

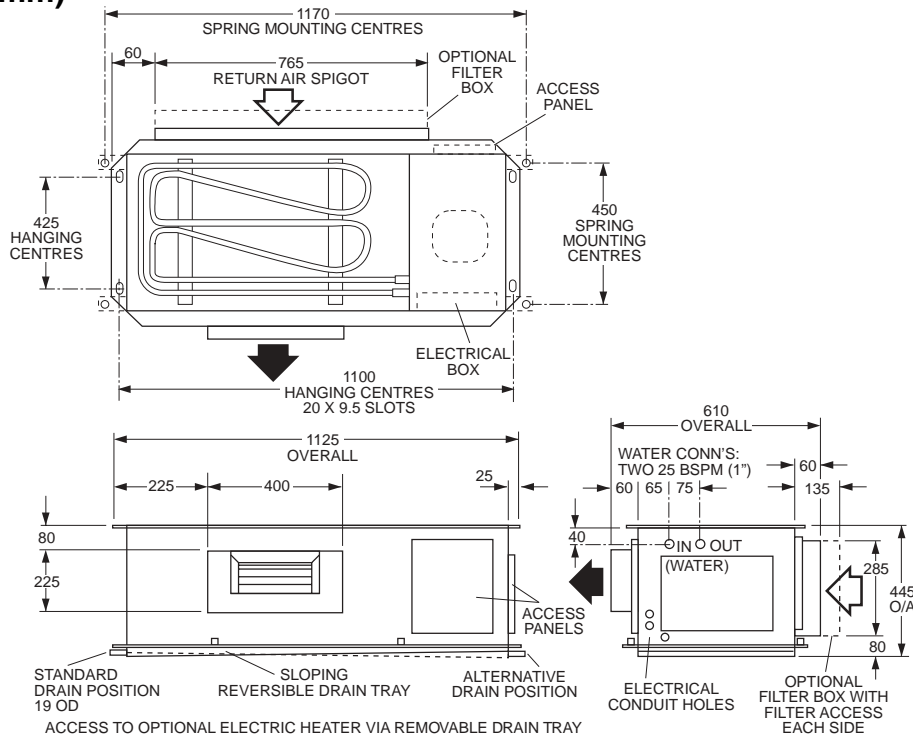
# HWP 120

# DATA SHEET

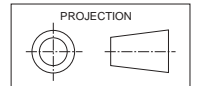
## Ducted Water Cooled Packaged Air Conditioners

### Dimensions (mm)

Not to Scale



### HWP 120



Net Weight 99 kg

### COOLING CAPACITY (kW)

| AIR FLOW RATE<br>l/s | COIL E.A.T. |            | LEAVING WATER TEMPERATURE (L.W.T.) °C |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------------|------------|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                      | W.B.<br>°C  | D.B.<br>°C | 25                                    |      |      |      | 30   |      |      |      | 35   |      |      |      | 40   |      |      |      | 45   |      |      |      | 50   |      |      |      |
|                      |             |            | T                                     | S    | FL   | HR   | T    | S    | FL   | HR   | T    | S    | FL   | HR   | T    | S    | FL   | HR   | T    | S    | FL   | HR   |      |      |      |      |
| 660                  | 17          | 23         | 11.9                                  | 8.5  | 0.55 | 13.8 | 11.6 | 8.4  | 0.55 | 13.8 | 11.2 | 8.2  | 0.55 | 13.7 | 10.8 | 8.0  | 0.54 | 13.5 | 10.4 | 7.9  | 0.54 | 13.5 | 10.1 | 7.8  | 0.54 | 13.5 |
|                      | 19          | 27         | 12.7                                  | 9.8  | 0.58 | 14.7 | 12.3 | 9.6  | 0.58 | 14.6 | 12.0 | 9.5  | 0.57 | 14.4 | 11.5 | 9.3  | 0.57 | 14.2 | 11.2 | 9.2  | 0.57 | 14.2 | 10.8 | 9.1  | 0.57 | 14.2 |
|                      | 21          | 31         | 13.5                                  | 11.0 | 0.62 | 15.5 | 13.1 | 10.9 | 0.61 | 15.4 | 12.7 | 10.7 | 0.61 | 15.2 | 12.3 | 10.6 | 0.60 | 15.1 | 11.9 | 10.5 | 0.60 | 15.0 | 11.6 | 10.4 | 0.60 | 15.1 |

T = Total Capacity (kW)

S = Sensible Capacity (kW)

HR = Heat Rejection (kW)

FL = Water Flow (l/s)

E.A.T. = Entering Air Temperature (°C)

○ = Nominal Capacity (kW)

**NOTE:** Capacities are **gross** and do not include allowance for fan motor heat loss. For fan motor heat loss refer to Air Handling Performance. Water flow and cooling capacity based on 5.5 °C water temp. difference.

### HEATING CAPACITY (kW)

#### HW\*R Reverse Cycle version

| MODEL    | WATER FLOW RATE<br>l/s | COIL E.A.T.<br>D.B.<br>°C | LEAVING WATER TEMPERATURE (L.W.T.) °C |     |      |      |      |     |      |      |      |     |      |      |
|----------|------------------------|---------------------------|---------------------------------------|-----|------|------|------|-----|------|------|------|-----|------|------|
|          |                        |                           | 12.5                                  |     |      |      | 15.5 |     |      |      | 18.5 |     |      |      |
|          |                        |                           | HC                                    | HAb | EWT  | INPT | HC   | HAb | EWT  | INPT | HC   | HAb | EWT  | INPT |
| HWP 120R | 0.57                   | 16                        | 10.3                                  | 8.2 | 15.9 | 2.1  | 11.0 | 8.9 | 19.2 | 2.2  | 12.0 | 9.7 | 22.6 | 2.3  |
|          |                        | 21                        | 10.2                                  | 8.0 | 15.9 | 2.3  | 11.0 | 8.7 | 19.2 | 2.4  | 12.0 | 9.5 | 22.5 | 2.5  |
|          |                        | 26                        | 10.2                                  | 7.8 | 15.8 | 2.5  | 11.0 | 8.5 | 19.1 | 2.6  | 11.9 | 9.3 | 22.4 | 2.7  |

HC = Heating Capacity (kW)

EWT = Entering Water Temperature (°C) (Minimum required 17°C)

HAb = Heat Absorbed (kW)

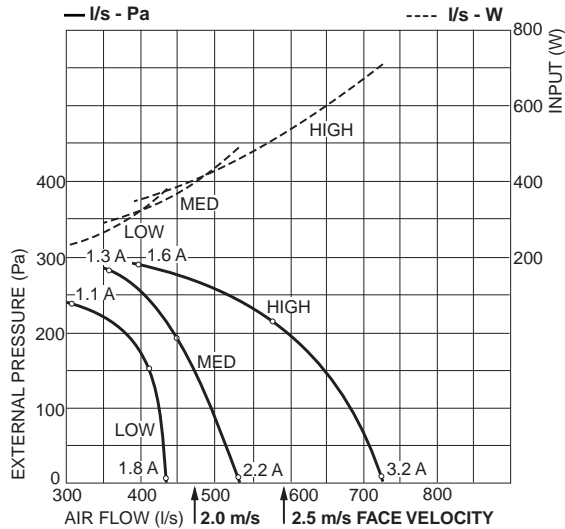
INPT = Compressor Input (kW)

○ = Nominal Capacity (kW)

E.A.T. = Entering Air Temperature (°C)

## AIR HANDLING PERFORMANCE

### Without Filter



|                  |                    |         |         |
|------------------|--------------------|---------|---------|
| EU2 rated Filter | Coil Face Velocity | 2.0 m/s | 2.5 m/s |
|                  | Pressure Loss      | 25 Pa   | 40 Pa   |

## QUICK REFERENCE

## HWP 120

|                                 |                                |
|---------------------------------|--------------------------------|
| Electrical Input (Cooling)      | 3.2 kW                         |
| E.E.R. / C.O.P. (Cooling)       | 12.9 / 3.8                     |
| Running Amps/Ph. (Total)        | 5 / 5 / 7.5                    |
| Fan Motor Full Load Amps        | 2.7                            |
| Electrical Supply Required      | 3 ph. 380-415V ±10% a.c. 50 Hz |
| Recom'd External Fuse Size      | 20 A                           |
| Refrigerant                     | HCFC-22 (R22)                  |
| Nominal (Minimum) Water Flow    | 0.57 l/s                       |
| Water Pressure Drop (nom./+15%) | 24 kPa / 30 kPa                |
| Filter (EU2 rated)              | optional                       |
| Electric Heat Option            | 9 kW                           |

### Note

- In tropical (high humidity) conditions care must be taken to select an air flow which gives a suitable coil face air velocity, to prevent water carry over.
- For applications with low resistance be sure not to exceed the fan motor full load amps.
- Applications using full or high proportions of fresh air should be referred to **temperzone** engineering office to establish the correct selection of units.

## SOUND LEVELS

Note: SPL measured to JIS 8616 (1m from source in an anechoic chamber)

### SUPPLY AIR + INSULATED DUCT

| MODEL   | FAN SPEED | AIR FLOW l/s |
|---------|-----------|--------------|
| HWP 120 | LOW       | 425          |
|         | MED       | 500          |
|         | HIGH      | 660          |

| SOUND PRESSURE LEVELS (SPL) dB(A) | SOUND POWER LEVELS (SWL) dB |                      |     |     |     |     |     |  |
|-----------------------------------|-----------------------------|----------------------|-----|-----|-----|-----|-----|--|
|                                   | SWL dB(A)                   | OCTAVE BAND FREQ. Hz |     |     |     |     |     |  |
|                                   |                             | 125                  | 250 | 500 | 1 k | 2 k | 4 k |  |
| 43                                | 53                          | 55                   | 52  | 53  | 47  | 36  | 36  |  |
| 47                                | 57                          | 56                   | 56  | 57  | 52  | 40  | 42  |  |
| 51                                | 61                          | 59                   | 60  | 61  | 55  | 44  | 46  |  |

### CASE B/O/T + RET. AIR + INS. DUCT

| SOUND PRESSURE LEVELS (SPL) dB(A) | SOUND POWER LEVELS (SWL) dB |                      |     |     |     |     |     |  |
|-----------------------------------|-----------------------------|----------------------|-----|-----|-----|-----|-----|--|
|                                   | SWL dB(A)                   | OCTAVE BAND FREQ. Hz |     |     |     |     |     |  |
|                                   |                             | 125                  | 250 | 500 | 1 k | 2 k | 4 k |  |
| 52                                | 62                          | 72                   | 60  | 58  | 57  | 52  | 45  |  |
| 54                                | 64                          | 72                   | 64  | 61  | 60  | 52  | 46  |  |
| 57                                | 67                          | 73                   | 67  | 65  | 62  | 54  | 49  |  |

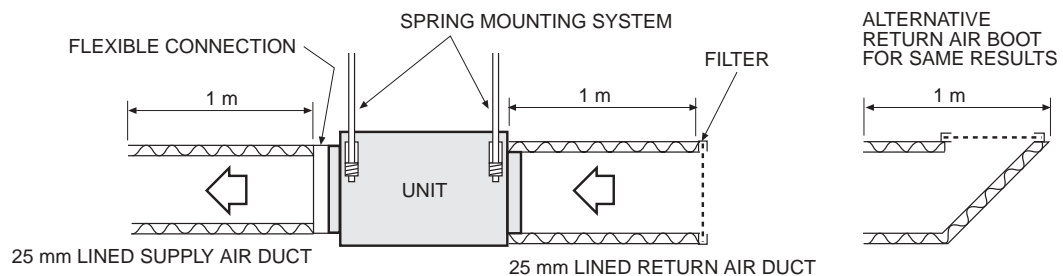
### SUPPLY AIR OUTLET

| MODEL   | FAN SPEED | AIR FLOW l/s |
|---------|-----------|--------------|
| HWP 120 | LOW       | 425          |
|         | MED       | 500          |
|         | HIGH      | 660          |

| SOUND PRESSURE LEVELS (SPL) dB(A) | SOUND POWER LEVELS (SWL) dB |                      |     |     |     |     |     |  |
|-----------------------------------|-----------------------------|----------------------|-----|-----|-----|-----|-----|--|
|                                   | SWL dB(A)                   | OCTAVE BAND FREQ. Hz |     |     |     |     |     |  |
|                                   |                             | 125                  | 250 | 500 | 1 k | 2 k | 4 k |  |
| 54                                | 64                          | 60                   | 58  | 62  | 58  | 56  | 53  |  |
| 59                                | 69                          | 64                   | 63  | 67  | 64  | 61  | 59  |  |
| 64                                | 74                          | 69                   | 68  | 70  | 70  | 67  | 65  |  |

### CASE BREAKOUT + RETURN AIR

| SOUND PRESSURE LEVELS (SPL) dB(A) | SOUND POWER LEVELS (SWL) dB |                      |     |     |     |     |     |  |
|-----------------------------------|-----------------------------|----------------------|-----|-----|-----|-----|-----|--|
|                                   | SWL dB(A)                   | OCTAVE BAND FREQ. Hz |     |     |     |     |     |  |
|                                   |                             | 125                  | 250 | 500 | 1 k | 2 k | 4 k |  |
| 54                                | 64                          | 70                   | 58  | 61  | 61  | 56  | 50  |  |
| 57                                | 67                          | 70                   | 62  | 63  | 63  | 58  | 53  |  |
| 60                                | 70                          | 72                   | 67  | 66  | 66  | 61  | 57  |  |



## Sound Pressure Levels (SPL) Within A Room

Deduct the room absorption effect below from the Sound Power Levels (SWL) above to obtain Sound Pressure Levels within a room. Note: Occupant at least 1.5 m from sound source.

| ROOM TYPE | OCTAVE BAND FREQ. Hz   |     |     |    |    |    |
|-----------|------------------------|-----|-----|----|----|----|
|           | 125                    | 250 | 500 | 1k | 2k | 4k |
|           | ROOM ABSORPTION EFFECT |     |     |    |    |    |
| SOFT      | 4                      | 8   | 11  | 11 | 11 | 11 |
| MEDIUM    | 3                      | 7   | 8   | 9  | 9  | 9  |
| HARD      | 0                      | 1   | 3   | 4  | 4  | 5  |

### NOTE

The manufacturer reserves the right to change specifications at any time without notice or obligation. Certified data available on request.