



RTHD UD1F XM0U AG2W 4LAL G2D2 RALA VXQA EXAB XXV3 38A6 UT5X XXXX XXX3 52

Model Number Descriptions

Digits 1 - 4 – Chiller Model

RTHD= Water-Cooled Optimus™ Chiller

Digit 5 – Manufacturing Location

U = Water Chiller Business Unit, Pueblo, CO USA

Digits 6, 7 – Compressor Frame

B1 = B1 Compressor
B2 = B2 Compressor
C1 = C1 Compressor
C2 = C2 Compressor
D1 = D1 Compressor
D2 = D2 Compressor
D3 = D3 Compressor (50 hz only)
E3 = E3 Compressor (50 hz only)

Digits 8 – Unit Power Supply

A = 200V/60Hz/3Ph power
C = 230V/60Hz/3Ph power
D = 380V/60Hz/3Ph power
F = 460V/60Hz/3Ph power
H = 575V/60Hz/3Ph power
R = 380V/50Hz/3Ph power
T = 400V/50Hz/3Ph power
U = 415V/50Hz/3Ph power

Digit 9 – Specials

X = No Specials

Digit 10, 11 – Design Sequence

** = Factory assigned

Digit 12 – Agency Listing

X = No Agency Listing
U = UL Listed to US and Canadian Safety Standard
A = IBC Seismically Rated
B = UL/Canadian and IBC
C = OSHPD Seismically Rated
D = UL/Canadian and OSHPD

Note: Digit 12 selections A, B, C & D are special order only.

Digit 13 – Pressure Vessel Code

A = ASME Pressure Vessel Code
C = Canadian Code
D = Australian Code
L = Chinese Code-Imported Pressure Vessel

Digits 14,15 – Evaporator

B1 = B1 Evaporator
B2 = B2 Evaporator
C1 = C1 Evaporator
C2 = C2 Evaporator
D1 = D1 Evaporator
D2 = D2 Evaporator
D3 = D3 Evaporator
D4 = D4 Evaporator
D5 = D5 Evaporator
D6 = D6 Evaporator
E1 = E1 Evaporator
F1 = F1 Evaporator
F2 = F2 Evaporator
G1 = G1 Evaporator
G2 = G2 Evaporator
G3 = G3 Evaporator

Digit 16 – Evaporator Tube Type

A = Enhanced fin copper (all fluids)
W = Enhanced fin copper (water only)

Digit 17 – Evaporator Water Pass Configuration

2 = 2 Pass
3 = 3 Pass
4 = 4 Pass

Digit 18 – Evaporator Water Connection

L = Left Hand
R = Right Hand

Digit 19 – Evaporator Connection Type

A = Standard Grooved Pipe

Digit 20 – Evaporator Water Side Pressure

L = 150 psi (10.5 bar)
H = 300 psi (21 bar)

Digit 21, 22 – Condenser

B1 = B1 Condenser
B2 = B2 Condenser
D1 = D1 Condenser
D2 = D2 Condenser
E1 = E1 Condenser
E2 = E2 Condenser
E3 = E3 Condenser
E4 = E4 Condenser
E5 = E5 Condenser
F1 = F1 Condenser
F2 = F2 Condenser
F3 = F3 Condenser
G1 = G1 Condenser
G2 = G2 Condenser
G3 = G3 Condenser

Digit 23 – Condenser Tube Type

A = Enhanced Fin Copper - 0.028"
B = Smooth Bore Copper
C = Smooth Bore CuNi
D = Enhanced Fin Copper - 0.025"

Digit 24 – Condenser Water Passes

2 = 2 Pass

Digit 25 – Condenser Water Connection

L = Left Hand
R = Right Hand

Digit 26 – Condenser Connection Type

A = Standard Grooved Pipe
C = Marine
S = Special

Digit 27 – Condenser Waterside Pressure

L = 150 psi (10.5 bar)
H = 300 psi (21 bar)

Digit 28 – Condenser Leaving Water Temperature

A = Standard

Digit 29 – Refrigerant Isolation Valves

X = No Refrigerant Isolation Valves
V = With Refrigerant Isolation Valves

Digit 30 – Oil Cooler

X = Without Oil Cooler
C = With Oil Cooler

Digit 31 – Thermal Insulation

X = No Insulation
Q = Factory Installed Insulation

Digit 32 – Acoustic Insulation

X = No Insulation

Digit 33 – Label and Literature Language

C = Spanish
E = English
F = French

Digit 34 – Safety Devices

X = Standard

Digit 35 – Factory Charge

A = Factory Refrigerant Charge (R-134a)
B = Factory Nitrogen Charge

Digit 36 – Shipping Package

A = No Skid (Standard)
B = ShrinkWrap
C = Skid
D = Skid + ShrinkWrap

Digit 37 – Flow Switch

X = No Flow Switch
A = Evaporator (NEMA 1)
B = Evaporator and Condenser (NEMA 1)
C = Evaporator (NEMA 4)
D = Evaporator and Condenser (NEMA 4)

Digit 38 – Factory Test

- X = Standard Test
- C = Witness Test
- D = Performance Test

Digit 39 – Starter Type

- Y = Wye-Delta Closed Transition Starter
- V = Premium AFD

Digits 40 - 42 – Design RLA (for starter)

- *** = Selection Assigned

Digit 43 – Power Line Connection Type

- A = Terminal Block
- B = Mechanical Disconnect Switch
- D = Circuit Breaker
- F = High Interrupt Circuit Breaker

Digit 44 – Max RLA (Starter)

- C = 277 max RLA (Fixed Speed)
- E = 364 max RLA (Fixed Speed)
- G = 126 max RLA (Drive and Panel)
- H = 150 max RLA (Drive and Panel)
- J = 185 max RLA (Drive and Panel)
- K = 234 max RLA (Drive and Panel)
- L = 279 max RLA (Drive and Panel)
- M = 316 max RLA (Drive and Panel)
- N = 366 max RLA (Drive and Panel)
- Q = 397 max RLA (Fixed Speed)
- R = 476 max RLA (Fixed Speed)
- T = 598 max RLA (Fixed Speed)
- U = 779 max RLA (Fixed Speed)
- V = 197 max RLA (Drive and Panel)
- W = 241 max RLA (Drive and Panel)
- X = 292 max RLA (Drive and Panel)
- Y = 367 max RLA (Drive and Panel)
- Z = 446 max RLA (Drive and Panel)
- 1 = 549 max RLA (Drive and Panel)
- 2 = 176 max RLA (Drive and Panel)
- 3 = 223 max RLA (Drive and Panel)
- 4 = 280 max RLA (Drive and Panel)
- 5 = 335 max RLA (Drive and Panel)
- 6 = 411 max RLA (Drive and Panel)
- 7 = 455 max RLA (Drive and Panel)

Digit 45 – Under/Over Voltage Protection

- X = None
- U = With Under/Over Voltage Protection

Digit 46 – Operator Interface

- T = Tracer AdaptiView™ TD7 Display

Digit 47 – Digital Communication Interface

- X = None
- 5 = LCI-C (LonTalk®) Interface
- 7 = BACnet® MS/TP
- 8 = Modbus™ Interface

Digit 48 – External Water & Current-Limit Setpoint

- X = None
- 2 = 2–10 Vdc input
- 4 = 4–20 mA input

Digit 49 – External Base Loading

- X = None
- 2 = 2–10 Vdc input
- 4 = 4–20 mA input

Digit 50 – Ice Making

- X = None
- A = Ice Making with Relay
- B = Ice Making without Relay

Digit 51 – Programmable Relays

- X = None
- R = With Programmable Relays

Digit 52 – Chilled Water Reset

- X = Chilled Water Reset - Return Water
- T = Chilled Water Reset - Outdoor Air Temperature

Digit 53 – Control Outputs

- X = None
- D = Chiller Differential Pressure & Percent RLA
- P = Condenser Pressure (% HPC) & Percent RLA
- V = Condenser Regulating Valve Control & Percent RLA

Digits 54 – Refrigerant Monitor Input

- X = None
- A = 100 ppm / 4-20 mA
- B = 1000 ppm / 4-20 mA
- C = 100 ppm / 2-10 Vdc
- D = 1000 ppm / 2-10 Vdc

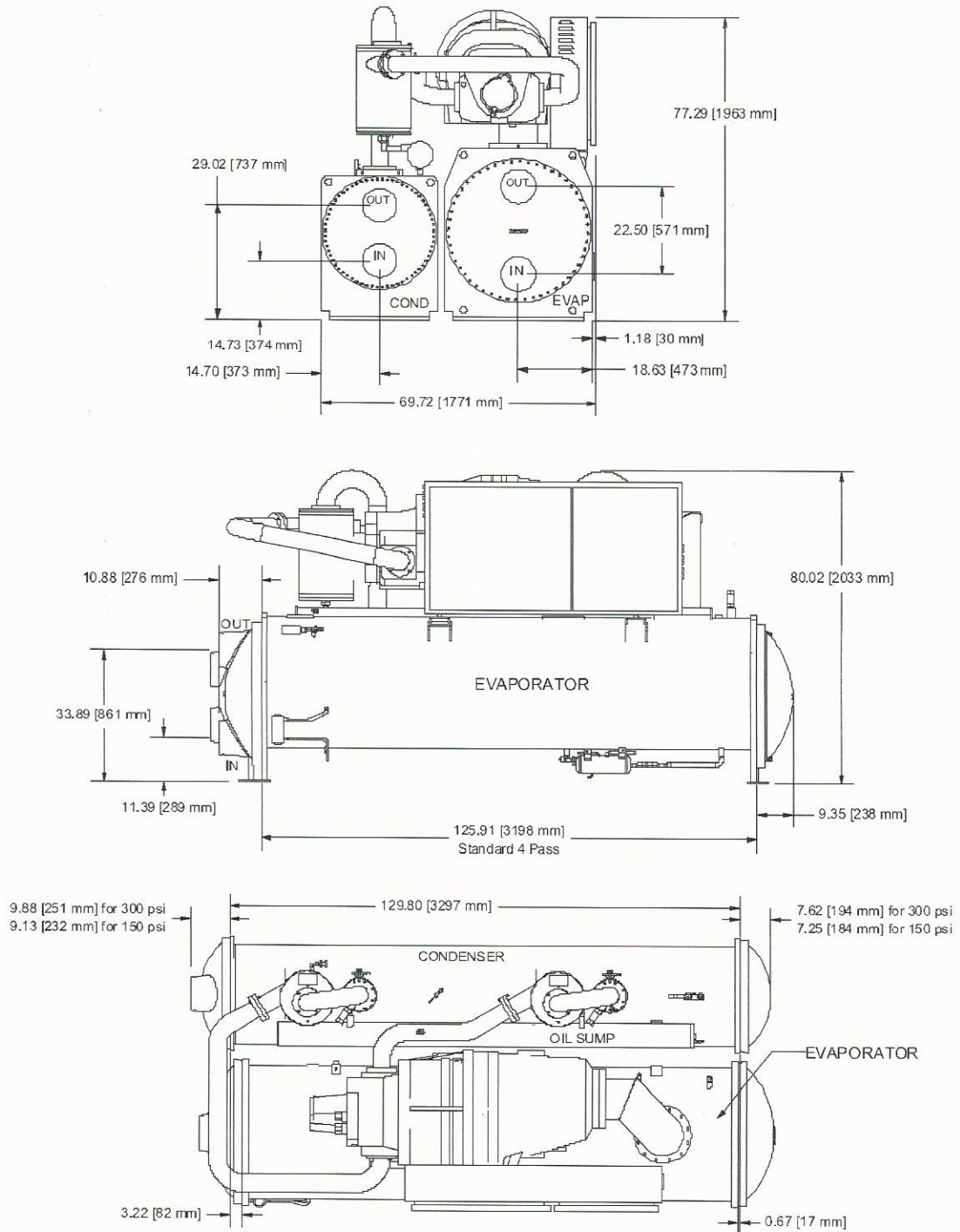
Digit 55 – Condenser Leaving Hot Water Temp Control

- X = None
- H = Hot Water Temp Control

Digits 56 - 58 – AFD Output Amps

- 000 = Not Applicable (wye-delta starter)
- *** = Selection Assigned (when AFD option selected)

Figure 6. DGG, EGG configurations



Dimensions – Units with AFD Option

Note: Overall unit dimensions for units with the AFD option are shown in Table 15. All other dimensions are the same as standard unit dimensions specified in “Unit Dimensions - Standard (Wye-Delta Starter),” p. 32.

Figure 7. Overall unit dimensions - units with AFD option

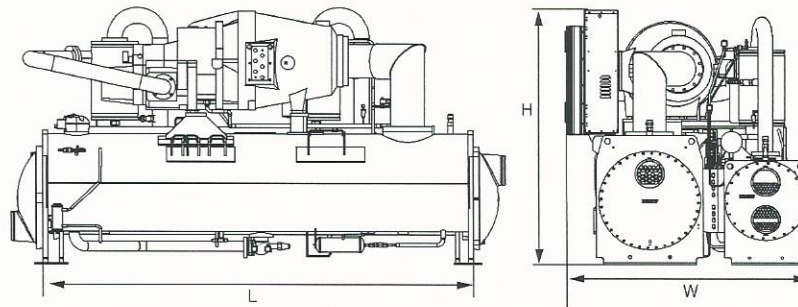


Table 15. Overall dimensions – units with AFD option^(a)

Unit Configuration ^(b)	AFD D1H Frame						AFD D2H Frame					
	Length (L)		Width (W)		Height (H)		Length (L)		Width (W)		Height (H)	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
B1B1B1	107.6	2734	71.3	1811	75.6	1920	107.6	2733	71.3	1811	80.8	2052
B1C1D1	125.9	3198	71.3	1811	75.6	1920	125.9	3198	71.3	1811	80.8	2052
B2B2B2	107.6	2734	71.3	1811	75.6	1920	107.6	2733	71.3	1811	80.8	2052
B2C2D2	125.9	3198	71.3	1811	75.6	1920	125.9	3198	71.3	1811	80.8	2052
C1D5E4	107.6	2734	74.5	1893	78.3	1989	107.6	2734	74.5	1893	83.5	2121
C1D6E5	107.6	2734	74.5	1893	78.3	1989	107.6	2734	74.5	1893	83.5	2121
C1E1F1	125.9	3198	74.4	1891	78.3	1989	125.9	3198	74.4	1891	83.5	2121
C2D3E3	107.6	2734	74.5	1893	78.3	1989	107.6	2734	74.5	1893	83.5	2121
C2D4E4	107.6	2734	74.5	1893	78.3	1989	107.6	2734	74.5	1893	83.5	2121
C2F2F3	125.9	3198	74.2	1886	78.7	1999	125.9	3198	74.2	1886	84.3	2141
D1D1E1	-	-	-	-	-	-	107.6	2734	74.5	1893	83.5	2121
D1F1F2	-	-	-	-	-	-	125.9	3198	74.2	1885.7	84.3	2141
D1G1G1	-	-	-	-	-	-	129.5	3289	76.7	1948	87.3	2217
D1G2G2	-	-	-	-	-	-	129.5	3289	76.7	1948	87.3	2217
D2D2E2	-	-	-	-	-	-	107.6	2734	74.5	1893	83.5	2121
D2F2F3	-	-	-	-	-	-	125.9	3198	74.2	1886	84.3	2141
D2G2G1	-	-	-	-	-	-	129.5	3289	76.7	1948	87.3	2217
D2G3G3	-	-	-	-	-	-	129.5	3289	76.7	1948	87.3	2217
D3D2E2	-	-	-	-	-	-	107.6	2734	74.5	1893	83.5	2121
D3F2F3	-	-	-	-	-	-	125.9	3198	74.2	1886	84.3	2141
D3G2G1	-	-	-	-	-	-	129.5	3289	76.7	1948	87.3	2217
E3D2E2	-	-	-	-	-	-	107.6	2734	74.5	1893	83.5	2121
E3F2F3	-	-	-	-	-	-	125.9	3198	74.2	1886	84.3	2141
E3G2G1	-	-	-	-	-	-	129.5	3289	76.7	1948	87.3	2217
E3G3G3	-	-	-	-	-	-	129.5	3289	76.7	1948	87.3	2217

(a) Dimensions vary with AFD frame size. D1H frame size used on units with model number digit 44 = V, W, X, 2, 3, 4, G, H or J. D2H frame size used with model number digit 44 = Y, Z, 1, 5, 6, 7, K, L, M or N.

(b) Unit configuration digits 1, 2 - compressor code (also shown in unit model number digits 6, 7); digits 3, 4 - evaporator code (unit model number digits 14, 15); digits 5, 6 - condenser code (unit model number digits 21, 22).