

# NAPPS Scroll Compressor Chillers

8 Models - 15 to 70 Tons



## NCC Series – Compressor Chillers

- **NAPPS MCS Controller compatible with BMS Control Interface**
- **Dual independent refrigerant circuits on 40 through 70 ton models**
- **Digital control of air cooled condenser fan damper actuators and VFDs**
- **Optional factory installed full sound attenuation enclosure and/or sound blankets**

## Superior by Design

### State-of-the-Art

The NAPPS NCC Series of Compressor Chillers includes 8 models ranging in capacity from 15 to 70 tons to meet a wide range of load conditions. Each model is designed for quiet, reliable, high efficiency operation and built to withstand demanding continuous duty cycles.

At the heart of the NAPPS NCC product line are the highly efficient scroll compressor and brazed plate evaporator, and state-of-the-art electronic expansion valve for precise refrigerant distribution.

The integral NAPPS MCS Digital Controller continually optimizes unit operation, undertakes fault avoidance strategy during abnormal operating conditions, and displays operational and diagnostic information at the unit and at a remote location if needed.

### Efficiency

NAPPS NCC products combine high efficiency Scroll Compressors and Brazed Plate evaporators to offer full and part load efficiencies that are unmatched when compared to products utilizing reciprocating compressors. Still higher efficiencies are realized at part load conditions.

### Reliability

Since its introduction, Scroll Compressors have proven to be one of the most reliable compressors available. While high reliability is inherent with the scroll technology, digital control technology has proven to increase reliability and minimize downtime through sophisticated operational logic, fault avoidance strategy and the ability to stably control peripherals such as condenser damper actuators and fan VFDs.

The 40 through 70 ton models have **dual independent refrigerant circuits** to eliminate 100% capacity loss in the event of a component failure such as a compressor.

### Construction

All NCC products are assembled on a rugged steel frame with integral lifting provisions and painted with a topcoat of durable urethane enamel.

### Control

The powerful NAPPS MCS Digital Controller provides complete chiller control and standard interface to **BACnet IP** and **Modbus** BMS controls. **LonTalk**, **BACnet MS/TP** or **Johnson N2** interface is optional.

Door mounted display and local PC Ethernet connection provides easy access to set points and diagnostic display.

### Control Panel

All NCC Control Panels are complete with fused control power transformer, safety and operational control components and digital controller boards. Digital controller display/input screen is located in the front door of control panel.

### Warranty

All NCC products are backed by the NAPPS Standard One Year Limited Warranty. Optional 5 year compressor warranty is also available. Replacement compressors are available nation-wide.

### Options

Factory installed options for NCC products include non-fused disconnects, full sound attenuation enclosure, phase monitor, expansion board pack for advanced peripheral control, **LonTalk**, **BACnet MS/TP** or **Johnson N2** communication and ice building control.

Ship loose options include flow switch and vibration isolator kit.

# NAPPS Scroll Compressor Chillers

## Dimensions and Specifications

Unit Size	Dimensions			Unit Weight	* Connection Sizes				Capacity Steps (%)	MCA @ 60 Hz, 3φ	
	L	W	H		Refrigerant		Evap Water (VIC)			208/230 Volt	460 Volt
				Liquid	Suction	In	Out				
<b>15</b>	64"	31¼"	54¼"	815 lb.	1⅝"	1⅝"	2"	2"	100/50	67	34
<b>20</b>	64"	31¼"	54¼"	860 lb.	1⅝"	1⅝"	2½"	2"	100/50	75	41
<b>26</b>	64"	31¼"	54¼"	1125 lb.	1⅝"	1⅝"	2½"	2"	100/50	116	52
<b>30</b>	64"	31¼"	54¼"	1260 lb.	1⅝"	1⅝"	2½"	2½"	100/50	126	61
<b>40</b>	73"	31¾"	72"	1360 lb.	1⅝"	1⅝"	3"	3"	100/75/50/25	142	77
<b>52</b>	73"	31¾"	72"	1420 lb.	1⅝"	1⅝"	3"	3"	100/75/50/25	218	99
<b>60</b>	73"	31¾"	72"	1700 lb.	1⅝"	1⅝"	3"	3"	100/75/50/25	238	115
<b>70</b>	73"	31¾"	72"	1975 lb.	1⅝"	1⅝"	3"	3"	100/71/43/21	279	123

\* All water connections are as noted (VIC = Victaulic). All refrigerant connections are sweat. The 40-70 ton models have dual independent refrigerant circuits, therefore doubling the number of refrigerant connections.

## Full Load Performance

Unit Size	Evap LWT	Saturated Discharge Temperature											
		110° F				120° F				130° F			
		Tons	kW	EER	Evap GPM	Tons	kW	EER	Evap GPM	Tons	kW	EER	Evap GPM
<b>15</b>	42° F	14.1	13.4	12.4	33.6	13.1	15.0	10.3	31.4	12.1	16.8	8.5	29.0
	44° F	14.6	13.4	12.8	34.9	13.6	15.0	10.7	32.6	12.6	16.8	8.8	30.1
	46° F	15.2	13.4	13.3	36.3	14.1	15.0	11.1	33.8	13.1	16.8	9.2	31.2
<b>20</b>	42° F	19.4	17.4	13.2	46.3	17.9	19.7	10.8	42.8	16.3	22.4	8.6	39.0
	44° F	20.1	17.4	13.6	48.0	18.6	19.7	11.2	44.5	17.0	22.4	9.0	40.6
	46° F	20.8	17.4	14.1	49.9	19.4	19.7	11.6	46.3	17.7	22.4	9.4	42.3
<b>26</b>	42° F	24.1	22.3	12.8	57.5	22.4	25.0	10.7	53.6	20.6	28.0	8.8	49.2
	44° F	25.0	22.4	13.2	59.7	23.3	25.0	11.0	55.6	21.4	28.0	9.1	51.2
	46° F	25.9	22.5	13.7	62.0	24.1	25.1	11.4	57.7	22.2	28.1	9.4	53.1
<b>30</b>	42° F	28.2	26.1	12.8	67.4	26.3	29.0	10.8	62.8	24.1	32.4	8.9	57.7
	44° F	29.2	26.1	13.3	69.9	27.3	29.1	11.1	65.2	25.1	32.5	9.2	60.0
	46° F	30.3	26.3	13.7	72.6	28.3	29.2	11.5	67.7	26.0	32.6	9.5	62.3
<b>40</b>	42° F	38.8	34.7	13.3	92.8	36.0	39.3	10.9	86.0	32.8	44.8	8.7	78.3
	44° F	40.4	34.8	13.8	96.5	37.4	39.3	11.3	89.5	34.1	44.7	9.1	81.7
	46° F	42.0	34.8	14.4	100.4	38.9	39.3	11.8	93.1	35.6	44.7	9.5	85.1
<b>52</b>	42° F	48.2	44.7	12.9	115.1	45.0	49.9	10.7	107.5	41.4	55.9	8.8	98.9
	44° F	50.0	44.8	13.3	119.6	46.7	50.0	11.1	111.6	43.0	56.0	9.2	102.7
	46° F	51.9	44.9	13.8	124.3	48.5	50.1	11.5	115.9	44.6	56.1	9.5	106.8
<b>60</b>	42° F	56.4	52.1	12.9	134.8	52.6	58.0	10.8	125.8	48.4	64.8	8.9	115.7
	44° F	58.6	52.3	13.4	140.2	54.7	58.2	11.2	130.7	50.3	65.0	9.3	120.3
	46° F	60.8	52.5	13.8	145.6	56.8	58.3	11.6	135.8	52.3	65.1	9.6	125.0
<b>70</b>	42° F	64.3	59.6	12.9	153.7	59.7	66.3	10.8	142.7	54.9	74.2	8.8	131.1
	44° F	66.9	59.9	13.3	159.9	62.1	66.6	11.2	148.6	57.1	74.4	9.2	136.6
	46° F	69.6	60.2	13.8	166.4	64.7	66.8	11.6	154.7	59.5	74.7	9.5	142.3

Ratings are based on 60 Hz operation, R410A refrigerant, 5°F liquid subcooling and 10°F temperature drop through the evaporator per ARI standard 550/590-2010



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