OHT SYSTEM 80

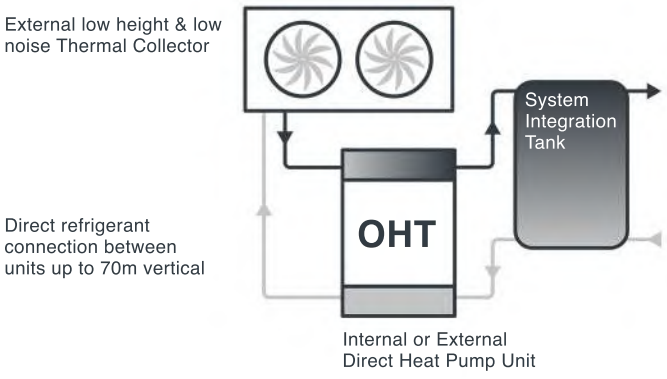
SUPER SILENT HEAT PUMP RANGE

- **Air Source Multi Compressor Heat Pumps**
- **Dual Source & Cold Output options**
- **100kW to 400kW Single unit capacity**
- **40˚C to 80˚C Output flow temperature range**
- **Operating DT in/out 5˚C to 20˚C range**
- **Standard or Super Silent 51 dB(A) at 1m**
- **Plant room or external location options**
- **Operating range -15˚C to 35˚C external ambient**

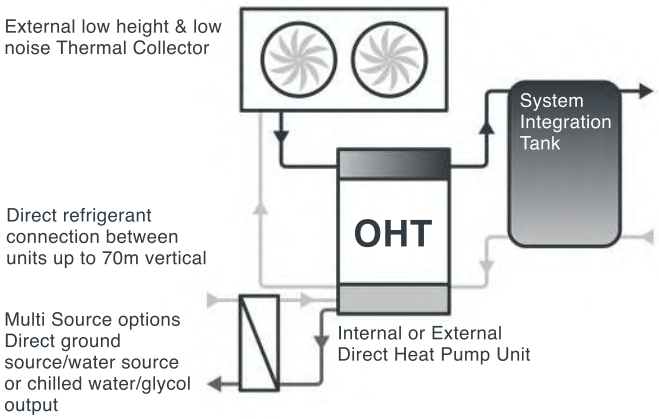
TECHNICAL OVERVIEW

- High temperature 80˚C and medium temperature 50˚C Air-to-Water heat pump range.
  - VHT version. Very High temperature 80˚C
  - LMT version. Low/medium temperature 50˚C
- Low GWP Refrigerant: R450A, GWP: Safety Class: A1 (Non-toxic, non-flammable)
- Super Silent low noise capability, 60dB(A) sound power level, 51dB(A) at 1m sound pressure level
  - SS version. Super Silent 51dB(A) 1m
  - LN version. Low noise 71 dB(A) 1m
- Heat Pump module can be plant room or externally located
- Air source collector unit can be externally located, or duct mounted
- Direct refrigerant interconnecting pipework to 70m vertical for flexible location/installation
- Cold output/dual source option providing Chilled Water production
- Integral pump(s) for buffer/integration tank circulation

SINGLE STAGE – SPLIT AIR TO WATER



SINGLE STAGE – SPLIT AIR TO WATER DUAL SOURCE OR COLD OUTPUT



Model: Low/Medium Temperature (LMT)

Conditions: 40/50˚C inlet/outlet flow temperatures

	200	400
-5˚C external	151kW COP 2.5	300kW COP 2.5
7˚C external	224kW COP 3.0	440kW COP 3.0
12˚C external	274kW COP 3.3	540kW COP 3.3
SCOP	3.14	3.14
Seasonal Energy Efficiency	125.7	125.7
Energy efficiency class	A++	A++
Minimum/Maximum external ambient	-15C/35C	-15C/35C

Model: Very High Temperature (VHT)

Conditions: 60/80˚C inlet/outlet flow temperatures

	200	400
-5˚C external	150kW COP 2.0	300kW COP 2.0
7˚C external	209kW COP 2.1	420kW COP 2.1
12˚C external	254kW COP 2.2	505kW COP 2.2
SCOP	3.14	3.14
Seasonal Energy Efficiency	125.5	125.5
Energy efficiency class	A++	A++
Minimum/Maximum external ambient	-15˚C/35˚C	-15˚C/35˚C

SCOP rating (medium temperature, 55°C)
High efficiency (ηs,h(%)) rating (medium temperature, 55°C)
Calculated tolerance due to component variation +/- 5%

OHT SYSTEM 80

SUPER SILENT HEAT PUMP RANGE

Unit	200	400
System Specification		
No Compressors	4	8
No circuits	1	2
Refrigerant	R450A	R450A
Capacity steps	12	24
Turndown %	8.5	4.5
No Air source fans	6	12
Defrost type	Electric/in-coil	Electric/in-coil
Water connection in/out	DN75	DN100
Condensate drain (collector)	BSP 1.5 (275/lh at 30C/90%RH)	BSP 1.5 (550/lh at 30C/90%RH)
Sound Standard version		
Sound power level dB(A)	90	90
Sound pressure level dB(A) at 1m	71	71
Sound Super Silent version (SS)		
Sound power level dB(A)	60	60
Sound pressure level dB(A) at 1m	51	51
Dimensions/weight		
Heat Pump module internal	5500x1400x2100H 2400kg	5500x2800x2100H 4800kg
Heat Pump module external	5600x1500x2100H 4600kg	5600x2900x2100H 8500kg
Air source module LN V-Block Indicative dims, configuration may vary	5100x1650x2300 2300kg	10700x1650x2300 4600kg
Air source module SS Horizontal Indicative dims, configuration may vary	6200x2450x1500H 2000kg	12900x2450x1500H 4000kg
Electrical Specification		
Power supply	400/3/50	400/3/50
Absorbed power kW	152 VHT 155 LMT	304 VHT 310 LMT
Power factor	0.91 VHT 0.89 LMT	0.91 VHT 0.89 LMT
Running current A	242 VHT 253 LMT	484 VHT 306 LMT
Full load current A	345 VHT 368 LMT	690 VHT 735 LMT
Starting current A (instantaneous)	576 VHT 607 LMT	1,152 VHT 1214 LMT

Note:
Specification is provided for illustrative use only and may vary due to manufacturer modifications, changes, or improvements.
If varying water temperature grades or higher ambient temperatures than those referenced, for the respective units in this document, are to be used, then the heat pump capacity at those conditions will vary.
If it is intended to operate the units with different (delta-T's) to those referenced above for their respective models, then circulation pumps may need to be sized at different flow rates to the standard unit.