PERFORMANCE DATA NWC15 Water Cooled Chiller

Table 1-1 Performance Data - NWC15 Water Cooled Chiller

apps

								Ente	ering (Conden	iser Wa	ater Te	mperat	ure							
				65							70							75			
Evap				Ev	ap	Co	nd				Ev	ap	Co	nd			5	Ev	ар	Co	ond
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	17.1	9.2	21.5	40.9	12.1	51.2	10.8	16.6	9.8	19.7	39.8	11.5	49.7	10.1	16.1	10.4	18.1	38.7	10.9	48.3	9.5
44	17.7	9.2	22.2	42.4	12.9	53.1	11.5	17.2	9.8	20.4	41.2	12.3	51.5	10.8	16.7	10.4	18.7	40.1	11.7	50.1	10.1
46	18.3	9.3	23.0	44.0	13.8	55.0	12.3	17.8	9.8	21.1	42.8	13.1	53.5	11.5	17.3	10.4	19.4	41.6	12.5	52.0	10.8
48	19.0	9.3	23.8	45.7	14.8	57.1	13.1	18.5	9.9	21.8	44.4	14.0	55.4	12.3	18.0	10.5	20.0	43.1	13.3	53.9	11.5

								Ent	ering (Conden	ser Wa	ater Te	mperat	ure							
				80							85							90			
Evap				Ev	ap	Co	ond				Ev	ар	Co	nd				Ev	ар	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	15.7	11.0	16.6	37.6	10.4	47.0	8.9	15.2	11.6	15.3	36.5	9.9	45.6	8.3	14.7	12.3	14.0	35.4	9.3	44.2	7.8
44	16.2	11.0	17.2	39.0	11.1	48.7	9.5	15.8	11.7	15.8	37.9	10.5	47.3	8.9	15.3	12.3	14.5	36.7	10.0	45.9	8.3
46	16.8	11.0	17.8	40.4	11.8	50.5	10.1	16.4	11.7	16.4	39.2	11.2	49.0	9.5	15.9	12.4	15.1	38.1	10.6	47.6	8.9
48	17.5	11.1	18.4	41.9	12.6	52.4	10.8	16.9	11.7	16.9	40.6	12.0	50.8	10.1	16.5	12.4	15.6	39.5	11.4	49.4	9.5

Entering Condenser Water Temperature

								<u> </u>												
			95							100							105			
		2	Ev	ар	Co	nd				Ev	ap	Co	nd				Eva	ар	Co	nd
Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
14.3	13.0	12.9	34.3	8.8	42.9	7.3	13.8	13.8	11.8	33.2	8.3	41.4	6.8	13.3	14.7	10.7	32.0	7.8	40.0	6.3
14.8	13.1	13.3	35.6	9.4	44.5	7.8	14.3	13.8	12.2	34.4	8.9	43.0	7.2	13.8	14.7	11.1	33.2	8.3	41.5	6.7
15.4	13.1	13.8	36.9	10.1	46.1	8.3	14.9	13.8	12.6	35.7	9.5	44.6	7.7	14.3	14.7	11.5	34.4	8.9	43.0	7.2
15.9	13.1	14.3	38.3	10.7	47.8	8.8	15.4	13.9	13.1	37.0	10.1	46.3	8.2	14.9	14.7	11.9	35.7	9.5	44.7	7.7
	14.3 14.8 15.4	14.313.014.813.115.413.1	14.313.012.914.813.113.315.413.113.8	Tons kW EER Flow 14.3 13.0 12.9 34.3 14.8 13.1 13.3 35.6 15.4 13.1 13.8 36.9	KW EER Flow DP 14.3 13.0 12.9 34.3 8.8 14.8 13.1 13.3 35.6 9.4 15.4 13.1 13.8 36.9 10.1	Evap Co Tons kW EER Flow DP Flow 14.3 13.0 12.9 34.3 8.8 42.9 14.8 13.1 13.3 35.6 9.4 44.5 15.4 13.1 13.8 36.9 10.1 46.1	Evap Cond Tons kW EER Flow DP Flow DP 14.3 13.0 12.9 34.3 8.8 42.9 7.3 14.8 13.1 13.3 35.6 9.4 44.5 7.8 15.4 13.1 13.8 36.9 10.1 46.1 8.3	Evap Cond Tons kW EER Flow DP Flow DP 14.3 13.0 12.9 34.3 8.8 42.9 7.3 13.8 14.8 13.1 13.3 35.6 9.4 44.5 7.8 14.3 15.4 13.1 13.8 36.9 10.1 46.1 8.3 14.9	Evap Cond Tons kW EER Flow DP Flow DP 14.3 13.0 12.9 34.3 8.8 42.9 7.3 13.8 13.8 14.8 13.1 13.3 35.6 9.4 44.5 7.8 14.3 13.8 15.4 13.1 13.8 36.9 10.1 46.1 8.3 14.9 13.8	Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER 14.3 13.0 12.9 34.3 8.8 42.9 7.3 13.8 13.8 11.8 14.8 13.1 13.3 35.6 9.4 44.5 7.8 14.3 13.8 12.2 15.4 13.1 13.8 36.9 10.1 46.1 8.3 14.9 13.8 12.6	Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow 14.3 13.0 12.9 34.3 8.8 42.9 7.3 13.8 13.8 11.8 33.2 14.8 13.1 13.3 35.6 9.4 44.5 7.8 14.3 13.8 12.2 34.4 15.4 13.1 13.8 36.9 10.1 46.1 8.3 14.9 13.8 12.6 35.7	Evap Cond Evap Cond Evap Evap <th< td=""><td>Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Flow Additionary Addition Additionary Ad</td><td>Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow Flow</td><td>Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons KW EER Flow DP Tons Tons Tons Tons Tons KW EER Flow DP Tons Tons Tons</td><td>Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons kW 14.3 13.0 12.9 34.3 8.8 42.9 7.3 13.8 13.8 11.8 33.2 8.3 41.4 6.8 13.3 14.7 14.8 13.1 13.3 35.6 9.4 44.5 7.8 14.3 13.8 12.2 34.4 8.9 43.0 7.2 13.8 14.7 15.4 13.1 13.8 36.9 10.1 46.1 8.3 14.9 13.8 12.6 35.7 9.5 44.6 7.7 14.3 14.7</td><td>Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow IA 10.7 10.7 14.8 13.1 13.3 36.9 10.1 46.1 8.3 14.9 13.8 12.6 35.7 9.5 44.6 7.7 14.3</td><td>Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Cond Evap Cond Evap <th< td=""><td>Evap Cond Evap Cond Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Cond Evap Evap Cond Evap Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Image: Cond Evap Evap Cond Evap Cond Evap Evap Cond Evap Image: Cond Evap Image: Cond Evap Image: Cond I</td><td>Evap Cond Evap Cond Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow Flow DR</td></th<></td></th<>	Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Flow Additionary Addition Additionary Ad	Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow Flow	Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons KW EER Flow DP Tons Tons Tons Tons Tons KW EER Flow DP Tons Tons Tons	Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons kW 14.3 13.0 12.9 34.3 8.8 42.9 7.3 13.8 13.8 11.8 33.2 8.3 41.4 6.8 13.3 14.7 14.8 13.1 13.3 35.6 9.4 44.5 7.8 14.3 13.8 12.2 34.4 8.9 43.0 7.2 13.8 14.7 15.4 13.1 13.8 36.9 10.1 46.1 8.3 14.9 13.8 12.6 35.7 9.5 44.6 7.7 14.3 14.7	Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow DP Tons kW EER Flow IA 10.7 10.7 14.8 13.1 13.3 36.9 10.1 46.1 8.3 14.9 13.8 12.6 35.7 9.5 44.6 7.7 14.3	Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Cond Evap Cond Evap Evap <th< td=""><td>Evap Cond Evap Cond Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Cond Evap Evap Cond Evap Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Image: Cond Evap Evap Cond Evap Cond Evap Evap Cond Evap Image: Cond Evap Image: Cond Evap Image: Cond I</td><td>Evap Cond Evap Cond Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow Flow DR</td></th<>	Evap Cond Evap Cond Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Cond Evap Evap Cond Evap Evap Cond Evap Cond Evap Cond Evap Cond Evap Evap Image: Cond Evap Evap Cond Evap Cond Evap Evap Cond Evap Image: Cond Evap Image: Cond Evap Image: Cond I	Evap Cond Evap Cond Evap Cond Evap Cond Tons kW EER Flow DP Flow DP Tons kW EER Flow DP Flow Flow DR

Notes:

1. Rated in accordance with ARI Standard 550/590-2010 with

- Water-side fouling factor allowance of 0.0001 hr-ft²-°F/BTU for evaporator and 0.00025 hr-ft²-°F/BTU for condenser.
- Test tolerance at full load for capacity, input power and EER = ± 5%.
- 2. Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.
- 3. Flow = Water-side flowrate in gpm.
- 4. 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models.
- 5. 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.
- 6. DP = Water-side pressure drop in feet of water.
- 7. kW = Power input for compressors only.
- EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).
 Interpolation between points is permissible. Extrapolation is not permitted.
- 10. Consult NAPPS for performance at special conditions.

PERFORMANCE DATA NWC20 Water Cooled Chiller

Table 2-1 Performance Data - NWC20 Water Cooled Chiller

apps

								Ent	ering (Conder	iser Wa	ater Te	mperat	ture							
				65							70							75			
Evap				Ev	ap	Co	nd				Ev	ap	Co	ond				Ev	ap	Cc	ond
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	22.8	13.0	20.6	54.5	13.5	63.7	15.9	22.3	13.4	19.5	53.4	13.0	62.9	15.4	21.8	14.0	18.4	52.2	12.4	62.2	14.9
44	23.5	13.0	21.2	56.3	14.3	65.4	16.7	23.1	13.5	20.1	55.2	13.8	64.7	16.2	22.6	14.0	18.9	54.0	13.2	64.0	15.7
46	24.3	13.1	21.8	58.1	15.2	67.2	17.6	23.8	13.5	20.7	57.0	14.6	66.6	17.0	23.3	14.1	19.5	55.8	14.1	65.8	16.5
48	25.0	13.1	22.4	59.9	16.1	69.1	18.5	24.6	13.6	21.3	58.8	15.5	68.4	17.9	24.1	14.1	20.1	57.7	15.0	67.7	17.4

vvater i e	emperature
Ì	Water Te

				80							85							90			
Evap				Ev	ар	Co	nd	20			Ev	ap	Co	ond				Εv	ap	Co	ond
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	21.3	14.6	17.2	50.9	11.9	61.4	14.4	20.7	15.4	15.9	49.5	11.3	60.6	13.9	20.1	16.2	14.6	48.1	10.7	59.7	13.4
44	22.0	14.7	17.7	52.7	12.6	63.2	15.1	21.5	15.4	16.4	51.3	12.0	62.4	14.6	20.8	16.3	15.1	49.8	11.4	61.5	14.1
46	22.8	14.7	18.2	54.6	13.5	65.1	16.0	22.2	15.5	16.9	53.1	12.8	64.2	15.4	21.6	16.3	15.6	51.6	12.2	63.3	14.9
48	23.6	14.8	18.8	56.4	14.4	66.9	16.8	23.0	15.5	17.4	55.0	13.7	66.1	16.2	22.3	16.4	16.1	53.5	13.0	65.2	15.7

Entering Condenser Water Temperature

				95							100							105			
Evap				Ev	ар	Co	nd				Ev	ар	Co	nd				Ev	ар	Cc	ond
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	19.4	17.2	13.4	46.5	10.0	58.8	12.9	18.8	18.2	12.2	44.9	9.4	57.9	12.4	18.0	19.4	11.0	43.1	8.7	57.0	11.9
44	20.2	17.2	13.8	48.2	10.7	60.6	13.6	19.5	18.3	12.6	46.5	10.0	59.6	13.1	18.7	19.4	11.4	44.8	9.3	58.7	12.6
46	20.9	17.3	14.3	50.0	11.4	62.4	14.3	20.2	18.3	13.0	48.3	10.7	61.4	13.8	19.4	19.4	11.8	46.5	10.0	60.4	13.3
48	21.6	17.3	14.8	51.8	12.2	64.2	15.1	20.9	18.3	13.5	50.1	11.5	63.2	14.6	20.2	19.5	12.2	48.3	10.7	62.2	14.0

Notes:

1. Rated in accordance with ARI Standard 550/590-2010 with

– Water-side fouling factor allowance of 0.0001 hr-ft^{2,} °F/BTU for evaporator and 0.00025 hr-ft^{2,} °F/BTU for condenser.

- Test tolerance at full load for capacity, input power and EER = \pm 5%.

2. Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.

3. Flow = Water-side flowrate in gpm.

4. 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models.

5. 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.

6. DP = Water-side pressure drop in feet of water.

7. kW = Power input for compressors only.

8. EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).

9. Interpolation between points is permissible. Extrapolation is not permitted.

OPERFORMANCE DATA NWC26 Water Cooled Chiller

Table 3-1 Performance Data - NWC26 Water Cooled Chiller

								Ente	ering (Conden	ser Wa	ter Te	mperati	ure							
				65							70		0(000000)(0000000)(00		- 55			75			
Evap				E٧	/ap	Co	nd	3.			Ev	'ap	Co	nd	- -		1	Ev	'ap	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	28.4	16.5	20.3	68.0	14.4	79.6	4.5	27.7	17.3	18.9	66.2	13.7	78.5	4.3	27.0	18.2	17.5	64.5	13.1	77.5	4.2
44	29.5	16.6	20.9	70.4	15.4	82.1	4.8	28.7	17.4	19.4	68.6	14.7	81.0	4.6	28.0	18.3	18.0	66.9	14.0	79.9	4.4
46	30.5	16.8	21.5	73.0	16.5	84.8	5.0	29.8	17.6	20.0	71.2	15.8	83.6	4.8	29.0	18.4	18.6	69.3	15.0	82.5	4.7
48	31.6	16.9	22.1	75.7	17.7	87.6	5.3	30.8	17.7	20.6	73.8	16.9	86.3	5.1	30.0	18.6	19.1	71.9	16.0	85.1	4.9

Entering Condenser Water Temperature

	3			80			16	-			85							90			
Evap				Ev	/ap	Co	nd				E\	ap	Co	nd				Ev	/ap	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	26.3	19.1	16.2	62.8	12.4	76.5	4.0	25.6	20.2	15.0	61.1	11.8	75.5	3.9	24.8	21.2	13.8	59.3	11.1	74.5	3.7
44	27.2	19.3	16.7	65.1	13.3	78.8	4.2	26.5	20.3	15.4	63.3	12.6	77.7	4.1	25.7	21.4	14.2	61.4	11.9	76.7	3.9
46	28.2	19.4	17.2	67.4	14.2	81.3	4.5	27.4	20.4	15.9	65.6	13.5	80.2	4.3	26.6	21.5	14.7	63.7	12.7	79.0	4.2
48	29.2	19.5	17.7	69.9	15.2	83.7	4.7	28.4	20.5	16.4	68.0	14.4	82.6	4.6	27.5	21.6	15.1	65.9	13.6	81.4	4.4

Entering Condenser Water Temperature

	7			95				-			100							105			
Evap				Ev	/ap	Co	nd				E\	'ap	Co	nd				E٧	/ap	Co	ond
<u>LWT</u>	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	24.0	22.4	12.7	57.4	10.5	73.5	3.6	23.2	23.6	11.6	55.4	9.8	72.4	3.5	22.4	25.0	10.6	53.5	9.2	71.3	3.4
44	24.9	22.5	13.1	59.5	11.2	75.6	3.8	24.0	23.7	12.0	57.5	10.5	74.5	3.7	23.2	25.1	11.0	55.4	9.8	73.3	3.5
46	25.8	22.6	13.5	61.7	12.0	77.9	4.0	24.9	23.8	12.4	59.6	11.3	76.7	3.9	24.0	25.2	11.3	57.4	10.5	75.4	3.7
48	26.7	22.7	13.9	63.9	12.8	80.2	4.2	25.8	24.0	12.8	61.8	12.0	78.9	4.1	24.9	25.3	11.7	59.5	11.2	77.6	3.9

Notes:

1. Rated in accordance with ARI Standard 550/590-2010 with

Water-side fouling factor allowance of 0.0001 hr-ft²-°F/BTU for evaporator and 0.00025 hr-ft²-°F/BTU for condenser.

Test tolerance at full load for capacity, input power and EER = ± 5%.

2. Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.

3. Flow = Water-side flowrate in gpm.

4. 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models.

5. 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.

6. DP = Water-side pressure drop in feet of water.

7. kW = Power input for compressors only.

8. EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).

9. Interpolation between points is permissible. Extrapolation is not permitted.

PERFORMANCE DATA NWC30 Water Cooled Chiller

Table 4-1 Performance Data - NWC30 Water Cooled Chiller

apps

								Ente	ering C	onden	ser Wa	iter Ter	nperati	ure							
				65							70			11111111111111111111111111111111111111	8 <u></u>		667316673166731667	75			
Evap				Ev	ap	Co	nd				E١	/ap	Co	nd				E١	/ap	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	32.6	19.9	19.4	77.9	11.5	92.0	5.8	32.0	20.8	18.2	76.4	11.1	91.1	5.7	31.2	21.7	17.0	74.7	10.7	90.1	5.5
44	33.8	20.1	19.8	80.7	12.3	94.9	6.1	33.1	21.0	18.7	79.1	11.8	93.9	6.0	32.3	21.9	17.5	77.3	11.4	92.9	5.8
46	34.9	20.3	20.3	83.5	13.1	97.8	6.5	34.2	21.2	19.1	81.9	12.6	96.8	6.3	33.5	22.1	17.9	80.0	12.1	95.7	6.1
48	36.1	20.5	20.8	86.5	14.0	100.8	6.9	35.4	21.4	19.6	84.7	13.5	99.8	6.6	34.6	22.3	18.4	82.8	12.9	98.6	6.4

Entering Condenser Water Temperature

				80				-			85				8			90			
Evap				Ev	/ap	Co	nd				E١	/ap	Co	nd				Εv	ap	Co	ond
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	30.5	22.7	15.9	72.8	10.2	89.0	5.3	29.7	23.9	14.7	70.9	9.7	88.0	5.1	28.8	25.1	13.6	68.9	9.2	86.9	4.9
44	31.5	22.9	16.3	75.4	10.8	91.7	5.6	30.7	24.0	15.2	73.5	10.3	90.6	5.4	29.8	25.2	14.0	71.4	9.8	89.4	5.2
46	32.6	23.1	16.7	78.1	11.6	94.5	5.9	31.8	24.2	15.6	76.1	11.0	93.4	5.7	30.9	25.4	14.4	73.9	10.5	92.1	5.5
48	33.8	23.3	17.2	80.9	12.3	97.4	6.2	32.9	24.4	16.0	78.7	11.8	96.1	6.0	32.0	25.6	14.8	76.6	11.2	94.9	5.8

Entering Condenser Water Temperature

				95				-			100							105			
Evap				Ev	ap	Co	nd				Ev	ар	Co	nd				Ev	ар	Co	ond
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	27.9	26.4	12.6	66.8	8.7	85.7	4.8	27.0	27.8	11.5	64.6	8.2	84.5	4.6	26.0	29.3	10.5	62.1	7.6	83.1	4.4
44	28.9	26.5	12.9	69.2	9.2	88.2	5.0	28.0	27.9	11.9	66.9	8.7	86.9	4.8	26.9	29.4	10.9	64.4	8.1	85.5	4.6
46	30.0	26.7	13.3	71.7	9.9	90.8	5.3	29.0	28.1	12.2	69.3	9.3	89.4	5.1	27.9	29.6	11.2	66.8	8.7	87.9	4.9
48	31.0	26.9	13.7	74.3	10.6	93.5	5.6	30.0	28.3	12.6	71.8	9.9	92.0	5.3	28.9	29.8	11.5	69.2	9.3	90.4	5.1

Notes:

1. Rated in accordance with ARI Standard 550/590-2010 with

– Water-side fouling factor allowance of 0.0001 hr-ft²·°F/BTU for evaporator and 0.00025 hr-ft²·°F/BTU for condenser.

- Test tolerance at full load for capacity, input power and EER = ± 5%.

2. Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.

3. Flow = Water-side flowrate in gpm.

4. 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models.

5. 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.

6. DP = Water-side pressure drop in feet of water.

7. kW = Power input for compressors only.

8. EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).

9. Interpolation between points is permissible. Extrapolation is not permitted.

apps **PERFORMANCE DATA NWC40 Water Cooled Chiller**

Table 5-1 Performance Data - NWC40 Water Cooled Chiller

								Er	tering (Conden	ser Wat	ter Ten	nperatur	е							
				65							70		-		1			75			
Evap				Ev	ар	Co	nd				Ev	ap	Co	nd	886 5			Ev	ар	Co	ond
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	k₩	EER	Flow	DP	Flow	DP
42	45.6	25.9	20.9	109.0	9.9	127.3	15.9	44.7	26.8	19.8	106.9	9.5	126.0	15.4	43.8	27.9	18.6	104.6	9.2	124.6	14.9
44	47.1	26.0	21.5	112.7	10.5	131.0	16.8	46.2	26.9	20.4	110.6	10.1	129.7	16.2	45.3	28.0	19.2	108.3	9.7	128.3	15.7
46	48.7	26.1	22.1	116.4	11.1	134.8	17.6	47.8	27.0	21.0	114.4	10.8	133.5	17.1	46.9	28.1	19.8	112.1	10.4	132.2	16.6
48	50.2	26.2	22.8	120.3	11.8	138.7	18.6	49.4	27.1	21.6	118.3	11.4	137.4	18.0	48.5	28.2	20.4	116.0	11.0	136.1	17.5

								Er	tering (Conden	ser Wat	er Ten	nperatur	е							
				80				515			85							90			
Evap				Ev	ар	Co	nd	1			Ev	ар	Co	nd	}			Ev	ар	Co	nd
LWT	Tons	k₩	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	42.7	29.2	17.4	102.2	8.8	123.1	14.4	41.6	30.7	16.1	99.4	8.3	121.4	13.9	40.3	32.4	14.8	96.4	7.9	119.7	13.4
44	44.3	29.3	17.9	105.9	9.3	126.8	15.3	43.1	30.8	16.6	103.0	8.9	125.1	14.7	41.8	32.5	15.3	100.1	8.5	123.4	14.2
46	45.8	29.4	18.5	109.6	10.0	130.7	16.1	44.7	30.9	17.2	106.8	9.5	129.0	15.6	43.4	32.6	15.8	103.8	9.0	127.3	15.0
48	47.4	29.5	19.1	113.6	10.6	134.6	17.0	46.3	31.0	17.7	110.7	10.1	132.9	16.4	45.0	32.7	16.4	107.7	9.6	131.2	15.9

Entering Condenser Water Temperature

				95				271			100				3			105			
Evap				Eva	ар	Co	nd				Ev	ар	Co	nd				Ev	ар	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	39.0	34.3	13.5	93.3	7.5	117.9	12.9	37.7	36.4	12.3	90.0	7.0	116.2	12.5	36.2	38.7	11.1	86.6	6.5	114.3	12.0
44	40.5	34.4	14.0	96.8	8.0	121.6	13.7	39.1	36.5	12.8	93.5	7.5	119.7	13.2	37.6	38.8	11.5	89.9	7.0	117.7	12.7
46	42.0	34.5	14.5	100.6	8.5	125.4	14.5	40.6	36.6	13.2	97.1	8.0	123.3	13.9	39.1	38.9	12.0	93.5	7.5	121.4	14.5
48	43.6	34.6	15.0	104.3	9.1	129.2	15.3	42.1	36.7	13.7	100.8	8.6	127.1	14.7	40.6	39.0	12.4	97.2	8.0	125.1	14.2

Notes:

1. Rated in accordance with ARI Standard 550/590-2010 with

- Water-side fouling factor allowance of 0.0001 hr-ft²·°F/BTU for evaporator and 0.00025 hr-ft²·°F/BTU for condenser.
- Test tolerance at full load for capacity, input power and EER = ± 5%.

Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.
 Flow = Water-side flowrate in gpm.
 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models.
 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.
 DP = Water-side pressure drop in feet of water.
 KW = Power input for compressors only.

b) - ovalet-stop pressure drop in read of water.
 kW = Power input for compressors only.
 EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).
 Interpolation between points is permissible. Extrapolation is not permitted.
 Consult NAPPS for performance at special conditions.

OPERFORMANCE DATA NWC52 Water Cooled Chiller

Table 6-1 Performance Data - NWC52 Water Cooled Chiller

								En	tering	Conde	nser Wa	iter Ter	nperatu	re							
				65							70							75			
Evap				Εv	ар	Co	nd				Ev	ар	Co	nd				Ev	ар	Cor	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	k₩	EER	Flow	DP	Flow	DP
42	56.7	32.9	20.5	135.6	11.5	158.9	4.5	55.3	34.6	19.0	132.2	11.0	156.8	4.3	53.9	36.4	17.7	128.9	10.5	154.8	4.2
44	58.9	33.2	21.1	140.7	12.3	164.1	4.7	57.4	34.8	19.6	137.2	11.7	161.9	4.6	55.9	36.6	18.2	133.8	11.2	159.9	4.4
46	61.1	33.5	21.7	146.1	13.2	169.7	5.0	59.6	35.1	20.2	142.6	12.6	167.4	4.8	58.1	36.9	18.8	138.9	12.0	165.1	4.7
48	63.4	33.8	22.3	151.7	14.1	175.4	5.3	61.8	35.4	20.8	148.0	13.5	173.0	5.1	60.3	37.1	19.3	144.2	12.9	170.6	5.0

				80							85							90			
Evap				Εv	ар	Co	nd	2			Ev	ар	Col	nd				Εv	ар	Cor	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	52.5	38.3	16.3	125.5	10.0	152.8	4.0	51.1	40.3	15.1	122.1	9.5	150.9	3.9	49.6	42.5	13.9	118.5	9.0	148.9	3.7
44	54.5	38.5	16.8	130.2	10.7	157.7	4.2	53.0	40.5	15.6	126.6	10.1	155.6	4.1	51.4	42.7	14.4	122.9	9.6	153.5	3.9
46	56.5	38.7	17.4	135.2	11.4	162.8	4.5	55.0	40.8	16.1	131.6	10.9	160.7	4.3	53.3	42.9	14.8	127.6	10.3	158.4	4.2
48	58.6	39.0	17.9	140.3	12.2	168.0	4.8	57.0	41.0	16.6	136.6	11.6	165.8	4.6	55.3	43.1	15.3	132.4	11.0	163.3	4.4

Entering Condenser Water Temperature

	_			95							100							105			
Evap				Ev	ар	Co	nd				Ev	ар	Co	nd				Eva	ар	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	48.1	44.8	12.8	115.0	8.5	147.1	3.6	46.5	47.3	11.7	111.1	8.0	145.0	3.5	44.9	49.9	10.7	107.2	7.5	142.9	3.4
44	49.8	45.0	13.2	119.1	9.1	151.4	3.8	48.2	47.5	12.1	115.3	8.5	149.3	3.7	46.5	50.1	11.1	111.2	8.0	147.0	3.5
46	51.7	45.2	13.6	123.6	9.7	156.0	4.0	50.0	47.7	12.5	119.6	9.1	153.7	3.9	48.2	50.3	11.4	115.3	8.5	151.3	3.7
48	53.6	45.5	14.1	128.3	10.4	160.8	4.2	51.8	47.9	12.9	124.1	9.8	158.4	4.1	49.9	50.6	11.8	119.6	9.1	155.7	3.9

Notes:

1. Rated in accordance with ARI Standard 550/590-2010 with

- Water-side fouling factor allowance of 0.0001 hr-ft²-°F/BTU for evaporator and 0.00025 hr-ft²-°F/BTU for condenser.

Test tolerance at full load for capacity, input power and EER = ± 5%.

2. Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.

3. Flow = Water-side flowrate in gpm.

4. 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models.

5. 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.

6. DP = Water-side pressure drop in feet of water.

7. kW = Power input for compressors only.

8. EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).

9. Interpolation between points is permissible. Extrapolation is not permitted.

lapps **PERFORMANCE DATA NWC60 Water Cooled Chiller**

Table 7-1 Performance Data - NWC60 Water Cooled Chiller

								En	tering	Conder	nser Wa	ter Ter	nperatur	e							
	E			65							70				10			75			
Evap				Ev	ар	Co	nd				Ev	ар	Co	nd				Ev	ар	Col	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	65.2	39.8	19.5	155.8	13.9	183.9	5.8	63.9	41.5	18.3	152.8	13.4	182.3	5.7	62.5	43.4	17.2	149.5	12.8	180.4	5.5
44	67.5	40.2	20.0	161.5	14.9	189.7	6.1	66.2	41.9	18.8	158.3	14.3	188.0	6.0	64.8	43.8	17.6	154.9	13.7	186.0	5.8
46	69.9	40.6	20.5	167.3	16.0	195.8	6.5	68.6	42.3	19.3	164.1	15.4	193.9	6.3	67.1	44.2	18.1	160.5	14.7	191.9	6.1
48	72.4	41.0	21.0	173.3	17.1	202.1	6.9	71.0	42.7	19.8	169.9	16.5	200.1	6.7	69.5	44.6	18.6	166.3	15.8	197.9	6.5

Entering Condenser Water Temperature

	7%. //			80				20			85			~	10			90			
Evap				Ev	ар	Co	nd				Ev	ар	Co	nd				Ev	ар	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	60.9	45.5	16.0	145.6	12.2	178.1	5.3	59.4	47.7	14.8	141.9	11.6	176.1	5.1	57.7	50.1	13.7	137.9	10.9	173.8	4.9
44	63.2	45.8	16.4	151.1	13.1	183.7	5.6	61.5	48.0	15.3	147.2	12.4	181.5	5.4	59.8	50.5	14.1	142.9	11.7	179.1	5.2
46	65.5	46.2	16.9	156.6	14.0	189.5	5.9	63.8	48.4	15.7	152.6	13.3	187.2	5.7	62.0	50.8	14.6	148.3	12.6	184.6	5.5
48	67.8	46.6	17.4	162.4	15.1	195.5	6.2	66.1	48.8	16.2	158.2	14.3	193.0	6.0	64.3	51.2	15.0	153.9	13.5	190.5	5.8

Entering Condenser Water Temperature

	85 96			95				-			100			10	14			105			
Evap				Ev	ар	Co	nd				Ev	ар	Co	nd			2	Ev	ар	Co	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	55.9	52.7	12.7	133.7	10.3	171.5	4.8	54.1	55.6	11.6	129.3	9.6	169.1	4.6	52.1	58.6	10.6	124.6	9.0	166.5	4.4
44	58.0	53.1	13.0	138.6	11.0	176.7	5.0	56.1	55.9	12.0	134.0	10.3	174.0	4.8	54.0	58.9	10.9	129.1	9.6	171.2	4.6
46	60.1	53.4	13.4	143.8	11.9	182.1	5.3	58.1	56.2	12.3	139.0	11.1	179.3	5.1	56.0	59.2	11.3	133.9	10.3	176.2	4.9
48	62.3	53.8	13.8	149.1	12.7	187.6	5.6	60.2	56.5	12.7	144.2	11.9	184.6	5.4	58.0	59.5	11.6	138.8	11.1	181.4	5.1

Notes:

- Water-side fouling factor allowance of 0.0001 hr-ft²-°F/BTU for evaporator and 0.00025 hr-ft²-°F/BTU for condenser.

- Test tolerance at full load for capacity, input power and EER = ± 5%. 2. Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.

3. Flow = Water-side flowrate in gpm.

4. 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models. 5. 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.

6. DP = Water-side pressure drop in feet of water.

kW = Power input for compressors only. 7.

8. EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).

9. Interpolation between points is permissible. Extrapolation is not permitted.

^{1.} Rated in accordance with ARI Standard 550/590-2010 with

PERFORMANCE DATA NWC70 Water Cooled Chiller

Table 8-1 Performance Data - NWC70 Water Cooled Chiller

apps

								Ent	tering (Conden	ser Wat	er Tem	perature								
				65							70							75			
Evap				Ev	ар	Co	nd				Ev	/ap	Co	nd				Ev	ар	Cor	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	k₩	EER	Flow	DP	Flow	DP	Tons	k₩	EER	Flow	DP	Flow	DP
42	76.7	45.2	20.3	183.4	21.0	215.2	5.4	74.7	47.3	18.8	178.6	20.0	212.1	5.2	72.6	49.5	17.5	173.7	18.9	209.0	5.0
44	79.5	45.4	20.9	190.2	22.6	222.2	5.7	77.5	47.5	19.4	185.3	21.5	219.0	5.5	75.4	49.8	18.1	180.3	20.3	215.8	5.3
46	82.4	45.6	21.6	197.3	24.2	229.3	6.1	80.4	47.8	20.1	192.4	23.1	226.2	5.8	78.2	50.1	18.6	187.1	21.9	222.7	5.6
48	85.5	45.7	22.3	204.6	26.0	236.7	6.4	83.4	48.0	20.7	199.6	24.8	233.5	6.2	81.2	50.4	19.2	194.3	23.5	230.0	6.0

								Ent	tering (Conden	ser Wat	er Tem	perature								
	9			80							85							90			
Evap				Ev	ap	Co	nd				Ev	'ap	Col	nd				Ev	ар	Cor	nd
LWT	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	70.5	51.9	16.2	168.6	17.8	205.6	4.8	68.5	54.4	15.0	163.8	16.9	202.7	4.6	66.3	57.1	13.9	158.4	15.8	199.4	4.4
44	73.2	52.2	16.7	175.0	19.2	212.2	5.1	71.1	54.8	15.5	170.0	18.1	209.2	4.9	68.8	57.5	14.3	164.5	17.0	205.7	4.7
46	76.0	52.5	17.3	181.8	20.7	219.2	5.4	73.8	55.1	16.0	176.5	19.5	215.9	5.2	71.4	57.8	14.7	170.9	18.3	212.3	5.0
48	78.8	52.8	17.8	188.8	22.2	226.4	5.7	76.5	55.5	16.5	183.2	21.0	222.8	5.5	74.1	58.2	15.2	177.4	19.7	219.0	5.2

Entering Condenser Water Temperature

Evap LWT	95							100							105						
	Tons	kW	EER	Evap		Cond					Evap		Cond					Evap		Cond	
				Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP	Tons	kW	EER	Flow	DP	Flow	DP
42	64.1	60.0	12.8	153.2	14.8	196.2	4.2	61.8	63.2	11.7	147.7	13.8	193.0	4.1	59.5	66.6	10.7	142.3	12.9	189.9	3.9
44	66.5	60.4	13.1	159.0	15.9	202.3	4.5	64.2	63.6	12.1	153.6	14.9	199.1	4.3	61.8	67.0	11.0	147.8	13.8	195.7	4.2
46	69.0	60.8	13.6	165.2	17.2	208.7	4.8	66.7	64.0	12.5	159.7	16.1	205.5	4.6	64.2	67.4	11.4	153.6	14.9	201.7	4.4
48	71.7	61.2	14.0	171.6	18.5	215.4	5.0	69.2	64.4	12.8	165.7	17.3	211.8	4.8	66.6	67.8	11.7	159.5	16.0	207.9	4.6

Notes:

1. Rated in accordance with ARI Standard 550/590-2010 with

- Water-side fouling factor allowance of 0.0001 hr-ft²·°F/BTU for evaporator and 0.00025 hr-ft²·°F/BTU for condenser.

Test tolerance at full load for capacity, input power and EER = ± 5%.

2. Ratings are based on a 10°F temperature drop in evaporator and a 10°F temperature rise in condenser.

3. Flow = Water-side flowrate in gpm.

4. 100% of the condenser flow will pass through single condensers on NWC15, 20, 26 and 30 models.

5. 50% of the condenser flow will pass through each of two condensers on NWC40, 52, 60 and 70 models.

6. DP = Water-side pressure drop in feet of water.

kW = Power input for compressors only.

8. EER = Energy Efficiency Ratio (cooling capacity in BTUH divided by total power input in watts).

9. Interpolation between points is permissible. Extrapolation is not permitted.