

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
Cooling Capacity (2)	(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 ²)		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 m²K/kW - Condenser fouling factor = 0.044 m²K/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

General data



Unit size (1)

	Comp	D1	D1	D2	D2	D2	D3	D3	D3	E3	E3	E3
	EVP	D3	G1	D1	F1	G2	D1	F1	G2	D2	F2	G3
	CDS	E3	G1	E1	F2	G1	E1	F2	G2	E2	F3	G3
Cooling Capacity (2)		1077	1143	1160	1215	1247	1237	1300	1342	1349	1417	1466
Power input (2)		191	183	210	202	198	227	217	211	264	253	246
Coefficient of Performance		5.7	6.3	5.5	6.0	6.3	5.5	6.0	6.4	5.1	5.6	6.0
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		295	515	261	386	545	261	386	545	280	405	602
Evaporator water connection type		Grooved pipe										
Evaporator connection diameter		200										
Condenser type		Tube-in-shell/Flooded										
Condenser water content		178	299	166	216	299	166	216	344	178	231	367
Evaporator water connection type		Grooved pipe										
Condenser water connection diameter		200										
Sound power level (3)		97	97	97	97	97	97	97	97	101	101	101
Sound pressure level at 1 m (3)		78	78	78	78	78	78	78	78	82	82	82
Minimum operating ambient air temperature		10										
Maximum operating ambient air temperature		50										
Minimum leaving water temperature condenser		20										
Maximum leaving water temperature condenser		50										
Minimum leaving water temperature evaporator		-12										
Maximum leaving water temperature evaporator (6)		18										
Power supply		400/3/50										
Standard starter type		Star-delta										
Start-up amps (4)		748	748	748	748	748	748	748	748	748	748	748
Maximum amps (5)		455	455	455	455	455	455	455	455	488	488	488
Maximum cable size		2x300										
Disconnect switch size		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 m²K/kW - Condenser fouling factor = 0.044 m²K/kW.

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

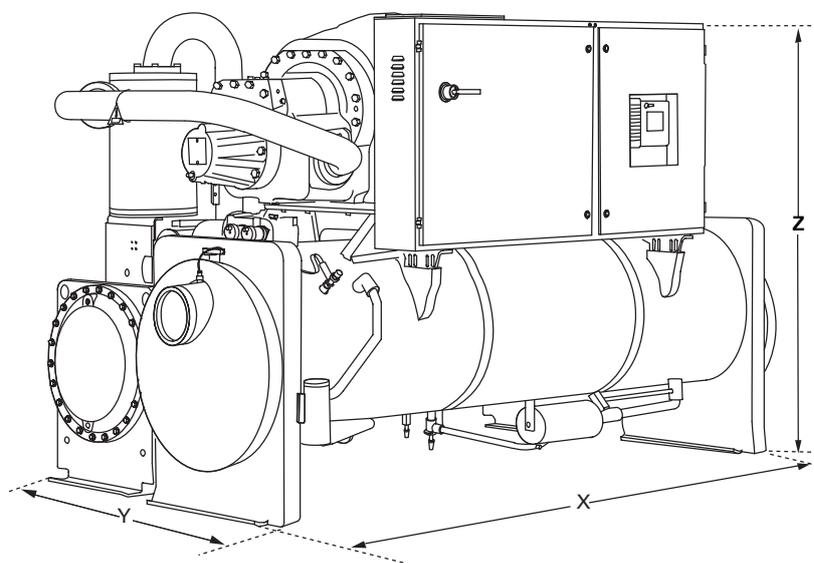
(4) Inrush current in star connection

(5) To be used for power cable sizing

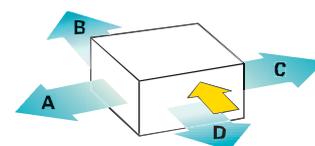
(6) With ethylene glycol

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
B2-C1-D1	3635	1602	1850	4462	4787	2990	1000
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