

## Indoor chillers

### Helical rotary compressor 500-1500 kW

# RTHD



### Adaptive Control™



Tracer™ CH530



RTHD

### Customer benefits

- Trane helirotor compressor - designed to perform, built to last: superior reliability and low cost of ownership
- State of the art control to guarantee superior dependability: low cost of ownership
- R134a refrigerant for high performance: low energy consumption

### Main Features

- Low-speed, direct-drive semi-hermetic helical rotary compressor featuring only four moving parts, suction-gas-cooled motor
- Fully modulating load control (25-100%)
- Compact physical footprint - fits through standard double-width doors
- Bolt-together construction for easy unit disassembly
- Factory mounted star-delta starter panel
- Simplified piping - the only piping required is for the evaporator and condenser grooved pipe connections
- Single power connection - reduced wiring costs
- Tube-in-shell condenser
- Falling film evaporator - high COP and reduced refrigerant charge
- Tracer Summit™ capabilities
- LonTalk™ compatible

### Options

- Insulation on evaporator, water boxes, suction line, motor housing
- Fused or non-fused power disconnect switch
- Under/over voltage protection

### Accessories

- Neoprene isolators
- Flow switch
- Outside air temperature sensor
- Condenser valves

### Control

Adaptive Control™ microprocessor-based control featuring:

- Easy to use DynaView operator interface
- Chilled water pump control
- Alarm indicator programmable relays
- Chilled water and current limit remote setpoint card (optional)
- Ice making controls (optional)
- Tracer Summit™ Communication interface (optional)
- LonTalk communication card (optional)
- Condenser valve regulation card (optional)

## General data


**Unit size (1)**

	Comp	B1	B1	B2	B2	C1	C1	C1	C2	C2	C2	D1
	EVP	B1	C1	B1	C1	D6	D5	D3	D6	D5	E1	D4
	CDS	B1	D1	B1	D1	E5	E4	E3	E5	E4	F1	E4
<b>Cooling Capacity (2)</b>	(kW)	547	564	597	616	773	782	800	892	901	941	1055
Power input (2)	(kW)	96	95	105	103	142	139	137	166	162	154	196
Coefficient of Performance		5.7	6.0	5.7	6.0	5.5	5.6	5.9	5.4	5.6	6.1	5.4
Refrigerant		R134a										
Number of refrigerant circuits		1										
Compressor type		Helical rotary										
Number of compressors		1										
Evaporator type		Tube-in-shell/Falling film										
Evaporator water content		155	208	155	208	170	197	295	170	197	310	197
Evaporator water connection type		Grooved pipe										
Evaporator connection diameter	(mm)	150	150	150	150	200	200	200	200	200	200	200
Condenser type		Tube-in-shell/Flooded										
Condenser water content	(l)	106	117	106	117	110	121	178	110	121	226	121
Condenser water connection type		Grooved pipe										
Condenser water connection diameter	(mm)	150	150	150	150	200	200	200	200	200	200	200
Sound power level (3)	(dB(A))	98	99	98	99	99	99	99	99	99	99	97
Sound pressure level at 1 m (3)	(dB(A))	80	80	80	80	80	80	80	80	80	80	78
Minimum operating ambient air temperature	(°C)	10										
Maximum operating ambient air temperature	(°C)	50										
Minimum leaving water temperature condenser	(°C)	20										
Maximum leaving water temperature condenser	(°C)	50										
Minimum leaving water temperature evaporator	(°C)	-12										
Maximum leaving water temperature evaporator (6)	(°C)	18										
Power supply	(V/Ph/Hz)	400/3/50										
Standard starter type		Star-delta										
Start-up amps (4)	(A)	412	412	412	412	480	480	480	480	480	480	748
Maximum amps (5)	(A)	233	233	233	233	349	349	349	349	349	349	455
Maximum cable size	(mm <sup>2</sup> )	240	240	240	240	240	240	240	240	240	240	2x300
Disconnect switch size	(A)	250	250	250	250	400	400	400	400	400	400	630

(1) Unit size presented as compressor code-evaporator code-condenser code

(2) Standard Eurovent conditions: - Evaporator entering/leaving water temperature 12°C / 7°C. Condenser entering/leaving water temperature 30°C/35°C.  
 - Evaporator fouling factor = 0.0176 m<sup>2</sup>K/kW - Condenser fouling factor = 0.044 m<sup>2</sup>K/kW.

(3) Under free field conditions only, on a reflecting surface, data in accordance with ISO 3746-1996

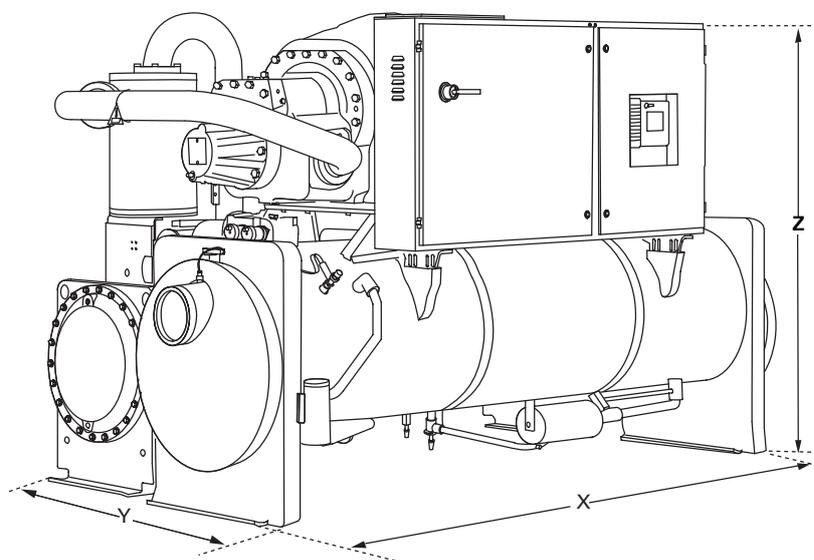
(4) Inrush current in star connection

(5) To be used for power cable sizing

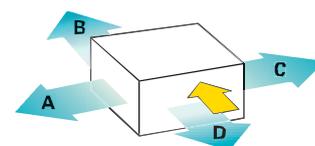
(6) With ethylene glycol

All units: evaporator 3 pass, condenser 2 pass, except models D1 G1 G1, D2 G2 G1, D3 G2 G2 and E3 G3 G3: evaporator 4 pass, condenser 2 pass

## Dimensions, weights and clearances



  
 Access to  
 control panel



### Weights

Unit size (1)	Dimensions (mm)			Shipping weight (kg)	Operating weight (kg)	Minimum clearances (mm)	
	X	Y	Z			A	B/C/D
B1-B1-B1	3170	1602	1850	4215	4476	2530	1000
B1-C1-D1	3635	1602	1850	4462	4787	2530	1000
B2-B1-B1	3170	1602	1850	4215	4476	2990	1000
<b>B2-C1-D1</b>	<b>3635</b>	<b>1602</b>	<b>1850</b>	<b>4462</b>	<b>4787</b>	<b>2990</b>	<b>1000</b>
C1-D3-E3	3292	1600	1938	6351	6824	2510	1000
C1-D5-E4	3292	1600	1938	5884	6202	2510	1000
C1-D6-E5	3292	1600	1938	5797	6077	2510	1000
C2-D5-E4	3292	1600	1938	5884	6202	2510	1000
C2-D6-E5	3292	1600	1938	5797	6077	2510	1000
C2-E1-F1	3670	1600	1938	6639	7175	2510	1000
D1-D3-E3	3292	1600	1938	6351	6824	2510	1000
D1-D4-E4	3292	1600	1938	5883	6201	2510	1000
D1-G1-G1	3762	1797	2034	8129	8943	2510	1000
D2-D1-E1	3292	1600	1938	6551	6978	2510	1000
D2-F1-F2	3686	1600	1938	7353	7955	2980	1000
D2-G2-G1	3762	1797	2034	8516	9360	2970	1000
D3-D1-E1	3292	1600	1938	6551	6978	2970	1000
D3-F1-F2	3686	1600	1938	7353	7955	2970	1000
D3-G2-G2	3762	1797	2034	8666	9555	3130	1000
E3-D2-E2	3292	1600	2034	6676	7134	3130	1000
E3-F2-F3	3686	1600	1938	7690	8326	3130	1000
E3-G3-G3	3762	1797	2034	8913	9882	3130	1000

(1) With standard pass water box