

# Product Summary



## Hillphoenix InviroPak™ Vertical Refrigeration System

Optimized indoor distributed solution designed for traditional supermarkets and food retail stores of all sizes.



### System Design Architecture

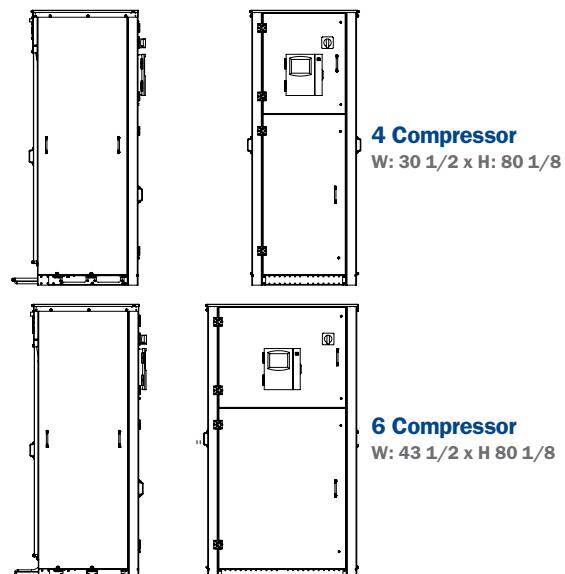
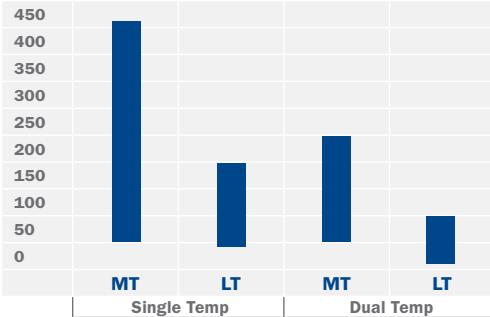
- Indoor parallel compressor refrigeration system.
- Centralized systems for small formats or distributed design for larger formats.
- Available with 4 or 6 compressors.
- Flexible capacities for low, medium or split suction applications.

### Key Feature & Benefits

- Small footprint allows unit to be placed anywhere inside the store, freeing up valuable floor space.
- Parallel system includes multiple staged scroll compressors with digital compressor per suction group for capacity control and improved energy efficiency.
- Removable/hinged panels allow full access to components for installation/service.

Standard Configuration	Options
Galvanized Steel Cabinet	460V Main Power
208-230V Main Power	Low pressure control per compressor
Scroll Compressors (Only)	Crankcase Heater
One digital scroll per suction cup	Controls: CPC/Carel/Danfoss/Micro Thermo
Replaceable core filter/drier and sight glass	
Through the door disconnect	
IEC Contactors	
Phase loss monitor with brownout protection	
One low pressure control per suction	
One high pressure control per compressor	
Analog Liquid Level Indicator/Alarm	
Discharge oil separator (centrifugal) with integral oil reservoir	
OMB per compressor	
Refrigerant options: R407A, R448/9A	

### Vertical InviroPak Capacity Range

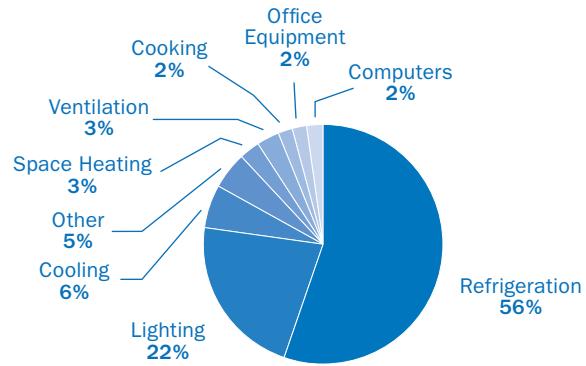


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**Hillphoenix**

# Opportunity



## Vertical InviroPak™ big benefits for stores of all sizes

### One Cool Solution

**The Problem:** Food retailers of all sizes are facing two major issues today:

- How to **reduce costs**
- How to **improve margins**

Research shows traditional supermarkets, mass merchandisers and warehouse membership retailers are reducing their footprints to reduce their bottom line costs. At the same time, small format stores are getting larger to answer customer demand. These current trends have important implications:

- In traditional food retail stores, refrigeration and lighting make up more than 75% of electricity consumption — while offering significant opportunities for energy savings and cost reduction.
- Stores require retailers to use every square foot of space for sales related activities. Moving the refrigeration systems outside of the building frees up some of this space.

### The Solution: Increased flexibility and design of InviroPak

The Vertical InviroPak is the ideal answer for food retailers looking to reduce costs and improve margins. Here are six reasons why.

#### Easy to install

- InviroPak is shipped from our factory and ready for installation in an attractively-designed cabinet.
- When used as a distributed system by larger format stores, InviroPak can be located closer to the loads to reduce refrigerant and piping costs.
- For smaller footprint supermarkets, InviroPak can serve as a central system, allowing the retailer to handle all of the store refrigeration requirements with one system. This reduces the cost and complexity of installing multiple single condensing units.

#### Electricity consumption by end user

Refrigeration and lighting make up more than 75 percent of electricity consumption in grocery and convenience stores and offer significant opportunities for saving money and energy.

#### Simple to service

- Smart design provides ample room for quickly and easily servicing and maintaining internal components.
- Hinged doors on compressor and electrical sections coupled with removable doors on all sides allow quick and easy access.
- Through-the-door disconnect allows for easy service.
- Fork lift pockets allow for ease of transport.

#### Reduces refrigerant costs

- As a distributed system, InviroPak can reduce refrigerant by being located closer to the loads. This helps retailers reduce refrigerant costs and the amount of HFC refrigerant in the system on a daily basis.
- Optimized, compact design uses fewer brazed joints — so there are fewer locations for costly refrigerant leaks.

#### Space-saving design

- InviroPak's small footprint allows it to be located indoors, taking up minimal space within the store.
- Eliminates need for a separate mechanical room inside the store.
- Frees up valuable interior floor space for more product and sales.

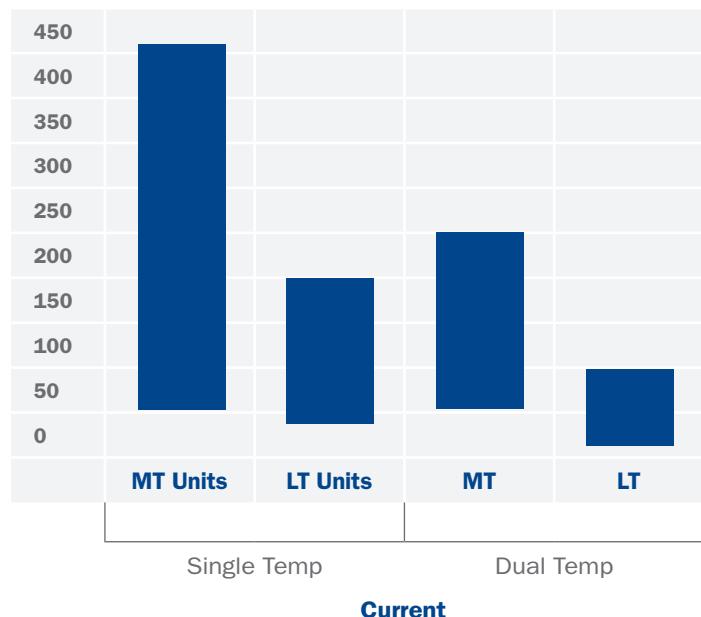
### Easy on the eye

- Compact design coupled with insulated panels make the unit easy on the ears as well as the eyes.

### Long-lasting performance

- Each unit receives extensive quality checks before shipping.
- Proven, durable design and construction means years of reliable performance.

## Vertical InviroPak Capacity Range



# Features and Benefits

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**pak.**<sup>TM</sup>

## Product Snapshots

InviroPak™



# Traditional Supermarket Features and Benefits

## Compact solution for easy installation

- The Vertical InviroPak™ is a compact parallel rack solution with integrated controls.
- For some smaller footprint supermarkets, the Vertical InviroPak can be used as a central system, allowing the retailer to handle all of the store refrigeration requirements with one system.
- InviroPak reduces refrigerant and piping costs because a distributed system has the flexibility of being located closer to the loads.
- InviroPak is shipped from our factory ready for installation.

## Ease of service/accessibility

- The compressor section is isolated and can be easily accessed while the unit is operational.
- Smart design allows room enough to quickly and easily service/maintenance internal components.
- Hinged doors on compressor and electrical sections coupled with removable panels on all sides allow quick and easy access.
- Through-the-door disconnect allows for easy service.
- Fork lift pockets allow for ease of transport.

## Reduced refrigerant charge

- As a distributed system, InviroPak can reduce refrigerant by being located closer to the loads; enabling the retailer to reduce refrigerant costs and the amount of HFC refrigerant in the system.
- The optimized, compact design also uses less brazed joints which in turn reduces refrigerant leaks.

## Compact design

- The Vertical InviroPak has a small footprint and can be located indoors eliminating the need for a mechanical room that allows critical floor space to be dedicated to sales.

## Aesthetically-pleasing design

- The small footprint allows the unit to be located anywhere within a store, taking up minimal space.
- The attractive enclosure and insulated panels make it easy on the ears as well as the eyes.

## Standard vs. Options Configuration

Standard Configuration	Options
<b>Installed in Unit</b>	<b>Installed in Unit</b>
Galvanized Steel Cabinet	460V Main Power
208V–230V Main Power	Low Pressure control per compressor
Scroll Compressors (Only)	Crankcase heater
One digital scroll per suction cup	Controls: CPC/Carel/Danfoss/Micro Thermo
Replaceable core filter/drier and sight glass	<b>Shipped Loose</b>
Through the door disconnect	Split condenser valve
IEC Contactors	Hot gas defrost Valve
Phase loss monitor with brownout protection	Heat reclaim valve package
One low pressure control per suction	
One high pressure control per compressor	
Analog liquid level indicator/alarm	
Discharge oil separator (centrifugal) with integral oil reservoir	
OMB per compressor	
Refrigerant options: R407A, R448/9A	
<b>Shipped Loose</b>	
Suction Filter per suction group	
Ball valves	
Liquid Filter Drier	

## Model Overview

	Model	# Compressors	Unit Weight	Connections					Electrical		
				LT Suction	MT Suction	LT Liquid	MT Liquid	Liquid line	Power Supply	MCA	MOPD
Low Temp Units	VIP-M0000-L0032	2	902	1-3/8	-	7/8	-	7/8	208.0	62.2	80.0
	VIP-M0000-L0052	2	915	1-5/8	-	7/8	-	7/8	208.0	81.8	110.0
	VIP-M0000-L0076	3	1036	1-5/8	-	7/8	-	7/8	208.0	105.7	125.0
	VIP-M0000-L0099	4	1158	2-1/8	-	7/8	-	1-1/8	208.0	129.6	150.0
	VIP-M0000-L0122	5	1411	2 1/8	-	7/8	-	1 1/8	208.0	153.5	175.0
	VIP-M0000-L0145	6	1521	2 1/8	-	7/8	-	1 1/8	208.0	177.4	200.0
	VIP-M0000-L0161	6	1531	3 1/8	-	7/8	-	1 1/8	208.0	187.0	200.0
	VIP-M0000-L0190	6	1566	3 1/8		7/8		1 1/8	208.0	213.0	225.0
	VIP-M0048-L0000	2	810	-	1 1/8	-	1 1/8	1 1/8	208.0	47.3	60.0
Medium Temp Units	VIP-M0079-L0000	2	845	-	1 3/8	-	1 1/8	1 1/8	208.0	60.9	80.0
	VIP-M0106-L0000	2	927	-	1 5/8	-	1 1/8	7/8	208.0	85.7	110.0
	VIP-M0152-L0000	3	972	-	2 1/8	-	1 1/8	1 1/8	208.0	108.2	125.0
	VIP-M0178-L0000	3	991	-	1 5/8	-	1 1/8	1 1/8	208.0	134.2	150.0
	VIP-M0198-L0000	4	1069	-	1 5/8	-	1 1/8	1 1/8	208.0	130.7	150.0
	VIP-M0253-L0000	5	1325	-	2 1/8	-	1 1/8	1 1/8	208.0	185.5	200.0
	VIP-M0299-L0000	6	1429	-	2 1/8	-	1 1/8	1 1/8	208.0	208.0	225.0
	VIP-M0349-L0000	6	1517	-	3 1/8	-	1 1/8	1 3/8	208.0	194.0	225.0
	VIP-M0403-L0000	6	1399	-	3 1/8	-	1 1/8	1 3/8	208.0	232.0	250.0
	VIP-M0442-L0000	6	1556	-	3 1/8	-	1 1/8	1 3/8	208.0	240.0	250.0

\*Not available with split condenser due to single coil design--available with heated and insulated receiver for low ambient applications

^ Uses fixed speed scroll in lieu of digital scroll on low temp due to compressor availability

**Model Overview continued...**

	<b>Model</b>	<b># Compressors</b>	<b>Unit Weight</b>	<b>Connections</b>					<b>Electrical</b>		
				LT Suction	MT Suction	LT Liquid	MT Liquid	Liquid line	Power Supply	MCA	MOPD
Dual Temp Units	VIP-M0048-L0012	4	979	7/8	1 1/8	1/2	1 1/8	7/8	208.0	64.3	80.0
	VIP-M0079-L0012	4	1013	7/8	1 3/8	1/2	1 1/8	7/8	208.0	77.9	100.0
	VIP-M0106-L0012	4	1033	7/8	1 5/8	1/2	1 1/8	7/8	208.0	97.9	125.0
	VIP-M0048-L0032	4	1100	1 3/8	1 1/8	7/8	1 1/8	7/8	208.0	86.8	100.0
	VIP-M0079-L0032	4	1135	1 3/8	1 3/8	7/8	1 1/8	7/8	208.0	100.4	110.0
	VIP-M0106-L0032	4	1152	1 3/8	1 5/8	7/8	1 1/8	7/8	208.0	120.2	150.0
	VIP-M0048-L0052	4	1117	1 5/8	1 1/8	7/8	1 1/8	7/8	208.0	106.4	125.0
	VIP-M0079-L0052	4	1149	1 5/8	1 3/8	7/8	1 1/8	7/8	208.0	120.0	150.0
	VIP-M0106-L0052	4	1172	1 5/8	1 5/8	7/8	1 1/8	1 1/8	208.0	139.8	175.0
	VIP-M0152-L0012	5	1266	7/8	2 1/8	1/2	1 1/8	1 1/8	208.0	120.2	150.0
	VIP-M0178-L0012	5	1286	7/8	1 5/8	1/2	1 1/8	1 1/8	208.0	146.2	175.0
	VIP-M0152-L0032	5	1376	1 3/8	2 1/8	7/8	1 1/8	1 1/8	208.0	142.7	175.0
	VIP-M0048-L0076	5	1365	1 5/8	1 1/8	7/8	1 1/8	7/8	208.0	130.3	150.0
	VIP-M0079-L0076	5	1403	1 5/8	1 3/8	7/8	1 1/8	1 1/8	208.0	143.9	175.0
	VIP-M0106-L0076	5	1403	1 5/8	1 5/8	7/8	1 1/8	1 1/8	208.0	163.7	175.0
	VIP-M0178-L0032	5	1397	1 3/8	1 5/8	7/8	1 1/8	1 1/8	208.0	175.6	200.0
	VIP-M0152-L0052	5	1394	1 5/8	2 1/8	7/8	1 1/8	1 1/8	208.0	169.2	200.0
	VIP-M0178-L0052	5	1413	1 5/8	1 5/8	7/8	1 1/8	1 1/8	208.0	195.2	225.0
	VIP-M0152-L0076	6	1507	1 5/8	2 1/8	7/8	1 1/8	1 1/8	208.0	193.1	225.0
	VIP-M0178-L0076	6	1566	1 5/8	1 5/8	7/8	1 1/8	1 1/8	208.0	219.1	250.0
	VIP-M0108-L0090	5	1460	2 5/8	2 1/8	7/8	7/8	1 1/8	208.0	169.0	175.0
	VIP-M0131-L0095	5	1488	2 5/8	2 1/8	7/8	7/8	1 1/8	208.0	182.0	200.0
	VIP-M0161-L0095	6	1582	2 5/8	2 1/8	7/8	7/8	1 1/8	208.0	196.0	225.0
	VIP-M0221-L0052	5	1510	2 1/8	2 5/8	7/8	7/8	1 1/8	208.0	184.0	200.0
	VIP-M0221-L0062	5	1526	2 1/8	2 5/8	7/8	7/8	1 3/8	208.0	193.0	225.0
	VIP-M0221-L0095	6	1651	2 1/8	2 5/8	7/8	7/8	1 3/8	208.0	226.0	250.0

\*Not available with split condenser due to single coil design--available with heated and insulated receiver for low ambient applications

^ Uses fixed speed scroll in lieu of digital scroll on low temp due to compressor availability

## Models and Components

<b>407A—Capacity BTUH at 105F Ambient by SST</b>										
	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	34,800	44,400	49,800	55,700	-	-	-	-	-
	VIP-M0079-L0000	56,600	72,600	81,500	91,400	-	-	-	-	-
	VIP-M0106-L0000	77,000	97,400	108,900	121,500	-	-	-	-	-
	VIP-M0152-L0000	110,000	139,800	156,500	175,000	-	-	-	-	-
	VIP-M0178-L0000	132,000	165,000	183,900	204,000	-	-	-	-	-
	VIP-M0198-L0000	143,000	182,200	204,100	228,500	-	-	-	-	-
	VIP-M0253-L0000	187,200	234,200	261,100	289,800	-	-	-	-	-
	VIP-M0299-L0000	220,200	276,600	308,700	343,300	-	-	-	-	-
	VIP-M0349-L0000	275,800	345,300	384,500	NA	-	-	-	-	-
	VIP-M0403-L0000	319,200	398,400	444,000	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	45,600	40,200	35,400	31,200	27,200
	VIP-M0000-L0052	-	-	-	-	75,400	66,700	58,700	51,600	45,100
	VIP-M0000-L0076	-	-	-	-	109,100	96,500	84,900	74,600	65,200
	VIP-M0000-L0099	-	-	-	-	142,800	126,300	111,100	97,600	85,300
	VIP-M0000-L0122	-	-	-	-	176,500	156,100	137,300	120,600	105,400
	VIP-M0000-L0145	-	-	-	-	210,200	185,900	163,500	143,600	125,500
	VIP-M0000-L0161	-	-	-	-	233,400	206,800	182,400	160,800	141,800
	VIP-M0000-L0190	-	-	-	-	273,400	242,400	214,600	189,800	167,600

**Models and Components continued...**

407A-Capacity BTUH at 105F Ambient by SST									
<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
VIP-M0048-L0012	34,800	44,400	49,800	55,700	18,680	14,760	13,040	11,440	10,000
VIP-M0079-L0012	56,600	72,600	81,500	91,400	18,680	14,760	13,040	11,440	10,000
VIP-M0106-L0012	77,000	97,400	108,900	121,500	18,680	14,760	13,040	11,440	10,000
VIP-M0152-L0012	110,000	139,800	156,500	175,000	18,680	14,760	13,040	11,440	10,000
VIP-M0178-L0012	132,000	165,000	183,900	204,000	18,680	14,760	13,040	11,440	10,000
VIP-M0048-L0032	34,800	44,400	49,800	55,700	45,600	40,200	35,400	31,200	27,200
VIP-M0079-L0032	56,600	72,600	81,500	91,400	45,600	40,200	35,400	31,200	27,200
VIP-M0106-L0032	77,000	97,400	108,900	121,500	45,600	40,200	35,400	31,200	27,200
VIP-M0152-L0032	110,000	139,800	156,500	175,000	45,600	40,200	35,400	31,200	27,200
VIP-M0048-L0052	34,800	44,400	49,800	55,700	75,400	66,700	58,700	51,600	45,100
VIP-M0079-L0052	56,600	72,600	81,500	91,400	75,400	66,700	58,700	51,600	45,100
VIP-M0106-L0052	77,000	97,400	108,900	121,500	75,400	66,700	58,700	51,600	45,100
VIP-M0048-L0076	34,800	44,400	49,800	55,700	109,100	96,500	84,900	74,600	65,200
VIP-M0079-L0076	56,600	72,600	81,500	91,400	109,100	96,500	84,900	74,600	65,200
VIP-M0106-L0076	77,000	97,400	108,900	121,500	109,100	96,500	84,900	74,600	65,200
VIP-M0178-L0032	132,000	165,000	183,900	204,000	45,600	40,200	35,400	31,200	27,200
VIP-M0152-L0052	110,000	139,800	156,500	175,000	75,400	66,700	58,700	51,600	45,100
VIP-M0178-L0052	132,000	165,000	183,900	204,000	75,400	66,700	58,700	51,600	45,100
VIP-M0152-L0076	110,000	139,800	156,500	175,000	109,100	96,500	84,900	74,600	65,200
VIP-M0178-L0076	132,000	165,000	183,900	204,000	109,100	96,500	84,900	74,600	65,200
VIP-M0108-L0090	85,200	106,500	118,500	131,500	130,600	115,800	102,400	90,500	80,000
VIP-M0131-L0095	103,700	129,200	143,700	NA	136,700	121,200	107,300	94,900	83,800
VIP-M0161-L0095	127,300	159,500	177,500	197,00	136,700	121,200	107,300	94,900	83,800
VIP-M0221-L0052	174,400	217,800	242,400	NA	75,200	66,600	58,700	51,700	45,500
VIP-M0221-L0062	174,400	217,800	242,400	NA	89,100	79,000	69,900	61,800	54,600
VIP-M0221-L0095	174,400	217,800	242,400	NA	136,700	121,200	107,300	94,900	83,800

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**Models and Components continued...**

407A—Capacity BTUH at 100F Ambient by SST										
	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	36,500	46,500	52,100	58,200	-	-	-	-	-
	VIP-M0079-L0000	59,300	75,900	85,200	95,100	-	-	-	-	-
	VIP-M0106-L0000	80,300	101,500	113,400	126,100	-	-	-	-	-
	VIP-M0152-L0000	114,900	145,800	163,200	181,600	-	-	-	-	-
	VIP-M0178-L0000	137,100	171,600	190,800	211,800	-	-	-	-	-
	VIP-M0198-L0000	149,500	190,100	213,000	237,100	-	-	-	-	-
	VIP-M0253-L0000	194,600	243,700	271,100	301,000	-	-	-	-	-
	VIP-M0299-L0000	229,200	288,000	320,900	356,500	-	-	-	-	-
	VIP-M0349-L0000	277,800	346,800	386,000	NA	-	-	-	-	-
	VIP-M0403-L0000	321,000	401,400	447,000	NA	-	-	-	-	-
	VIP-M0442-L0000	351,800	439,400	489,000	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	46,000	40,600	35,800	31,400	27,400
	VIP-M0000-L0052	-	-	-	-	75,900	67,200	59,200	52,000	45,400
	VIP-M0000-L0076	-	-	-	-	109,800	97,200	85,600	75,200	65,700
	VIP-M0000-L0099	-	-	-	-	143,700	127,200	112,000	98,400	86,000
	VIP-M0000-L0122	-	-	-	-	177,600	157,200	138,400	121,600	106,300
	VIP-M0000-L0145	-	-	-	-	211,500	187,200	164,800	144,800	126,600
	VIP-M0000-L0161	-	-	-	-	235,000	208,000	183,200	161,600	141,800
	VIP-M0000-L0190	-	-	-	-	275,200	244,000	215,600	190,400	167,800

**Models and Components continued...**

**Dual Temp Units**

407A—Capacity BTUH at 100F Ambient by SST									
<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
VIP-M0048-L0012	36,500	46,500	52,100	58,200	17,360	15,400	13,600	11,940	10,420
VIP-M0079-L0012	59,300	75,900	85,200	95,100	17,360	15,400	13,600	11,940	10,420
VIP-M0106-L0012	80,300	101,500	113,400	126,100	17,360	15,400	13,600	11,940	10,420
VIP-M0152-L0012	114,900	145,800	163,200	181,600	17,360	15,400	13,600	11,940	10,420
VIP-M0178-L0012	137,100	171,600	190,800	211,800	17,360	15,400	13,600	11,940	10,420
VIP-M0048-L0032	36,500	46,500	52,100	58,200	46,000	40,600	35,800	31,400	27,400
VIP-M0079-L0032	59,300	75,900	85,200	95,100	46,000	40,600	35,800	31,400	27,400
VIP-M0106-L0032	80,300	101,500	113,400	126,100	46,000	40,600	35,800	31,400	27,400
VIP-M0152-L0032	114,900	145,800	163,200	181,600	46,000	40,600	35,800	31,400	27,400
VIP-M0048-L0052	36,500	46,500	52,100	58,200	75,900	67,200	59,200	52,000	45,400
VIP-M0079-L0052	59,300	75,900	85,200	95,100	75,900	67,200	59,200	52,000	45,400
VIP-M0106-L0052	80,300	101,500	113,400	126,100	75,900	67,200	59,200	52,000	45,400
VIP-M0048-L0076	36,500	46,500	52,100	58,200	109,800	97,200	85,600	75,200	65,700
VIP-M0079-L0076	59,300	75,900	85,200	95,100	109,800	97,200	85,600	75,200	65,700
VIP-M0106-L0076	80,300	101,500	113,400	126,100	109,800	97,200	85,600	75,200	65,700
VIP-M0178-L0032	137,100	171,600	190,800	211,800	46,000	40,600	35,800	31,400	27,400
VIP-M0152-L0052	114,900	145,800	163,200	181,600	75,900	67,200	59,200	52,000	45,400
VIP-M0178-L0052	137,100	171,600	190,800	211,800	75,900	67,200	59,200	52,000	45,400
VIP-M0152-L0076	114,900	145,800	163,200	181,600	109,800	97,200	85,600	75,200	65,700
VIP-M0178-L0076	137,100	171,600	190,800	211,800	109,800	97,200	85,600	75,200	65,700
VIP-M0108-L0090	85,800	107,000	119,000	132,500	131,500	116,500	102,800	90,800	79,900
VIP-M0131-L0095	104,500	130,400	145,000	NA	137,600	122,000	107,800	95,200	83,900
VIP-M0161-L0095	128,300	160,000	178,000	198,500	137,600	122,000	107,800	95,200	83,900
VIP-M0221-L0052	175,900	219,700	244,500	NA	75,700	67,000	59,000	52,000	45,600
VIP-M0221-L0062	175,900	219,700	244,500	NA	89,700	79,500	70,200	62,000	54,600
VIP-M0221-L0095	175,900	219,700	244,500	NA	137,600	122,000	107,800	95,200	83,900

**Models and Components continued...**

407A-Capacity BTUH at 95F Ambient by SST										
	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	38,100	48,400	54,300	60,600	-	-	-	-	-
	VIP-M0079-L0000	62,000	79,100	88,900	99,200	-	-	-	-	-
	VIP-M0106-L0000	83,700	105,500	118,000	131,200	-	-	-	-	-
	VIP-M0152-L0000	119,900	151,700	170,000	189,200	-	-	-	-	-
	VIP-M0178-L0000	142,500	177,900	198,000	219,600	-	-	-	-	-
	VIP-M0198-L0000	156,100	197,900	222,000	247,200	-	-	-	-	-
	VIP-M0253-L0000	202,300	252,700	281,400	312,200	-	-	-	-	-
	VIP-M0299-L0000	238,500	298,900	333,400	370,200	-	-	-	-	-
	VIP-M0349-L0000	279,899	349,600	389,000	NA					
	VIP-M0442-L0000	323,400	403,800	450,000	NA					
	VIP-M0299-L0000	354,600	442,600	492,800	NA					
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	46,200	40,800	36,000	31,600	27,600
	VIP-M0000-L0052	-	-	-	-	76,400	67,600	59,600	52,200	45,700
	VIP-M0000-L0076	-	-	-	-	110,500	97,800	86,200	75,500	66,100
	VIP-M0000-L0099	-	-	-	-	144,600	128,000	112,800	98,800	86,500
	VIP-M0000-L0122	-	-	-	-	178,700	158,200	139,400	122,100	98,500
	VIP-M0000-L0145	-	-	-	-	212,800	188,400	166,000	145,400	117,300
	VIP-M0000-L0161	-	-	-	-	236,200	208,800	184,000	161,800	142,000
	VIP-M0000-L0190	-	-	-	-	277,200	245,400	216,600	190,800	168,200

**Models and Components continued...**

<b>407A-Capacity BTUH at 95F Ambient by SST</b>										
<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>	
Dual Temp Units	VIP-M0048-L0012	38,100	48,400	54,300	60,600	18,040	16,000	14,140	12,420	10,840
	VIP-M0079-L0012	62,000	79,100	88,900	99,200	18,040	16,000	14,140	12,420	10,840
	VIP-M0106-L0012	83,700	105,500	118,000	131,200	18,040	16,000	14,140	12,420	10,840
	VIP-M0152-L0012	119,900	151,700	170,000	189,200	18,040	16,000	14,140	12,420	10,840
	VIP-M0178-L0012	142,500	177,900	198,000	219,600	18,040	16,000	14,140	12,420	10,840
	VIP-M0048-L0032	38,100	48,400	54,300	60,600	46,200	40,800	36,000	31,600	27,600
	VIP-M0079-L0032	62,000	79,100	88,900	99,200	46,200	40,800	36,000	31,600	27,600
	VIP-M0106-L0032	83,700	105,500	118,000	131,200	46,200	40,800	36,000	31,600	27,600
	VIP-M0152-L0032	119,900	151,700	170,000	189,200	46,200	40,800	36,000	31,600	27,600
	VIP-M0048-L0052	38,100	48,400	54,300	60,600	76,400	67,600	59,600	52,200	45,700
	VIP-M0079-L0052	62,000	79,100	88,900	99,200	76,400	67,600	59,600	52,200	45,700
	VIP-M0106-L0052	83,700	105,500	118,000	131,200	76,400	67,600	59,600	52,200	45,700
	VIP-M0048-L0076	38,100	48,400	54,300	60,600	110,500	97,800	86,200	75,500	66,100
	VIP-M0079-L0076	62,000	79,100	88,900	99,200	110,500	97,800	86,200	75,500	66,100
	VIP-M0106-L0076	83,700	105,500	118,000	131,200	110,500	97,800	86,200	75,500	66,100
	VIP-M0178-L0032	142,500	177,900	198,000	219,600	46,200	40,800	36,000	31,600	27,600
	VIP-M0152-L0052	119,900	151,700	170,000	189,200	76,400	67,600	59,600	52,200	45,700
	VIP-M0178-L0052	142,500	177,900	198,000	219,600	76,400	67,600	59,600	52,200	45,700
	VIP-M0152-L0076	119,900	151,700	170,000	189,200	110,500	97,800	86,200	75,500	66,100
	VIP-M0178-L0076	142,500	177,900	198,000	219,600	110,500	97,800	86,200	75,500	66,100
	VIP-M0108-L0090	86,400	108,000	120,000	133,000	132,300	117,000	103,200	90,900	80,000
	VIP-M0131-L0095	105,300	131,500	146,200	NA	198,600	122,700	108,300	95,400	84,100
	VIP-M0161-L0095	129,200	161,500	179,500	199,000	138,600	122,700	108,300	95,400	84,100
	VIP-M0221-L0052	177,300	221,300	246,400	NA	76,100	67,300	59,300	52,100	45,700
	VIP-M0221-L0062	177,300	221,300	246,400	NA	90,300	79,900	70,500	62,100	54,700
	VIP-M0221-L0095	177,300	221,300	246,400	NA	138,600	122,700	108,300	95,400	84,100

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**Models and Components continued...**

407A—Capacity BTUH at 90F Ambient by SST										
	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	39,800	50,400	56,400	63,000	-	-	-	-	-
	VIP-M0079-L0000	64,600	82,300	92,300	102,800	-	-	-	-	-
	VIP-M0106-L0000	86,900	109,500	122,200	135,700	-	-	-	-	-
	VIP-M0152-L0000	124,600	157,600	176,200	195,700	-	-	-	-	-
	VIP-M0178-L0000	147,600	184,200	204,600	227,100	-	-	-	-	-
	VIP-M0198-L0000	162,300	205,700	230,200	255,700	-	-	-	-	-
	VIP-M0253-L0000	209,700	261,800	290,900	323,000	-	-	-	-	-
	VIP-M0299-L0000	247,400	309,900	344,900	383,000	-	-	-	-	-
	VIP-M0349-L0000	279,899	349,600	389,000	NA	-	-	-	-	-
	VIP-M0403-L0000	323,400	403,800	450,000	NA	-	-	-	-	-
	VIP-M0442-L0000	354,600	442,600	492,800	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	46,400	41,000	36,200	31,800	27,800
	VIP-M0000-L0052	-	-	-	-	76,800	67,900	59,900	52,600	46,000
	VIP-M0000-L0076	-	-	-	-	111,100	98,200	86,600	76,100	66,500
	VIP-M0000-L0099	-	-	-	-	145,400	128,500	113,300	99,600	87,000
	VIP-M0000-L0122	-	-	-	-	179,700	158,800	140,000	123,100	99,000
	VIP-M0000-L0145	-	-	-	-	214,000	189,100	166,700	146,600	117,900
	VIP-M0000-L0161	-	-	-	-	236,200	208,800	184,000	161,800	142,000
	VIP-M0000-L0190	-	-	-	-	277,200	245,400	216,600	190,800	168,200

**Models and Components continued...**

<b>407A-Capacity BTUH at 90F Ambient by SST</b>										
<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>	
Dual Temp Units	VIP-M0048-L0012	39,800	50,400	56,400	63,000	18,700	16,600	14,660	12,880	11,240
	VIP-M0079-L0012	64,600	82,300	92,300	102,800	18,700	16,600	14,660	12,880	11,240
	VIP-M0106-L0012	86,900	109,500	122,200	135,700	18,700	16,600	14,660	12,880	11,240
	VIP-M0152-L0012	124,600	157,600	176,200	195,700	18,700	16,600	14,660	12,880	11,240
	VIP-M0178-L0012	147,600	184,200	204,600	227,100	18,700	16,600	14,660	12,880	11,240
	VIP-M0048-L0032	39,800	50,400	56,400	63,000	46,400	41,000	36,200	31,800	27,800
	VIP-M0079-L0032	64,600	82,300	92,300	102,800	46,400	41,000	36,200	31,800	27,800
	VIP-M0106-L0032	86,900	109,500	122,200	135,700	46,400	41,000	36,200	31,800	27,800
	VIP-M0152-L0032	124,600	157,600	176,200	195,700	46,400	41,000	36,200	31,800	27,800
	VIP-M0048-L0052	39,800	50,400	56,400	63,000	76,800	67,900	59,900	52,600	46,000
	VIP-M0079-L0052	64,600	82,300	92,300	102,800	76,800	67,900	59,900	52,600	46,000
	VIP-M0106-L0052	86,900	109,500	122,200	135,700	76,800	67,900	59,900	52,600	46,000
	VIP-M0048-L0076	39,800	50,400	56,400	63,000	111,100	98,200	86,600	76,100	66,500
	VIP-M0079-L0076	64,600	82,300	92,300	102,800	111,100	98,200	86,600	76,100	66,500
	VIP-M0106-L0076	86,900	109,500	122,200	135,700	111,100	98,200	86,600	76,100	66,500
	VIP-M0178-L0032	147,600	184,200	204,600	227,100	46,400	41,000	36,200	31,800	27,800
	VIP-M0152-L0052	124,600	157,600	176,200	195,700	76,800	67,900	59,900	52,600	46,000
	VIP-M0178-L0052	147,600	184,200	204,600	227,100	76,800	67,900	59,900	52,600	46,000
	VIP-M0152-L0076	124,600	157,600	176,200	195,700	111,100	98,200	86,600	76,100	66,500
	VIP-M0178-L0076	147,600	184,200	204,600	227,100	111,100	98,200	86,600	76,100	66,500
	VIP-M0108-L0090	86,4000	108,000	120,000	133,000	132,300	117,000	103,200	90,900	80,000
	VIP-M0131-L0095	105,300	131,500	146,200	NA	138,600	122,700	108,300	95,400	84,100
	VIP-M0161-L0095	129,200	161,500	179,500	199,000	138,600	122,700	108,300	95,400	84,100
	VIP-M0221-L0052	177,300	221,300	246,400	NA	76,100	67,300	59,300	52,100	45,700
	VIP-M0221-L0062	177,300	221,300	246,400	NA	90,300	79,900	70,500	62,100	54,700
	VIP-M0221-L0095	177,300	221,300	246,400	NA	138,600	122,700	108,300	95,400	84,100

**Models and Components continued...**

448-Capacity BTUH at 90F Ambient by SST										
	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	36,200	48,900	54,800	61,300	-	-	-	-	-
	VIP-M0079-L0000	65,500	82,600	92,100	102,800	-	-	-	-	-
	VIP-M0106-L0000	89,600	112,800	125,500	140,000	-	-	-	-	-
	VIP-M0152-L0000	128,700	162,100	180,500	201,500	-	-	-	-	-
	VIP-M0178-L0000	151,500	190,500	211,500	235,500	-	-	-	-	-
	VIP-M0198-L0000	167,800	211,400	235,500	263,000	-	-	-	-	-
	VIP-M0253-L0000	211,800	269,600	299,700	334,000	-	-	-	-	-
	VIP-M0299-L0000	250,900	318,900	354,700	395,500	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	46,800	41,400	36,400	32,000	28,200
	VIP-M0000-L0052	-	-	-	-	77,400	68,600	60,500	53,400	46,900
	VIP-M0000-L0076	-	-	-	-	111,800	99,000	87,300	77,000	67,600
	VIP-M0000-L0099	-	-	-	-	146,200	129,400	114,100	100,600	88,300
	VIP-M0000-L0122	-	-	-	-	180,600	159,800	140,900	124,200	101,000
	VIP-M0000-L0145	-	-	-	-	215,000	190,200	167,700	147,800	120,200
<b>Dual Temp Units</b>	VIP-M0048-L0012	36,200	48,900	54,800	61,300	19,040	16,940	15,020	13,260	11,640
	VIP-M0079-L0012	65,500	82,600	92,100	102,800	19,040	16,940	15,020	13,260	11,640
	VIP-M0106-L0012	89,600	112,800	125,500	140,000	19,040	16,940	15,020	13,260	11,640
	VIP-M0152-L0012	128,700	162,100	180,500	201,500	19,040	16,940	15,020	13,260	11,640
	VIP-M0178-L0012	151,500	190,500	211,500	235,500	19,040	16,940	15,020	13,260	11,640
	VIP-M0048-L0032	36,200	48,900	54,800	61,300	46,800	41,400	36,400	32,000	28,200
	VIP-M0079-L0032	65,500	82,600	92,100	102,800	46,800	41,400	36,400	32,000	28,200
	VIP-M0106-L0032	89,600	112,800	125,500	140,000	46,800	41,400	36,400	32,000	28,200
	VIP-M0152-L0032	128,700	162,100	180,500	201,500	46,800	41,400	36,400	32,000	28,200
	VIP-M0048-L0052	36,200	48,900	54,800	61,300	77,400	68,600	60,500	53,400	46,900
	VIP-M0079-L0052	65,500	82,600	92,100	102,800	77,400	68,600	60,500	53,400	46,900
	VIP-M0106-L0052	89,600	112,800	125,500	140,000	77,400	68,600	60,500	53,400	46,900
	VIP-M0048-L0076	36,200	48,900	54,800	61,300	111,800	99,000	87,300	77,000	67,600
	VIP-M0079-L0076	65,500	82,600	92,100	102,800	111,800	99,000	87,300	77,000	67,600
	VIP-M0106-L0076	89,600	112,800	125,500	140,000	111,800	99,000	87,300	77,000	67,600
	VIP-M0178-L0032	151,500	190,500	211,500	235,500	46,800	41,400	36,400	32,000	28,200
	VIP-M0152-L0052	128,700	162,100	180,500	201,500	77,400	68,600	60,500	53,400	46,900
	VIP-M0178-L0052	151,500	190,500	211,500	235,500	77,400	68,600	60,500	53,400	46,900
	VIP-M0152-L0076	128,700	162,100	180,500	201,500	111,800	99,000	87,300	77,000	67,600
	VIP-M0178-L0076	151,500	190,500	211,500	235,500	111,800	99,000	87,300	77,000	67,600

**Models and Components continued...**

448-Capacity BTUH at 95F Ambient by SST										
	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	38,600	46,800	52,500	58,900	-	-	-	-	-
	VIP-M0079-L0000	62,800	79,400	88,700	98,800	-	-	-	-	-
	VIP-M0106-L0000	86,300	108,900	121,500	135,000	-	-	-	-	-
	VIP-M0152-L0000	123,800	156,300	174,500	194,000	-	-	-	-	-
	VIP-M0178-L0000	146,400	184,500	205,500	228,000	-	-	-	-	-
	VIP-M0198-L0000	168,300	203,700	227,500	253,000	-	-	-	-	-
	VIP-M0253-L0000	206,700	260,800	290,800	323,100	-	-	-	-	-
	VIP-M0299-L0000	244,200	308,200	343,800	382,100	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	46,600	41,200	36,200	32,000	28,200
	VIP-M0000-L0052	-	-	-	-	77,000	68,200	60,300	53,200	50,300
	VIP-M0000-L0076	-	-	-	-	111,200	98,400	87,000	76,700	71,000
	VIP-M0000-L0099	-	-	-	-	145,400	128,600	113,700	100,200	91,700
	VIP-M0000-L0122	-	-	-	-	179,600	158,800	140,400	123,700	101,000
	VIP-M0000-L0145	-	-	-	-	213,800	189,000	167,100	147,200	120,200
<b>Dual Temp Units</b>	VIP-M0048-L0012	38,600	46,800	52,500	58,900	18,480	16,460	14,600	12,900	11,340
	VIP-M0079-L0012	62,800	79,400	88,700	98,800	18,480	16,460	14,600	12,900	11,340
	VIP-M0106-L0012	86,300	108,900	121,500	135,000	18,480	16,460	14,600	12,900	11,340
	VIP-M0152-L0012	123,800	156,300	174,500	194,000	18,480	16,460	14,600	12,900	11,340
	VIP-M0178-L0012	146,400	184,500	205,500	228,000	18,480	16,460	14,600	12,900	11,340
	VIP-M0048-L0032	38,600	46,800	52,500	58,900	46,600	41,200	36,200	32,000	28,200
	VIP-M0079-L0032	62,800	79,400	88,700	98,800	46,600	41,200	36,200	32,000	28,200
	VIP-M0106-L0032	86,300	108,900	121,500	135,000	46,600	41,200	36,200	32,000	28,200
	VIP-M0152-L0032	123,800	156,300	174,500	194,000	46,600	41,200	36,200	32,000	28,200
	VIP-M0048-L0052	38,600	46,800	52,500	58,900	77,000	68,200	60,300	53,200	50,300
	VIP-M0079-L0052	62,800	79,400	88,700	98,800	77,000	68,200	60,300	53,200	50,300
	VIP-M0106-L0052	86,300	108,900	121,500	135,000	77,000	68,200	60,300	53,200	50,300
	VIP-M0048-L0076	38,600	46,800	52,500	58,900	111,200	98,400	87,000	76,700	71,000
	VIP-M0079-L0076	62,800	79,400	88,700	98,800	111,200	98,400	87,000	76,700	71,000
	VIP-M0106-L0076	86,300	108,900	121,500	135,000	111,200	98,400	87,000	76,700	71,000
	VIP-M0048-L0099	38,600	46,800	52,500	58,900	46,600	41,200	36,200	32,000	28,200
	VIP-M0079-L0099	62,800	79,400	88,700	98,800	77,000	68,200	60,300	53,200	50,300
	VIP-M0106-L0099	86,300	108,900	121,500	135,000	77,000	68,200	60,300	53,200	50,300
	VIP-M0048-L0122	146,400	184,500	205,500	228,000	111,200	98,400	87,000	76,700	71,000
	VIP-M0079-L0122	146,400	184,500	205,500	228,000	77,000	68,200	60,300	53,200	50,300
	VIP-M0106-L0122	123,800	156,300	174,500	194,000	111,200	98,400	87,000	76,700	71,000
	VIP-M0152-L0122	123,800	156,300	174,500	194,000	46,600	41,200	36,200	32,000	28,200
	VIP-M0178-L0122	146,400	184,500	205,500	228,000	77,000	68,200	60,300	53,200	50,300
	VIP-M0178-L0076	146,400	184,500	205,500	228,000	111,200	98,400	87,000	76,700	71,000

**Models and Components continued...**

448-Capacity BTUH at 100F Ambient by SST										
	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	35,100	44,700	50,300	56,400	-	-	-	-	-
	VIP-M0079-L0000	60,100	76,200	85,300	94,800	-	-	-	-	-
	VIP-M0106-L0000	82,900	104,500	116,500	129,500	-	-	-	-	-
	VIP-M0152-L0000	118,800	150,000	167,500	186,000	-	-	-	-	-
	VIP-M0178-L0000	141,000	177,000	196,500	219,000	-	-	-	-	-
	VIP-M0198-L0000	154,700	195,500	218,500	242,500	-	-	-	-	-
	VIP-M0253-L0000	198,900	250,000	278,000	310,100	-	-	-	-	-
	VIP-M0299-L0000	234,800	295,500	329,000	366,600	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	46,400	41,000	36,200	31,800	28,200
	VIP-M0000-L0052	-	-	-	-	76,400	67,900	60,100	53,100	46,900
	VIP-M0000-L0076	-	-	-	-	110,200	98,000	86,700	76,500	67,600
	VIP-M0000-L0099	-	-	-	-	144,000	128,100	113,300	99,900	88,300
	VIP-M0000-L0122	-	-	-	-	177,800	158,200	139,900	123,300	109,000
	VIP-M0000-L0145	-	-	-	-	211,600	188,300	166,500	146,700	129,700
<b>Dual Temp Units</b>	VIP-M0048-L0012	35,100	44,700	50,300	56,400	17,920	16,000	14,220	12,580	11,060
	VIP-M0079-L0012	60,100	76,200	85,300	94,800	17,920	16,000	14,220	12,580	11,060
	VIP-M0106-L0012	82,900	104,500	116,500	129,500	17,920	16,000	14,220	12,580	11,060
	VIP-M0152-L0012	118,800	150,000	167,500	186,000	17,920	16,000	14,220	12,580	11,060
	VIP-M0178-L0012	141,000	177,000	196,500	219,000	17,920	16,000	14,220	12,580	11,060
	VIP-M0048-L0032	35,100	44,700	50,300	56,400	46,400	41,000	36,200	31,800	28,200
	VIP-M0079-L0032	60,100	76,200	85,300	94,800	46,400	41,000	36,200	31,800	28,200
	VIP-M0106-L0032	82,900	104,500	116,500	129,500	46,400	41,000	36,200	31,800	28,200
	VIP-M0152-L0032	118,800	150,000	167,500	186,000	46,400	41,000	36,200	31,800	28,200
	VIP-M0048-L0052	35,100	44,700	50,300	56,400	76,400	67,900	60,100	53,100	46,900
	VIP-M0079-L0052	60,100	76,200	85,300	94,800	76,400	67,900	60,100	53,100	46,900
	VIP-M0106-L0052	82,900	104,500	116,500	129,500	76,400	67,900	60,100	53,100	46,900
	VIP-M0048-L0076	35,100	44,700	50,300	56,400	110,200	98,000	86,700	76,500	67,600
	VIP-M0079-L0076	60,100	76,200	85,300	94,800	110,200	98,000	86,700	76,500	67,600
	VIP-M0106-L0076	82,900	104,500	116,500	129,500	110,200	98,000	86,700	76,500	67,600
	VIP-M0178-L0032	141,000	177,000	196,500	219,000	46,400	41,000	36,200	31,800	28,200
	VIP-M0152-L0052	118,800	150,000	167,500	186,000	76,400	67,900	60,100	53,100	46,900
	VIP-M0178-L0052	141,000	177,000	196,500	219,000	76,400	67,900	60,100	53,100	46,900
	VIP-M0152-L0076	118,800	150,000	167,500	186,000	110,200	98,000	86,700	76,500	67,600
	VIP-M0178-L0076	141,000	177,000	196,500	219,000	110,200	98,000	86,700	76,500	67,600

**Models and Components continued...**

		448-Capacity BTUH at 105F Ambient by SST									
		<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0048-L0000	33,600	42,700	48,000	53,800	-	-	-	-	-	-
	VIP-M0079-L0000	57,600	73,000	81,700	91,200	-	-	-	-	-	-
	VIP-M0106-L0000	79,500	100,100	111,800	124,500	-	-	-	-	-	-
	VIP-M0152-L0000	113,900	143,700	160,600	179,000	-	-	-	-	-	-
	VIP-M0178-L0000	135,300	169,500	189,000	210,000	-	-	-	-	-	-
	VIP-M0198-L0000	148,300	187,300	209,400	233,500	-	-	-	-	-	-
	VIP-M0253-L0000	190,800	239,300	267,100	297,100	-	-	-	-	-	-
	VIP-M0299-L0000	225,200	282,900	315,900	351,600	-	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0032	-	-	-	-	45,800	40,800	36,000	31,800	28,200	
	VIP-M0000-L0052	-	-	-	-	75,500	67,500	59,800	52,900	46,800	
	VIP-M0000-L0076	-	-	-	-	108,600	97,400	86,200	76,200	67,400	
	VIP-M0000-L0099	-	-	-	-	141,700	127,300	112,600	99,500	88,000	
	VIP-M0000-L0122	-	-	-	-	174,800	157,200	139,000	122,800	108,600	
	VIP-M0000-L0145	-	-	-	-	207,900	187,100	165,400	146,100	129,200	
<b>Dual Temp Units</b>	VIP-M0048-L0012	33,600	42,700	48,000	53,800	19,380	15,560	13,860	12,280	10,820	
	VIP-M0079-L0012	57,600	73,000	81,700	91,200	19,380	15,560	13,860	12,280	10,820	
	VIP-M0106-L0012	79,500	100,100	111,800	124,500	19,380	15,560	13,860	12,280	10,820	
	VIP-M0152-L0012	113,900	143,700	160,600	179,000	19,380	15,560	13,860	12,280	10,820	
	VIP-M0178-L0012	135,300	169,500	189,000	210,000	19,380	15,560	13,860	12,280	10,820	
	VIP-M0048-L0032	33,600	42,700	48,000	53,800	45,800	40,800	36,000	31,800	28,200	
	VIP-M0079-L0032	57,600	73,000	81,700	91,200	45,800	40,800	36,000	31,800	28,200	
	VIP-M0106-L0032	79,500	100,100	111,800	124,500	45,800	40,800	36,000	31,800	28,200	
	VIP-M0152-L0032	113,900	143,700	160,600	179,000	45,800	40,800	36,000	31,800	28,200	
	VIP-M0048-L0052	33,600	42,700	48,000	53,800	75,500	67,500	59,800	52,900	46,800	
	VIP-M0079-L0052	57,600	73,000	81,700	91,200	75,500	67,500	59,800	52,900	46,800	
	VIP-M0106-L0052	79,500	100,100	111,800	124,500	75,500	67,500	59,800	52,900	46,800	
	VIP-M0048-L0076	33,600	42,700	48,000	53,800	108,600	97,400	86,200	76,200	67,400	
	VIP-M0079-L0076	57,600	73,000	81,700	91,200	108,600	97,400	86,200	76,200	67,400	
	VIP-M0106-L0076	79,500	100,100	111,800	124,500	108,600	97,400	86,200	76,200	67,400	
	VIP-M0152-L0032	135,300	169,500	189,000	210,000	45,800	40,800	36,000	31,800	28,200	
	VIP-M0152-L0052	113,900	143,700	160,600	179,000	75,500	67,500	59,800	52,900	46,800	
	VIP-M0178-L0052	135,300	169,500	189,000	210,000	75,500	67,500	59,800	52,900	46,800	
	VIP-M0152-L0076	113,900	143,700	160,600	179,000	108,600	97,400	86,200	76,200	67,400	
	VIP-M0178-L0076	135,300	169,500	189,000	210,000	108,600	97,400	86,200	76,200	67,400	

**Models and Components continued...**

407A—Capacity BTUH at 90F Ambient by SST										
	Model	10F	20F	25F	30F	-5	-10	-15	-20	-25
<b>Medium Temp Units</b>	VIP-M0349-L0000	281,500	351,900	391,300	NA	-	-	-	-	-
	VIP-M0403-L0000	325,200	406,200	452,400	NA	-	-	-	-	-
	VIP-M0442-L0000	356,800	445,400	496,000	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	237,400	209,800	184,600	162,600	142,200
	VIP-M0000-L0190	-	-	-	-	278,800	246,600	217,600	191,800	168,200
<b>Dual Temp Units</b>	VIP-M0108-L0090	86,900	108,500	120,500	133,500	133,000	117,600	103,600	91,300	80,000
	VIP-M0131-L0095	105,900	132,000	146,800	NA	139,400	123,300	108,800	95,900	84,100
	VIP-M0161-L0095	130,000	162,500	180,500	200,000	139,400	123,300	108,800	95,900	84,100
	VIP-M0221-L0052	178,400	222,700	248,000	NA	76,500	67,600	59,500	52,400	45,800
	VIP-M0221-L0062	178,400	222,700	248,000	NA	90,800	80,300	70,800	62,400	54,700
	VIP-M0221-L0095	178,400	222,700	248,000	NA	139,400	123,300	108,800	95,900	84,100

407A—Capacity BTUH at 95F Ambient by SST										
	Model	10F	20F	25F	30F	-5	-10	-15	-20	-25
<b>Medium Temp Units</b>	VIP-M0349-L0000	279,899	349,600	389,000	NA	-	-	-	-	-
	VIP-M0403-L0000	323,400	403,800	450,000	NA	-	-	-	-	-
	VIP-M0442-L0000	354,600	442,600	492,800	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	236,200	208,800	184,000	161,800	142,000
	VIP-M0000-L0190	-	-	-	-	277,200	245,400	216,600	190,800	168,200
<b>Dual Temp Units</b>	VIP-M0108-L0090	86,400	108,000	120,000	133,000	132,300	117,000	103,200	90,900	80,000
	VIP-M0131-L0095	105,300	131,500	146,200	NA	138,600	122,700	108,300	95,400	84,100
	VIP-M0161-L0095	129,200	161,500	179,500	199,000	138,600	122,700	108,300	95,400	84,100
	VIP-M0221-L0052	177,300	221,300	246,400	NA	76,100	67,300	59,300	52,100	45,700
	VIP-M0221-L0062	177,300	221,300	246,400	NA	90,300	79,900	70,500	62,100	54,700
	VIP-M0221-L0095	177,300	221,300	246,400	NA	138,600	122,700	108,300	95,400	84,100

**Models and Components continued...**

**407A—Capacity BTUH at 100F Ambient by SST**

	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0349-L0000	277,800	346,800	386,000	NA	-	-	-	-	-
	VIP-M0403-L0000	321,000	401,400	447,000	NA	-	-	-	-	-
	VIP-M0442-L0000	351,800	439,400	489,000	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	235,000	208,000	183,200	161,600	141,800
	VIP-M0000-L0190	-	-	-	-	275,200	244,000	215,600	190,400	167,800
<b>Dual Temp Units</b>	VIP-M0108-L0090	85,800	107,000	119,000	132,500	131,500	116,500	102,800	90,800	79,900
	VIP-M0131-L0095	104,500	130,400	145,000	NA	137,600	122,000	107,800	95,200	83,900
	VIP-M0161-L0095	128,300	160,000	178,000	198,500	137,600	122,000	107,800	95,200	83,900
	VIP-M0221-L0052	175,900	219,700	244,500	NA	75,700	67,000	59,000	52,000	45,600
	VIP-M0221-L0062	175,900	219,700	244,500	NA	89,700	79,500	70,200	62,000	54,600
	VIP-M0221-L0095	175,900	219,700	244,500	NA	137,600	122,000	107,800	95,200	83,900

**407A—Capacity BTUH at 105F Ambient by SST**

	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0349-L0000	275,800	345,300	384,500	NA	-	-	-	-	-
	VIP-M0403-L0000	319,200	398,400	444,000	NA	-	-	-	-	-
	VIP-M0442-L0000	348,800	435,600	484,800	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	233,400	206,800	182,400	160,800	141,800
	VIP-M0000-L0190	-	-	-	-	273,400	242,400	214,600	189,800	167,600
<b>Dual Temp Units</b>	VIP-M0108-L0090	85,200	106,500	118,500	131,500	130,600	115,800	102,400	90,500	80,000
	VIP-M0131-L0095	103,700	129,200	143,700	NA	136,700	121,200	107,300	94,900	83,800
	VIP-M0161-L0095	127,300	159,500	177,500	197,000	136,700	121,200	107,300	94,900	83,800
	VIP-M0221-L0052	174,400	217,800	242,400	NA	75,200	66,600	58,700	51,700	45,500
	VIP-M0221-L0062	174,400	217,800	242,400	NA	89,100	79,000	69,900	61,800	54,600
	VIP-M0221-L0095	174,400	217,800	242,400	NA	136,700	121,200	107,300	94,900	83,800

**Models and Components continued...**

**448A-Capacity BTUH at 90F Ambient by SST**

	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0349-L0000	285,800	355,000	390,600	NA	-	-	-	-	-
	VIP-M0403-L0000	329,400	411,000	457,800	NA	-	-	-	-	-
	VIP-M0442-L0000	362,200	450,600	501,000	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	240,800	213,600	188,400	166,400	146,200
	VIP-M0000-L0190	-	-	-	-	284,800	253,200	223,800	198,000	174,400
<b>Dual Temp Units</b>	VIP-M0108-L0090	88,000	109,000	119,000	130,000	135,700	120,600	106,500	94,200	82,900
	VIP-M0131-L0095	107,100	132,900	146,600	NA	142,400	126,600	111,900	99,000	87,200
	VIP-M0161-L0095	132,000	163,500	178,500	195,000	142,400	126,600	111,900	99,000	87,200
	VIP-M0221-L0052	181,100	225,300	250,500	NA	77,400	68,600	60,500	53,400	46,900
	VIP-M0221-L0062	181,100	225,300	250,500	NA	92,700	82,400	72,800	64,400	56,700
	VIP-M0221-L0095	181,100	225,300	250,500	NA	142,400	126,600	111,900	99,000	87,200

**448A-Capacity BTUH at 95F Ambient by SST**

	<b>Model</b>	<b>10F</b>	<b>20F</b>	<b>25F</b>	<b>30F</b>	<b>-5</b>	<b>-10</b>	<b>-15</b>	<b>-20</b>	<b>-25</b>
<b>Medium Temp Units</b>	VIP-M0349-L0000	284,000	352,200	387,600	NA	-	-	-	-	-
	VIP-M0403-L0000	327,600	408,600	454,800	NA	-	-	-	-	-
	VIP-M0442-L0000	360,000	447,800	497,600	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	239,600	212,400	187,800	165,800	146,200
	VIP-M0000-L0190	-	-	-	-	283,200	251,600	222,800	197,000	174,000
<b>Dual Temp Units</b>	VIP-M0108-L0090	87,400	108,000	118,000	128,000	135,000	119,900	106,100	93,800	82,800
	VIP-M0131-L0095	106,400	131,900	145,500	NA	141,600	125,800	111,400	98,500	87,000
	VIP-M0161-L0095	131,100	162,000	177,000	192,000	141,600	125,800	111,400	98,500	87,000
	VIP-M0221-L0052	180,000	223,900	248,800	NA	77,000	68,200	60,300	53,200	46,900
	VIP-M0221-L0062	180,000	223,900	248,800	NA	92,200	81,900	72,500	64,100	56,600
	VIP-M0221-L0095	180,000	223,900	248,800	NA	141,600	125,800	111,400	98,500	87,000

**Models and Components continued...**

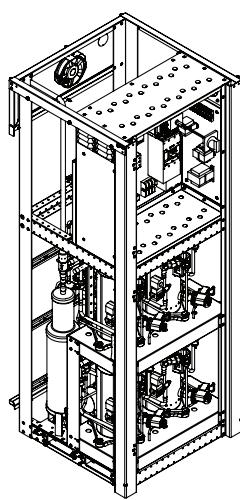
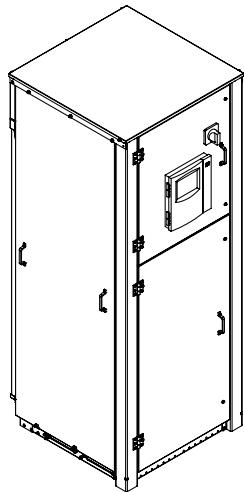
448A-Capacity BTUH at 100F Ambient by SST										
	Model	10F	20F	25F	30F	-5	-10	-15	-20	-25
<b>Medium Temp Units</b>	VIP-M0349-L0000	282,400	349,200	382,600	NA	-	-	-	-	-
	VIP-M0403-L0000	325,200	405,600	451,800	NA	-	-	-	-	-
	VIP-M0442-L0000	356,800	444,000	493,800	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	238,000	211,400	187,200	165,600	146,200
	VIP-M0000-L0190	-	-	-	-	281,600	250,000	221,800	196,600	173,600
<b>Dual Temp Units</b>	VIP-M0108-L0090	87,000	107,000	116,000	126,000	134,300	119,200	105,700	93,700	82,700
	VIP-M0131-L0095	105,600	130,700	143,800	NA	140,800	125,000	110,900	98,300	86,800
	VIP-M0161-L0095	130,500	160,500	174,000	189,000	140,800	125,000	110,900	98,300	86,800
	VIP-M0221-L0052	178,400	222,000	246,900	NA	76,400	67,900	60,100	53,100	46,900
	VIP-M0221-L0062	178,400	222,000	246,900	NA	91,700	81,400	72,200	64,000	56,500
	VIP-M0221-L0095	178,400	222,000	246,900	NA	140,800	125,000	110,900	98,300	86,800

448A-CapacityBTUHat105FAmbientbySST										
	Model	10F	20F	25F	30F	-5	-10	-15	-20	-25
<b>Medium Temp Units</b>	VIP-M0349-L0000	280,000	344,400	377,600	NA	-	-	-	-	-
	VIP-M0403-L0000	322,800	403,200	448,800	NA	-	-	-	-	-
	VIP-M0442-L0000	354,000	440,400	489,600	NA	-	-	-	-	-
<b>Low Temp Units</b>	VIP-M0000-L0161	-	-	-	-	235,800	210,200	186,400	165,000	146,000
	VIP-M0000-L0190	-	-	-	-	279,600	248,400	220,400	195,600	173,200
<b>Dual Temp Units</b>	VIP-M0108-L0090	86,200	105,000	114,000	124,000	133,500	118,500	105,200	93,300	82,600
	VIP-M0131-L0095	104,700	129,000	142,000	NA	139,800	124,200	110,200	97,800	86,600
	VIP-M0161-L0095	129,300	157,500	171,000	186,000	139,800	124,200	110,200	97,800	86,600
	VIP-M0221-L0052	177,000	220,200	244,800	NA	75,500	67,500	59,800	52,900	46,800
	VIP-M0221-L0062	177,000	220,200	244,800	NA	91,100	80,900	71,800	63,700	56,400
	VIP-M0221-L0095	177,000	220,200	244,800	NA	139,800	124,200	110,200	97,800	86,600

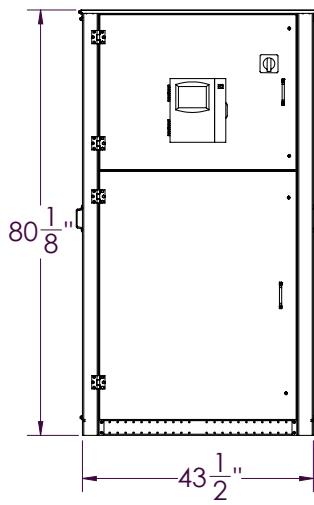
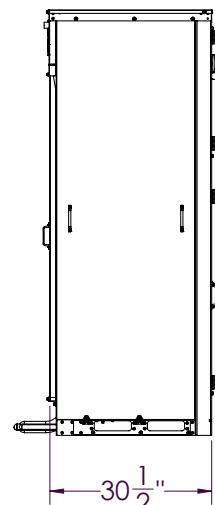
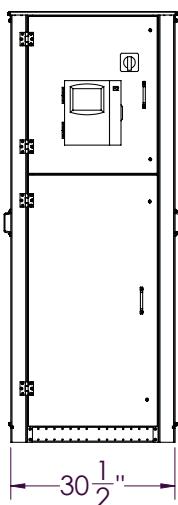
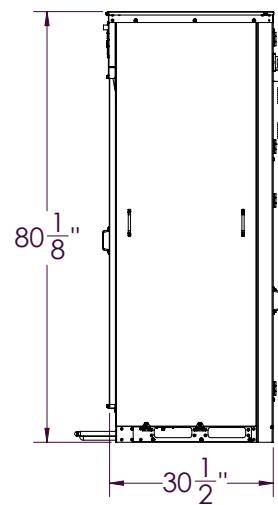
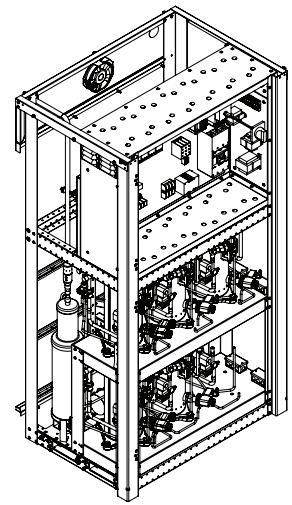
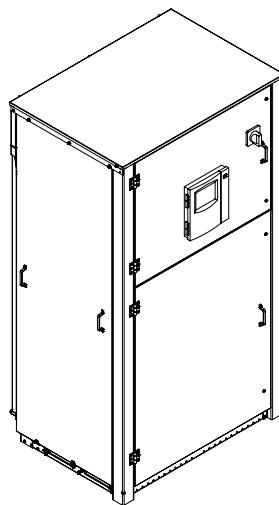
## Vertical InviroPak™ Specifications

Complete Submittal Drawings available

### 4 Compressor



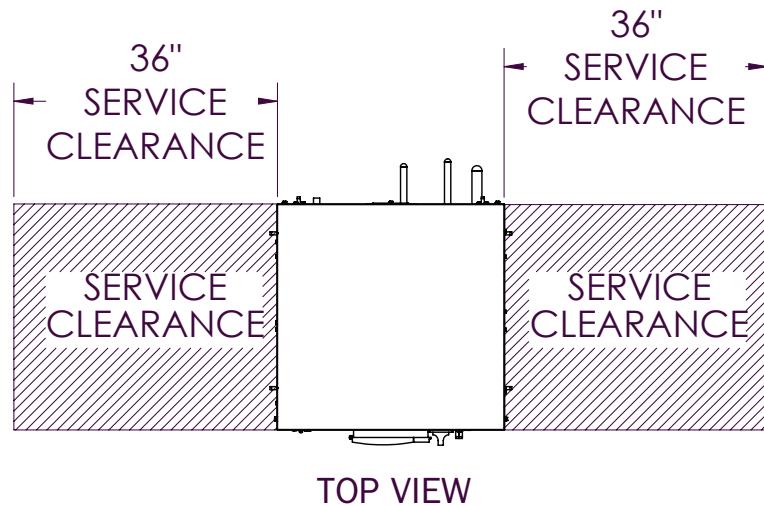
### 6 Compressor



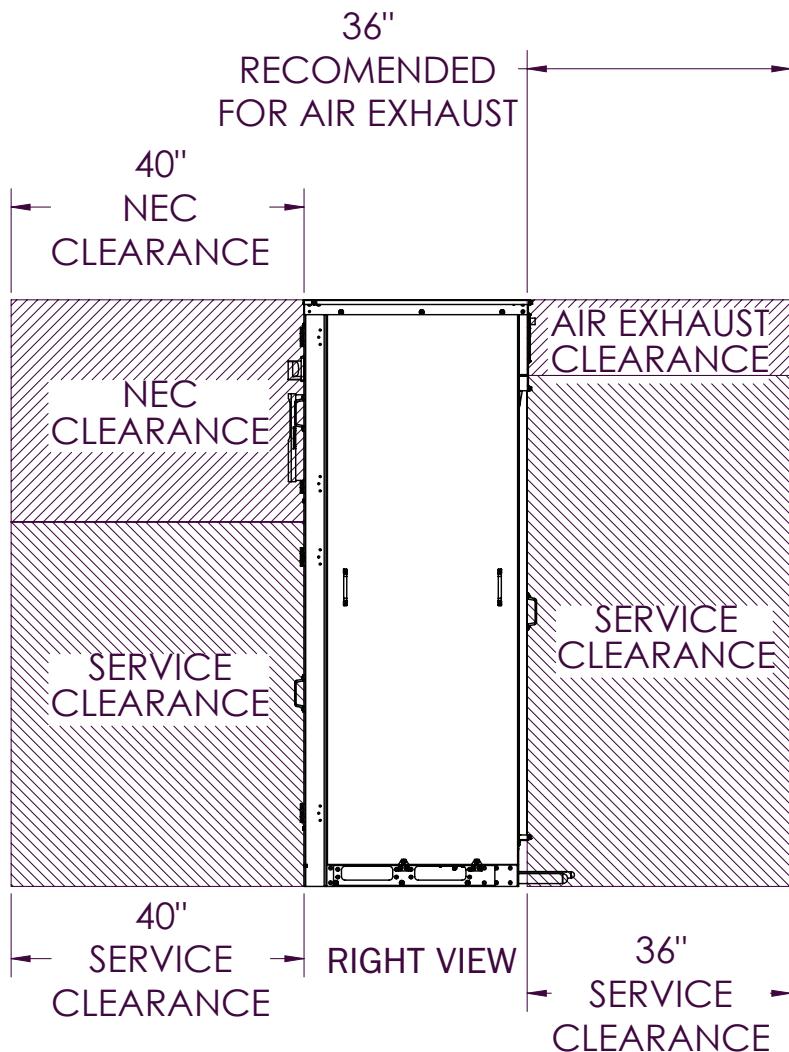
**Website:**

<https://www.hillphoenix.com/drawings/?v=list&drawings-industry%5B%5D=food-retail&drawings-prod-serv%5B%5D=refrigeration-systems>

## Vertical InviroPak™ Clearance Recommendations



TOP VIEW



RIGHT VIEW

## Vertical Inviropak™

### Model Number Explanation



VIP = InviroPak Platform

MXXXX = Medium Temp Load in KBTUs

LXXXX = Low Temp Load in KTBUs

### Options Key

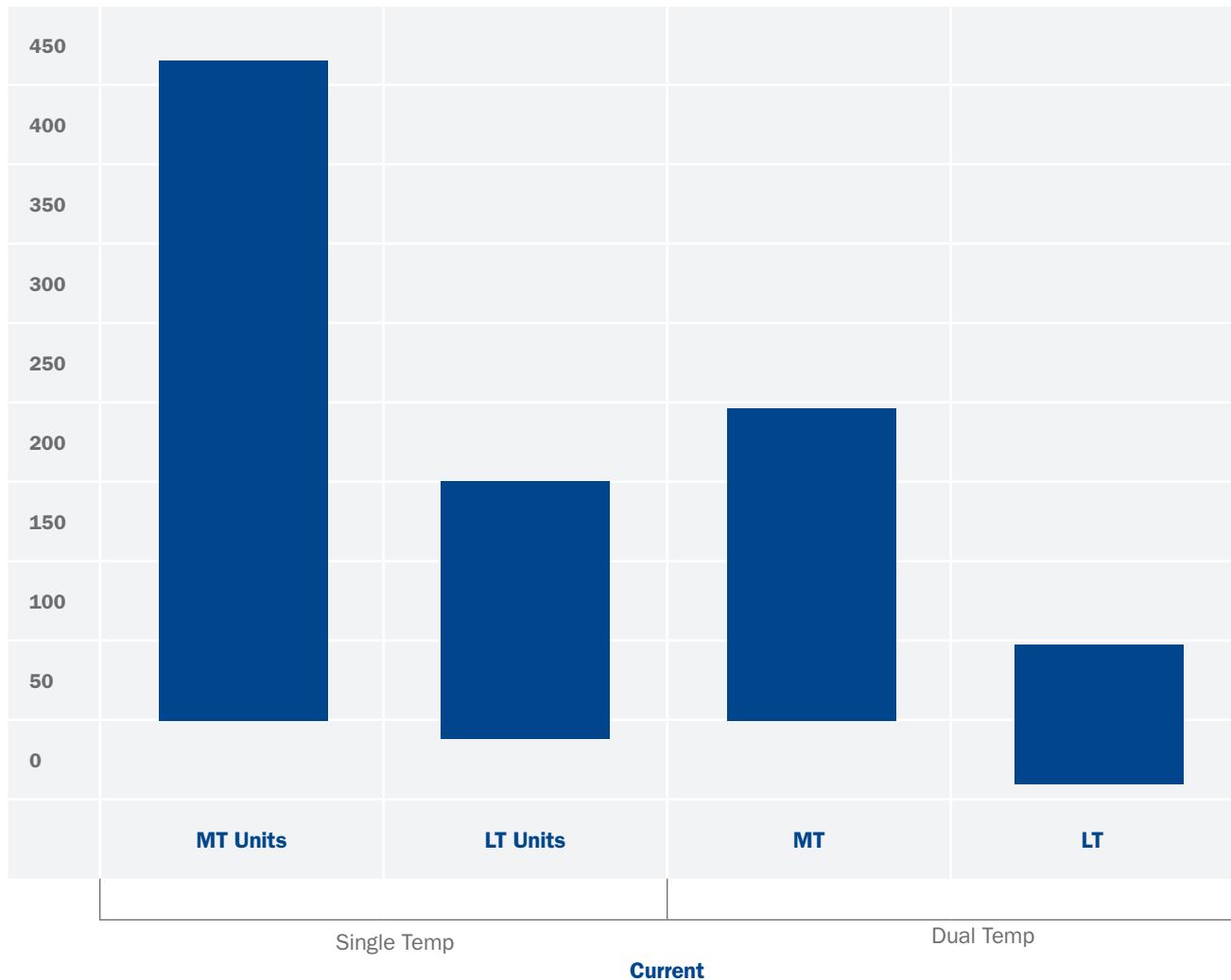
Split Condenser	Hot Gas Defrost	Crank Case Heater	Hail Guard	Heat Reclaim	LP Switch/Comp
S	G	K	H	R	P

Example: VIP-M0079-L0012-GK is an InviroPak Platform Model with Hot GAs Defrost option and Crank Case Heater option

## 45 Models in Vertical Inviropak Portfolio

Low Temp Single Suction	Med Temp Single Suction	Medium and Low Temp Dual Suction	
VIP-M0000-L0032	VIP-M0048-L0000	VIP-M0048-L0012	VIP-M0079-L0076
VIP-M0000-L0052	VIP-M0079-L0000	VIP-M0079-L0012	VIP-M0106-L0076
VIP-M0000-L0076	VIP-M0106-L0000	VIP-M0106-L0012	VIP-M0108-L0090
VIP-M0000-L0099	VIP-M0152-L0000	VIP-M0152-L0012	VIP-M0131-L0095
VIP-M0000-L0122	VIP-M0178-L0000	VIP-M0178-L0012	VIP-M0161-L0095
VIP-M0000-L0145	VIP-M0198-L0000	VIP-M0048-L0032	VIP-M0178-L0032
VIP-M0000-L0161	VIP-M0253-L0000	VIP-M0079-L0032	VIP-M0052-L0052
VIP-M0000-L0190	VIP-M0299-L0000	VIP-M0106-L0032	VIP-M0178-L0052
	VIP-M0349-L0000	VIP-M0152-L0032	VIP-M0152-L0076
	VIP-M0403-L0000	VIP-M0048-L0052	VIP-M0178-L0076
	VIP-M0442-L0000	VIP-M0079-L0052	VIP-M0221-L0052
		VIP-M0106-L0052	VIP-M0221-L0062
		VIP-M0048-L0076	VIP-M0221-L0095

## Vertical InviroPak™ Capacity Range



# Systems Product Line Capacities

**INVIRO<sup>®</sup>**

