



## DESUPERHEATER COILS SELECTION PROCEDURE

1. Choose CDAX model based on system capacity.
2. Enter thermal performance chart for system capacity of CDAX model selected in Step 1 with water flow rate (gpm) and entering water temperature, EWT, and read Heat Recovered in MBtu/hr for either water-cooled or air-cooled operation. Also read refrigerant side pressure drop,  $\Delta PR$ , from top of same chart.
3. Enter water-side pressure drop data chart of CDAX model selected at water flow rate and read water-side pressure drop.
4. To calculate leaving water temperature, LWT:  
 $LWT = EWT + (2 \times \text{Heat Recovered} / \text{Water Flow Rate})$ .

### Sample:

Select CDAX model for 2 ton water-cooled air conditioning system. Water is available at a flow rate of 0.8 gpm and entering temperature of 90°F.

1. Select CDAX-5030-H for 2 ton system.
2. Entering thermal performance chart for 2 ton water-cooled system using CDAX-5030-H with water flow rate = 0.8 gpm and EWT = 90°F: Heat recovered = 4.75 MBtu/hr. From top of chart, refrigerant-side pressure drop,  $\Delta PR$ , = 1.4 PSI.
3. Entering water-side pressure drop data chart of CDAX-5030-H with water flow rate = 0.8

gpm: water-side pressure drop = 0.4 PSI by interpolation.

4. Leaving water temperature is calculated to be:  
 $LWT = 90 + (2 \times 4.75 / 0.8) = 101.9^\circ\text{F}$ .

### Notes:

1. Thermal performance charts are based on using refrigerant R-22 at the following conditions:

	Water-Cooled	Air-Cooled
refrigerant flow rate	164 (lb/hr)/ton	180 (lb/hr)/ton
compressor discharge temp.	190°F	220°F
saturated condensing temp.	105°F	125°F

For other refrigerants or design conditions substantially different from above, please consult factory for selection and thermal performance.

2. The shaded area in the thermal performance charts indicates that refrigerant condensing occurs in the desuperheater coil. Any selection or operation that will result in refrigerant condensing in the desuperheater coil requires that system oil circulation be maintained, and system refrigerant charge requirements met, at the various operating conditions. These requirements are the responsibility of the system designer and installer.

## WATER-SIDE PRESSURE DROP DATA

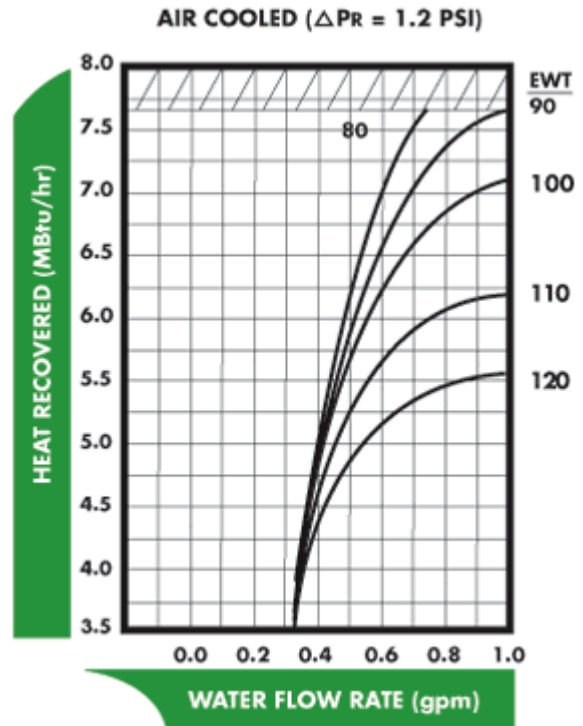
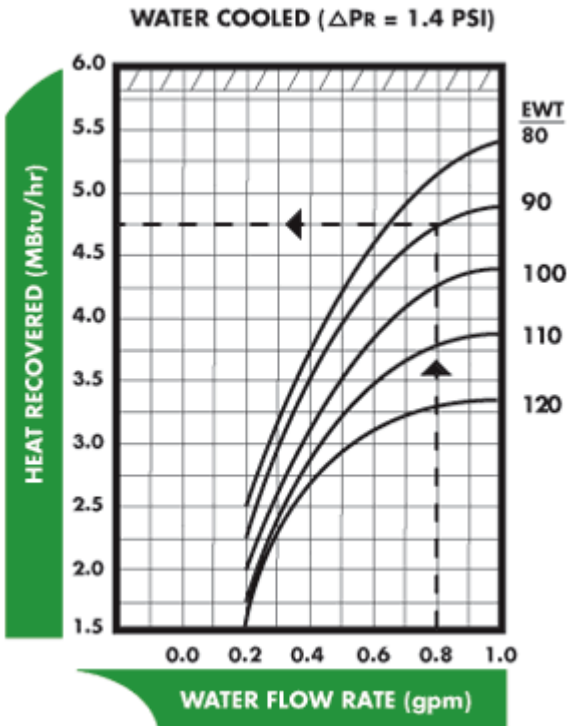
**GPM = WATER FLOW RATE**

**PSI = WATER-SIDE PRESSURE DROP**

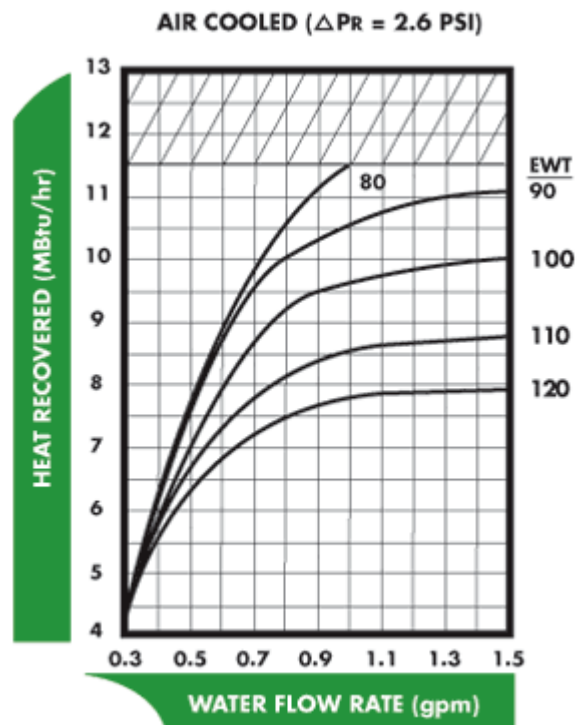
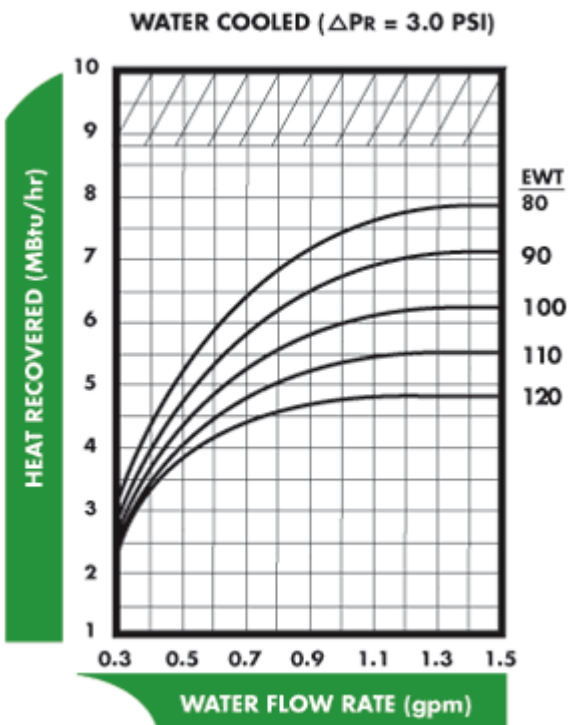
<b>CDAX-5030-H</b>	<b>GPM</b>	0.0	0.5	1.0	1.5	2.0
	<b>PSI</b>	0.0	0.3	0.5	1.2	1.9
<b>CDAX-5031-H</b>	<b>GPM</b>	1.0	1.5	2.0	2.5	3.0
	<b>PSI</b>	0.8	1.6	2.7	4.0	5.5
<b>CDAX-5032-H</b>	<b>GPM</b>	1.0	2.0	3.0	4.0	5.0
	<b>PSI</b>	1.2	4.0	8.2	13.8	20.7
<b>CDAX-5013-H</b>	<b>GPM</b>	1.5	3.0	4.5	6.0	7.5
	<b>PSI</b>	1.8	5.6	11.6	19.7	29.7

# PERFORMANCE DATA

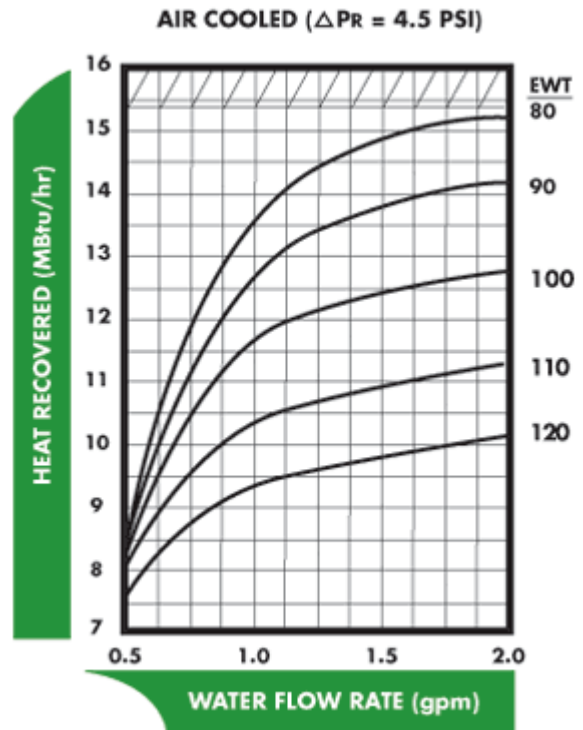
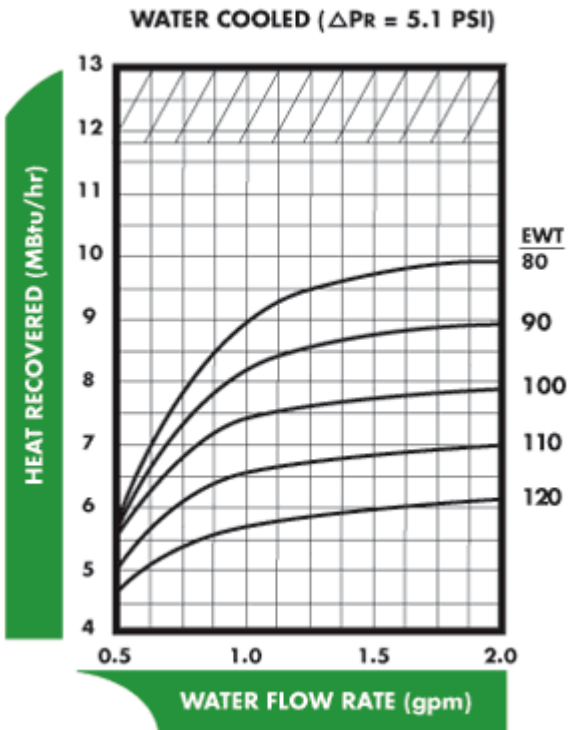
## CDAX-5030-H, Nominal 2 Ton



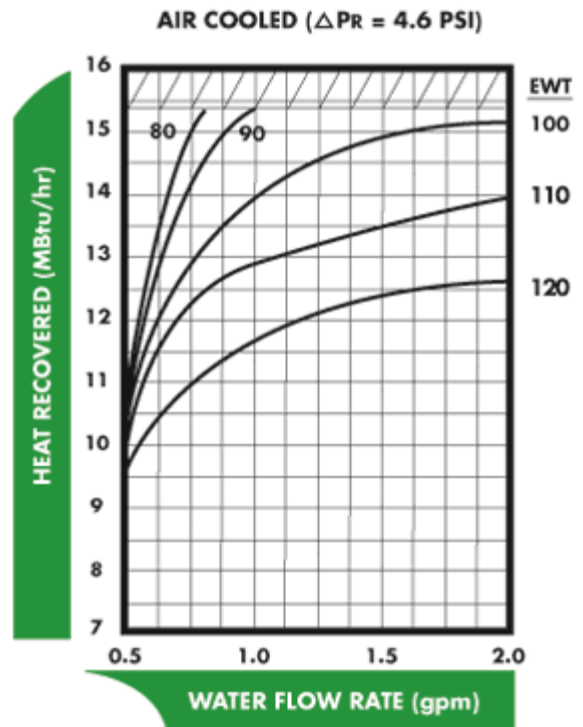
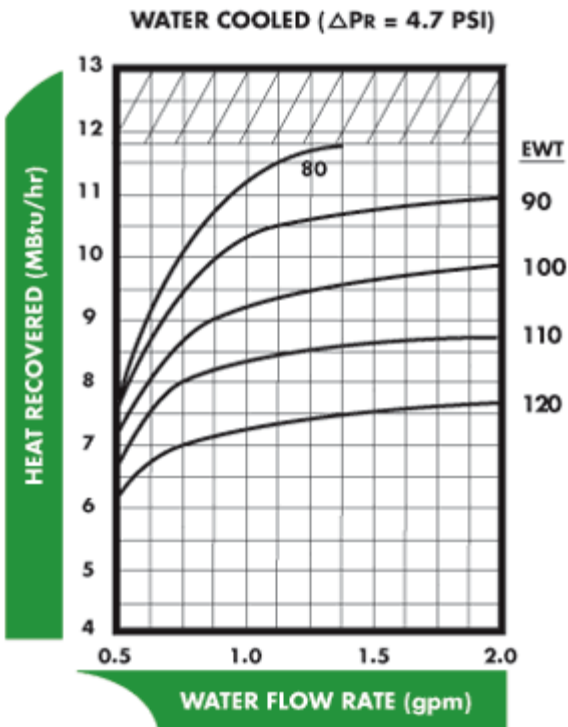
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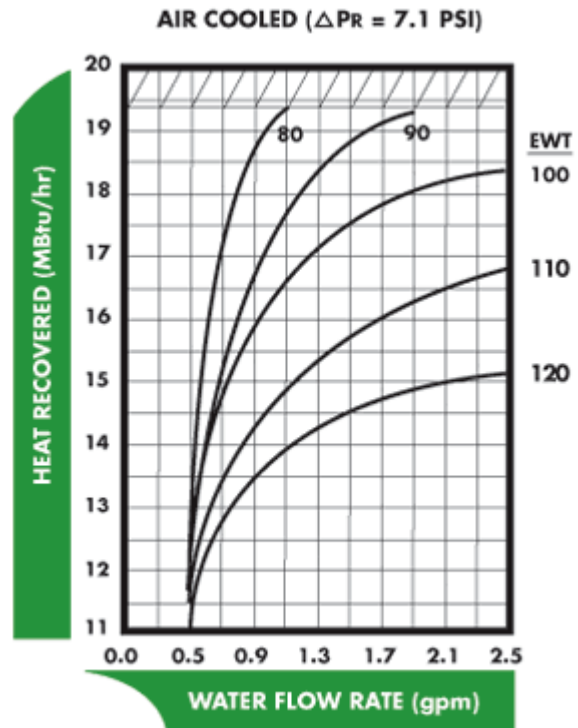
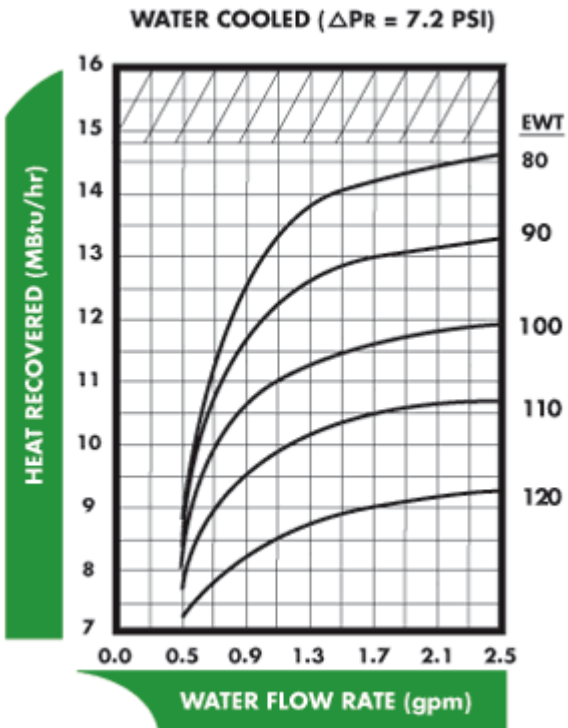
## CDAX-5030-H, Nominal 4 Ton



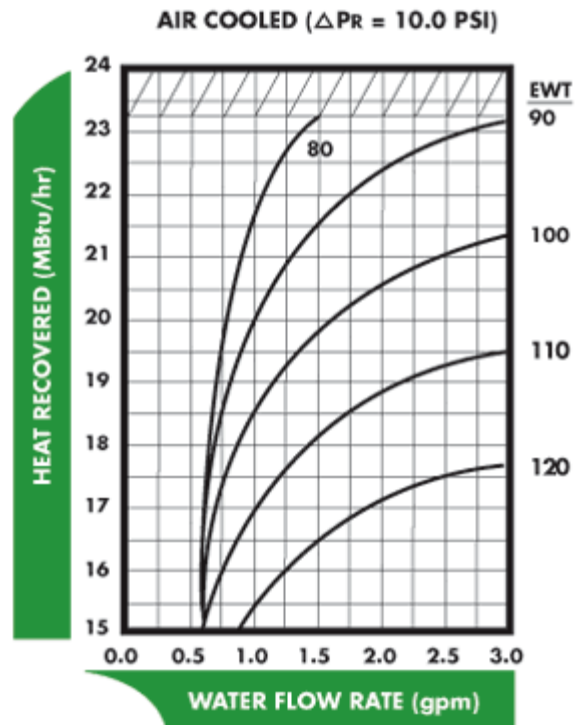
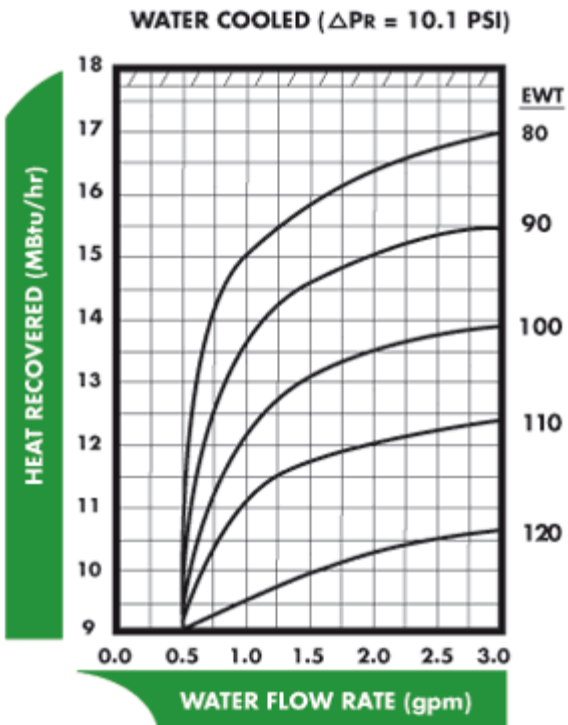
## CDAX-5031-H, Nominal 4 Ton



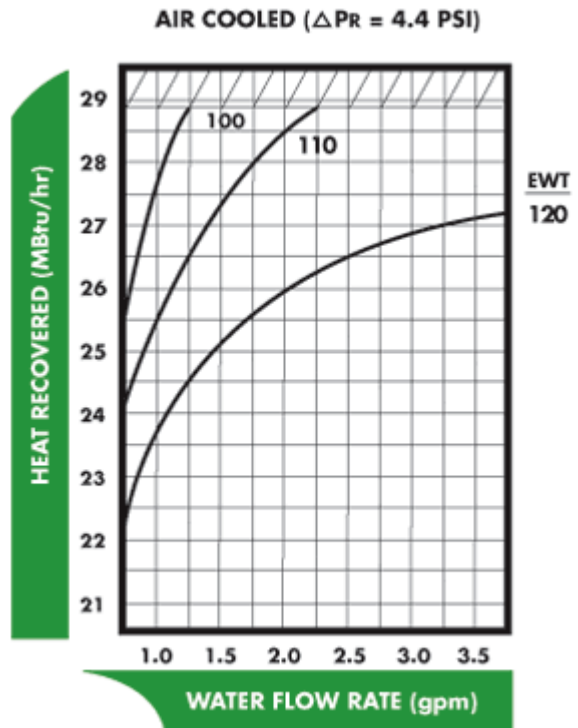
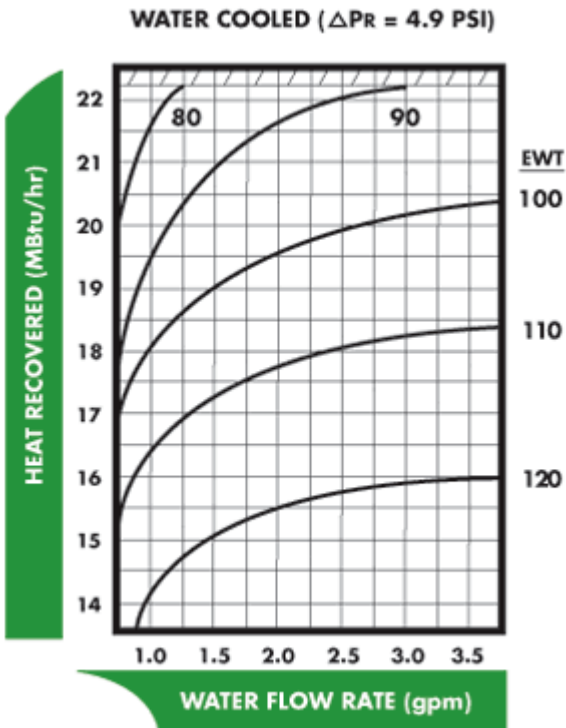
## CDAX-5031-H, Nominal 5 Ton



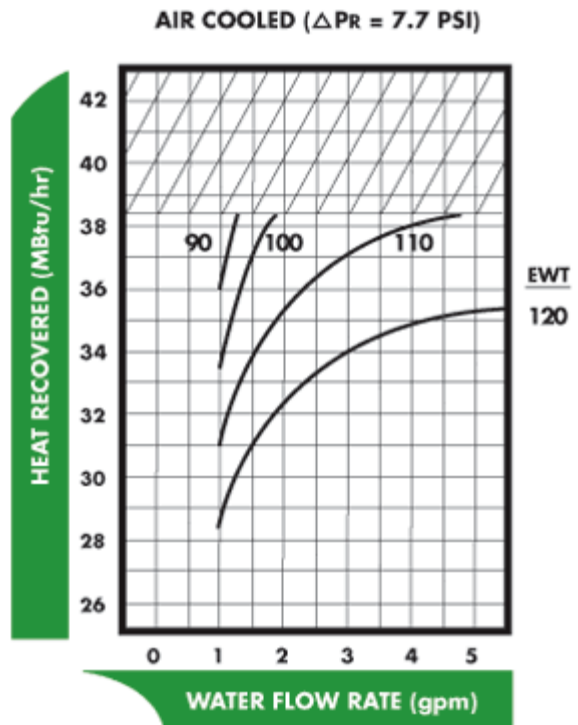
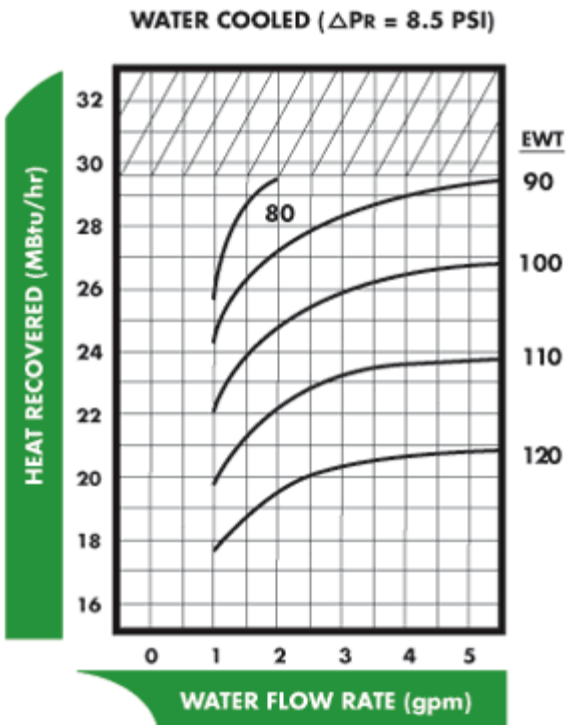
## CDAX-5031-H, Nominal 6 Ton



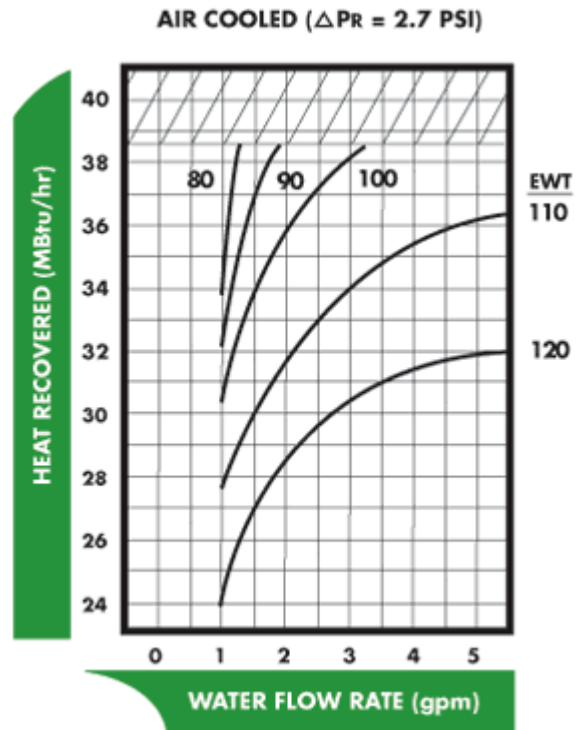
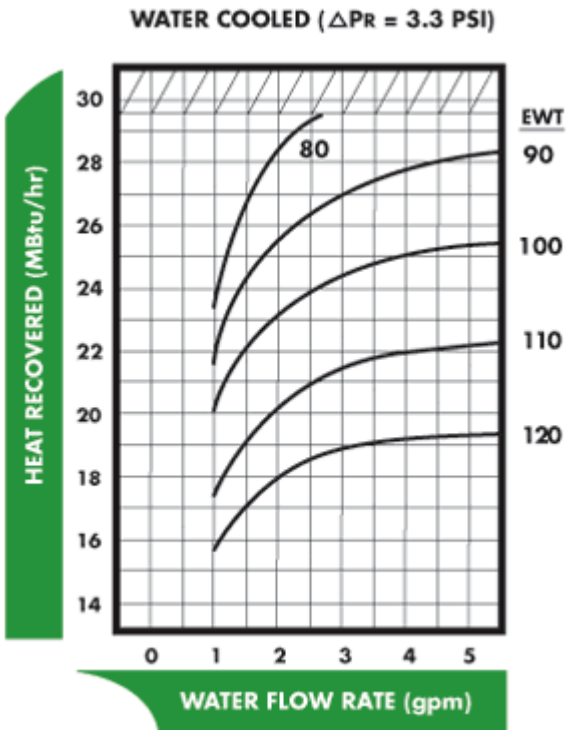
## CDAX-5032-H, Nominal 7-1/2 Ton



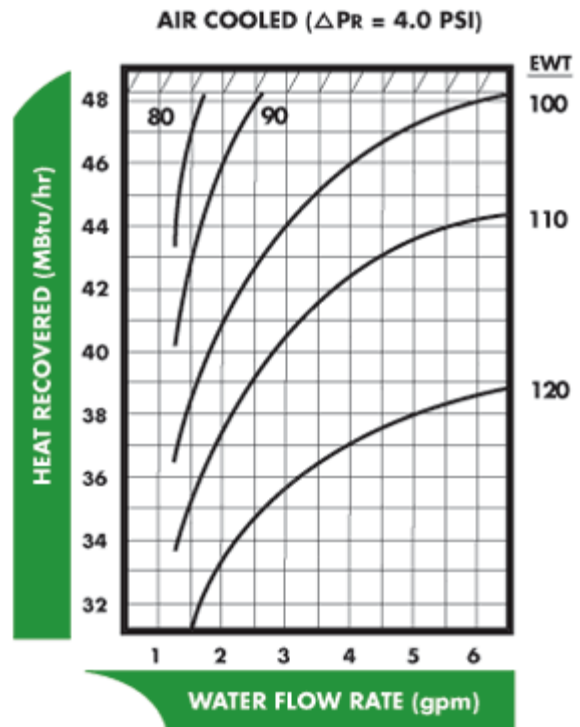
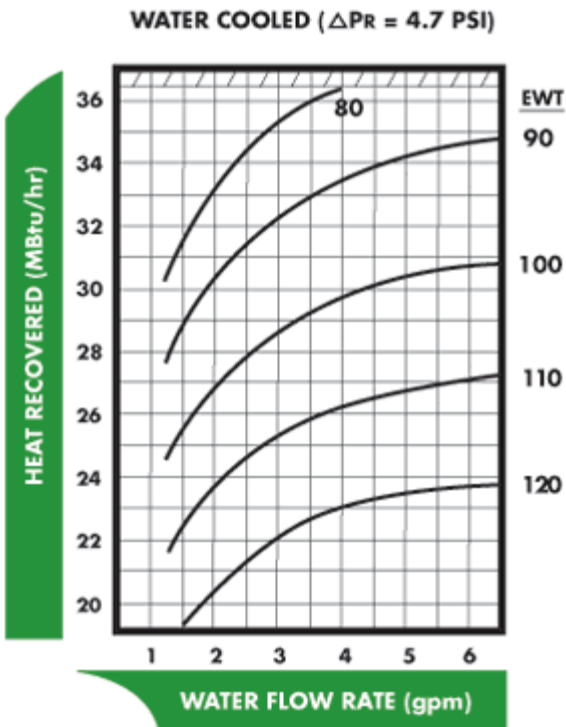
## CDAX-5032-H, Nominal 10 Ton



## CDAX-5013-H, Nominal 10 Ton



## CDAX-5013-H, Nominal 12-1/2 Ton



## CDAX-5013-H, Nominal 15 Ton

