

# NAPPS Scroll Compressor Units

10 Models - 10 to 60 Tons



**SCU Series – Compressor Units**



- **Advanced scroll compressor technology for higher efficiency and reliability**
- **Capacity controlled by cycling compressors and optional factory installed hot gas bypass**
- **Factory installed and ship-loose options**
- **Optional 5 year extended compressor warranty**
- **Product safety tested, ETL listed & certified for US & Canada**

## **Superior by Design**

### **Versatile in application**

NAPPS SWU Dry Compressor Units can be shipped with compressors charged with mineral oil for applications where R-22 drop-in replacement refrigerant is used or with POE oil for 407C refrigerant applications.

### **State-of-the-Art**

NAPPS SCU Series of Compressor Units include 10 models ranging in capacity from 10 to 60 tons. Each model is designed for quiet, high efficiency operation and built to withstand demanding continuous duty cycles.

At the heart of the NAPPS SCU product line is the Trane 3-D® Scroll Compressor. This scroll compressor is recognized worldwide as state-of-the-art in compressor technology.

### **Efficiency**

The NAPPS SCU product offers full and part load efficiencies that are unmatched when compared to products utilizing reciprocating compressors. Still higher part-load efficiencies are realized as compressors are cycled for capacity control in 20 through 60 ton models.

### **Reliability**

Since its introduction, Trane's 3-D® scroll compressor has proven to be

one of most reliable compressors available. While high reliability is inherent with the 3-D® scroll technology, the life of the compressor is also extended by maintaining close machine tolerances, rugged construction, aggressive safety control strategy and special design features such as the particle separator and the high volume oil sump.

### **Construction**

All SCU products are assembled on a rugged 12 gauge galvanized steel base and painted with a topcoat of durable urethane enamel.

### **Refrigerant Circuit**

The refrigerant circuits on all SCU products contain a discharge line ball type shut off valve and a ¼" access port on the suction and discharge lines.

### **Control**

Terminal points are provided on all SCU products for connection of customer supplied temperature control. Multiple compressor units are configured to control capacity by cycling individual compressors, while single compressor units are configured for on/off operation. The factory installed hot gas bypass option can be utilized on single

compressor units (SCU-10 & 15) where reduced capacity is desired.

### **Control Panel**

Control panels on all SCU products are complete with single point power connection terminal block, contactor and overload relay for each compressor, fused control power transformer, anti-recycle timer, reset relay, low and high pressure control, motor winding temperature protection, pump-out circuitry summary fault terminal points and terminal points for other control options.

### **Warranty**

All SCU products are backed by the NAPPS Standard One Year Limited Warranty. As an option, the compressor warranty can be extended to 5 years. Replacement compressors are available nationwide.

### **Options**

Factory installed options for SCU products include hot gas bypass, gauge panel with individual gauge isolation valves, power supply monitor, non-fused through-the-door panel mounted disconnect and cycle counter/hour meter. Ship loose options include suction line ball valve and unit vibration isolator kit.

# NAPPS Scroll Compressor Units

## Dimensions and Specifications

NAPPS Model #	Dimensions			Operating Weight	Connection Size (Sweat)		Capacity Steps (%)	MCA @ 60 Hz, 3 $\phi$	
	L	W	H		Discharge	Suction		208/230 Volt	460 Volt
<b>SCU-10</b>	33"	28 1/2"	41 1/2"	360 lb.	7/8"	1 3/8"	100	53	23
<b>SCU-15</b>	33"	28 1/2"	41 1/2"	427 lb.	1 1/8"	1 5/8"	100	78	35
<b>SCU-20</b>	49 1/2"	28 1/2"	41 1/2"	570 lb.	1 1/8"	1 5/8"	100/50	95	42
<b>SCU-25</b>	49 1/2"	28 1/2"	41 1/2"	637 lb.	1 3/8"	2 1/8"	100/40	120	53
<b>SCU-30</b>	49 1/2"	28 1/2"	41 1/2"	704 lb.	1 3/8"	2 1/8"	100/50	140	63
<b>SCU-35</b>	60"	31 1/4"	50 1/2"	897 lb.	1 5/8"	2 1/8"	100/57/43	163	72
<b>SCU-40</b>	60"	31 1/4"	50 1/2"	964 lb.	1 5/8"	2 5/8"	100/63/37	183	81
<b>SCU-45</b>	60"	31 1/4"	50 1/2"	1031 lb.	1 5/8"	2 5/8"	100/67/33	203	90
<b>SCU-50</b>	80 1/4"	31 1/4"	50 1/2"	1224 lb.	2 1/8"	2 5/8"	100/70/40/30	225	99
<b>SCU-60</b>	80 1/4"	31 1/4"	50 1/2"	1358 lb.	2 1/8"	3 1/8"	100/75/50/25	265	118

## Full Load Performance

NAPPS Model #	Number of Compressors	SDT	Saturated Suction Temperature									
			30°F		35°F		40°F		45°F		50°F	
			Tons	EER	Tons	EER	Tons	EER	Tons	EER	Tons	EER
<b>SCU-10</b>	1	105°F	8.9	13.4	9.9	14.8	10.9	16.2	12.0	17.8	13.2	19.4
		120°F	8.2	10.3	9.2	11.4	10.1	12.5	11.1	13.7	12.2	15.0
		130°F	7.7	8.6	8.6	9.5	9.4	10.5	10.4	11.5	11.4	12.6
<b>SCU-15</b>	1	105°F	13.3	13.2	14.7	14.6	16.2	16.0	17.8	17.5	19.5	19.1
		120°F	12.1	10.2	13.5	11.3	14.8	12.4	16.4	13.6	18.0	14.8
		130°F	11.3	8.5	12.7	9.4	14.0	10.4	15.4	11.4	17.0	12.5
<b>SCU-20</b>	2	105°F	17.7	13.3	19.6	14.6	21.5	16.0	23.7	17.5	25.9	19.1
		120°F	16.2	10.2	18.0	11.3	19.8	12.4	21.8	13.6	23.9	14.8
		130°F	15.1	8.5	16.8	9.4	18.6	10.3	20.5	11.3	22.6	12.4
<b>SCU-25</b>	2	105°F	21.8	13.1	24.3	14.5	26.8	15.8	29.4	17.3	32.2	18.9
		120°F	20.0	10.1	22.3	11.2	24.6	12.2	27.1	13.4	29.8	14.7
		130°F	18.7	8.4	20.8	9.3	23.1	10.3	25.4	11.3	28.0	12.3
<b>SCU-30</b>	2	105°F	26.1	13.0	29.0	14.4	31.9	15.7	35.1	17.2	38.5	18.8
		120°F	23.8	10.0	26.6	11.1	29.3	12.2	32.3	13.4	35.5	14.6
		130°F	22.3	8.4	24.9	9.3	27.5	10.2	30.3	11.2	33.4	12.3
<b>SCU-35</b>	3	105°F	30.2	12.9	33.6	14.3	36.9	15.6	40.6	17.1	44.5	18.7
		120°F	27.7	9.9	30.8	11.0	33.9	12.1	37.4	13.3	41.1	14.5
		130°F	25.8	8.3	28.8	9.2	31.8	10.1	35.2	11.1	38.7	12.2
<b>SCU-40</b>	3	105°F	34.3	12.8	38.2	14.2	42.0	15.6	46.2	17.0	50.7	18.6
		120°F	31.4	9.9	35.0	11.0	38.6	12.0	42.6	13.2	46.8	14.4
		130°F	29.3	8.3	32.8	9.2	36.3	10.1	40.0	11.1	44.0	12.1
<b>SCU-45</b>	3	105°F	38.5	12.8	42.8	14.1	47.1	15.5	51.8	17.0	56.8	18.6
		120°F	35.2	9.9	39.3	10.9	43.3	12.0	47.7	13.2	52.4	14.4
		130°F	32.9	8.2	36.8	9.2	40.7	10.1	44.8	11.1	49.3	12.1
<b>SCU-50</b>	4	105°F	43.0	12.9	47.8	14.2	52.6	15.6	57.8	17.1	63.4	18.6
		120°F	39.3	9.9	43.8	11.0	48.3	12.1	53.3	13.2	58.5	14.5
		130°F	36.8	8.3	41.1	9.2	45.4	10.1	50.1	11.1	55.1	12.2
<b>SCU-60</b>	4	105°F	51.3	12.8	57.1	14.1	62.8	15.5	69.1	17.0	75.8	18.6
		120°F	46.9	9.9	52.3	10.9	57.7	12.0	63.6	13.2	69.8	14.4
		130°F	43.8	8.2	49.0	9.2	54.2	10.1	59.8	11.1	65.8	12.1

Ratings are based on 60 Hz, R22 refrigerant, 20°F suction superheat and 15°F liquid subcooling per A.R.I. Standard 500-90



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