



CLADE

ASPEN 150KW //

Hydrocarbon Air Source Heat Pumps

March 2023 //



THE ASPEN //



LOW CARBON HEATING TECHNOLOGY

Clade Hydrocarbon heat pumps will reduce carbon emissions whilst maximising efficiency with existing cooling and heating systems. Our full-service offering makes heat pumps a simple and low risk way to improve your ESG and operational performance.





TECHNICAL INFORMATION //

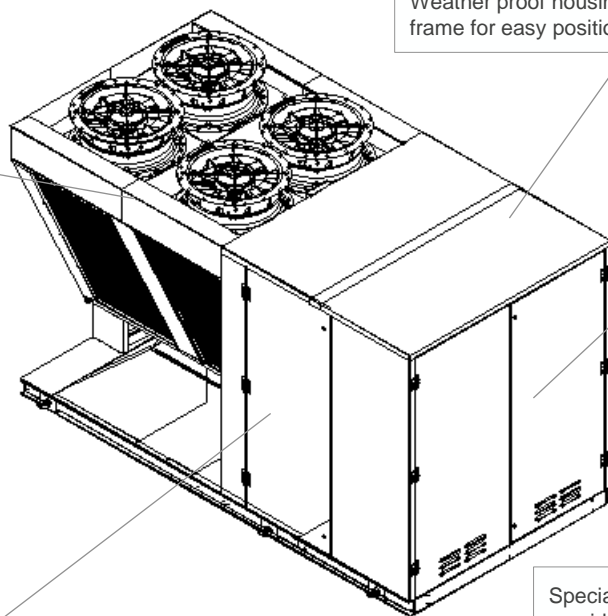
Clade Aspen 150kW ASHP		
Nominal conditions: Water side		flow 60c to 45c Return temperature
Nominal conditions: Propane side		Ambient air temperature +3°C (85% RH) and -10°C evaporation
Compressor Manufacturer		Dorin
Compressor Heating Qty	Pcs.	2
Total Power	kW	77.81
Total Amps	A	136.79
Variable speed drive (VSD)	Pcs.	1
Refrigerant charge (R290)	kg	9
Electrical supply	-	1~ 400V 50 HZ
Unit Weight (empty)	kg	3,487
Unit Weight (operational)	kg	3,536
Water Volume	L	40
Sound Power	dB(A)	77.2
Sound Pressure 1m	dB(A)	56.8
Sound Pressure 10m	dB(A)	44.6
Connections waterside flow	mm	67
Connections waterside Return	mm	67
Communication protocol	-	BACNET
IP-Class	-	IP54
Evaporators Type		V Block
No. evaporators	Pcs.	4
Fin Material	-	AL/MG
Defrost Type	-	Hot Gas R290
Defrost design/condition	-	> +6c ambient Off Cycle / < +6c ambient Cool Gas
Fan regulation	-	0-10v
Colour	-	Goosewing Grey





BENEFITS OF THE CLADE ASPEN HC RANGE //

150 KW of heating capacity, single unit for easy installation



V-Block evaporator section minimises space used. EC fans as standard provided optimal energy efficiency.

Weather proof housing and galvanised lifting frame for easy positioning on site

All components are easily accessible for quick and effective maintenance.

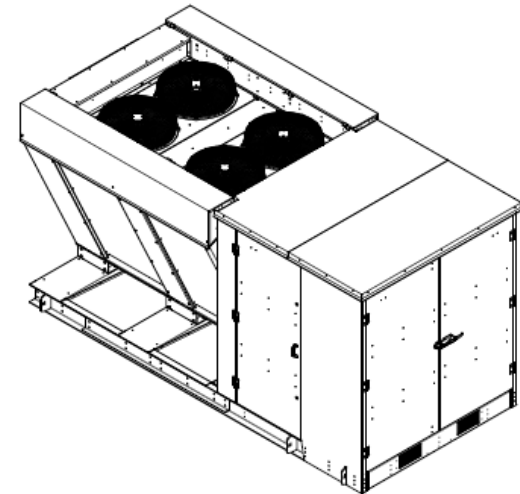
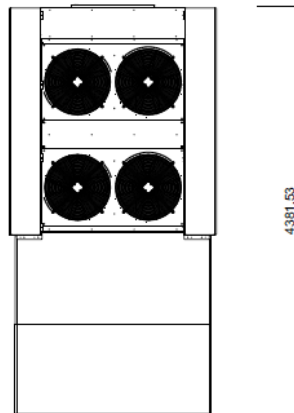
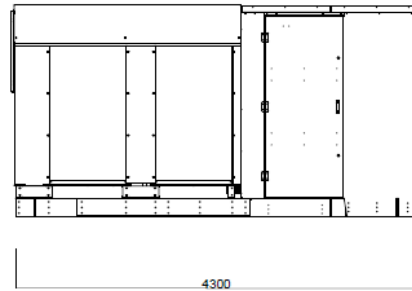
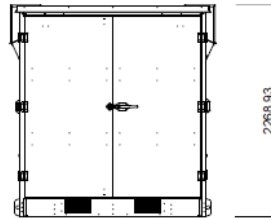
Integrated electrical control panel to work seamlessly alongside client selected BMS system.

Specialist compressors provide a greater operating temperature range and increased COP.





DIMENSIONAL INFORMATION //



APPROX WEIGHT = 3536Kg

DIMENSIONED OUTSIDE (mm) UNLESS STATED



HEAT PUMP PERFORMANCE //

Aspen 150kW Heat Pump Performance Characteristics - v1																												
Model name	Output Temp (°C)	Return Temp (°C)	SCOP	SPF	-10°C External			-5°C External			0°C External			5°C External			10°C External			15°C External			20°C External			25°C External		
					QH (kW)	PI (kW)	COP H (-)	QH (kW)	PI (kW)	COP H (-)	QH (kW)	PI (kW)	COP H (-)	QH (kW)	PI (kW)	COP H (-)	QH (kW)	PI (kW)	COP H (-)	QH (kW)	PI (kW)	COP H (-)	QH (kW)	PI (kW)	COP H (-)	QH (kW)	PI (kW)	COP H (-)
Aspen 150 kW	60	40	2.9	3	120	47	2.54	150	56	2.67	158	56	2.81	165	55	3.02	180	56	3.24	180	50	3.57	180	47	3.80	180	47	3.80
	55	35	3	3.1	120	43	2.81	150	52	2.87	158	52	3.02	165	51	3.26	180	50	3.57	180	46	3.88	180	43	4.14	180	43	4.14
	50	35	3.2	3.3	120	41	2.93	150	50	3.01	158	49	3.19	165	48	3.46	180	47	3.82	180	42	4.27	180	40	4.51	180	40	4.51
	45	30	3.4	3.5	120	38	3.17	150	46	3.28	158	45	3.49	165	43	3.84	180	42	4.28	180	37	4.84	180	35	5.10	180	35	5.10

BUILDING CONNECTIONS //

POWER

3 phase.

Connection box mounted in position shown.

Isolation at control panel only.

Installer to provide local isolator external to heat pump.

HEATING

Supplied with primary pump with ~14m spare head.

Flow and return located in position shown.

CONDENSATE

Condensate from the evaporator will drain centrally from the base of the unit.

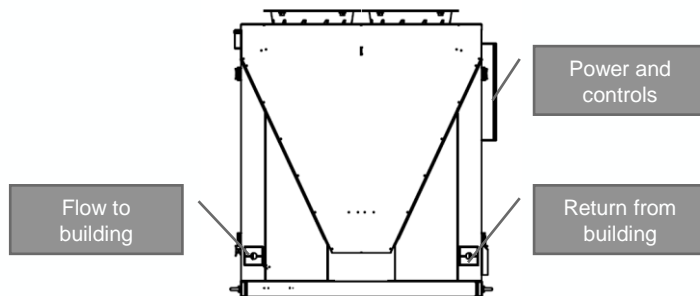
It is recommended that a gully be installed below the heat pump and lead to a soak away.

CONTROLS

The heat pump has self contained controls that manage its operation and the primary pump.

Alarms

- Hardwired shut down signal for fire alarm
- Leak detection (inc. external visible beacon)
- Other fault
- High return water temperature.





LEEDS MANUFACTURING CENTRE //



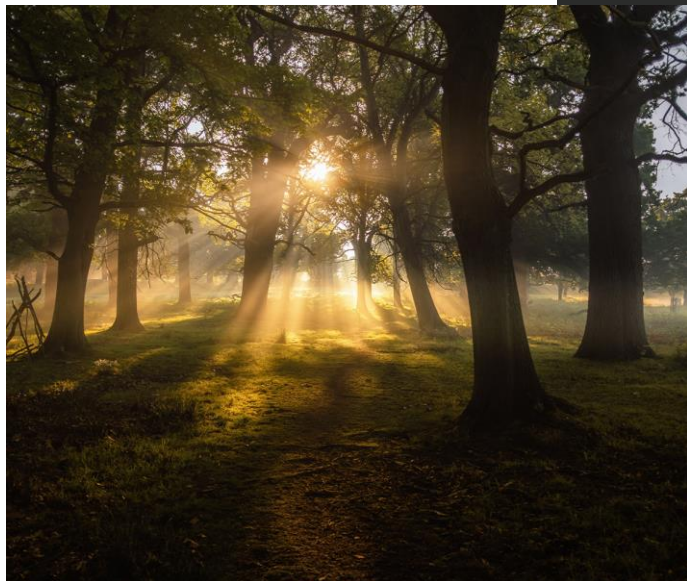
- UK based
- 35 years of engineering experience
- Leeds manufacturing division
- Committed to sustainable business and sustainable products
- Investing in people, diversity & inclusion
- Non leveraged, owner operated



ACCREDITATIONS
 ISO 9001:2015
 ISO 14001:2015
 OHSAS ISO 18001:2007



CERTIFICATIONS
 Altus Assured Vendor Award
 Altus CDM Vendor Award
 CHAS
 Sales Contractor



THANK YOU //

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