

i-HEAT PUMP 145



ABOUT THE RANGE

ICS Cool Energy can provide a range of reversible heat pump chillers, capable of offering cooling or heating from one single source.

ICS Cool Energy's i-Heat Pump 145 has an integral thermal buffer tank.

This heat pump offers a wide temperature range of -10°C (cooling) to $+50^{\circ}\text{C}$ (heating). The unit is also supplied with an integral process pump together with quick-release water & power connections for a fast start-up.

With low noise operation & compact footprint, the i-Heat Pump 145 is fully packaged to simplify installation on site with easy set up & control.

CONTACT US

Call us free on
0800 840 4210 or
visit our website
www.icscoolenergy.com

Depots Nationwide

hire@icscoolenergy.com

THE ICS COOL ENERGY PORTFOLIO

ICS Cool Energy can also supply the following equipment:

- Air-cooled rental chiller range from 0.3kW – 1,000kW units.
- Water-cooled rental chiller range from 7.5kW – 1,000kW units.
- Air handling units & fan coils from 5kW – 500kW duties.
- Air conditioning units from 1.3kW – 350kW units.
- Low temperature chillers (-30°C) and fan coils (0°C air off).
- Dehumidifiers (desiccant & electric) 200-10,000m³/hr.
- Generator Power with 20KVA – 800KVA, fuel tanks and management.
- Air distribution (flexible ducting and perforated air socks).
- Hot water generators and boilers from 25kW – 500kW units.
- Heating (office/warehouse) from 3kW to 200kW electric/indirect/heat pump.

We also provide full installation, transportation, lifting and monitoring.

TECHNICAL

i-HEAT PUMP 145

PERFORMANCE DATA @ DESIGN CONDITIONS		COOLING	HEATING
Capacity	kW	119	140
Fluid Supply Temperature	°C	7	45
Fluid Return Temperature	°C	12	40
Fluid		water	water
Ambient Air Temperature	°C	+30	+7
Fluid Flow Rate	m ³ /hr	21	24
Available Head Pressure	Bar	3.3	3
SCOP		3.34	3.34
EER / COP	kW/kW	2.92	3.25

OPERATING LIMITS		COOLING	HEATING
Min Ambient Temperature	°C	-5°C	-5°C
Max Ambient Temperature	°C	+46°C	+20°C
Min Leaving Fluid Temperature	°C	-10°C	+25°C
Max Leaving Fluid Temperature	°C	+30°C	+50°C
Min Flow Rate	m ³ /hr	9	9
Max Flow Rate	m ³ /hr	36	36

ELECTRICAL DATA		
Electrical Supply	V/PH/Hz	400/3/50
Max Absorbed Power	kW	62
Max Current (without additional supplies)	A	103
Starting Current (without additional supplies)	A	211
Isolator	A	TBA
Connection 3 Phase Supply		125 A 5 pin plug
Connection Earth		TBA
Additional available power supplies	A	16 A 4 pin socket
Max current with both supplies	A	119
Starting Current	A	227

CONTROLLER		
Type		Dixell / i-Chill (IC208CX with VGI890 display)
Remote On/Off		Terminals for remote volt free on/off switched contact
General Alarm		NO/NC Volt Free Relay Contact

REFRIGERANT SYSTEM		
Compressor Type		Copeland Scroll
Compressor Qty		4
Circuits		2
Capacity Control	%	25-50-75-100
Refrigerant Type		R410A
GWP		2088
Refrigerant Charge Circuit 1	kg	11.2
Refrigerant Charge Circuit 2	kg	11.8

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PERFORMANCE

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FANS

Total Number		2
Max. input power (per fan)	kW	1.9
Total condenser air flow	m ³ /hr	42,800

HYDRAULIC CIRCUIT

Connector Size	Inch	2
Connection Type		Bauer
Evaporator Volume	Litres	500

SOUND LEVELS

Measurements are taken in accordance with the standard ISO 3744.

Sound pressure average value obtained in free field on a reflective surface at a distance of 10m from the longer side of the machine at a height of 1.6m +/- 2 under full load in normal conditions.

For measurements closer than 10m add the following: 5m +6, 3m +10 and 1m +15

SOUND DATA

Sound Power Level	db(A)	90
Sound Pressure Level @ 10m	db(A)	62

OCTAVE BANDS (Hz)

63	125	250	500	1,000	2,000	4,000	8,000
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SOUND POWER LEVEL dB(A)

64	77	78	80	86	83	76	63
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Additional Services: Cool Energy can provide attenuated equipment and services to help further reduce the impact of our equipment to help meet your specific site requirements.

PHYSICAL DATA

		without frame	with frame
Length	mm	3,298	3,810
Width	mm	1,255	1,270
Height	mm	2,119	2,225
Transport Weight	kg	1,400	TBA
Operating Weight	kg	1,900	TBA

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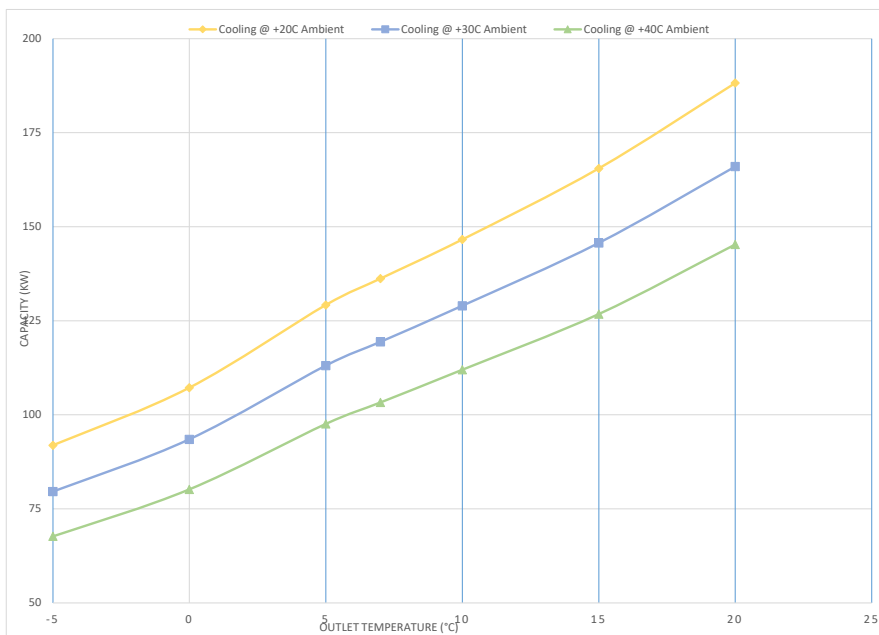
E&OE. All data is subject to change and continuous improvement without notice. Equipment designed to ISO 9001 and all relevant electrical, pressure and mechanical directives.

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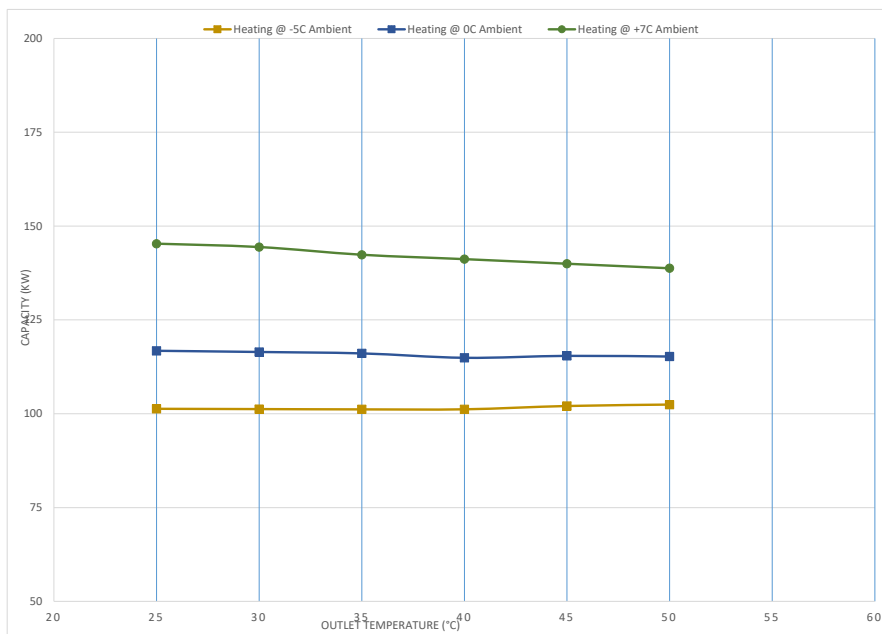
PERFORMANCE

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COOLING PERFORMANCE



HEATING PERFORMANCE



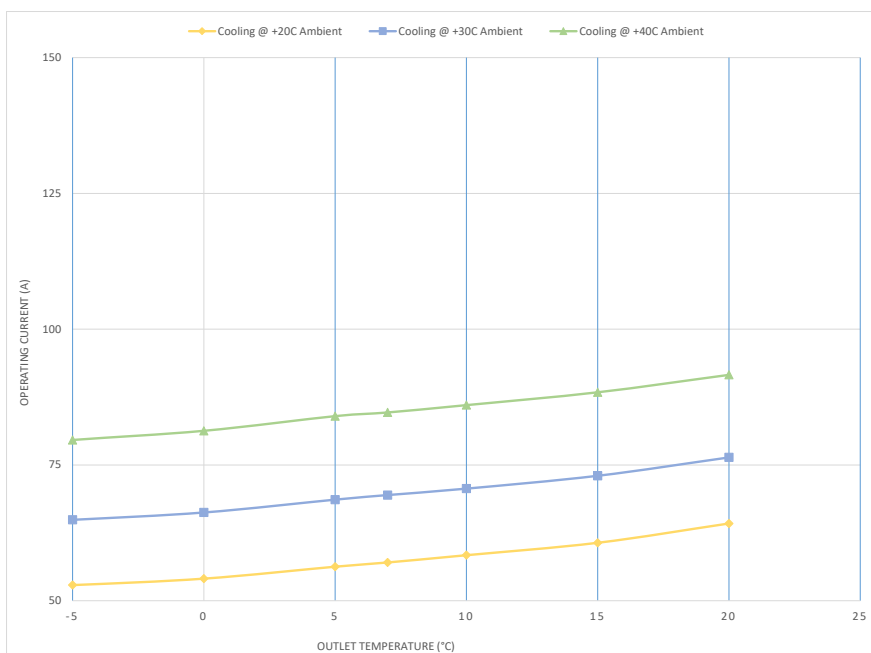
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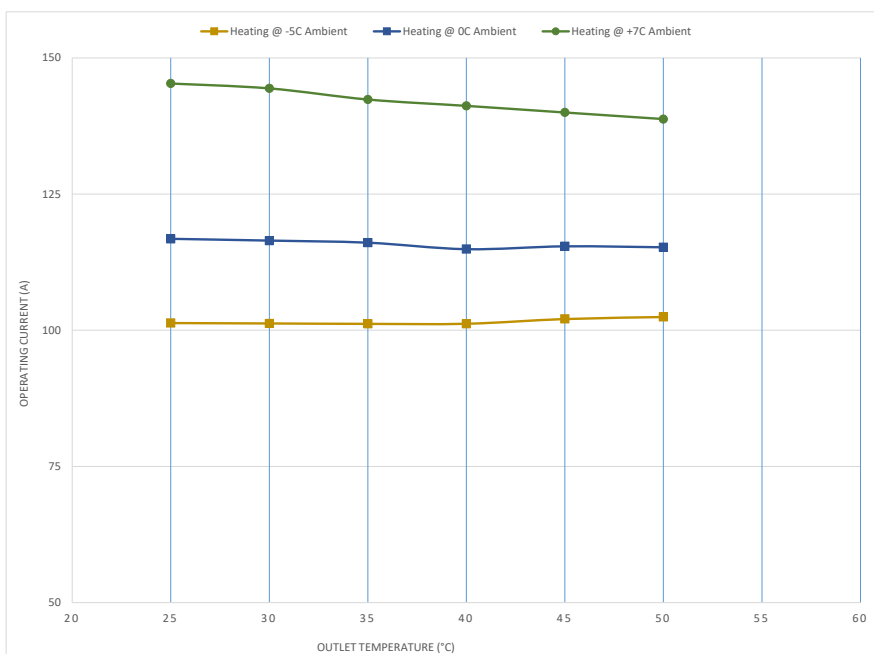
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OPERATING CURRENT (COOLING)



OPERATING CURRENT (HEATING)



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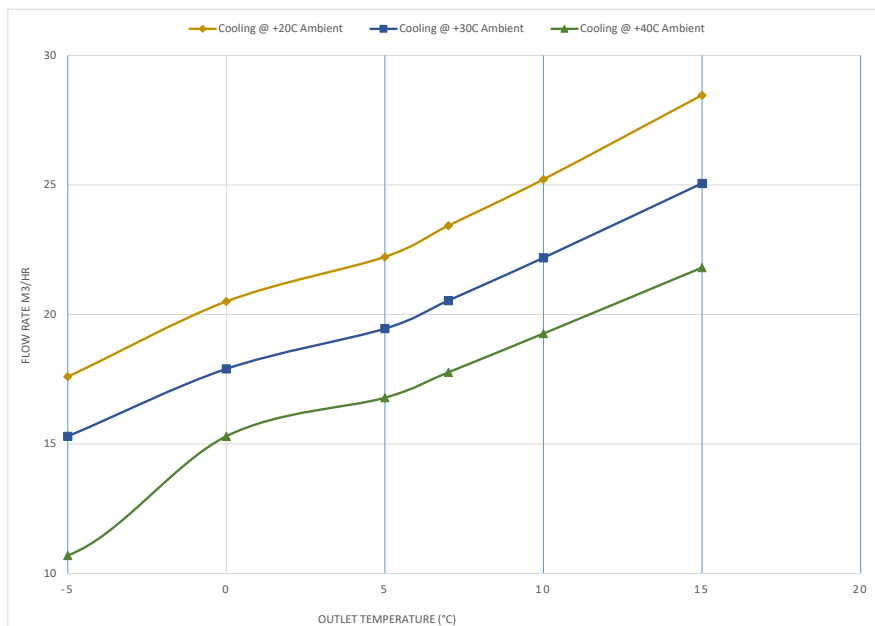
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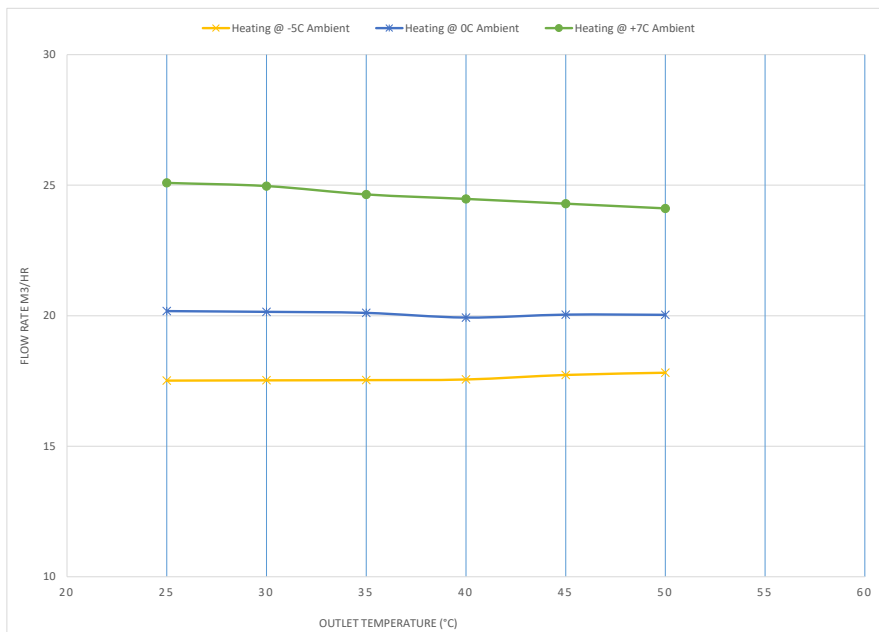
PERFORMANCE

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EVAPORATOR FLOW RATE (COOLING)



CONDENSOR FLOW RATE (HEATING)



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