

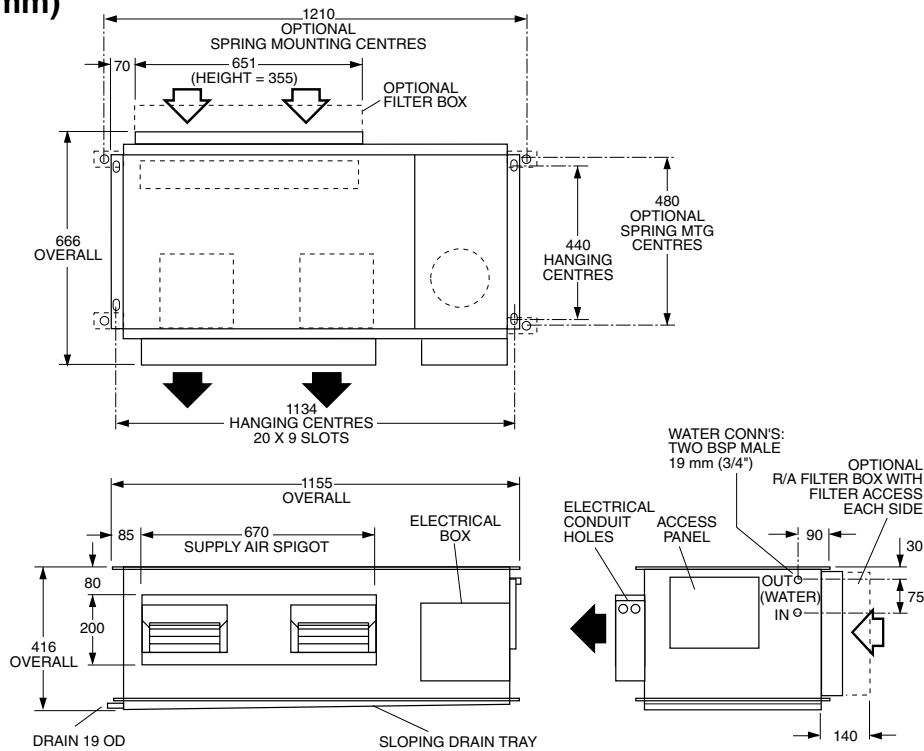
# HWP 77

# DATA SHEET

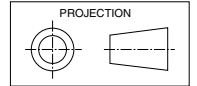
## Ducted Water Cooled R410A Packaged Air Conditioners

### Dimensions (mm)

Not to Scale



### HWP 77



Net Weight 92 kg

### COOLING CAPACITY (kW)

AIR FLOW RATE l/s	COIL E.A.T.		LEAVING WATER TEMPERATURE (L.W.T.) °C																							
	W.B. °C	D.B. °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				
420	17	23	8.0	6.2	0.45	9.4	7.6	5.7	0.45	9.2	7.3	5.5	0.45	9.0	7.0	5.3	0.45	8.7	6.8	5.1	0.45	8.7	6.8	4.6	0.45	8.7
	19	27	8.6	6.2	0.45	10.0	8.5	6.1	0.45	10.1	7.7	6.1	0.45	9.4	7.6	5.7	0.45	9.4	7.0	5.7	0.45	8.8	6.8	5.6	0.45	8.8
	21	31	9.1	7.2	0.45	10.4	9.1	7.1	0.45	10.6	9.0	7.1	0.45	0.45	10.8	8.2	0.45	10.1	7.9	6.9	0.45	9.8	7.4	6.9	0.45	9.4

T = Total Capacity (kW)  
FL = Water Flow (l/s)

S = Sensible Capacity (kW)  
E.A.T. = Entering Air Temperature (°C)

HR = Heat Rejection (kW)  
○ = 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 °C water temp. difference.

### HEATING CAPACITY (kW)

#### HW\*~~R~~ Reverse Cycle version

MODEL	WATER FLOW RATE l/s	COIL E.A.T. D.B. °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 77R	0.45	18	6.3	4.5	15.7	1.6	6.8	4.9	19.0	1.6	7.3	5.3	22.2	1.7
		21	6.3	4.4	15.7	1.7	6.7	4.7	18.9	1.7	7.2	5.2	22.2	1.8
		25	6.3	4.2	15.7	1.8	6.7	4.6	18.9	1.9	7.2	5.0	22.2	2.0

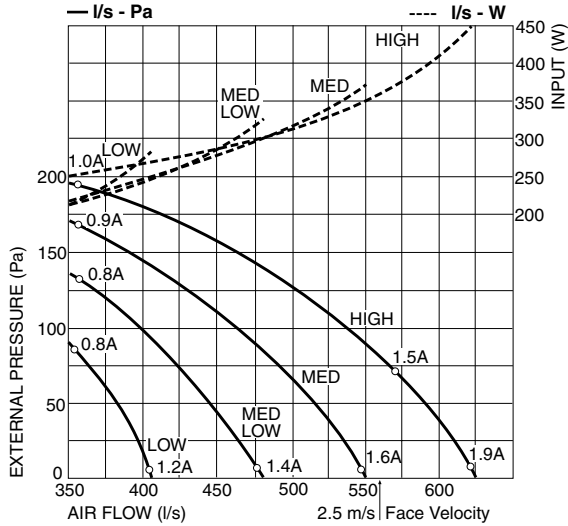
HC = Heating Capacity (kW)  
HAb = Heat Absorbed (kW)

EWT = Entering Water Temperature (°C) (Minimum required 17°C)  
INPT = Compressor Input (kW)

○ = Nominal Capacity (kW)

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

## AIR HANDLING PERFORMANCE Without Filter



FILTER (clean)	Coil Face Velocity (m/s)	1.5	2.0	2.5
	Pressure Loss (Pa)	5	9	13

## QUICK REFERENCE

## HWP 77

Electrical Input (Cooling)	2.11 kW
E.E.R. (Cooling)	3.55
Running Amps (Total)	9.0
Fan Motor Full Load Amps	1.52
Electrical Supply Required	1 ph. 220-240V ±10% a.c. 50 Hz
Recom'd External Fuse Size	25 A
Refrigerant	HFC-410A (R410A)
Minimum Water Flow	0.4 l/s
Water Coil Pressure Drop	58.6 kPa (8.5 psi)
Filter (polypropylene net)	optional
Electric Heat Option	4 kW

### Note

1. 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.
2. For applications with low resistance be sure not to exceed the fan motor full load amps.
3. 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

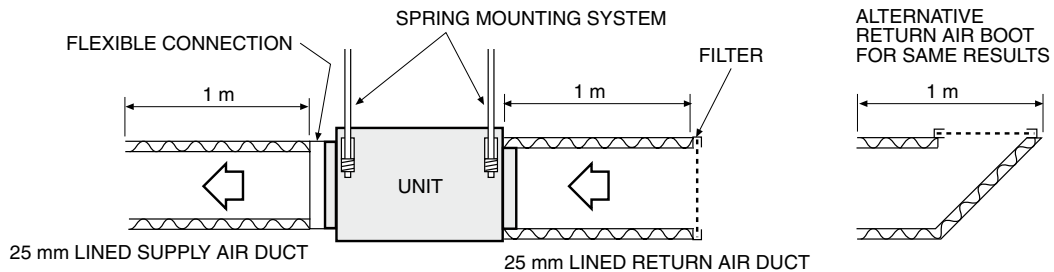
MODEL	FAN SPEED	AIR FLOW l/s	SOUND PRESSURE LEVELS (SPL) dB(A)	SOUND POWER LEVELS (SWL) dB						
				SWL dB(A)	OCTAVE BAND FREQ. Hz					
					125	250	500	1 k	2 k	4 k
HWP 77	LOW	385	43	51	54	50	51	45	34	27
	MED/LOW	440	46	54	56	53	54	49	36	29
	MED	505	49	57	56	53	54	49	36	29
	HIGH	560	53	62	59	55	56	53	41	32

### SUPPLY AIR OUTLET

MODEL	FAN SPEED	AIR FLOW l/s	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
HWP 77	LOW	385	50	58	57	54	57	54	48	39
	MED/LOW	440	53	61	59	57	59	57	52	44
	MED	505	55	64	61	59	61	60	56	48
	HIGH	560	60	69	64	63	65	66	60	54

### CASE BREAKOUT + RETURN AIR

MODEL	FAN SPEED	AIR FLOW l/s	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
HWP 77	LOW	385	52	60	61	57	60	54	48	44
	MED/LOW	440	53	61	62	58	60	56	50	45
	MED	505	54	62	62	59	61	58	52	47
	HIGH	560	59	66	66	62	65	61	56	51



## 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.