



TRANE®

Series R® Rotary Liquid Chiller

**70 to 125 Tons
Water-Cooled and Condenserless**

Built For the Industrial and Commercial Markets

MODEL #: RTWA080AYC01C3COWF

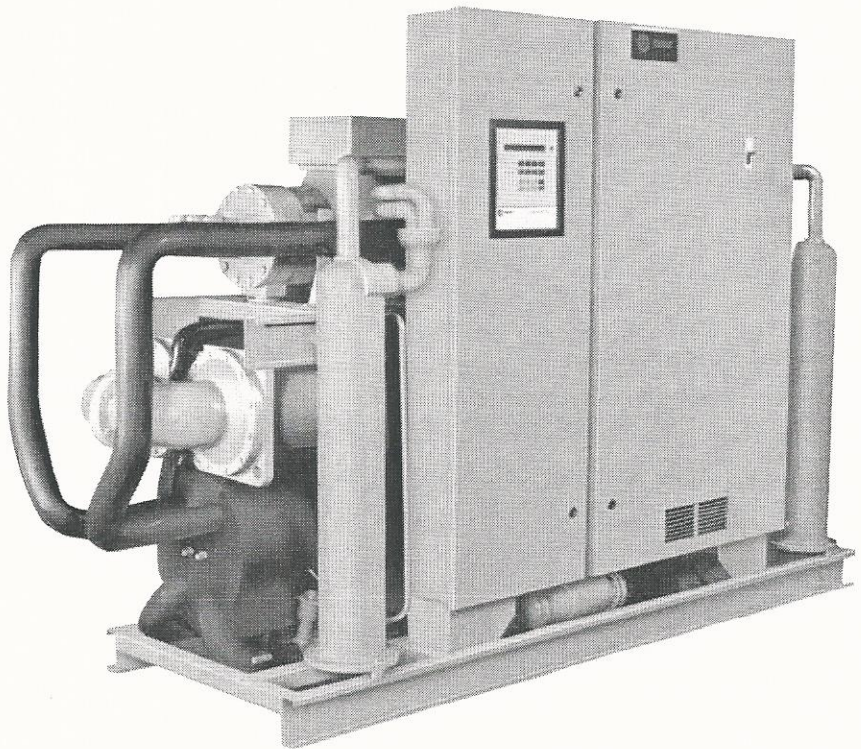
S/N: U98E00826

YR: 1998

80 TONS

R-22

200-3-60



November 1999

RLC-DS-4



Model Number Description

RTWA and RTUA Packaged Chillers and Compressor Chillers

RTWA080AYC01C3C0WF
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Digits 1,2 — Unit Model
RT = Rotary Chiller

Digit 3 — Unit Type
W = Water-cooled packaged chiller
U = Compressor-chiller

Digit 4 — Development Sequence
A = First

Digit 5,6,7 — Nominal Capacity
070 = 70 Tons
080 = 80 Tons
090 = 90 Tons
100 = 100 Tons
110 = 110 Tons
125 = 125 Tons

Digit 8 — Unit Voltage
A = 200/60/3
C = 230/60/3
D = 380/60/3
4 = 460/60/3
5 = 575/60/3
S = Special Customer Option

Digit 9 — Compressor Start Type
Y = Y-Delta Closed Transition
X = X-Line (Across the Line)
S = Special

Digit 10,11 — Design Sequence
** = (Factory Input)

Digit 12 — Evaporator Leaving Temperature
1 = Standard 40 to 65 F
2 = Low temp process (0-39 F)
3 = Standard temp ice making 20 to 65 F
4 = Low temp icemaking (0-39 F)

Digit 13 — Condenser Configuration
C = Standard Efficiency
D = High Efficiency Condenser
E = Standard Efficiency, high temp
F = High Efficiency Condenser, high temp
R = Remote Air-Cooled Condenser
S = Special

Digit 14 — Agency Listing
0 = No Agency Listing
3 = C/UL Listed

Digit 15 — Control Interface
C = Deluxe without communication
D = Deluxe with communication

Digit 16 — Chilled Water Reset
0 = No chilled water reset
1 = Based on return water temperature
2 = Based on outside air temperature

Digit 17 — Compressor Type
(Factory Assigned)

V = High volume or pressure ratio
W = Low volume or pressure ratio
High Vi = If Digit 12 is 2 or if Digit 13 is E or F.
Low Vi = If Digit 12 is 1 or 3 and Digit 13 is C or D.

**Digit 18+ — Factory Installed or
Factory Supplied Options**

D = Low ambient lockout sensor ⁽¹⁾
F = Power disconnect
Q = Rubber-in-shear isolators
R = Remote display
T = Condenser water temperature sensors ⁽²⁾
H = Unit sound attenuator
Y = Condenser refrigerant sensors ⁽³⁾

Digits 18+ may be multiple independent add on options.

Notes:

- 1) Either RTCA or non-RTCA condensers
- 2) RTWA only
- 3) Use only with RTUA and non-RTCA condensers

Model Number Description

RTCA Air-Cooled Condenser

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Digits 1,2 — Unit Model
RT = Rotary Chiller

Digit 3 — Unit Type
C = Air Cooled Condenser

Digit 4 — Development Sequence
A = First Sequence

Digit 5, 6 & 7 — Nominal Capacity
070 = 70 tons
080 = 80 tons
090 = 90 tons
100 = 100 tons
110 = 110 tons
125 = 125 tons

Digit 8 — Unit Voltage
A = 200/60/3
C = 230/60/3
D = 380/60/3
4 = 460/60/3
5 = 575/60/3
S = Special

Digit 9 — Compressor Starter Type
Y = Y-Delta Closed Transition
X = X-Line (Across the Line)
S = Special
* = Not Applicable

Digit 10, 11 — Design Sequence
** = Factory Input

Digit 12 — Evaporator Leaving Temperature
1 = Standard 40 to 65 F
2 = Low 0 to 39 F
3 = Ice-Making 20 to 65 F
S = Special
* = Not Applicable

Digit 13 — Condenser Coil Fin Material
A = Aluminum
S = Special

Digit 14 — Agency Listing
0 = No Agency Listing
1 = C/UL Listing

Digit 15 — Control Interface
C = Deluxe without Communication
D = Deluxe with Communication
* = Not Applicable

Digit 16 — Chilled Water Reset
0 = No Chilled Water Reset
1 = Based on Return Water Temperature
2 = Based on Outside Air Temperature
* = Not Applicable

**Digit 17 — Miscellaneous Factory Installed
Options**

A = Architectural Louvered Panels
D = Low Ambient Lockout Sensor
G = Low Ambient Operation
K = Coil Protection
M = Access Guard

Field Installed Options
Q = Spring Isolators
N = Neoprene Isolators
8 = Architectural Louvered Panels
9 = Coil Protection
0 = Access Guard



General Data

Table G-1 — General Data — RTWA 70-125

Size		70 Standard	70 Long	80 Standard	80 Long	90 Standard	90 Long	100 Standard	100 Long	110 Standard	110 Long	125 Standard	125 Long
Compressor Nominal Tons (1) Quantity		35/35 2	35/35 2	40/40 2	40/40 2	50/40 2	50/40 2	50/50 2	50/50 2	60/50 2	60/50 2	60/60 2	60/60 2
Evaporator Water Storage	(Gallons)	39.8	39.8	37.8	37.8	35.0	35.0	32.1	32.1	51.8	51.8	47.6	47.6
	(Liters)	150.8	150.8	143.3	143.3	132.7	132.7	121.7	121.7	196.3	196.3	180.4	180.4
Minimum Flow	(GPM)	84	84	96	96	108	108	120	120	132	132	150	150
	(L/S)	5.3	5.3	6.1	6.1	6.8	6.8	7.6	7.6	8.3	8.3	9.5	9.5
Maximum Flow	(GPM)	252	252	288	288	324	324	360	360	396	396	450	450
	(L/S)	15.9	15.9	18.2	18.2	20.5	20.5	22.7	22.7	25.0	25.0	28.4	28.4
Condenser Water Storage	(Gallons)	9.0	11.8	9.9	13.0	10.9	14.7	11.8	16.4	12.6	17.5	13.4	18.5
	(Liters)	34.1	44.7	37.5	49.3	41.3	55.7	44.7	62.2	47.8	66.3	50.8	70.1
Minimum Flow	(GPM)	75	90	90	105	120	145	120	145	145	170	145	170
	(L/S)	4.7	5.7	5.7	6.6	7.6	9.2	7.6	9.2	9.2	10.7	9.2	10.7
Maximum Flow	(GPM)	275	325	325	375	325	375	440	525	440	525	525	615
	(L/S)	17.4	20.5	20.5	23.7	20.5	23.7	27.8	33.1	27.8	33.1	33.1	38.8
General Refrigerant Type		HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22
% Min. Load (3)		15	15	15	15	15	15	15	15	15	15	15	15
Refrigerant Charge (1)(Lb)		64/64	85/85	64/64	85/85	72/64	95/85	72/72	95/95	72/72	95/95	72/72	95/95
	(Kg)	29.1/29.1	38.6/38.6	29.1/29.1	38.6/38.6	33.4/29.1	43.1/38.6	32.7/32.7	43.1/43.1	32.7/32.7	43.1/43.1	32.7/32.7	43.1/43.1
Oil Charge	(Quarts)	12/12	12/12	12/12	12/12	12/12	12/12	12/12	12/12	12/12	12/12	12/12	12/12
	(Liters)	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4	11.4/11.4
Operating Weight (2)	(lbs)	4815	4978	4847	5018	4971	5173	5108	5340	5476	5715	5546	5792
	(kg)	2234	2258	2199	2277	2254	2346	2317	2422	2484	2592	2516	2627
Shipping Weight (2)	(lbs)	4485	4648	4531	4702	4685	4887	4839	5071	5044	5283	5114	5360
	(kg)	2084	2108	2055	2133	2125	2217	2195	2300	2288	2396	2320	2431
Overall Dimensions	(in.)												
Length		99	112	99	112	103	112	102	112	132	132	132	132
Width		34	34	34	34	34	34	34	34	34	34	34	34
Height		72	72	72	72	72	72	72	72	72	72	72	72
Overall Dimensions	(mm)												
Length		2515	2835	2515	2835	2607	2848	2607	2848	3340	3340	3340	3340
Width		864	864	864	864	864	864	864	864	864	864	864	864
Height		1822	1822	1822	1822	1822	1822	1822	1822	1822	1822	1822	1822

Notes:

1. Data containing information on two circuits shown as follows: ckt1/ckt2.
2. All weights include Y-Delta starters.
3. Percent minimum load is for total machine, not each individual circuit.



Dimensional Data

Figure D-1 — Water Cooled Series R® Standard Length Condensers 70-100 Ton

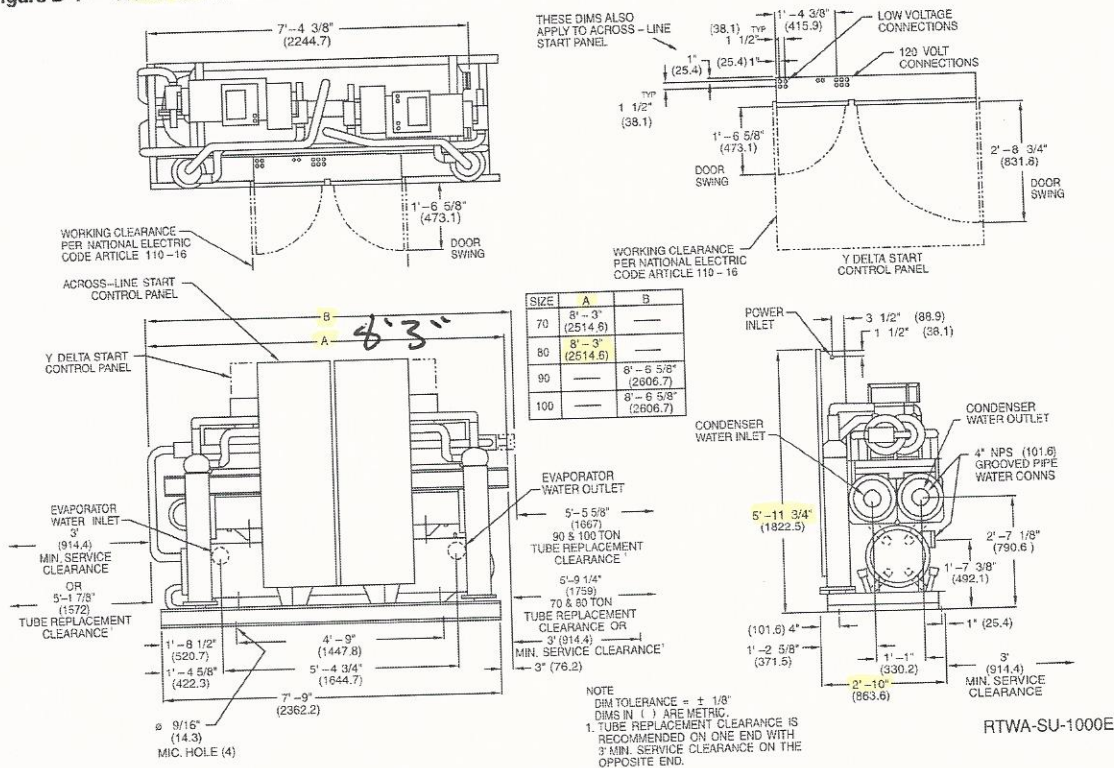


Figure D-2 — Water Cooled Series R® Standard Length Condensers 110-125 Ton

