
CLADE
ASPEN 100KW //
Hydrocarbon AIR SOURCE HEAT PUMPS
March 2023//

CLADE

THE ASPEN //

LOW CARBON HEATING TECHNOLOGY

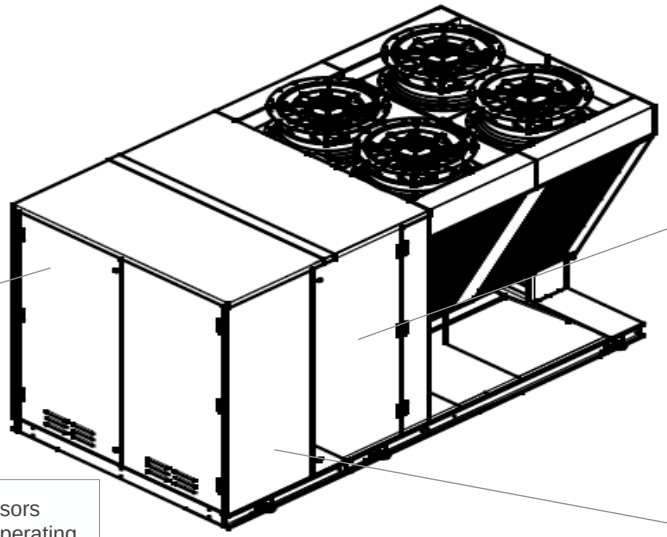
Clade Hydrocarbon heat pumps will reduce carbon emissions whilst maximising efficiency with existing cooling and heating systems. Our full-service offering makes heat pumps a simple and low risk way to improve your ESG and operational performance.

TECHNICAL INFORMATION //

Clade Aspen 100kW 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	51.96
Total Amps	A	84.64
Variable speed drive (VSD)	Pcs.	1
Refrigerant charge (R290)	kg	6
Electrical supply	-	1~ 400V 50 HZ
Unit Weight (empty)	kg	3,050
Unit Weight (operational)	kg	3,076
Water Volume	L	20
Sound Power	dB(A)	77.2
Sound Pressure 1m	dB(A)	56.8
Sound Pressure 10m	dB(A)	44.6
Connections waterside flow	mm	54
Connections waterside Return	mm	54
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 //

100 KW of heating capacity, single unit for easy installation



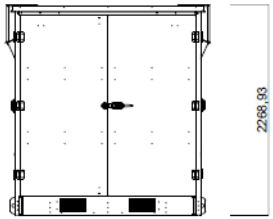
All components are easily accessible for quick and effective maintenance.

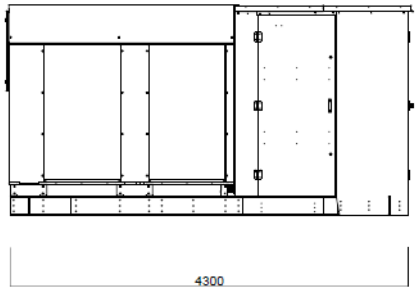
Integrated electrical control panel to work seamlessly alongside client selected BMS system.

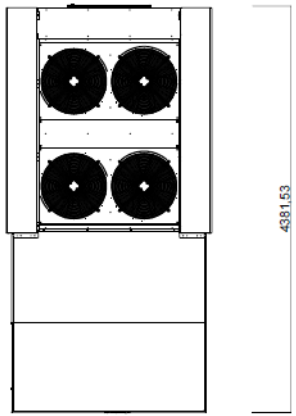
Specialist compressors provide a greater operating temperature range and increased COP.

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

DIMENSIONAL INFORMATION //

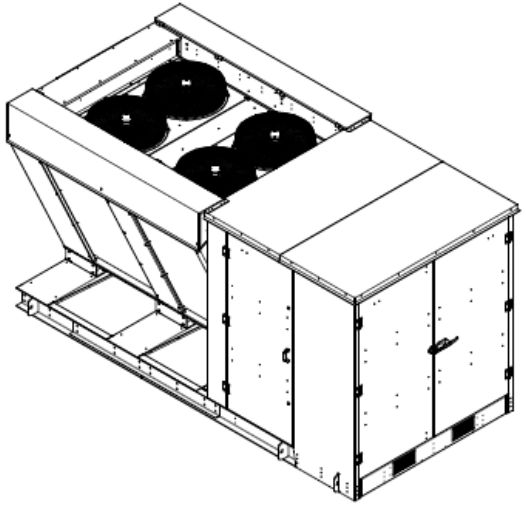






APPROX WEIGHT = 3076Kg

DIMENSIONED OUTSIDE (mm) UNLESS STATED



HEAT PUMP PERFORMANCE //

Aspen 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 100 kW	60	40	2.9	3	80	32	2.49	100	38	2.61	105	38	2.76	110	37	2.95	120	38	3.17	120	34	3.50	120	32	3.72	120	32	3.72
	55	35	3	3.1	80	29	2.76	100	36	2.81	105	36	2.95	110	34	3.19	120	34	3.50	120	32	3.80	120	30	4.06	120	30	4.06
	50	35	3.2	3.3	80	28	2.87	100	34	2.95	105	34	3.13	110	32	3.39	120	32	3.74	120	29	4.18	120	27	4.42	120	27	4.42
	45	30	3.4	3.5	80	26	3.11	100	31	3.21	105	31	3.42	110	29	3.76	120	29	4.19	120	25	4.74	120	24	5.00	120	24	5.00

BUILDING CONNECTIONS //

POWER

3 phase.

Connection box mounted in position shown.

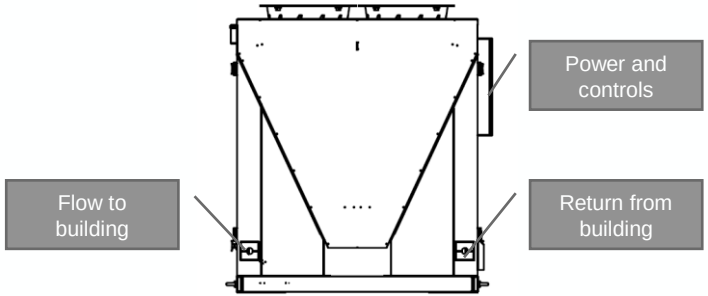
Isolation at control panel only.

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
- CO_2 detection
- 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

ISO14001: 2015

OHSAS ISO 18001: 2007

CERTIFICATIONS

Altius Assured Vendor Award

Altius CDM Vendor Award

CHAS

Sales Contractor

THANK YOU //

www.clade-es.com

Sales@clade-es.com
Aftersales@clade-es.com

Head Office & Registered Office //
Bristol & Bath Science Park,
Dirac Crescent, Emersons Green,
BRISTOL BS16 7FR

The Technology Centre //
Unit R3 Gildersome Spur Industrial Estate,
Stone Pits Lane, Morley,
LEEDS LS27 7JZ