



Thermal Battery™ Cooling System

Line Card



The Trane® Thermal Battery system is a Trane controlled chiller plant enhanced with thermal energy storage. The chiller plant operates like a battery, charging Ice Bank® energy storage tanks when excess or inexpensive energy is available, and discharging when demand is high or price is high or when the utility asks for the discharge to occur.

Trane® Thermal Battery™ Cooling System



Modular Ice Bank® energy storage tanks, charging chiller, glycol management system, pre-packaged controls with energy and mode dashboards



CALMAC® Ice Bank® Models A and C
Modular, ranging in size from 40-450 tn hrs; Small Church to College Campus; made of non-corroding materials



CALMAC® Plate and Frame Heat Exchanger
Custom selected for exceptional performance



CALMAC® Glycol Management System
Automatic pre-mixed heat transfer fluid make up



Completion Module
Complete with pumps, piping specialties & controls; one or two ice chillers; option of with or without PFHX; option of with or without load pumps



CenTraVac® Model CDHH Chiller
Multi-stage, Dual Compressor 1800 thru 4200 Tons; R-1233zd; for Higher Ed and Commercial Buildings



SCROLL CHILLERS

Cold Generator™ Model CCAR
Scroll Compressor with Air-Cooled Condenser; 20 thru 75 Tons; R-410A; for split-system applications



Cold Generator™ Model CGWR
Scroll Compressors - 20 thru 75 Tons; R-410A



Cold Generator™ Model CICD
Modular Scroll Chiller - 30 thru 75 Tons; R-410A



Series R® Model RTWD
Helical Rotary Compressor - 80 thru 250 Tons; Dual refrigerant, R-134a or next gen R-513a; for K-12 and Commercial Buildings



Optimus® Model RTHD
Optional Variable Speed Helical Rotary Compressor - 150 thru 430 Tons; R-134a

Water-Cooled Chillers with Ice Capability

CENTRIFUGAL CHILLERS



Model HDWA Agility® Chiller
175 to 425 ton – 60 Hz, 50 Hz using either R-513A or R-134A; for K-12 and Commercial Buildings

Air-Cooled Chillers with Ice Capability



CenTraVac® Model CVHE Chiller
3-Stage Compressor - 120 thru 500 Tons; R-514A; for K-12 applications



SCROLL CHILLERS

Model CGAM
Scroll Compressor - 20 thru 130 Tons; R-410A



CenTraVac® Model CVHF Chiller
2-Stage Compressor - 325 thru 2000 Tons; R-514A; for K-12, Higher Ed, and Commercial Buildings



Ascend™ model ACS
140-230 Tons R-410A



SCREW CHILLERS

Ascend™ Model ACR
150-300 Tons R-134a



Series R® RTAC
Helical Rotary Chiller - 140 thru 500 Tons; R-134a



Sintesis® Model RTAF
Variable Speed Helical Rotary Compressor - 115 thru 500 Tons; R-134a or next gen R-513A

Trane Energy Management Systems and Services



Trane Intelligent Services

Aggregates data collected in a building. Provides tools to make real-time, near term, and long term decisions that maximize the way buildings are managed and maintained.



Trane Design Tools

TRACE® and First Pass™; First Pass is a lifecycle analysis tool for thermal energy storage systems

Trane Building Automation Systems



Tracer® SC+
Scalable web-based building automation system solution



Factory & Field
Mounted BACnet® & LonTalk® Unit Controllers, Integrates with BACnet MSTP, LonTalk Certified, BACnet/IP, Modbus® Protocols



Wireless Solutions
Wireless comms, BACnet/Zigbee®, temperature & humidity sensors

Trane Building Management Systems



Tracer® Ensemble®
Enterprise level building management software



Tracer® Synchrony®
Web-based facility management software



Tracer Mobile Apps
Concierge, Building Operator Suite

Energy Services



We partner with our clients to understand how energy impacts their business and sustainability goals. Leveraging deep expertise and cutting edge technology, we help optimize energy purchasing strategies, energy sourcing, energy storage, consumption, and overall network efficiency with validated results.



C Model	1045C (2F, 3F, 4F, U4F)	1082C (2F, 3F, 4F, U4F)	1098C (2F, 3F, 4F)	1105C (2F, 3F, 4F, U4F)	1190C (2F, 3F, 4F)	1220C (2F, 3F, 4F)	1320C (SF, RF)	1500C (SF, RF)
Net Usable Capacity, ton-hrs. (kWh)	41 (144)	82 (288)	98 (345)	105 (369)	162 (570)	214 (753)	324 (1140)	486 (1710)
Maximum Operating Temp., °F (°C)	100 (38)	100 (38)	100 (38)	100 (38)	100 (38)	100 (38)	100 (38)	100 (38)
Factory Tested Pressure, psi (kPa)	250 (1724)	250 (1724)	250 (1724)	250 (1724)	250 (1724)	250 (1724)	250 (1724)	250 (1724)
Maximum Operating Pressure, psi (pKa)	90 (620)	90 (620)	90 (620)	90 (620)	90 (620)	90 (620)	90 (620)	90 (620)
Dimensions (WxLxH) ⁱⁱⁱ , in. (mm)	(2F) 73¾x75x49 (1875x1900x1244) (3F, 4F, U4F) 73¾x76½x49 (1875x1940x1244)	(2F) 73¾x75x84½ (1875x1900x2140) (3F, 4F, U4F) 73¾x76½x84½ (1875x1940x2140)	(2F) 89x91x69½ (2260x2310x1765) (3F, 4F) 89x92x69½ (2260x2340x1765)	(2F) 73¾x75x102 (1875x1900x2590) (3F, 4F, U4F) 73¾x76½x102 (1875x1940x2590)	(2F) 89x91x102 (2260x2310x2590) (3F, 4F) 89x92x102 (2260x2340x2590)	(2F) 89x91x134½ (2260x2310x3415) (3F, 4F) 89x92x123½ (2260x2340x3415)	(SF) 89x180x102 (2260x4580x2590) (RF) 89x182x102 (2260x4620x2590)	(SF) 89x270x102 (2260x6860x2590) (RF) 89x272x102 (2260x6910x2590)
Shipping Weight ⁱⁱ , lbs. (kg)	615 (280)	1065 (485)	1275 (580)	1315 (595)	2000 (910)	2625 (1190)	4000 (1815)	6000 (2720)
Weight, Filled, lbs. (kg)	4475 (2030)	8580 (3890)	10,235 (4645)	10,885 (4935)	16,900 (7665)	23,000 (10,433)	34,000 (15,420)	50,600 (22,950)
Floor Loading lbs./ft ² (kg/m ²)	150 (732)	286 (1396)	237 (1157)	363 (1772)	391 (1909)	531 (2593)	391 (1909)	391 (1909)
Volume of Water/Ice gals. (l)	410 (1550)	820 (3105)	980 (3710)	1045 (3955)	1655 (6265)	2215 (8385)	3310 (12,530)	4965 (18,795)
Volume of 25% Glycol Solution in HX gals. (l)	47 (178)	86 (326)	99 (375)	99 (375)	157 (594)	210 (795)	315 (1192)	472 (1787)
Inlet/Outlet Flange Connections, in.	4	4	4	4	4	4	4	4



A Model	1045A	1082A	1098A	1105A	1190A
Net Usable Capacity ⁱ , ton-hrs. (kWh)	41 (144)	82 (288)	98 (345)	105 (369)	162 (570)
Maximum Operating Temp., °F (°C)	100 (38)	100 (38)	100 (38)	100 (38)	100 (38)
Factory Tested Pressure, psi (kPa)	250 (1724)	250 (1724)	250 (1724)	250 (1724)	250 (1724)
Maximum Operating Pressure ⁱ , psi (pKa)	90 (620)	90 (620)	90 (620)	90 (620)	90 (620)
Dimensions (OdxH) ⁱⁱⁱ , in. (mm)	73¾x48 (1875x1220)	w73¾x82 (1875x2080)	89x68 (2260x1730)	73¾x101 (1875x2570)	89x101 (2260x2570)
Shipping Weight ^{iv} , lbs. (kg)	580 (265)	1025 (465)	1225 (555)	1275 (580)	1950 (885)
Weight, Filled, lbs. (kg)	4380 (1985)	8455 (3835)	10,100 (4580)	10,760 (4880)	16,765 (7605)
Floor Loading lbs./ft ² (kg/m ²)	147 (718)	283 (1382)	234 (1142)	360 (1758)	388 (1894)
Volume of Water/Ice gals. (l)	410 (1550)	820 (3105)	980 (3710)	1045 (3955)	1655 (6265)
Volume of 25% Glycol Solution in HX gals. (l)	40 (151)	78 (295)	90 (341)	99 (375)	148 (560)
Inlet/Outlet Flange Connections, in.	2	2	2	2	2

- I. Typical value, actual varies with conditions.
- II. Consult factory for higher ratings.
- III. Tolerance for all dimensions is $\pm 1/2$ " except for "L" for Models 1500 and 1320 where ± 1 ".
- IV. Shipping weight may vary because of residual water from hydrostatic test.

Learn more at trane.com



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.com or tranetechnologies.com.

All trademarks referenced in this document are the trademarks of their respective owners.

© 2020 Trane. All Rights Reserved.

ENGY-SLB033-EN
06/15/2020