Mod.       | A    | B    | C   | D    | E    | F    | G   |
|------------|------|------|-----|------|------|------|-----|
| <b>36N</b> | 1790 | 915  | 580 | 1710 | 1750 | 780  | 680 |
| <b>42N</b> | 1840 | 1040 | 680 | 1760 | 1800 | 910  | 810 |
| <b>48N</b> | 2065 | 1160 | 680 | 1985 | 2025 | 1030 | 930 |
| <b>52N</b> | 2165 | 1160 | 680 | 2085 | 2125 | 1030 | 930 |

### CAAHS62N ÷ 120N



| Mod.        | A    | B    | C    | D    | E    | F    | G    |
|-------------|------|------|------|------|------|------|------|
| <b>62N</b>  | 1870 | 1230 | 980  | 1790 | 1830 | 1100 | 1000 |
| <b>72N</b>  | 1870 | 1230 | 1080 | 1790 | 1830 | 1100 | 1000 |
| <b>88N</b>  | 2100 | 1270 | 1180 | 2020 | 2060 | 1140 | 1040 |
| <b>104N</b> | 2100 | 1270 | 1280 | 2020 | 2060 | 1140 | 1040 |
| <b>120N</b> | 2100 | 1270 | 1280 | 2020 | 2060 | 1140 | 1040 |