

# WATER COOLED PACKAGE UNIT

*Our quality build your comfort*

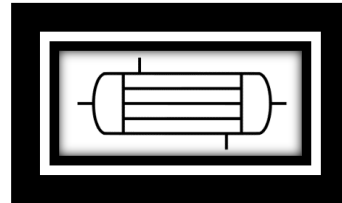


## Features



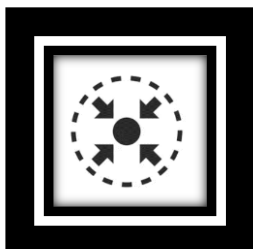
### **Hermetic Scroll Compressor**

High efficiency, stable, high durability, and quiet operation.



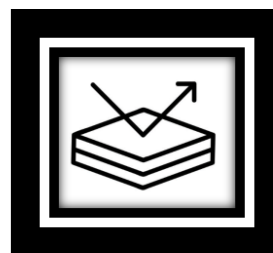
### **Shell & Tube Condenser**

High reliability, high efficiency in heat transfer, serviceable



### **Compact**

Optimum dimension with minimum footprint and size.



### **Double skin as Option**

Double skin to provide higher level of quiet operation and elegant outlook.



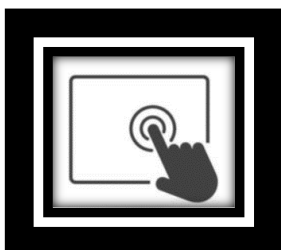
### **Wide Range of ESP**

ESP changeable to provide wide range of operation options.



### **Technical Performance Guarantee**

Coil selection by certified AHRI software. ISO 9001 certified factory.



### **Touch screen controller**

Stylish and operation friendly controller for superior experience.



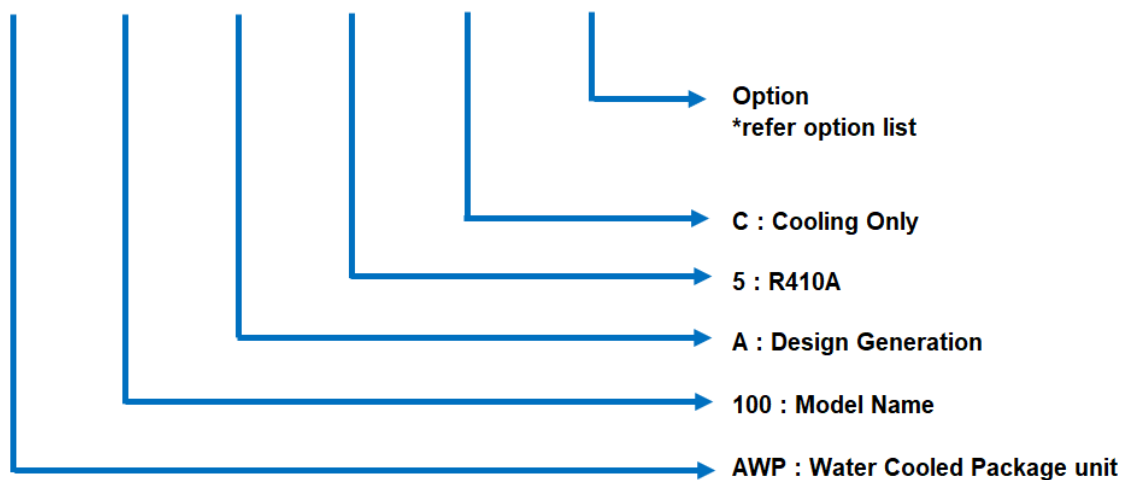
### **Multi stage system control**

Part loading option to provide efficient operation mode with energy saving.

## Nomenclature



**AWP 403 A 5 C - AA**



### Option list

#### Panel skin

|    |             |
|----|-------------|
| SS | Single Skin |
| DS | Double Skin |

#### Coil Coating

|    |                  |
|----|------------------|
| XC | Epoxy Coating    |
| HC | Heresite Coating |

## Specification Data

| AWP                               |                     |        | 101                              | 151     | 202      | 252     | 302     | 352     | 403         | 453     |
|-----------------------------------|---------------------|--------|----------------------------------|---------|----------|---------|---------|---------|-------------|---------|
| NOMINAL TOTAL COOLING CAPACITY    |                     | kW     | 28.5                             | 42.1    | 57.0     | 73.2    | 84.2    | 94.4    | 109.8       | 126.3   |
|                                   |                     | Btu/Hr | 97,224                           | 143,591 | 194,448  | 249,758 | 287,183 | 322,021 | 374,638     | 430,774 |
| NOMINAL TOTAL POWER INPUT         |                     | kW     | 7.1                              | 10.6    | 14.3     | 18.7    | 21.9    | 24.7    | 29.0        | 34.2    |
| NOMINAL TOTAL RUNNING CURRENT     |                     | A      | 15.3                             | 20.6    | 30.1     | 36.7    | 41.1    | 48.9    | 56.7        | 63.6    |
| COP                               |                     |        | 4.03                             | 3.97    | 3.98     | 3.92    | 3.84    | 3.82    | 3.78        | 3.69    |
| EER                               |                     |        | 13.75                            | 13.56   | 13.57    | 13.36   | 13.11   | 13.04   | 12.91       | 12.58   |
| AIR FLOW                          |                     | l/s    | 1,389                            | 2,014   | 2,778    | 3,472   | 4,028   | 4,583   | 5,278       | 6,111   |
|                                   |                     | m3/h   | 5,000                            | 7,250   | 10,000   | 12,500  | 14,500  | 16,500  | 19,000      | 22,000  |
| STANDARD EXTERNAL STATIC PRESSURE |                     | Pa     | 100                              | 100     | 120      | 150     | 200     | 250     | 250         | 300     |
| SOUND PRESSURE LEVEL              |                     | dB(A)  | 59                               | 64      | 66       | 68      | 71      | 68      | 69          | 72      |
| CAPACITY ADJUST STAGE             |                     | %      | 0-100                            |         | 0-50-100 |         |         |         | 0-33-66-100 |         |
| POWER SUPPLY                      |                     |        | 380~415V / 3Ph / 50Hz            |         |          |         |         |         |             |         |
| REFRIGERANT TYPE                  |                     |        | R410A                            |         |          |         |         |         |             |         |
| COMPRESSOR                        | TYPE                |        | FULLY HERMETIC SCROLL TYPE       |         |          |         |         |         |             |         |
|                                   | QUANTITY            |        | 1                                | 1       | 2        | 2       | 2       | 2       | 3           | 3       |
| EVAPORATOR                        | TYPE                |        | AL-CU FINNED TUBE HEAT EXCHANGER |         |          |         |         |         |             |         |
|                                   | AREA                | m2     | 0.57                             | 0.81    | 1.14     | 1.42    | 1.64    | 1.85    | 2.13        | 2.44    |
| FAN                               | TYPE                |        | CENTRIFUGAL FAN                  |         |          |         |         |         |             |         |
|                                   | DRIVE               |        | BELT DRIVEN                      |         |          |         |         |         |             |         |
|                                   | QUANTITY            | pcs    | 1                                | 1       | 2        | 2       | 2       | 2       | 2           | 2       |
| MOTOR                             | TYPE                |        | SQUIRREL CAGE INDUCTION MOTOR    |         |          |         |         |         |             |         |
|                                   | POWER INPUT         | kW     | 0.63                             | 1.32    | 1.44     | 2.29    | 3.36    | 3.86    | 4.41        | 6.43    |
|                                   | POWER OUTPUT        | kW     | 1.1                              | 2.2     | 2.2      | 3       | 4       | 5.5     | 5.5         | 7.5     |
|                                   | QUANTITY            | pcs    | 1                                | 1       | 1        | 1       | 1       | 1       | 1           | 1       |
| CONDENSER                         | TYPE                |        | SHELL AND TUBE HEAT EXCHANGER    |         |          |         |         |         |             |         |
|                                   | WATER FLOW          | m3/h   | 6.01                             | 8.83    | 12.02    | 15.41   | 17.66   | 19.81   | 23.11       | 26.49   |
|                                   | WATER PRESSURE DROP | kPa    | 29                               | 30      | 26       | 27      | 28      | 28      | 29          | 30      |
| CONNECTIONS                       | WATER INLET/OUTLET  | inch   | 1-1/4"                           | 1-1/4"  | 1-1/2"   | 2"      | 2"      | 2"      | 3"          | 3"      |
|                                   |                     | DN     | DN32                             | DN32    | DN40     | DN50    | DN50    | DN50    | DN80        | DN80    |
|                                   | DRAIN PIPE          | inch   | 1-1/4"                           | 1-1/4"  | 1-1/4"   | 1-1/4"  | 1-1/4"  | 1-1/4"  | 1-1/4"      | 1-1/4"  |
|                                   |                     | DN     | DN32                             | DN32    | DN32     | DN32    | DN32    | DN32    | DN32        | DN32    |
| FILTER                            | TYPE                |        | SARANET (G2-G4 AS OPTIONAL)      |         |          |         |         |         |             |         |
|                                   | 12" X 24"           | pcs    | 0                                | 2       | 3        | 1       | 2       | 2       | 4           | 3       |
|                                   | 20" X 24"           | pcs    | 1                                | 0       | 0        | 2       | 0       | 0       | 0           | 0       |
|                                   | 24" X 24"           | pcs    | 1                                | 2       | 2        | 2       | 4       | 4       | 4           | 6       |
| NET WEIGHT                        |                     | kg     | 600                              | 620     | 650      | 720     | 720     | 750     | 800         | 970     |
| OUTLINE DIMENSIONS                | LENGTH              | mm     | 1,100                            | 1,300   | 1,700    | 1,700   | 1,700   | 1,700   | 1,800       | 1,900   |
|                                   | WIDTH               | mm     | 871                              | 871     | 871      | 871     | 871     | 1,058   | 1,058       | 1,058   |
|                                   | HEIGHT              | mm     | 1,546                            | 1,646   | 1,646    | 1,846   | 1,996   | 2,156   | 2,346       | 2,346   |

### Notes :

- Test conditions of nominal total cooling capacity as below:  
- Indoor Condition: 27°C DB / 19°C WB.  
- Inlet Water: 30°C.  
- Outlet Water: 35°C.
- 25mm PU Panel casing is available upon request.
- G2-G4 primary filter is available upon request.
- Non standard Air Flow and ESP are available upon request.
- Materials and specifications are subject to change without notice due to the manufacturer's ongoing and development programme.

## Specification Data

| AWP                               |                     | 503    | 554                              | 604            | 654     | 705     | 805            | 906     | 1006           |         |
|-----------------------------------|---------------------|--------|----------------------------------|----------------|---------|---------|----------------|---------|----------------|---------|
| NOMINAL TOTAL COOLING CAPACITY    |                     | kW     | 141.6                            | 149.5          | 168.3   | 188.8   | 210.4          | 235.9   | 252.5          | 283.1   |
|                                   |                     | Btu/Hr | 483,031                          | 510,259        | 574,365 | 644,042 | 717,957        | 805,052 | 861,548        | 966,063 |
| NOMINAL TOTAL POWER INPUT         |                     | kW     | 36.9                             | 38.6           | 44.3    | 50.3    | 56.6           | 61.8    | 67.1           | 76.6    |
| NOMINAL TOTAL RUNNING CURRENT     |                     | A      | 71.2                             | 75.0           | 83.3    | 96.7    | 106.7          | 120.4   | 124.6          | 146.3   |
| COP                               |                     |        | 3.84                             | 3.87           | 3.80    | 3.75    | 3.71           | 3.82    | 3.76           | 3.70    |
| EER                               |                     |        | 13.09                            | 13.21          | 12.97   | 12.79   | 12.67          | 13.04   | 12.84          | 12.61   |
| AIR FLOW                          |                     | l/s    | 6,833                            | 6,944          | 7,500   | 8,333   | 9,167          | 10,000  | 11,111         | 12,500  |
|                                   |                     | m3/h   | 24,600                           | 25,000         | 27,000  | 30,000  | 33,000         | 36,000  | 40,000         | 45,000  |
| STANDARD EXTERNAL STATIC PRESSURE |                     | Pa     | 300                              | 350            | 350     | 350     | 350            | 350     | 350            | 350     |
| SOUND PRESSURE LEVEL              |                     | dB(A)  | 76                               | 76             | 78      | 78      | 76             | 76      | 77             | 78      |
| CAPACITY ADJUST STAGE             |                     | %      | 0-33-66-100                      | 0-25-50-75-100 |         |         | 0-40-60-80-100 |         | 0-33-66-83-100 |         |
| POWER SUPPLY                      |                     |        | 380~415V / 3Ph / 50Hz            |                |         |         |                |         |                |         |
| REFRIGERANT TYPE                  |                     |        | R410A                            |                |         |         |                |         |                |         |
| COMPRESSOR                        | TYPE                |        | FULLY HERMETIC SCROLL TYPE       |                |         |         |                |         |                |         |
|                                   | QUANTITY            |        | 3                                | 4              | 4       | 4       | 5              | 5       | 6              | 6       |
| EVAPORATOR                        | TYPE                |        | AL-CU FINNED TUBE HEAT EXCHANGER |                |         |         |                |         |                |         |
|                                   | AREA                | m2     | 2.74                             | 2.74           | 3.02    | 3.35    | 3.69           | 4.02    | 4.36           | 4.86    |
| FAN                               | TYPE                |        | CENTRIFUGAL FAN                  |                |         |         |                |         |                |         |
|                                   | DRIVE               |        | BELT DRIVEN                      |                |         |         |                |         |                |         |
|                                   | QUANTITY            | pcs    | 2                                | 2              | 2       | 2       | 2              | 2       | 2              | 2       |
| MOTOR                             | TYPE                |        | SQUIRREL CAGE INDUCTION MOTOR    |                |         |         |                |         |                |         |
|                                   | POWER INPUT         | kW     | 5.65                             | 5.82           | 7.22    | 8.66    | 10.30          | 9.65    | 11.50          | 14.10   |
|                                   | POWER OUTPUT        | kW     | 7.5                              | 7.5            | 11      | 11      | 15             | 15      | 15             | 18.5    |
|                                   | QUANTITY            | pcs    | 1                                | 1              | 1       | 1       | 1              | 1       | 1              | 1       |
| CONDENSER                         | TYPE                |        | SHELL AND TUBE HEAT EXCHANGER    |                |         |         |                |         |                |         |
|                                   | WATER FLOW          | m3/h   | 29.72                            | 31.36          | 35.32   | 39.63   | 44.15          | 49.53   | 52.98          | 59.44   |
|                                   | WATER PRESSURE DROP | kPa    | 28                               | 33             | 34      | 36      | 38             | 42      | 45             | 49      |
| CONNECTIONS                       | WATER INLET/OUTLET  | inch   | 3"                               | 3"             | 3"      | 3"      | 3"             | 3"      | 3"             | 3"      |
|                                   |                     | DN     | DN80                             | DN80           | DN80    | DN80    | DN80           | DN80    | DN80           | DN80    |
|                                   | DRAIN PIPE          | inch   | 1-1/4"                           | 1-1/4"         | 1-1/4"  | 1-1/4"  | 1-1/4"         | 1-1/4"  | 1-1/4"         | 1-1/4"  |
|                                   |                     | DN     | DN32                             | DN32           | DN32    | DN32    | DN32           | DN32    | DN32           | DN32    |
| FILTER                            | TYPE                |        | SARANET (G2-G4 AS OPTIONAL)      |                |         |         |                |         |                |         |
|                                   | 12" X 24"           | pcs    | 3                                | 3              | 0       | 0       | 0              | 0       | 0              | 0       |
|                                   | 20" X 24"           | pcs    | 0                                | 0              | 3       | 4       | 4              | 4       | 5              | 5       |
|                                   | 24" X 24"           | pcs    | 6                                | 6              | 6       | 8       | 8              | 8       | 10             | 10      |
| NET WEIGHT                        |                     | kg     | 1,050                            | 1,150          | 1,200   | 1,250   | 1,450          | 1,550   | 1,800          | 2,000   |
| OUTLINE DIMENSIONS                | LENGTH              | mm     | 2,100                            | 2,255          | 2,255   | 2,455   | 2,655          | 2,855   | 3,055          | 3,355   |
|                                   | WIDTH               | mm     | 1,168                            | 1,168          | 1,268   | 1,268   | 1,268          | 1,368   | 1,368          | 1,368   |
|                                   | HEIGHT              | mm     | 2,346                            | 2,346          | 2,496   | 2,496   | 2,496          | 2,496   | 2,496          | 2,496   |

### Notes :

- Test conditions of nominal total cooling capacity as below:  
- Indoor Condition: 27°C DB / 19°C WB.  
- Inlet Water: 30°C.  
- Outlet Water: 35°C.
- 25mm PU Panel casing is available upon request.
- G2-G4 primary filter is available upon request.
- Non standard Air Flow and ESP are available upon request.
- Materials and specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.

## Dimension

AWP101-202

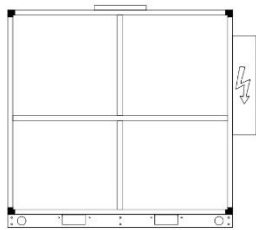
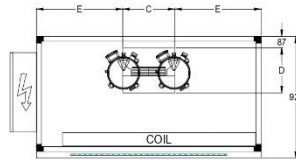
### OUTLINE DIMENSION

TOP VIEW

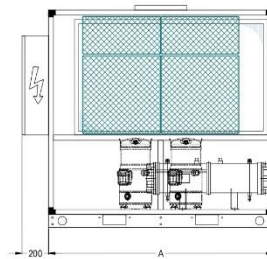
| Unit Dimension |      |      |     |     |       |
|----------------|------|------|-----|-----|-------|
| Model          | A    | B    | C   | D   | E     |
| AWP10          | 1100 | 1446 | 395 | 341 | 352.5 |
| AWP15          | 1300 | 1546 | 395 | 341 | 452.5 |
| AWP20          | 1700 | 1546 | 395 | 341 | 652.5 |

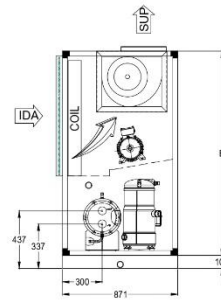
| Connection Size |             |              |             |  |  |
|-----------------|-------------|--------------|-------------|--|--|
|                 | Water Inlet | Water Outlet | Drain Pipe  |  |  |
| AWP10           | 1-1/4" DN32 | 1-1/4" DN32  | 1-1/4" DN32 |  |  |
| AWP15           | 1-1/4" DN32 | 1-1/4" DN32  | 1-1/4" DN32 |  |  |
| AWP20           | 1-1/2" DN40 | 1-1/2" DN40  | 1-1/4" DN32 |  |  |



FRONT VIEW



FILTER VIEW



SIDE VIEW

AWP252-352

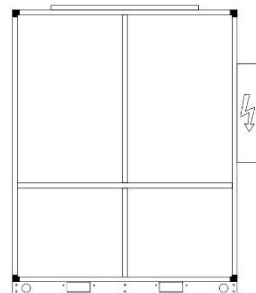
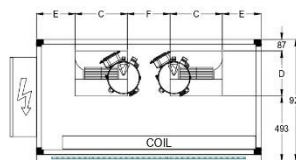
### OUTLINE DIMENSION

TOP VIEW

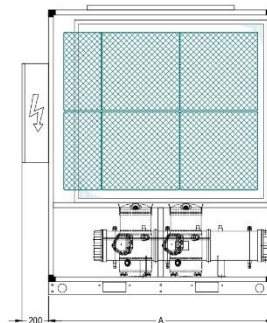
| Unit Dimension |      |      |     |     |     |     |
|----------------|------|------|-----|-----|-----|-----|
| Model          | A    | B    | C   | D   | E   | F   |
| AWP25          | 1700 | 1746 | 395 | 341 | 293 | 324 |
| AWP30          | 1700 | 1896 | 395 | 341 | 293 | 324 |
| AWP35          | 1700 | 2056 | 471 | 404 | 232 | 294 |

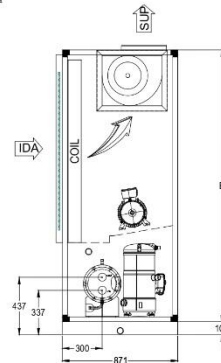
| Connection Size |             |              |             |  |  |  |
|-----------------|-------------|--------------|-------------|--|--|--|
|                 | Water Inlet | Water Outlet | Drain Pipe  |  |  |  |
| AWP25           | 2" DN50     | 2" DN50      | 1-1/4" DN32 |  |  |  |
| AWP30           | 2" DN50     | 2" DN50      | 1-1/4" DN32 |  |  |  |
| AWP35           | 2" DN50     | 2" DN50      | 1-1/4" DN32 |  |  |  |



FRONT VIEW

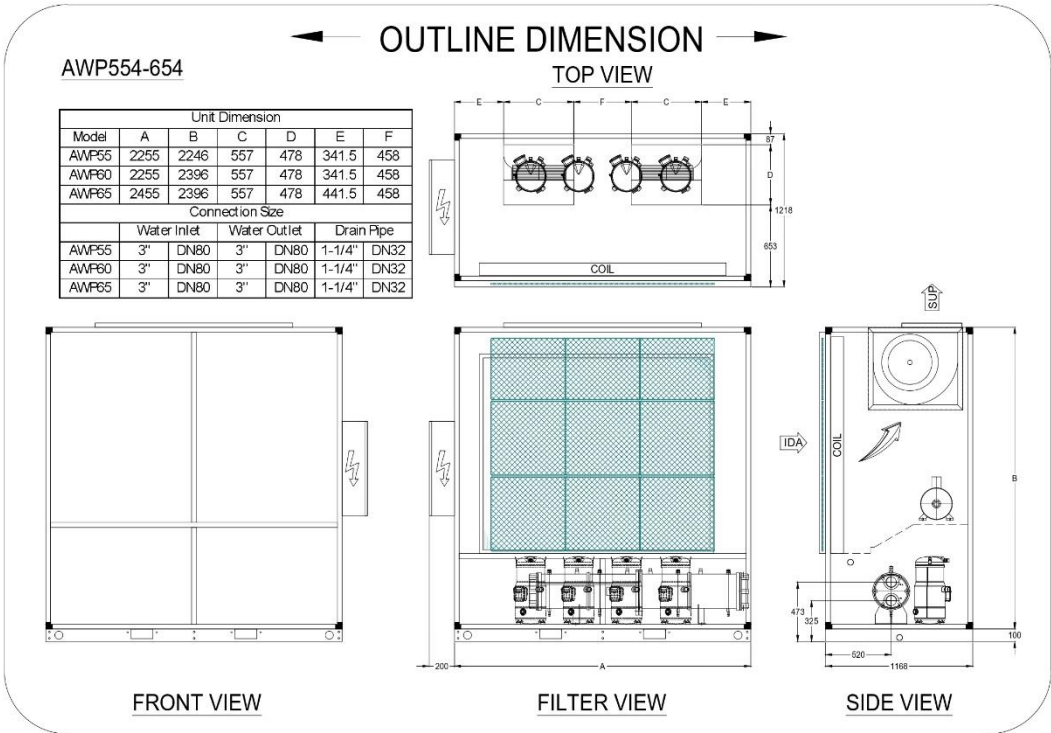
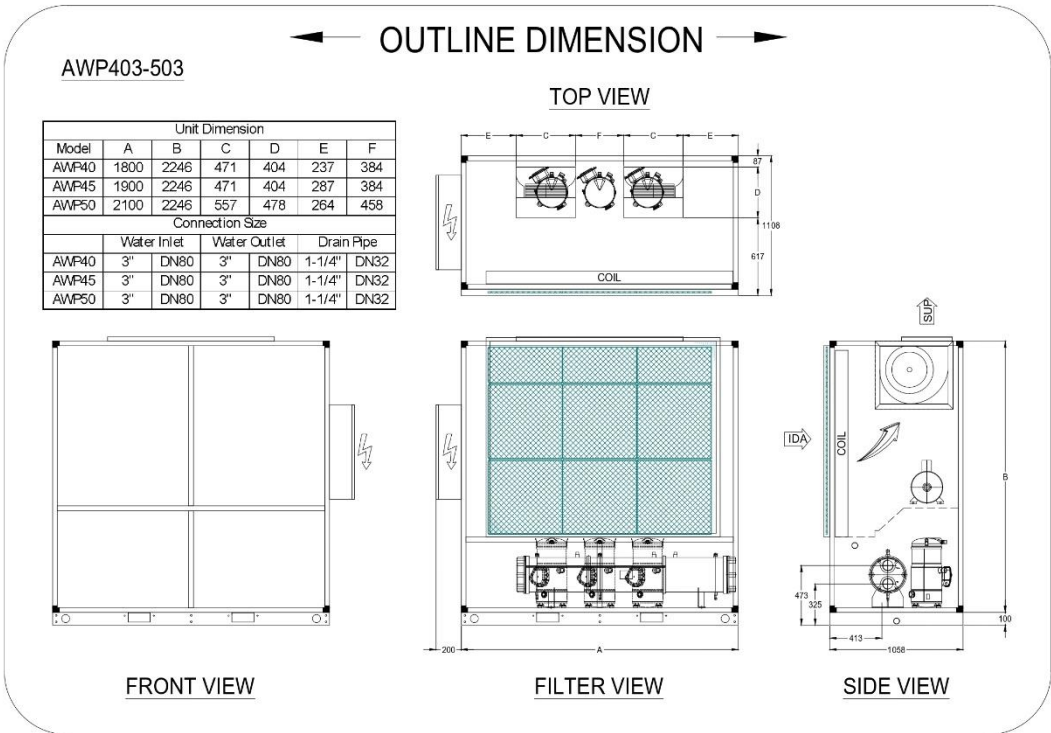


FILTER VIEW



SIDE VIEW

Dimension



## Dimension

AWP705-1006

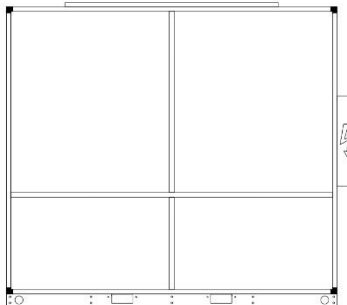
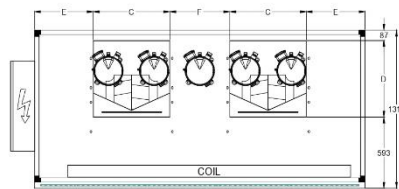
### OUTLINE DIMENSION

| Unit Dimension |      |      |     |     |       |
|----------------|------|------|-----|-----|-------|
| Model          | A    | B    | C   | D   | F     |
| AWP70          | 2655 | 2396 | 557 | 478 | 541.5 |
| AWP80          | 2855 | 2396 | 638 | 638 | 539.5 |
| AWP90          | 3055 | 2396 | 638 | 638 | 539.5 |
| AWP100         | 3355 | 2396 | 638 | 638 | 789.5 |

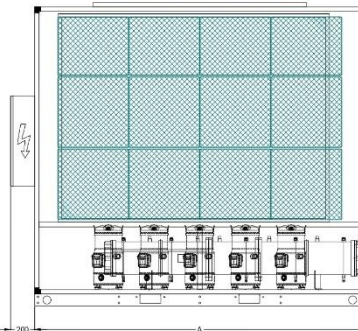
  

| Connection Size |             |      |              |      |             |
|-----------------|-------------|------|--------------|------|-------------|
|                 | Water Inlet |      | Water Outlet |      | Drain Pipe  |
| AWP70           | 3"          | DN80 | 3"           | DN80 | 1-1/4" DN32 |
| AWP80           | 3"          | DN80 | 3"           | DN80 | 1-1/4" DN32 |
| AWP90           | 3"          | DN80 | 3"           | DN80 | 1-1/4" DN32 |
| AWP100          | 3"          | DN80 | 3"           | DN80 | 1-1/4" DN32 |

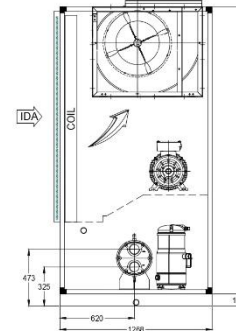
TOP VIEW



FRONT VIEW

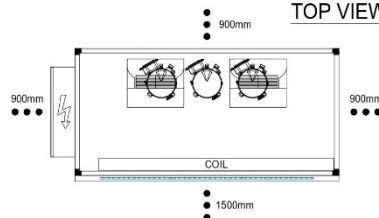


FILTER VIEW

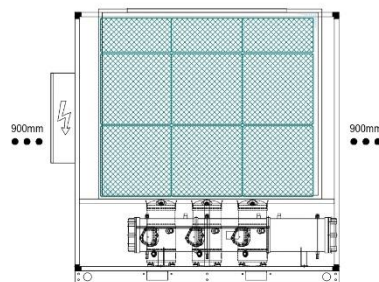


SIDE VIEW

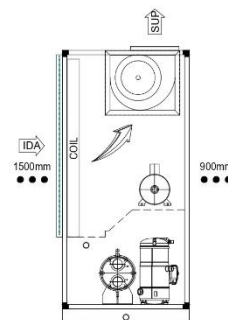
TOP VIEW



... INSTALLATION CLEARANCE ...



FILTER VIEW



SIDE VIEW



ALPHA HEAT EXCHANGE TECHNOLOGY SDN BHD  
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ISO 9001: 2015      Cert.No 770145

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