

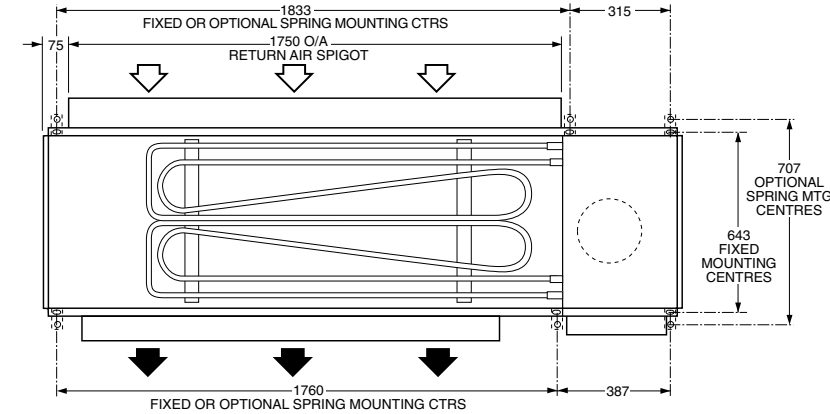
# HWP 445

# DATA SHEET

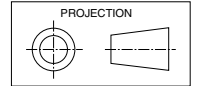
## Ducted Water Cooled R410A Packaged Air Conditioners

### Dimensions (mm)

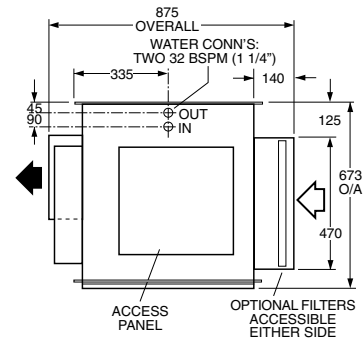
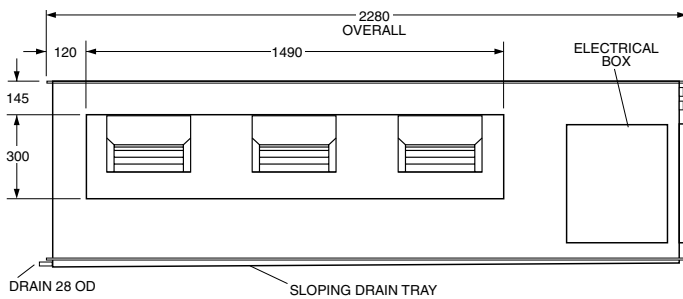
Not to Scale



### HWP 445



Net Weight 385 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				
2300	17	23	46.0	35.5	2.25	53.3	43.9	33.0	2.25	51.8	41.9	31.5	2.25	50.8	40.0	30.6	2.25	49.3	39.3	29.3	2.25	49.1	38.9	26.7	2.25	48.9
	19	27	49.3	35.7	2.25	56.6	48.6	35.0	2.25	56.8	44.5	34.8	2.25	53.3	43.4	33.0	2.25	53.1	40.0	32.6	2.25	49.5	39.3	32.0	2.25	49.5
	21	31	52.5	41.3	2.25	58.9	52.1	41.1	2.25	59.9	51.6	40.9	2.25	60.9	47.1	40.4	2.25	56.8	45.1	39.8	2.25	55.1	42.6	39.6	2.25	52.9

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\*<sup>R</sup> 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 445R	2.25	18	39.8	29.0	16.5	8.3	42.5	31.4	19.8	8.7	45.5	34.1	23.1	9.0
		21	39.4	28.2	16.4	8.8	42.2	30.6	19.7	9.2	45.4	33.3	23.0	9.7
		25	39.3	27.3	16.4	9.6	42.2	29.8	19.7	10.0	45.2	32.4	23.0	10.4

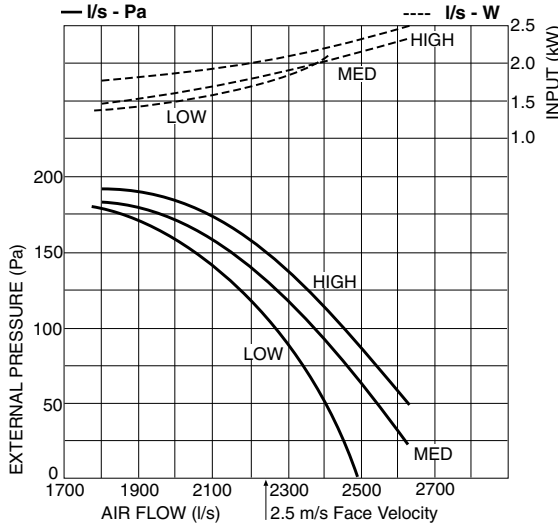
HC = Heating Capacity (kW)  
HAb = Heat Absorbed (kW)

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 445

Electrical Input (Cooling)	12.4 kW
E.E.R. (Cooling)	3.52
Running Amps/ph. (Total)	22 / 23 / 22
Fan Motor Full Load Amps	4.9 x3
Electrical Supply Required	3 ph. 380-415V ±10% a.c. 50 Hz
Recom'd External Fuse Size	50 A
Refrigerant	HFC-410A (R410A)
Minimum Water Flow	2.25 l/s
Water Coil Pressure Drop	34.5 kPa (5 psi)
Filter (polypropylene net)	optional
Electric Heat Option	24 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 OUTLET\*

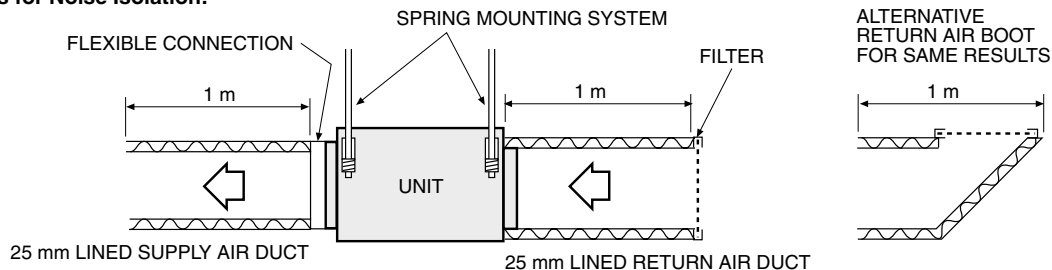
MODEL	FAN SPEED	AIR FLOW l/s	SOUND PRESSURE LEVELS (SPL) dB(A)	SOUND POWER LEVELS (SWL) dB						
				SWL dB(A)	OCTAVE BAND FREQ. Hz					
					125	250	500	1 k	2 k	4 k
HWP 445	LOW	2300	68	78	76	73	75	73	71	69
	MED	2300	69	79	76	74	76	73	72	70
	HIGH	2300	69	79	77	75	76	74	72	70

### 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 445	LOW	2300	65	75	76	72	71	71	70	63
	MED	2300	66	76	77	73	72	71	70	64
	HIGH	2300	67	77	77	74	73	72	71	64

\* Subtract 5 dB(A) when using 1m acoustic insulated duct

### Recommendations for Noise Isolation:



## 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.