



CLADE

MAPLE RANGE

CO2 HEAT PUMP //
for HEATING AND HOT WATER

April 2024.2 //



CLADE

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Introducing our cutting-edge CO2 heat pumps—your eco-friendly solution for heating and hot water in the commercial sector! These units boast hassle-free installation, sophisticated onboard controls, compact design, and the ability to achieve high temperatures efficiently. They are the smart choice for businesses aiming for sustainability without compromising on performance.



Model	-5°C capacity	+7°C capacity
Maple SN/200	200KW	260
Maple SN/300	300KW	390
Maple SN/400	400KW	520
Maple SN/500	500KW	650

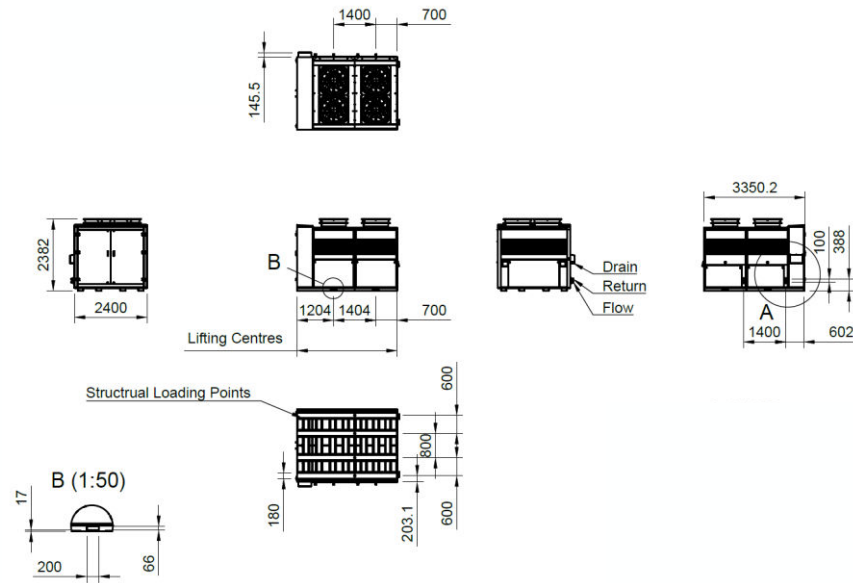
- Future proof refrigerant which is non toxic and non flammable
- Rolling defrost
- GWP =1
- ODP = 0
- External pump which enables accurate sizing for the application
- External header for easy installation available as a kit
- 1D Silencers available to lower noise levels
- Up to 80°C hot water
- SCOP 3.40
- EN14825 COP 3.50
- Light and dark grey colour options
- Coated coil option
- Can be multiplexed using Clade Multi Controller



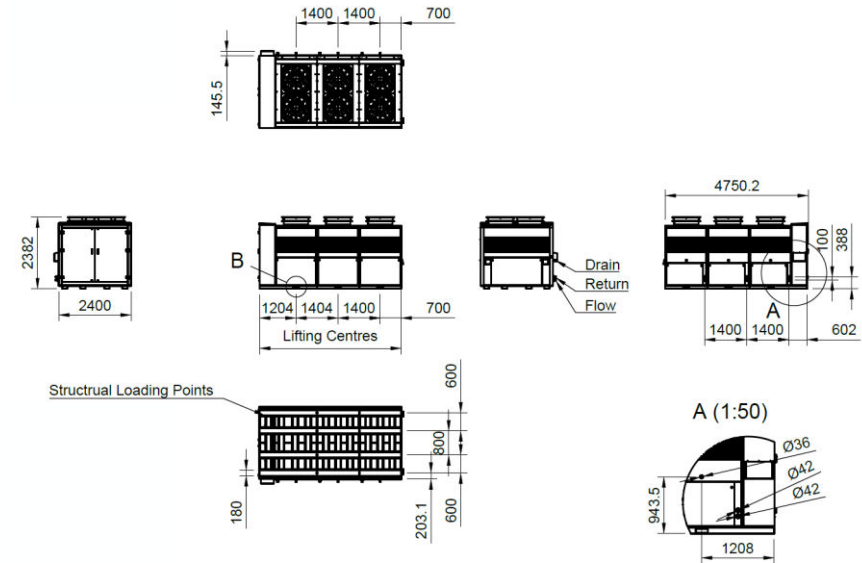


DIMENSIONAL INFORMATION 200 & 300KW//

200KW Maple CO2



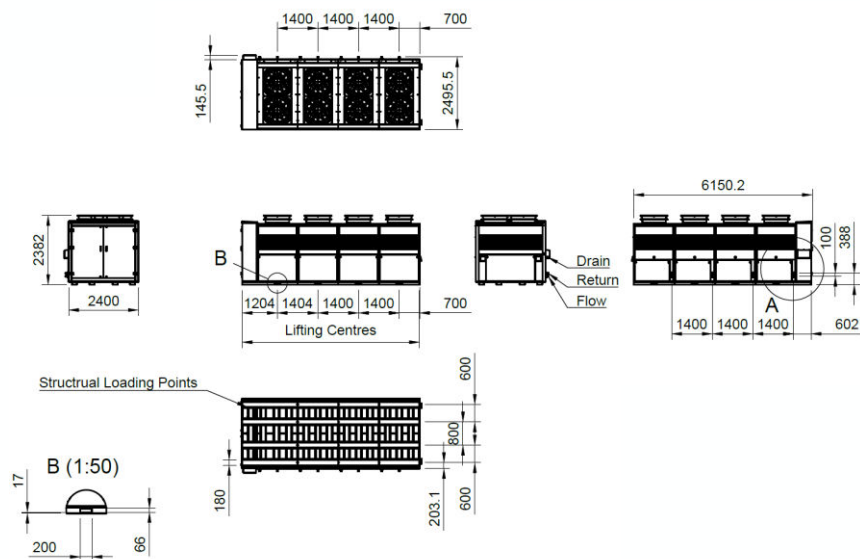
300KW Maple CO2



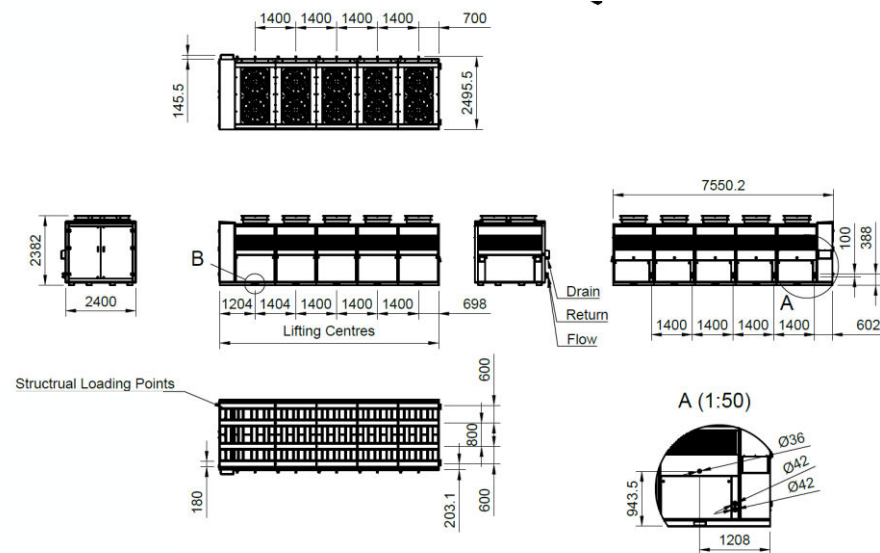


DIMENSIONAL INFORMATION 400 & 500KW//

400KW Maple CO2



500KW Maple CO2





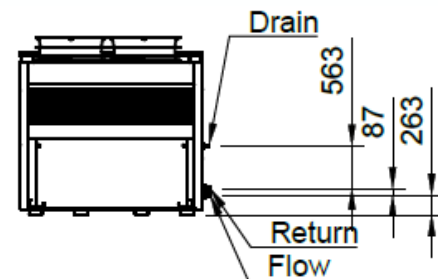
TECHNICAL SPECIFICATION //

		Maple Range
Heating &/or Cooling?		Heating
Breaker type		MCCB
Water Flow Temperature	Deg C	70
Water Return Temperature	Deg C	30
Colour		RAL7016 Anthracite
Compressor Manufacturer		Dorin
Connections waterside Pressure Rating	PN	PN6
Control Protocol		BACNET
Control Connection		CAT5e
Controller type		SIEMENS
Defrost Type		Hot Gas
Defrost design/condition		> +6c ambient Off Cycle / < +6c ambient Cool Gas
Defrost medium		Hot gas
Electrical supply		3~ 400V 50 HZ
Evaporators Type		Flat Bed
Fan regulation		0-10V
Fin Material	-	AL/MG
Refrigerant type		CO2
Refrigerant type		R744
Sound pressure at 1m	Db(A)	65-67
Sound pressure at 10m	Db(A)	51-55
Sound reduction with silencers option	Db(A)	-5

Clade continues to develop products and therefore reserves the right to change specification without prior notice.

Electrical Data

	Total System Electrical Data			
Model	Amps	kW	KVA	VAC
Maple SN 260/200	154.1	90.4	106.3	400
Maple SN 390/300	231.2	135.5	159.5	400
Maple SN 520/400	308.2	180.7	212.7	400
Maple SN 650/500	385.3	225.9	265.9	400



The Maple range requires an external header pipe arranged as a reverse return and water pump these can be orientated for differing installation arrangements.



HEAT PUMP PERFORMANCE 200 & 300 //

MAPLE 200 @ 35C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
200	55	35	160	1.9	200	2.1	220	2.2	228	2.5	232	2.55	248	2.7	260	3	260	3.1	260	3.2
	60	35	160	1.9	200	2.1	220	2.2	228	2.5	232	2.55	248	2.7	260	3	260	3.1	260	3.2
	65	35	160	1.9	200	2.1	220	2.2	228	2.5	232	2.55	248	2.7	260	3	260	3.1	260	3.2
	70	35	160	1.85	200	2.05	220	2.15	228	2.45	232	2.5	248	2.65	260	2.95	260	3.05	260	3.15
	75	35	160	1.85	200	2.05	220	2.15	228	2.45	232	2.5	248	2.65	260	2.95	260	3.05	260	3.15
	80	35	160	1.85	200	2.05	220	2.15	228	2.45	232	2.5	248	2.65	260	2.95	260	3.05	260	3.15

MAPLE 200 @30C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
200	55	30	186	2.1	216	2.3	240	2.55	252	2.9	260	3	260	3.2	260	3.3	260	3.5	260	3.9
	60	30	186	2.1	216	2.3	240	2.55	252	2.9	260	3	260	3.2	260	3.3	260	3.5	260	3.9
	65	30	186	2.1	216	2.3	240	2.55	252	2.9	260	3	260	3.2	260	3.3	260	3.5	260	3.9
	70	30	186	2.05	216	2.25	240	2.45	252	2.85	260	2.9	260	3.1	260	3.25	260	3.4	260	3.8
	75	30	186	2.05	216	2.25	240	2.45	252	2.85	260	2.9	260	3.1	260	3.25	260	3.4	260	3.8
	80	30	186	2.05	216	2.25	240	2.45	252	2.85	260	2.9	260	3.1	260	3.25	260	3.4	260	3.8

MAPLE 300 @ 35C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
300	55	35	240	1.9	300	2.1	330	2.2	342	2.5	348	2.55	372	2.7	390	3	390	3.1	390	3.2
	60	35	240	1.9	300	2.1	330	2.2	342	2.5	348	2.55	372	2.7	390	3	390	3.1	390	3.2
	65	35	240	1.9	300	2.1	330	2.2	342	2.5	348	2.55	372	2.7	390	3	390	3.1	390	3.2
	70	35	240	1.85	300	2.05	330	2.15	342	2.45	348	2.5	372	2.65	390	2.95	390	3.05	390	3.15
	75	35	240	1.85	300	2.05	330	2.15	342	2.45	348	2.5	372	2.65	390	2.95	390	3.05	390	3.15
	80	35	240	1.85	300	2.05	330	2.15	342	2.45	348	2.5	372	2.65	390	2.95	390	3.05	390	3.15

MAPLE 300 @30C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
300	55	30	279	2.1	324	2.3	360	2.55	378	2.9	390	3	390	3.2	390	3.3	390	3.5	390	3.9
	60	30	279	2.1	324	2.3	360	2.55	378	2.9	390	3	390	3.2	390	3.3	390	3.5	390	3.9
	65	30	279	2.1	324	2.3	360	2.55	378	2.9	390	3	390	3.2	390	3.3	390	3.5	390	3.9
	70	30	279	2.05	324	2.25	360	2.45	378	2.85	390	2.9	390	3.1	390	3.25	390	3.4	390	3.8
	75	30	279	2.05	324	2.25	360	2.45	378	2.85	390	2.9	390	3.1	390	3.25	390	3.4	390	3.8
	80	30	279	2.05	324	2.25	360	2.45	378	2.85	390	2.9	390	3.1	390	3.25	390	3.4	390	3.8



HEAT PUMP PERFORMANCE 400 & 500 //

MAPLE 400 @ 35C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
400	55	35	320	1.9	400	2.1	440	2.2	456	2.5	464	2.55	496	2.7	520	3	520	3.1	520	3.2
	60	35	320	1.9	400	2.1	440	2.2	456	2.5	464	2.55	496	2.7	520	3	520	3.1	520	3.2
	65	35	320	1.9	400	2.1	440	2.2	456	2.5	464	2.55	496	2.7	520	3	520	3.1	520	3.2
	70	35	320	1.85	400	2.05	440	2.15	456	2.45	464	2.5	496	2.65	520	2.95	520	3.05	520	3.15
	75	35	320	1.85	400	2.05	440	2.15	456	2.45	464	2.5	496	2.65	520	2.95	520	3.05	520	3.15
	80	35	320	1.85	400	2.05	440	2.15	456	2.45	464	2.5	496	2.65	520	2.95	520	3.05	520	3.15

MAPLE 400 @30C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
400	55	30	372	2.1	432	2.3	480	2.55	504	2.9	520	3	520	3.2	520	3.3	520	3.5	520	3.9
	60	30	372	2.1	432	2.3	480	2.55	504	2.9	520	3	520	3.2	520	3.3	520	3.5	520	3.9
	65	30	372	2.1	432	2.3	480	2.55	504	2.9	520	3	520	3.2	520	3.3	520	3.5	520	3.9
	70	30	372	2.05	432	2.25	480	2.45	504	2.85	520	2.9	520	3.1	520	3.25	520	3.4	520	3.8
	75	30	372	2.05	432	2.25	480	2.45	504	2.85	520	2.9	520	3.1	520	3.25	520	3.4	520	3.8
	80	30	372	2.05	432	2.25	480	2.45	504	2.85	520	2.9	520	3.1	520	3.25	520	3.4	520	3.8

MAPLE 500 @ 35C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
500	55	35	400	1.9	500	2.1	550	2.2	570	2.5	580	2.55	620	2.7	650	3	650	3.1	650	3.2
	60	35	400	1.9	500	2.1	550	2.2	570	2.5	580	2.55	620	2.7	650	3	650	3.1	650	3.2
	65	35	400	1.9	500	2.1	550	2.2	570	2.5	580	2.55	620	2.7	650	3	650	3.1	650	3.2
	70	35	400	1.85	500	2.05	550	2.15	570	2.45	580	2.5	620	2.65	650	2.95	650	3.05	650	3.15
	75	35	400	1.85	500	2.05	550	2.15	570	2.45	580	2.5	620	2.65	650	2.95	650	3.05	650	3.15
	80	35	400	1.85	500	2.05	550	2.15	570	2.45	580	2.5	620	2.65	650	2.95	650	3.05	650	3.15

MAPLE 500 @30C																				
Nameplate output (kW)	Output Temp (°C)	Return Temp (°C)	-10°C External		-5°C External		0°C External		5°C External		7°C External		10°C External		15°C External		20°C External		25°C External	
			KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP	KW	COP
500	55	30	464	2.1	540	2.3	600	2.55	630	2.9	650	3	650	3.2	650	3.3	650	3.5	650	3.9
	60	30	464	2.1	540	2.3	600	2.55	630	2.9	650	3	650	3.2	650	3.3	650	3.5	650	3.9
	65	30	464	2.1	540	2.3	600	2.55	630	2.9	650	3	650	3.2	650	3.3	650	3.5	650	3.9
	70	30	464	2.05	540	2.25	600	2.45	630	2.85	650	2.9	650	3.1	650	3.25	650	3.4	650	3.8
	75	30	464	2.05	540	2.25	600	2.45	630	2.85	650	2.9	650	3.1	650	3.25	650	3.4	650	3.8
	80	30	464	2.05	540	2.25	600	2.45	630	2.85	650	2.9	650	3.1	650	3.25	650	3.4	650	3.8



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