ENERTECH
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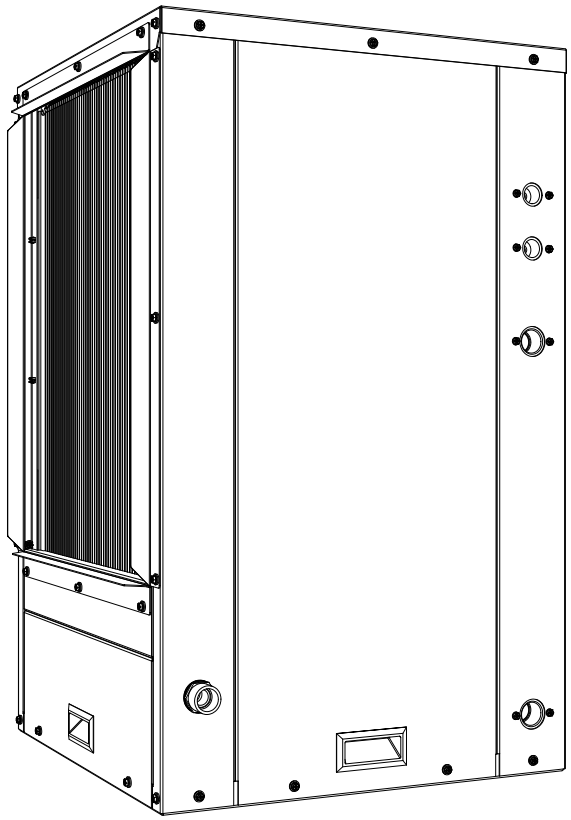

Engineering Data Submittal Manual

Project Name: _____
Engineer: _____
Contractor: _____
Architect: _____
Date Received: _____
Date Submitted: _____

Unit Tag	Model Number
_____	_____
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MODELS VS/VT 006 - 072
VERTICAL PACKAGED SYSTEMS
WATER-TO-AIR HEAT PUMPS

Notes: _____
_____
_____
_____
_____

REVISION A
20D214-02NN

ENGINEERING SPECIFICATIONS:

AHRI Performance Data, VS, W/PSC Blower

UNIT	RATING TYPE	F/L COOL	F/L EER	F/L HEAT	F/L COP
VS006 PSC	WL	6,800	16.0	8,400	5.5
	GW	7,800	25.8	7,000	4.6
	GL	7,200	18.6	5,600	3.7
VS006 PSC 115V, 265V Only	WL	6,800	15.0	8,300	5.2
	GW	7,900	24.0	7,100	4.5
	GL	7,200	17.7	5,500	3.5
VS009 PSC	WL	10,200	15.0	13,000	5.2
	GW	11,900	22.1	10,600	4.4
	GL	10,900	17.4	8,500	3.6
VS012 PSC	WL	11,400	15.5	14,600	5.0
	GW	13,400	24.1	12,100	4.3
	GL	11,900	18.1	9,400	3.6
VS015 PSC	WL	15,100	17.5	17,900	6.0
	GW	17,500	28.8	14,600	5.1
	GL	16,000	19.8	11,600	4.1
VS018 PSC	WL	20,500	16.9	24,200	5.8
	GW	23,200	27.5	20,100	5.0
	GL	21,400	20.0	16,300	3.9
VS024 PSC	WL	24,800	16.8	30,000	5.6
	GW	28,100	26.0	24,200	4.9
	GL	26,000	19.7	19,400	4.0
VS030 PSC	WL	28,600	15.9	34,900	5.4
	GW	31,000	23.4	28,700	4.7
	GL	30,100	18.5	22,300	3.9
VS036 PSC	WL	36,000	15.5	46,500	5.2
	GW	40,500	23.5	37,600	4.6
	GL	37,800	18.0	30,200	3.9
VS041 PSC	WL	37,100	14.8	46,800	4.6
	GW	41,400	22.3	38,900	4.1
	GL	38,700	17.1	31,100	3.6
VS042	WL	41,800	16.0	48,500	5.6
	GW	46,700	24.4	39,200	4.7
	GL	43,600	18.6	32,000	3.8
VS048 PSC	WL	48,500	15.2	58,900	5.0
	GW	53,400	22.6	48,100	4.4
	GL	50,500	17.6	39,600	3.6
VS060 PSC	WL	57,700	14.8	71,400	4.9
	GW	63,300	21.3	58,700	4.3
	GL	60,000	16.9	46,900	3.6
VS072 PSC	WL	67,100	13.2	81,000	4.4
	GW	74,600	19.1	66,500	4.0
	GL	70,100	15.1	53,200	3.3

Note:
Rated in accordance with ISO Standard 13256-1 which includes Pump Penalties
Heating capacities based on 68.0°F DB, 59.0°F WB entering air temperature
Cooling capacities based on 80.6°F DB, 66.2°F WB entering air temperature
Entering water temperatures Full Load: 68°F heating / 86°F cooling

AHRI Performance Data, VS, W/ECM Blower

UNIT	RATING TYPE	F/L COOL	F/L EER	F/L HEAT	F/L COP
VS015 ECM	WL	15,200	18.8	17,700	6.4
	GW	17,400	31.6	14,400	5.4
	GL	16,000	22.3	11,500	4.3
VS018 ECM	WL	20,700	18.8	23,700	6.2
	GW	23,200	30.5	19,600	5.3
	GL	21,700	22.2	15,700	4.1
VS024 ECM	WL	25,900	18.4	29,800	5.9
	GW	29,400	29.5	24,000	5.1
	GL	27,000	21.6	19,300	4.2
VS030 ECM	WL	30,100	17.6	36,200	5.9
	GW	34,000	27.5	29,200	5.1
	GL	31,400	20.4	23,200	4.2
VS036 ECM	WL	37,100	16.4	46,200	5.4
	GW	41,600	25.5	36,900	4.8
	GL	38,800	19.2	29,600	3.9
VS041 ECM	WL	38,300	15.4	46,900	5.1
	GW	43,000	23.6	39,200	4.4
	GL	39,800	17.8	31,200	3.7
VS042 ECM	WL	42,900	18.3	47,800	5.9
	GW	47,700	28.4	38,300	5.0
	GL	44,400	21.2	31,100	4.1
VS048 ECM	WL	49,900	17.3	58,400	5.5
	GW	54,900	26.4	47,500	4.8
	GL	51,600	20.1	38,700	3.9
VS060 ECM	WL	58,800	15.8	70,900	5.2
	GW	65,000	22.8	58,100	4.6
	GL	61,500	18.2	46,300	3.8
VS072 ECM	WL	68,000	13.6	80,600	4.6
	GW	75,600	19.7	66,200	4.1
	GL	70,900	15.7	52,900	3.4

Note:
Rated in accordance with ISO Standard 13256-1 which includes Pump Penalties
Heating capacities based on 68.0°F DB, 59.0°F WB entering air temperature
Cooling capacities based on 80.6°F DB, 66.2°F WB entering air temperature
Entering water temperatures Full Load: 68°F heating / 86°F cooling

AHRI CERTIFIED™
www.ahridirectory.org
Water Source HP
ANSI/AHRI/ASHRAE/ISO13256-1

AHRI Performance Data, VT, W/ECM Blower

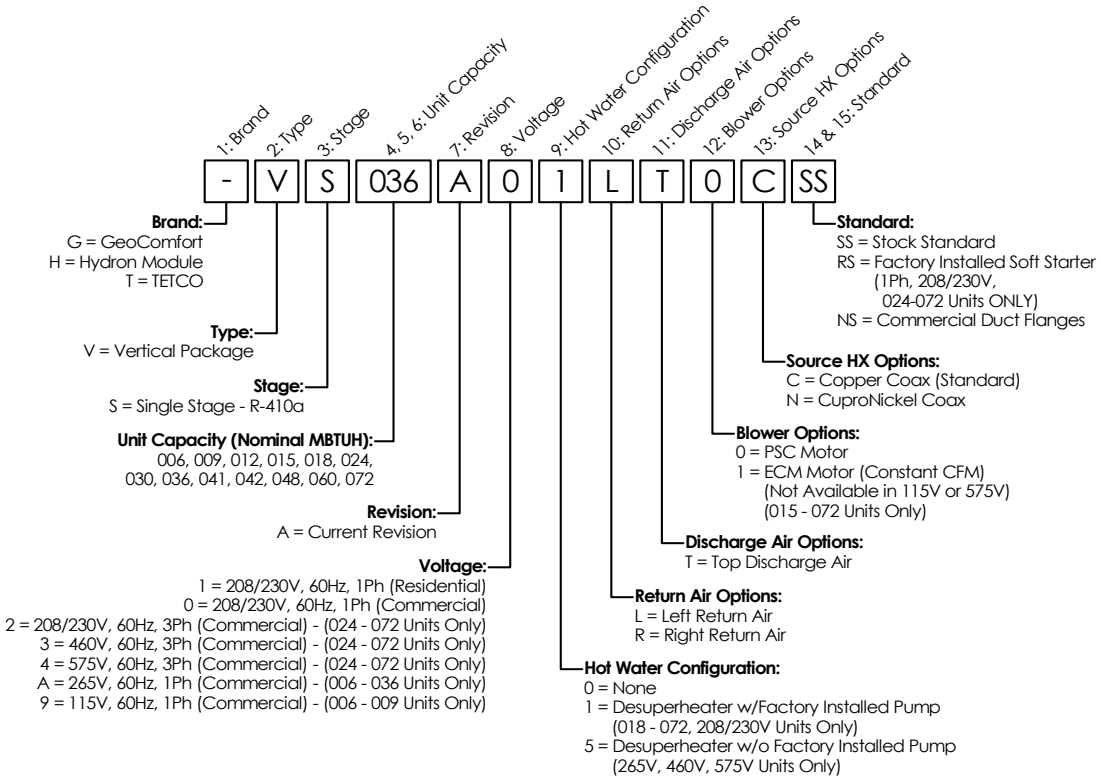
UNIT	RATING TYPE	F/L COOL	F/L EER	F/L HEAT	F/L COP	P/L COOL	P/L EER	P/L HEAT	P/L COP
VT024	WL	24,600	16.1	29,100	5.2	17,600	16.9	21,100	4.7
	GW	27,600	23.8	23,900	4.6	19,900	28.4	16,800	4.4(a)
	GL	25,800	18.6	19,400	4.0	19,300	24.2	14,800	3.8
VT030	WL	30,700	15.9	37,200	5.1	23,100	18.0	27,600	5.5
	GW	34,100	23.1	30,300	4.6	26,500	30.4	22,100	4.7
	GL	32,200	18.4	24,300	3.8	25,500	25.8	20,000	4.2
VT036	WL	35,800	15.4	45,500	5.1	26,100	17.5	31,900	5.4
	GW	40,000	22.8	36,900	4.6	29,500	29.8	25,700	4.7
	GL	37,400	17.7	29,500	3.9	28,500	25.2	22,900	4.2
VT042	WL	44,000	16.0	50,100	5.2	31,800	17.8	36,100	5.8
	GW	49,200	24.0	40,100	4.6	36,500	31.4	28,800	4.7
	GL	45,900	18.5	32,400	3.9	35,100	26.0	25,500	4.2
VT048	WL	49,300	16.2	58,400	5.3	35,800	17.9	42,100	6.0
	GW	54,700	24.5	46,900	4.6	40,600	33.0	33,600	4.9
	GL	51,300	18.9	38,300	3.9	39,200	27.2	30,200	4.3
VT060	WL	58,600	15.4	70,500	5.1	42,200	16.6	52,000	5.8
	GW	64,200	22.0	57,500	4.5	48,300	26.6	41,300	4.7
	GL	60,900	17.6(b)	46,300	3.8	46,500	23.6(c)	36,600	4.2(d)
VT072	WL	66,200	13.8	79,200	4.6	50,600	14.9	61,000	5.1
	GW	72,800	19.7	64,700	4.1	56,900	24.5	49,600	4.3
	GL	68,900	15.8	51,800	3.4	55,300	21.1	44,000	3.9

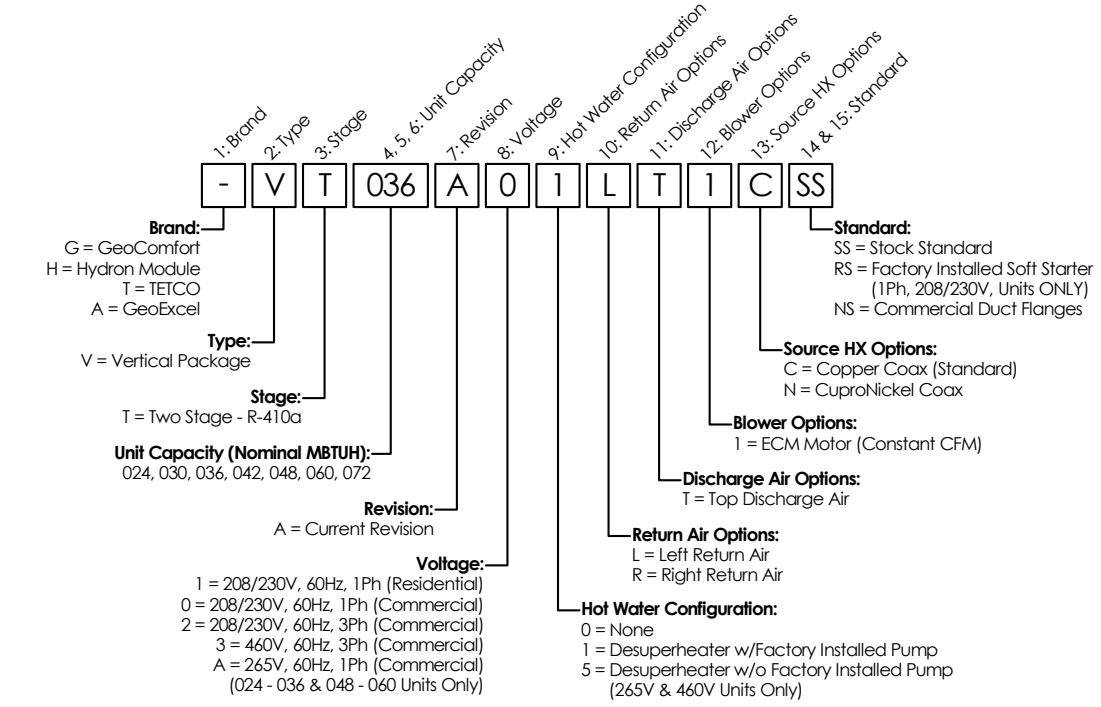
Note:
Rated in accordance with ISO Standard 13256-1 which includes Pump Penalties
Heating capacities based on 68.0°F DB, 59.0°F WB entering air temperature
Cooling capacities based on 80.6°F DB, 66.2°F WB entering air temperature
Entering water temperatures Full Load: 68°F heating / 86°F cooling

(a) 4.2 for 208/230 3 Ph, 460v 3 Ph, and 265v 1Ph
(b)16.9 for 265v 1Ph
(c) 21.7 for 265v 1Ph
(d) 4.0 for 265v 1Ph

ENGINEERING SPECIFICATIONS:

Model Nomenclature Decoders





Section 4: Unit Data Information

Unit Physical Data

VS Vertical Packaged Unit													
Model Number	**006**	**009**	**012**	**015**	**018**	**024**	**030**	**036**	**041**	**042**	**048**	**060**	**072**
Compressor Type	Single Stage Rotary				Single Stage Unloading Scroll								
Fan Wheel (in.)	6 x 8			9 x 7	9 x 7			10 x 8T		11 x 10T			
Fan Motor PSC (HP)	1/16			1/4	1/4	1/3	1/3	1/2		1/2	3/4	1	1
Fan Motor ECM (HP)	N/A	N/A	N/A	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	1	1
*Refrigerant Charge (oz.)	29	30	28.5	40	44	43	53	54	52	69	69	65	70
Air Coil													
Face Area (Sq. Ft.)	2.02			3.49						4.76			
Dimensions (in.)	15.5 x 18.8 x 1			25.4 x 19.8 x 1						28.9 x 23.7 x 1.26			
Number of Rows	N/A Micro-Channel Coil												
Shipped Unit Weight (Nominal) lbs.	187	187	187	234	240	248	265	271	302	357	360	375	367

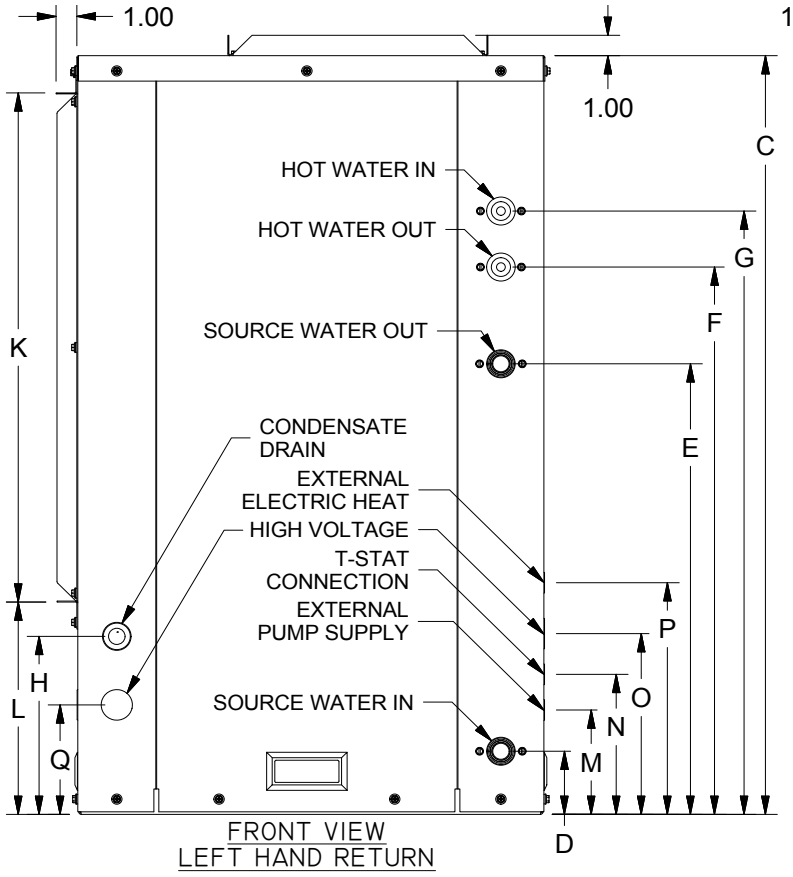
*Always check the unit data plate for actual refrigerant charge volume

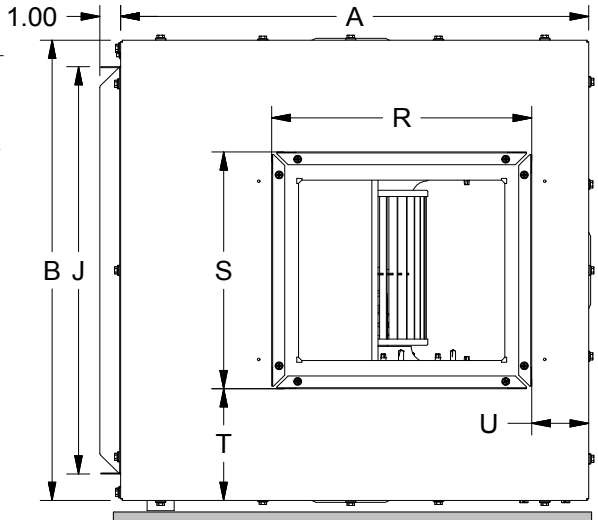
VT Vertical Packaged Unit							
Model Number	**024**	**030**	**036**	**042**	**048**	**060**	**072**
Compressor Type	Dual Stage Unloading Scroll						
Fan Wheel (in.)	9 x 7		10 x 8T	11 x 10T			
Fan Motor ECM (HP)	1/2	1/2	3/4	3/4	3/4	1	1
*Refrigerant Charge (oz.)	44	52	51	72	69	69	64
Air Coil							
Face Area (Sq. Ft.)	3.49			4.76			
Dimensions (in.)	25.4 x 19.8 x 1.00			28.9 x 23.7 x 1.26			
Number of Rows	N/A Micro-Channel Coil						
Shipped Unit Weight (Nominal) lbs.	248	265	271	357	361	373	375

*Always check the unit data plate for actual refrigerant charge volume

ENGINEERING SPECIFICATIONS:

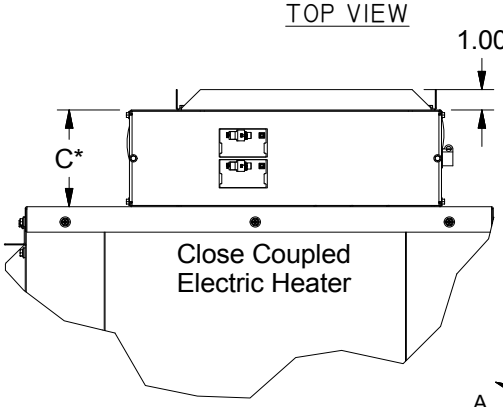
Dimensional Data, Cabinet, Duct Flanges and Installation Clearance

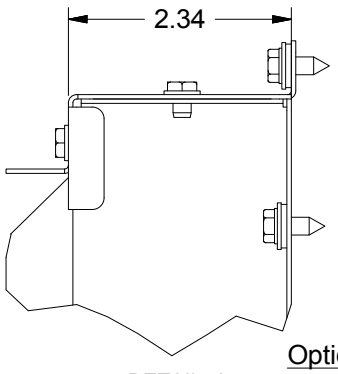




Enertech Recommends A Minimum of 2 to 2 1/2 Feet of Service Area Clearance For Installation And Maintenance.

TOP VIEW





DETAIL A

Optional Filter Rack

Tonnage	Order Item #
006-012	AFR1721A
015-041	AFR2226A
042-072	AFR2430A

Note:
The Return Duct Dimensions Are The Same For The Unit And The Filter Rack.
The Filter Rack Causes The Return Duct To Be Offset From The Unit By 2.34 inches
See Detail A

Dimensional Data Table

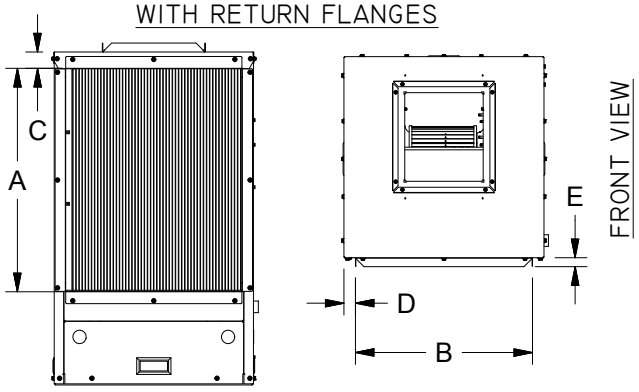
MODEL SIZE		006 - 012	015 - 041			042 - 072	
			*	**	***	*	**
OVERALL CABINET	A	21.50	22.50	22.50	22.50	25.00	25.00
	B	21.50	22.50	22.50	22.50	27.88	27.88
Note: Add C* to C For Units With Close Coupled Heater	C	30.00	37.25	37.25	37.25	41.00	41.00
	C*	N/A	4.75	4.75	4.75	6.50	6.50
WATER CONNECTIONS	D	3.10	3.10	13.34	3.10	3.10	12.75
	E	14.125	22.10	22.10	22.10	16.63	16.63
	F	N/A	26.88	26.88	26.88	24.13	24.13
	G	N/A	29.63	29.63	29.63	26.88	26.88
	H	5.375	8.75	8.75	5.38	5.38	5.38
RETURN AIR DIMENSIONS	J	19.50	20.00	20.00	20.00	23.00	23.00
	K	15.50	25.00	25.00	25.00	29.00	29.00
	L	12.67	10.43	10.43	10.43	10.17	10.17
ELECTRICAL KNOCKOUTS	M	5.625	5.13	5.13	5.13	5.13	5.13
	N	7.375	6.88	6.88	6.88	6.88	6.88
	O	9.375	8.88	8.88	8.88	8.88	8.88
	P	11.875	11.38	11.38	11.38	11.38	11.38
	Q	8.375	5.38	5.38	N/A	N/A	N/A
SUPPLY AIR DIMENSIONS	R	12.50	12.50	12.50	12.50	15.98	15.98
	S	11.625	11.63	11.63	11.63	15.98	15.98
Note: Dimensions Are The Same For Units With Close Coupled Heater	T	4.94	5.39	5.39	5.39	5.95	5.95
	U	1.93	2.88	2.88	2.88	1.12	1.12

NOTE:
* UNITS WITHOUT INTERNAL LOOP PUMP
** UNITS WITH INTERNAL LOOP PUMP
*** UNITS WITH COMPOSITE DRAIN PAN

Notes:
Right hand return dimensions are mirrored to the opposite side as the left hand return dimensions.
Commercial units 006-012 Tons have 3/4" FPT source water connections.
Commercial units 015-072 Tons have 1" FPT source water connections
Residential units have 1" Double O-Ring source water connections.
All Desuperheater connections are 3/4" FPT.
All electrical knockouts are sized for 1/2" or 3/4" conduit.
All measurements are in inches.
All drawings are typical, individual models will vary.

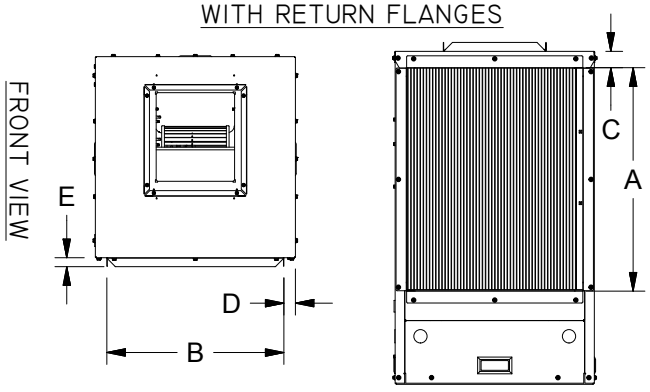
LEFT HAND RETURN MODELS

WITH RETURN FLANGES

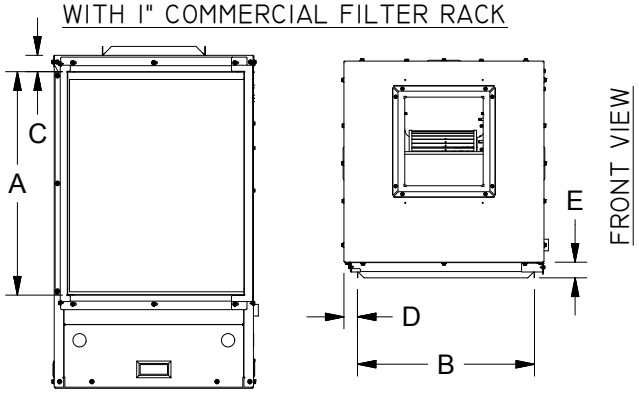


RIGHT HAND RETURN MODELS

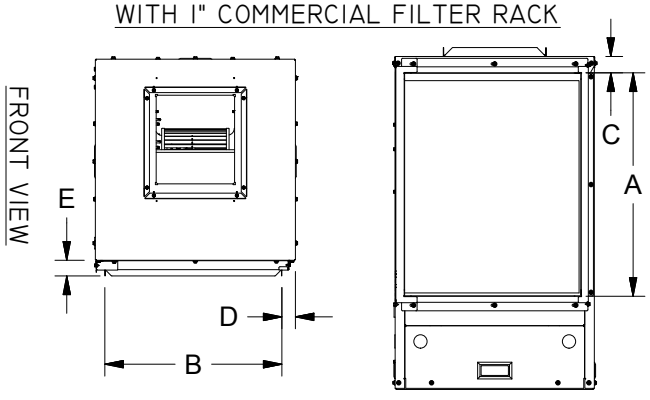
WITH RETURN FLANGES



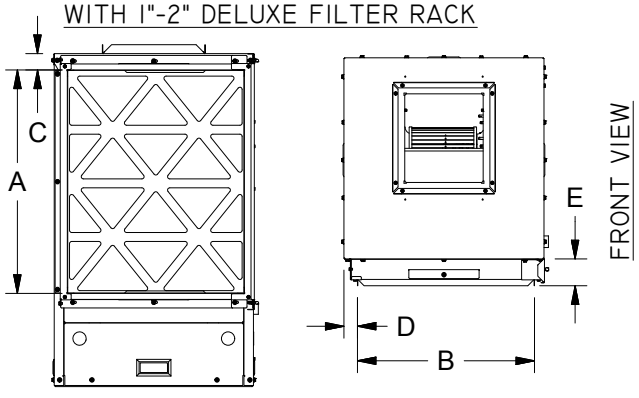
WITH 1" COMMERCIAL FILTER RACK



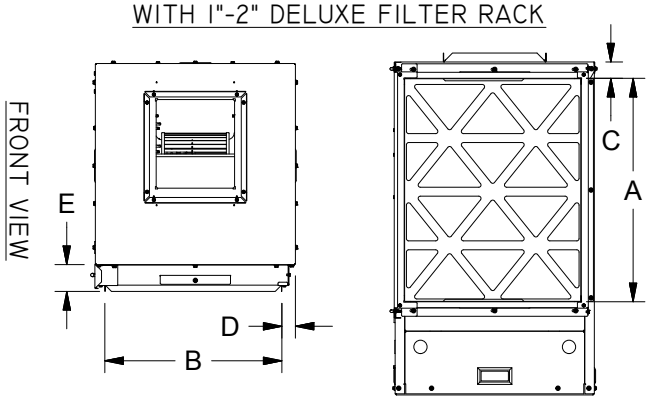
WITH 1" COMMERCIAL FILTER RACK



WITH 1"-2" DELUXE FILTER RACK



WITH 1"-2" DELUXE FILTER RACK



UNIT	DESCRIPTION	A	B	C	D	E
006-012	RETURN DUCT FLANGES	15.50	19.50	1.83	1.00	1.00
	1" COMMERCIAL RACK	15.50	19.50	1.83	1.00	1.75
	1"-2" DELUXE RACK	15.50	19.50	1.83	1.00	3.00
015-041	RETURN DUCT FLANGES	25.00	20.00	1.83	1.30	1.00
	1" COMMERCIAL RACK	25.00	20.00	1.83	1.30	1.75
	1"-2" DELUXE RACK	25.00	20.00	1.83	1.30	3.00
042-072	RETURN DUCT FLANGES	29.00	23.00	1.83	3.25	1.00
	1" COMMERCIAL RACK	29.00	23.00	1.83	3.25	1.75
	1"-2" DELUXE RACK	29.00	23.00	1.83	3.25	3.00

ENGINEERING SPECIFICATIONS:

PSC Fan Performance, Single Stage Compressor Units

*VS Series PSC Fan Performance Data															
Model	Motor Speed	Blower Size	Motor HP	CFM Nominal	Static Pressure (inches w.c.)										
					0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.60	0.70	0.80
006/009/012	H	6 x 9	1/16	350 (009, 012)	410	400	400	390	380	375	360	350	335	300	265	
	M/H				370	355	350	340	335	320	300	275				
	M/L			275 (006)	340	330	325	315	305	295	285	275	260			
	L				290	280	270	265	255							
015/018	H	9 x 7	1/4		1120	1110	1090	1065	1040	1015	990	960	935	870	770	595
	M			700 (018)	775	775	770	760	750	740	730	715	695	635	525	
	L			600 (015)	665	660	660	660	650	640	630	610	590	525	430	
024/030	H	9 x 7	1/3	1000 (030)	1230	1220	1200	1170	1145	1120	1090	1060	1025	955	860	720
	M			800 (024)	950	950	945	940	925	915	900	890	870	830	755	625
	L				810	810	815	810	810	805	800	790	775	740	670	
036	H	10 x 8	1/2	1150	1445	1430	1420	1410	1400	1388	1375	1360	1340	1290	1215	1120
	M				985	990	990	995	995	995	995	990	985	960	920	860
	L				840	850	850	855	860	860	865	860	860	840	805	755
041	H	10 x 8	1/2	1200	1445	1430	1420	1410	1400	1388	1375	1360	1340	1290	1215	1120
	M				985	990	990	995	995	995	995	990	985	960	920	860
	L				840	850	850	855	860	860	865	860	860	840	805	755
042	H	11 x 10	1/2	1450	1500	1510	1510	1510	1510	1515	1520	1520	1505	1490	1465	1425
	M				890	890	895	890	895	885	880					
	L															
048	H	11 x 10	3/4		1945	1940	1940	1945	1950	1950	1950	1945	1930	1880	1820	1750
	M			1550	1480	1485	1500	1510	1515	1530	1540	1545	1540	1515	1485	1430
	L				1150	1180	1190	1200	1210	1215	1225	1225	1220	1220	1205	1170
060/072	H	11 x 10	1	2100 (072)									2280	2250	2210	2160
	M			1850 (060)	1890	1900	1905	1905	1905	1910	1915	1920	1930	1915	1880	1795
	L						1500	1515	1525	1545	1550	1560	1570	1560	1540	

Notes:

1. PSC Blower motors come with 3 or 4 speed taps. To change the speed of the motor to a higher or lower speed, remove the electric box cover that is mounted on the blower. Locate the label on the motor to identify the wire color for each speed. Remove the wire nut on the existing speed and replace with the wire of selected speed.
2. Max ESP for VS015 through VS041 models with external electric heat is 0.6 in. w.c. and for VS042 through VS072 models it is 0.9 in. w.c.. Exceeding the Max ESP may result in nuisance trips of the electric heat. Thermal limits are rated at 100,000 cycles.
3. VS042 models with external electric heat **MUST** be ran at the High speed tap in order to avoid nuisance trips.

ECM Fan Performance, Single & Two-Stage Compressor Units

*VS/*VT Series ECM Fan Performance Data: One & Two-Stage Compressor Units																			
Model	Max ESP in. w.c.[2]	Program[3]	Heating Mode		Cooling Mode		Dehumidification Mode		Fan Only	AUX/ EMG Heat	DIP Switch Settings							
			1st	2nd	1st	2nd	1st	2nd			S1	S2	S3	S4	S5	S6	S7	S8
015	1.1	A	-	660	-	660	-	550	330	-	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
		B	**-**	**550**	**-**	**550**	**-**	**490**	**290**	**-**	**ON**	**OFF**	**OFF**	**OFF**	**ON**	**OFF**	**OFF**	**OFF**
		C	-	490	-	490	-	400	240	-	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
		D	-	410	-	400	-		200	-	ON	ON	OFF	OFF	ON	ON	OFF	OFF
018	1.1	A	-	750	-	750	-	670	390	-	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
		B	**-**	**700**	**-**	**700**	**-**	**625**	**370**	**-**	**ON**	**ON**	**ON**	**OFF**	**ON**	**ON**	**OFF**	**OFF**
		C	-	675	-	675	-	540	320	-	ON	ON	OFF	OFF	ON	ON	OFF	OFF
		D	-	570	-	570	-	490	250	-	ON	ON	OFF	ON	ON	ON	OFF	OFF
024	1.1	A	700	880	700	880	590	750	450	870	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
		B	**650**	**800**	**650**	**800**	**540**	**680**	**400**	**800**	**ON**	**OFF**	**OFF**	**OFF**	**ON**	**OFF**	**OFF**	**OFF**
		C	570	720	570	720	450	630	340	730	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
		D	520	680	520	680			310	700	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
030	1.1	A	800	1100	825	1100	700	935	575	1100	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
		B	**740**	**1000**	**760**	**1000**	**650**	**850**	**500**	**990**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**
		C	725	900	725	900	600	765	450	890	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
		D	650	800	650	800			400	800	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
036	1.1	A	880	1320	880	1210	750	1030	605	1480	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
		B	**800**	**1200**	**800**	**1100**	**680**	**935**	**550**	**1400**	**OFF**	**ON**	**OFF**	**OFF**	**OFF**	**ON**	**OFF**	**OFF**
		C	720	1080	720	990			495	1270	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
		D	640	990	640	880			440	1140	ON	ON	ON	OFF	ON	ON	OFF	OFF
041	1.1	A	-	1320	-	1300	800	1100	650	1480	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
		B	**-**	**1320**	**-**	**1210**	**750**	**1030**	**605**	**1480**	**OFF**	**ON**	**ON**	**OFF**	**OFF**	**ON**	**OFF**	**OFF**
		C	-	1200	-	1100	680	935	550	1400	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
		D	-	1080	-	990			495	1270	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
042	1.1	A	1220	1510	1250	1600	1055	1350	730	1660	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
		B	**1160**	**1400**	**1160**	**1450**	**975**	**1235**	**660**	**1490**	**ON**	**OFF**	**OFF**	**OFF**	**ON**	**OFF**	**OFF**	**OFF**
		C	1000	1220	1025	1300	875	1120	590	1330	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
		D	900	1110	950	1200			490	1220	ON	ON	OFF	OFF	ON	ON	OFF	OFF
048	1.1	A	1380	1710	1380	1770	1175	1500	810	1880	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
		B	**1250**	**1540**	**1270**	**1610**	**1060**	**1345**	**750**	**1720**	**OFF**	**ON**	**OFF**	**OFF**	**OFF**	**ON**	**OFF**	**OFF**
		C	1130	1400	1190	1430	940	1225	670	1540	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
		D	1000	1220	1000	1260			610	1350	ON	ON	ON	OFF	ON	ON	OFF	OFF
060	1.1	A	1850	2180	1800	2200	1500	1850	1030	2190	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
		B	**1680**	**1980**	**1580**	**2000**	**1350**	**1650**	**940**	**1990**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**
		C	1500	1700	1430	1750			820	1770	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
		D	1160	1350	1250	1500			710	1430	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
072	0.9	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		B	**1850**	**2180**	**1800**	**2200**	**1500**	**1850**	**1030**	**2190**	**OFF**	**OFF**	**ON**	**OFF**	**OFF**	**OFF**	**OFF**	**OFF**
		C	1680	1980	1580	2000			940	1990	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
		D	1500	1700	1430	1750			820	1770	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF

Notes:

1. Program **B (Bold Type)** is factory settings and rated CFM. CFM is controlled within 5% up to the Max ESP.
2. Max ESP includes allowance for wet coil and NO FILTER
3. Power must be off to the unit for at least 3 seconds before the ECM motor will recognize a program change.
4. Max ESP for VS015 and VS018 models with external electric heat is 0.9 in. w.c.; for VS/VT024 through VS/VT041 models it is 0.6 in. w.c.; and for VS042 through VS/VT072 it is 0.9 in. w.c. Exceeding the Max ESP may result in nuisance trips of the electric heat. Thermal limits are rated at 100,000 cycles.

***VS/*VT Series Dehumidification Mode Options**

DIP Switch		Mode	Operation
S9	S10		
ON	OFF	Normal	Dehumidification mode disabled (Normal Htg/Clg CFM)-- Factory setting.
OFF	ON	ODD	On Demand Dehumidification mode (humidistat input at terminal ODD)-- Humidistat required.
OFF	OFF	Constant Dehum	Constant Dehumidification mode (always uses dehum CFM for cooling and normal CFM for heating)--No humidistat required.
ON	ON	Not Used	Not an applicable selection.

Notes:

1. To enter dehumidification mode, ODD input should be 0 VAC; for normal cooling CFM, ODD input should be 24 VAC.
2. Heating CFM is not affected by dehumidification mode. When in dehumidification mode, cooling CFM is 85% of normal CFM.

ENGINEERING SPECIFICATIONS:

Glossary of Terms, Heating and Cooling Calculations and Factors

CFM = Airflow, Cubic Feet/Minute	HR = Total Heat Of Rejection, Btu/hr
COP = Coefficient of Performance = BTU Output / BTU Input	KW = Total Power Unit Input, Kilowatts
DH = Desuperheater Capacity, Btu/hr	LAT = Leaving Air Temperature, Fahrenheit
EAT = Entering Air Temperature, Fahrenheit (Dry Bulb/Wet Bulb)	LC = Latent Cooling Capacity, Btu/hr
EER = Energy Efficiency Ratio = BTU output/Watts input	SC = Sensible Cooling Capacity, Btu/hr
EWT = Entering Source Water Temperature, Fahrenheit	LWT = Leaving Source Water Temperature, Fahrenheit
ELT = Entering Load Water Temperature, Fahrenheit	LLT = Leaving Load Water Temperature, Fahrenheit
GPM = Water Flow, Gallons Per Minute	TC = Total Cooling Capacity, Btu/hr
HC = Total Heating Capacity, Btu/hr	WPD = Water Pressure Drop, PSI & Feet of Water
HE = Total Heat Of Extraction, Btu/hr	

Heating & Cooling Calculations

Heating	Cooling
$LAT = EAT + \frac{HC}{CFM \times 1.08}$	$LAT\ (DB) = EAT\ (DB) - \frac{SC}{CFM \times 1.08}$
$LWT = EWT - \frac{HE}{GPM \times 500}$	$LWT = EWT + \frac{HR}{GPM \times 500}$
LC = TC - SC	

Cooling Correction Factors

EAT (WB) °F	TC	HR	kW
55	0.8215	0.8293	0.8635
60	0.8955	0.9001	0.9205
65	0.9701	0.9715	0.9774
67	1.0000	1.0000	1.0000
70	1.0446	1.0425	1.0335
75	1.1179	1.1124	1.0878

Heating Correction Factors

EAT °F	HC	HE	kW
50	1.0465	1.1188	0.8024
55	1.0351	1.0918	0.8436
60	1.0253	1.0645	0.8928
65	1.0108	1.0300	0.9454
70	1.0000	1.0000	1.0000
75	0.9895	0.9701	1.0553
80	0.9742	0.9489	1.0518

Sensible Cooling Correction Factors

EAT (WB) °F	EAT (DB) °F				
	70	75	80	85	90
55	1.201	1.289			
60	0.943	1.067	1.192		
65	0.797	0.952	1.106	1.261	
67	0.624	0.812	1.000	1.188	1.343
70		0.697	0.820	0.944	1.067
75			0.637	0.817	0.983

Water Flow Selection

Proper flow rate is crucial for reliable operation of geothermal heat pumps. The performance data shows three flow rates for each entering water temperature (EWT column). The general "rule of thumb" when selecting flow rates is the following:

Top flow rate: Open loop systems (1.5 to 2.0 gpm per ton)

Middle flow rate: Minimum closed loop system flow rate (2.25 to 2.50 gpm/ton)
Bottom flow rate: Nominal (optimum) closed loop system flow rate (3.0 gpm/ton)

Although the industry standard is adequate in most areas of North America, it is important to consider the application type before applying this "rule of thumb." Antifreeze is generally required for all closed loop (geothermal) applications. Extreme Southern U.S. locations are the only exception. Open loop (well water) systems cannot use antifreeze, and must have enough flow rate in order to avoid freezing conditions at the Leaving Source Water Temperature (LWT) connection.

Calculations must be made for all systems without antifreeze to determine if the top flow rate is adequate to prevent LWT at or near freezing conditions. The following steps should be taken in making this calculation:

Determine minimum EWT based upon your geographical area.

Go to the performance data table for the heat pump model selected and look up the Heat of Extraction (HE) at the "rule of thumb" water flow rate (GPM) and at the design Entering Air Temperature (EAT).
Calculate the temperature difference (TD) based upon the HE and GPM of the model.
TD = HE / (GPM x 500).
Calculate the LWT.
LWT = EWT - TD.

If the LWT is below 35-38°F, there is potential for freezing conditions if the flow rate or water temperature is less than ideal conditions, and the flow rate must be increased.

Example 1:
EWT = 50 ºF
Model VS018 with a PSC fan. Flow rate = 2.3 GPM.
Air Flow = 600 CFM. HE = 14,300 Btuh.
TD = 14,300 / (2.3 x 500) = 12.4 ºF
LWT = 50 - 12.4 = 37.6 ºF
Since the water flow is leaving at approximately 38 ºF, water flow rate is acceptable.

Example 2:
EWT = 40 ºF
Model VS018 with a PSC fan. Flow rate = 2.3 GPM.
Air Flow = 600 CFM. HE = 12,300 Btuh.
TD = 12,300 / (2.3 x 500) = 10.7 ºF
LWT = 40 - 10.7 = 29.3 ºF
Water flow rate must be increased to avoid freezing.

Performance Data Notes:

1. Capacity data is based on 15% (by mass) methanol antifreeze solution (multiplier: 485).
2. Heating data is based on 70 °F EAT. Cooling data is based on 80/67°F EAT. Any condition outside performance table(s) requires correction factor(s).
3. Performance data accurate within ±15%.
4. Unit performance test is run without hot water generation.
5. Desuperheater capacity is based upon 2.0 GPM water flow at 70 °F entering water temperature.
6. Capacity data includes fan power but not pump power and it does not reflect fan or pump power correction for AHRI/ISO conditions.
7. Performance data is based upon the lower voltage of dual voltage rated units.
8. Interpolation of unit performance data is permissible; extrapolation is not.
9. Performance data is a result of lab testing and is not related to warranty.
10. Due to variations in installation, actual unit performance may vary from the tabulated data.
11. See Flow Rate Selection above for proper application.
12. Continued research and development may result in a change to the current product design and specifications without notice.

ENGINEERING SPECIFICATIONS:

Model VS006, 1/2 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	1.5	1.3	3.0	260	88.2	5.1	3.5	0.46	3.23		Operation Not Recommended							
				300	85.9	5.1	3.6	0.45	3.32									
				340	84.0	5.1	3.6	0.45	3.37									
30	0.8	0.6	1.3	260	88.6	5.2	3.7	0.46	3.33									
				300	86.3	5.3	3.7	0.45	3.43									
				340	84.4	5.3	3.8	0.45	3.46									
	1.1	0.8	1.9	260	89.3	5.4	3.8	0.46	3.42									
				300	86.8	5.5	3.9	0.46	3.51									
				340	84.9	5.5	3.9	0.45	3.55									
	1.5	1.2	2.8	260	89.9	5.6	4.0	0.47	3.49									
				300	87.4	5.6	4.1	0.46	3.59									
				340	85.3	5.6	4.1	0.45	3.63									
40	0.8	0.5	1.2	260	91.5	6.0	4.4	0.47	3.74									
				300	88.8	6.1	4.5	0.46	3.85									
				340	86.6	6.1	4.5	0.46	3.89									
	1.1	0.7	1.7	260	92.2	6.2	4.6	0.48	3.83									
				300	89.4	6.3	4.7	0.47	3.94									
				340	87.1	6.3	4.7	0.46	3.99									
	1.5	1.1	2.6	260	92.9	6.4	4.8	0.48	3.92		260	59.9	8.0	5.6	9.0	0.30	27.1	
				300	90.0	6.5	4.9	0.47	4.03		300	61.3	8.2	6.1	9.2	0.30	27.7	
				340	87.7	6.5	4.9	0.47	4.08		340	62.5	8.4	6.4	9.4	0.30	28.1	
50	0.8	0.5	1.1	260	94.2	6.8	5.1	0.48	4.11		260	59.7	8.0	5.7	9.2	0.36	22.4	
				300	91.1	6.8	5.2	0.48	4.22		300	61.1	8.2	6.1	9.5	0.36	22.9	
				340	88.7	6.8	5.2	0.47	4.28		340	62.4	8.4	6.5	9.6	0.36	23.2	
	1.1	0.7	1.6	260	95.0	7.0	5.4	0.49	4.22		260	59.5	8.1	5.8	9.3	0.34	23.6	
				300	91.9	7.1	5.4	0.48	4.33		300	60.9	8.3	6.2	9.5	0.34	24.2	
				340	89.3	7.1	5.5	0.47	4.39		340	62.2	8.4	6.6	9.6	0.34	24.5	
	1.5	1.0	2.4	260	95.8	7.2	5.6	0.49	4.31		260	59.2	8.2	5.8	9.3	0.33	25.0	
				300	92.5	7.3	5.7	0.48	4.43		300	60.7	8.4	6.3	9.5	0.33	25.6	
				340	89.9	7.3	5.7	0.48	4.48		340	62.0	8.5	6.6	9.6	0.33	25.9	
60	0.8	0.5	1.1	260	96.8	7.5	5.8	0.50	4.45		260	60.0	7.8	5.6	9.2	0.41	19.3	
				300	93.5	7.6	5.9	0.49	4.58		300	61.4	8.0	6.0	9.4	0.41	19.8	
				340	90.7	7.6	6.0	0.48	4.64		340	62.6	8.1	6.4	9.5	0.41	20.1	
	1.1	0.7	1.5	260	97.8	7.8	6.1	0.50	4.57		260	59.8	7.9	5.7	9.2	0.39	20.4	
				300	94.3	7.9	6.2	0.49	4.70		300	61.1	8.1	6.1	9.4	0.39	20.9	
				340	91.4	7.9	6.2	0.48	4.76		340	62.4	8.2	6.5	9.6	0.39	21.2	
	1.5	1.0	2.2	260	98.7	8.0	6.3	0.50	4.68		260	59.6	8.0	5.7	9.2	0.37	21.5	
				300	95.0	8.1	6.4	0.49	4.81		300	60.9	8.2	6.2	9.5	0.37	22.1	
				340	92.1	8.1	6.4	0.49	4.86		340	62.2	8.3	6.5	9.6	0.37	22.4	
70	0.8	0.4	1.0	260	99.4	8.2	6.5	0.51	4.76		260	60.6	7.5	5.4	9.0	0.46	16.4	
				300	95.7	8.3	6.6	0.50	4.90		300	61.9	7.7	5.9	9.2	0.46	16.8	
				340	92.6	8.3	6.6	0.49	4.96		340	63.2	7.8	6.2	9.4	0.46	17.0	
	1.1	0.6	1.4	260	100.4	8.5	6.8	0.51	4.88		260	60.4	7.6	5.5	9.0	0.44	17.3	
				300	96.5	8.6	6.9	0.50	5.03		300	61.7	7.8	5.9	9.3	0.44	17.8	
				340	93.4	8.6	6.9	0.50	5.08		340	63.0	7.9	6.3	9.4	0.44	18.0	
	1.5	0.9	2.1	260	101.3	8.8	7.0	0.52	5.00		260	60.2	7.6	5.6	9.1	0.42	18.3	
				300	97.4	8.9	7.1	0.51	5.14		300	61.5	7.8	6.0	9.3	0.42	18.8	
				340	94.2	8.9	7.2	0.50	5.20		340	62.8	8.0	6.3	9.4	0.42	19.0	
80	0.8	0.4	1.0	260	101.6	8.9	7.1	0.52	5.01		260	61.3	7.1	5.3	8.8	0.51	14.0	
				300	97.6	9.0	7.2	0.51	5.15		300	62.6	7.3	5.6	9.0	0.51	14.3	
				340	94.4	9.0	7.2	0.50	5.22		340	63.8	7.4	6.0	9.2	0.51	14.5	
	1.1	0.6	1.3	260	102.7	9.2	7.4	0.52	5.15		260	61.1	7.2	5.3	8.8	0.49	14.8	
				300	98.6	9.3	7.5	0.51	5.29		300	62.4	7.4	5.7	9.0	0.49	15.1	
				340	95.2	9.3	7.5	0.51	5.36		340	63.6	7.5	6.0	9.1	0.49	15.3	
	1.5	0.9	2.0	260	103.7	9.5	7.7	0.53	5.26		260	60.9	7.3	5.4	8.8	0.46	15.6	
				300	99.5	9.6	7.8	0.52	5.41		300	62.2	7.5	5.8	9.0	0.47	16.0	
				340	96.0	9.6	7.8	0.51	5.47		340	63.4	7.6	6.1	9.1	0.47	16.2	
90	0.8	0.4	0.9	260	103.8	9.5	7.7	0.53	5.24		260	62.0	6.7	5.1	8.6	0.56	12.0	
				300	99.6	9.6	7.8	0.52	5.40		300	63.2	6.9	5.4	8.8	0.56	12.2	
				340	96.1	9.6	7.8	0.51	5.46		340	64.3	7.0	5.8	8.9	0.56	12.4	
	1.1	0.6	1.3	260	105.0	9.8	8.0	0.54	5.38		260	61.8	6.8	5.1	8.6	0.54	12.6	
				300	100.6	9.9	8.1	0.53	5.53		300	63.0	7.0	5.5	8.8	0.54	12.9	
				340	97.0	9.9	8.1	0.52	5.60		340	64.2	7.1	5.8	8.9	0.54	13.1	
	1.5	0.8	1.9	260	106.1	10.1	8.3	0.54	5.50		260	61.6	6.9	5.2	8.6	0.51	13.4	
				300	101.6	10.2	8.4	0.53	5.65		300	62.8	7.0	5.6	8.8	0.52	13.7	
				340	97.9	10.2	8.4	0.52	5.72		340	64.0	7.1	5.9	8.9	0.52	13.9	
100	0.8	0.4	0.8	Operation Not Recommended							260	62.7	6.3	4.9	8.4	0.62	10.2	
											300	63.8	6.5	5.2	8.6	0.62	10.4	
											340	64.9	6.6	5.5	8.7	0.62	10.6	
	1.1	0.5	1.2								260	62.5	6.4	4.9	8.4	0.59	10.8	
											300	63.7	6.5	5.3	8.6	0.59	11.0	
											340	64.8	6.6	5.6	8.6	0.59	11.2	
	1.5	0.8	1.7								260	62.3	6.4	5.0	8.3	0.56	11.4	
											300	63.5	6.6	5.3	8.5	0.57	11.7	
											340	64.6	6.7	5.7	8.6	0.57	11.8	
110	0.8	0.3	0.8								260	63.5	5.8	4.6	8.1	0.68	8.6	
											300	64.6	6.0	5.0	8.3	0.68	8.8	
											340	65.6	6.0	5.3	8.4	0.68	8.9	
	1.1	0.5	1.1								260	63.3	5.9	4.7	8.1	0.65	9.0	
											300	64.4	6.0	5.0	8.2	0.65	9.3	
											340	65.5	6.1	5.3	8.3	0.65	9.4	
	1.5	0.7	1.7								260	63.1	5.9	4.7	8.0	0.62	9.6	
											300	64.3	6.1	5.1	8.2	0.62	9.8	
											340	65.3	6.2	5.4	8.3	0.62	9.9	
120	0.8	0.3	0.8								260	64.3	5.2	4.4	7.8	0.75	7.0	
											300	65.4	5.4	4.7	7.9	0.75	7.1	
											340	66.4	5.4	5.0	8.0	0.75	7.2	
	1.1	0.5	1.1								260	64.1	5.3	4.5	7.7	0.71	7.4	
											300	65.2	5.4	4.8	7.8	0.72	7.5	
											340	66.2	5.5	5.1	7.9	0.72	7.7	
	1.5	0.7	1.6								260	64.0	5.3	4.5	7.6	0.68	7.8	
											300	65.1	5.5	4.8	7.8	0.68	8.0	
											340	66.1	5.5	5.1	7.9	0.68	8.1	

Model VS009, 3/4 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	2.3	2.6	5.9	300	94.0	7.8	5.3	0.72	3.15		Operation Not Recommended							
				350	90.9	7.9	5.5	0.70	3.31									
				400	88.6	8.0	5.7	0.69	3.43									
30	1.1	0.8	1.8	300	93.9	7.7	5.3	0.72	3.14									
				350	90.8	7.9	5.5	0.70	3.31									
				400	88.5	8.0	5.7	0.68	3.43									
	1.7	1.5	3.4	300	95.2	8.2	5.7	0.73	3.27									
				350	92.0	8.3	5.9	0.71	3.44									
				400	89.5	8.4	6.1	0.69	3.56									
	2.3	2.3	5.4	300	95.9	8.4	5.9	0.74	3.33									
				350	92.6	8.5	6.1	0.71	3.51									
				400	90.0	8.7	6.3	0.70	3.63									
40	1.1	0.7	1.7	300	97.2	8.8	6.3	0.75	3.46									
				350	93.7	9.0	6.5	0.72	3.64									
				400	91.0	9.1	6.7	0.71	3.77									
	1.7	1.4	3.2	300	98.7	9.3	6.7	0.76	3.59									
				350	95.0	9.4	6.9	0.73	3.78									
				400	92.2	9.6	7.1	0.72	3.92									
	2.3	2.2	5.0	300	99.4	9.5	6.9	0.76	3.67		300	54.7	13.0	8.2	14.5	0.44	29.6	
				350	95.7	9.7	7.2	0.74	3.86		350	56.4	13.6	8.9	15.1	0.44	30.7	
				400	92.8	9.8	7.4	0.72	4.00		400	58.0	14.0	9.5	15.5	0.44	31.7	
50	1.1	0.7	1.6	300	100.5	9.9	7.3	0.77	3.78		300	55.4	12.4	8.0	14.4	0.56	22.1	
				350	96.6	10.1	7.5	0.74	3.98		350	57.1	13.0	8.7	14.9	0.57	22.9	
				400	93.6	10.2	7.7	0.73	4.12		400	58.6	13.4	9.2	15.3	0.57	23.6	
	1.7	1.3	3.0	300	102.2	10.4	7.8	0.78	3.93		300	55.0	12.8	8.1	14.5	0.52	24.7	
				350	98.0	10.6	8.0	0.75	4.13		350	56.7	13.3	8.8	15.1	0.52	25.7	
				400	94.9	10.7	8.2	0.74	4.28		400	58.3	13.7	9.4	15.5	0.52	26.5	
	2.3	2.0	4.7	300	103.0	10.7	8.0	0.78	4.01		300	54.8	12.9	8.2	14.6	0.50	26.0	
				350	98.8	10.9	8.3	0.76	4.22		350	56.5	13.4	8.9	15.1	0.50	27.0	
				400	95.6	11.0	8.5	0.74	4.37		400	58.1	13.9	9.5	15.6	0.50	27.9	
60	1.1	0.6	1.5	300	104.0	11.0	8.3	0.79	4.10		300	56.3	11.9	7.7	14.0	0.64	18.6	
				350	99.6	11.2	8.6	0.76	4.32		350	57.9	12.3	8.4	14.5	0.64	19.4	
				400	96.3	11.4	8.8	0.75	4.47		400	59.4	12.7	8.9	14.9	0.64	20.0	
	1.7	1.2	2.8	300	105.8	11.6	8.9	0.80	4.26		300	55.8	12.2	7.8	14.2	0.58	20.9	
				350	101.2	11.8	9.2	0.77	4.49		350	57.5	12.7	8.5	14.7	0.58	21.7	
				400	97.7	12.0	9.4	0.76	4.65		400	59.0	13.1	9.1	15.1	0.59	22.4	
	2.3	1.9	4.4	300	106.8	11.9	9.2	0.80	4.35		300	55.6	12.3	7.9	14.2	0.56	22.0	
				350	102.1	12.1	9.5	0.78	4.58		350	57.3	12.8	8.6	14.7	0.56	22.8	
				400	98.5	12.3	9.7	0.76	4.74		400	58.8	13.2	9.2	15.1	0.56	23.6	
70	1.1	0.6	1.4	300	107.6	12.2	9.4	0.81	4.43		300	57.2	11.2	7.4	13.7	0.71	15.9	
				350	102.8	12.4	9.7	0.78	4.66		350	58.7	11.7	8.0	14.1	0.71	16.5	
				400	99.1	12.6	10.0	0.76	4.82		400	60.2	12.1	8.6	14.5	0.71	17.0	
	1.7	1.1	2.6	300	109.7	12.9	10.1	0.82	4.60		300	56.8	11.5	7.5	13.8	0.65	17.8	
				350	104.6	13.1	10.4	0.79	4.84		350	58.4	12.0	8.2	14.2	0.65	18.5	
				400	100.7	13.3	10.6	0.78	5.01		400	59.8	12.4	8.7	14.6	0.65	19.1	
	2.3	1.8	4.1	300	110.7	13.2	10.4	0.82	4.70		300	56.6	11.7	7.6	13.8	0.62	18.8	
				350	105.5	13.4	10.7	0.80	4.94		350	58.2	12.1	8.3	14.3	0.62	19.5	
				400	101.5	13.6	11.0	0.78	5.12		400	59.6	12.5	8.8	14.7	0.62	20.1	
80	1.1	0.6	1.3	300	111.3	13.4	10.6	0.83	4.73		300	58.0	10.7	7.1	13.3	0.78	13.8	
				350	106.0	13.6	10.9	0.80	4.98		350	59.5	11.1	7.7	13.8	0.78	14.3	
				400	102.0	13.8	11.1	0.79	5.15		400	60.9	11.5	8.3	14.1	0.78	14.7	
	1.7	1.1	2.5	300	113.6	14.1	11.2	0.84	4.91		300	57.6	11.0	7.2	13.4	0.71	15.4	
				350	108.0	14.4	11.6	0.81	5.17		350	59.2	11.4	7.9	13.9	0.71	16.0	
				400	103.7	14.6	11.8	0.80	5.35		400	60.6	11.8	8.4	14.2	0.71	16.5	
	2.3	1.7	3.9	300	114.8	14.5	11.6	0.85	5.01		300	57.4	11.1	7.3	13.4	0.68	16.3	
				350	109.0	14.8	12.0	0.82	5.28		350	59.0	11.5	8.0	13.9	0.68	16.9	
				400	104.6	15.0	12.2	0.80	5.47		400	60.4	11.9	8.5	14.3	0.69	17.4	
90	1.1	0.5	1.2	300	115.1	14.6	11.7	0.85	5.01		300	58.8	10.1	6.9	13.0	0.85	11.9	
				350	109.3	14.9	12.0	0.83	5.27		350	60.3	10.5	7.5	13.4	0.86	12.3	
				400	104.9	15.1	12.3	0.81	5.46		400	61.6	10.9	7.9	13.8	0.86	12.7	
	1.7	1.0	2.4	300	117.5	15.4	12.4	0.87	5.21		300	58.5	10.4	7.0	13.0	0.78	13.3	
				350	111.4	15.7	12.8	0.84	5.48		350	60.0	10.8	7.6	13.5	0.78	13.8	
				400	106.8	15.9	13.1	0.82	5.68		400	61.3	11.2	8.1	13.8	0.78	14.2	
	2.3	1.6	3.7	300	118.8	15.8	12.8	0.87	5.31		300	58.3	10.5	7.0	13.0	0.75	14.0	
				350	112.6	16.1	13.2	0.84	5.59		350	59.8	10.9	7.6	13.5	0.75	14.5	
				400	107.8	16.3	13.5	0.83	5.79		400	61.1	11.3	8.2	13.8	0.75	15.0	
100	1.1	0.5	1.1	Operation Not Recommended							300	59.8	9.4	6.5	12.6	0.94	9.9	
											350	61.2	9.8	7.1	13.0	0.95	10.3	
											400	62.5	10.1	7.6	13.3	0.95	10.6	
	1.7	0.9	2.1								300	59.5	9.6	6.6	12.6	0.87	11.1	
											350	60.9	10.0	7.2	13.0	0.87	11.6	
											400	62.2	10.4	7.7	13.3	0.87	11.9	
	2.3	1.5	3.4								300	59.3	9.7	6.7	12.6	0.83	11.7	
											350	60.7	10.1	7.3	13.0	0.83	12.2	
											400	62.0	10.5	7.8	13.3	0.83	12.6	
110	1.1	0.5	1.1								300	61.0	8.5	6.1	12.1	1.05	8.1	
											350	62.3	8.8	6.7	12.4	1.06	8.4	
											400	63.5	9.1	7.1	12.7	1.06	8.6	
	1.7	0.9	2.0								300	60.7	8.7	6.3	12.0	0.97	9.0	
											350	62.0	9.1	6.8	12.4	0.97	9.4	
											400	63.2	9.4	7.2	12.7	0.97	9.7	
	2.3	1.4	3.2								300	60.5	8.8	6.3	12.0	0.93	9.5	
											350	61.8	9.2	6.9	12.3	0.93	9.9	
											400	63.1	9.5	7.3	12.6	0.93	10.2	
120	1.1	0.4	1.0								300	62.0	7.7	5.8	11.7	1.17	6.5	
											350	63.2	8.0	6.3	12.0	1.18	6.8	
											400	64.4	8.2	6.8	12.3	1.18	7.0	
	1.7	0.8	1.9								300	61.7	7.9	5.9	11.5	1.07	7.3	
											350	62.9	8.2	6.5	11.9	1.08	7.6	
											400	64.1	8.5	6.9	12.1	1.08	7.8	
	2.3	1.3	3.0								300	61.5	8.0	6.0	11.5	1.03	7.7	
											350	62.8	8.3	6.5	11.8	1.03	8.0	
											400	63.9	8.5	6.9	12.1	1.03	8.3	

ENGINEERING SPECIFICATIONS:

Model VS012, 1 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
°F	GPM	PSI	FT	Aiflow CFM	LAT (DB) °F	HC MBtuh	HE MBtuh	Power kW	COP W/W	DH MBtuh	Aiflow CFM	LAT (DB) °F	TC MBtuh	SC MBtuh	HR MBtuh	Power kW	EER Btuh/W	DH MBtuh
25	3.0	3.8	8.8	300	96.4	8.5	5.8	0.81	3.08		Operation Not Recommended							
				350	93.1	8.7	6.1	0.78	3.28									
				400	90.5	8.9	6.3	0.76	3.42									
30	1.5	1.4	3.1	300	96.6	8.6	5.9	0.81	3.12									
				350	93.3	8.8	6.1	0.78	3.32									
				400	90.7	9.0	6.4	0.76	3.45									
	2.3	2.5	5.7	300	97.9	9.1	6.2	0.82	3.23									
				350	94.4	9.2	6.6	0.79	3.44									
				400	91.8	9.4	6.8	0.77	3.58									
	3.0	3.6	8.2	300	98.6	9.3	6.4	0.82	3.29									
				350	95.0	9.4	6.7	0.79	3.51									
				400	92.2	9.6	7.0	0.77	3.65									
40	1.5	1.3	2.9	300	100.5	9.9	7.0	0.84	3.45									
				350	96.6	10.1	7.3	0.80	3.68									
				400	93.7	10.2	7.6	0.79	3.83									
	2.3	2.3	5.2	300	102.0	10.4	7.5	0.85	3.58									
				350	98.0	10.6	7.8	0.81	3.81									
				400	94.9	10.8	8.0	0.80	3.97									
	3.0	3.3	7.6	300	102.7	10.6	7.7	0.85	3.65		300	54.3	13.5	8.3	15.2	0.48	28.1	
				350	98.6	10.8	8.0	0.82	3.89		350	56.3	14.2	9.0	15.8	0.48	29.4	
				400	95.5	11.0	8.3	0.80	4.04		400	57.9	14.6	9.6	16.3	0.48	30.2	
50	1.5	1.2	2.7	300	104.5	11.2	8.2	0.87	3.77		300	54.4	13.1	8.3	15.1	0.58	22.6	
				350	100.1	11.4	8.6	0.83	4.02		350	56.4	13.7	8.9	15.7	0.58	23.7	
				400	96.8	11.6	8.8	0.81	4.18		400	58.0	14.2	9.5	16.1	0.58	24.3	
	2.3	2.1	4.9	300	106.2	11.7	8.7	0.88	3.91		300	54.0	13.5	8.4	15.3	0.55	24.7	
				350	101.6	12.0	9.1	0.84	4.17		350	55.9	14.1	9.1	16.0	0.55	25.9	
				400	98.2	12.2	9.4	0.82	4.34		400	57.6	14.5	9.7	16.4	0.55	26.6	
	3.0	3.1	7.0	300	107.0	12.0	9.0	0.88	3.98		300	53.8	13.7	8.5	15.5	0.53	25.7	
				350	102.3	12.2	9.3	0.84	4.25		350	55.8	14.3	9.1	16.1	0.53	26.9	
				400	98.8	12.4	9.6	0.83	4.42		400	57.4	14.7	9.8	16.6	0.53	27.6	
60	1.5	1.1	2.5	300	108.7	12.5	9.5	0.90	4.10		300	55.0	12.6	8.1	14.9	0.65	19.5	
				350	103.8	12.8	9.9	0.86	4.37		350	56.9	13.2	8.7	15.5	0.65	20.4	
				400	100.1	13.0	10.1	0.84	4.54		400	58.4	13.7	9.3	15.9	0.65	21.0	
	2.3	2.0	4.5	300	110.6	13.1	10.0	0.91	4.24		300	54.5	13.0	8.3	15.1	0.61	21.3	
				350	105.5	13.4	10.5	0.87	4.53		350	56.4	13.6	8.9	15.7	0.61	22.4	
				400	101.6	13.7	10.8	0.85	4.71		400	58.0	14.0	9.5	16.1	0.61	23.0	
	3.0	2.9	6.6	300	111.5	13.4	10.3	0.91	4.33		300	54.3	13.2	8.3	15.2	0.59	22.2	
				350	106.3	13.7	10.7	0.87	4.61		350	56.3	13.8	9.0	15.8	0.59	23.3	
				400	102.3	14.0	11.0	0.85	4.80		400	57.9	14.2	9.6	16.2	0.60	23.9	
70	1.5	1.0	2.4	300	112.8	13.9	10.7	0.92	4.40		300	55.8	12.0	7.8	14.4	0.72	16.6	
				350	107.5	14.2	11.1	0.89	4.69		350	57.7	12.6	8.4	15.0	0.72	17.4	
				400	103.4	14.4	11.5	0.87	4.88		400	59.2	12.9	9.0	15.4	0.72	17.9	
	2.3	1.8	4.3	300	115.0	14.6	11.4	0.94	4.56		300	55.4	12.3	8.0	14.6	0.68	18.1	
				350	109.3	14.9	11.8	0.90	4.86		350	57.2	12.9	8.6	15.2	0.68	19.0	
				400	105.0	15.1	12.1	0.88	5.05		400	58.8	13.3	9.2	15.6	0.68	19.5	
	3.0	2.7	6.2	300	116.0	14.9	11.7	0.94	4.65		300	55.2	12.5	8.0	14.7	0.66	18.9	
				350	110.2	15.2	12.1	0.90	4.95		350	57.1	13.1	8.6	15.3	0.66	19.7	
				400	105.8	15.5	12.5	0.88	5.15		400	58.7	13.5	9.2	15.7	0.66	20.3	
80	1.5	1.0	2.2	300	116.8	15.2	11.9	0.95	4.67		300	56.8	11.3	7.5	14.0	0.80	14.1	
				350	110.9	15.5	12.4	0.91	4.98		350	58.5	11.8	8.1	14.6	0.80	14.7	
				400	106.4	15.7	12.7	0.89	5.18		400	60.0	12.2	8.7	14.9	0.81	15.1	
	2.3	1.7	4.0	300	119.1	15.9	12.6	0.96	4.84		300	56.3	11.6	7.7	14.2	0.75	15.4	
				350	112.9	16.2	13.1	0.92	5.15		350	58.1	12.1	8.3	14.7	0.76	16.1	
				400	108.2	16.5	13.4	0.90	5.36		400	59.6	12.5	8.8	15.1	0.76	16.5	
	3.0	2.5	5.8	300	120.2	16.3	13.0	0.97	4.93		300	56.2	11.7	7.7	14.3	0.74	16.0	
				350	113.9	16.6	13.4	0.93	5.25		350	58.0	12.3	8.3	14.8	0.74	16.7	
				400	109.1	16.9	13.8	0.91	5.47		400	59.5	12.7	8.9	15.2	0.74	17.2	
90	1.5	0.9	2.1	300	120.6	16.4	13.1	0.98	4.92		300	57.7	10.6	7.2	13.6	0.89	11.9	
				350	114.3	16.7	13.6	0.94	5.24		350	59.4	11.1	7.8	14.1	0.89	12.5	
				400	109.4	17.0	13.9	0.92	5.46		400	60.8	11.4	8.3	14.5	0.89	12.8	
	2.3	1.7	3.8	300	123.2	17.2	13.8	0.99	5.10		300	57.3	10.9	7.4	13.7	0.83	13.0	
				350	116.5	17.6	14.3	0.95	5.43		350	59.0	11.4	7.9	14.2	0.84	13.6	
				400	111.4	17.9	14.7	0.93	5.65		400	60.4	11.7	8.5	14.6	0.84	14.0	
	3.0	2.4	5.5	300	124.3	17.6	14.2	0.99	5.20		300	57.1	11.0	7.4	13.8	0.81	13.5	
				350	117.5	18.0	14.7	0.95	5.54		350	58.9	11.5	8.0	14.3	0.82	14.1	
				400	112.3	18.3	15.1	0.93	5.76		400	60.3	11.9	8.5	14.7	0.82	14.5	
100	1.5	0.8	1.9	Operation Not Recommended							300	58.7	9.8	6.9	13.2	0.98	10.0	
											350	60.3	10.3	7.5	13.6	0.98	10.5	
											400	61.6	10.6	8.0	14.0	0.99	10.8	
	2.3	1.5	3.5								300	58.3	10.1	7.0	13.2	0.92	10.9	
											350	59.9	10.6	7.6	13.7	0.92	11.4	
											400	61.2	10.9	8.1	14.0	0.93	11.8	
	3.0	2.2	5.0								300	58.1	10.2	7.1	13.3	0.90	11.4	
											350	59.8	10.7	7.6	13.8	0.90	11.9	
											400	61.1	11.0	8.1	14.1	0.90	12.2	
110	1.5	0.8	1.8								300	59.7	9.0	6.6	12.7	1.09	8.3	
											350	61.2	9.4	7.1	13.1	1.09	8.7	
											400	62.5	9.7	7.6	13.4	1.09	8.9	
	2.3	1.4	3.3								300	59.3	9.2	6.7	12.7	1.02	9.1	
											350	60.9	9.7	7.2	13.2	1.02	9.5	
											400	62.1	10.0	7.7	13.5	1.02	9.8	
	3.0	2.1	4.8								300	59.2	9.4	6.7	12.8	0.99	9.4	
											350	60.8	9.8	7.3	13.2	1.00	9.9	
											400	62.0	10.1	7.8	13.5	1.00	10.1	
120	1.5	0.7	1.7								300	60.6	8.3	6.3	12.4	1.21	6.9	
											350	62.1	8.7	6.8	12.8	1.21	7.2	
											400	63.3	8.9	7.2	13.0	1.21	7.4	
	2.3	1.4	3.2								300	60.2	8.5	6.4	12.3	1.13	7.5	
											350	61.7	8.9	6.9	12.8	1.13	7.8	
											400	63.0	9.2	7.4	13.0	1.14	8.1	
	3.0	2.0	4.6								300	60.1	8.6	6.4	12.4	1.10	7.8	
											350	61.6	9.0	6.9	12.8	1.11	8.2	
											400	62.9	9.3	7.4	13.1	1.11	8.4	

Model VS015, 1.25 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	3.8	2.2	5.0	400	94.4	10.6	7.3	0.96	3.24		Operation Not Recommended							
				500	90.0	10.8	7.7	0.91	3.48									
				600	87.0	11.0	8.0	0.90	3.61									
30	1.9	1.0	2.4	400	94.3	10.5	7.3	0.95	3.23									
				500	89.9	10.8	7.7	0.91	3.47									
				600	86.9	11.0	7.9	0.89	3.60									
	2.8	1.5	3.4	400	95.4	11.0	7.7	0.96	3.34									
				500	90.9	11.3	8.1	0.92	3.59									
				600	87.7	11.5	8.4	0.90	3.73									
	3.8	2.0	4.7	400	96.3	11.4	8.1	0.97	3.44									
				500	91.6	11.7	8.5	0.92	3.70									
				600	88.3	11.9	8.8	0.91	3.84									
40	1.9	1.0	2.3	400	97.9	12.1	8.7	0.98	3.62									
				500	92.9	12.3	9.2	0.93	3.89									
				600	89.4	12.6	9.5	0.91	4.04									
	2.8	1.4	3.2	400	99.2	12.6	9.2	0.99	3.75									
				500	93.9	12.9	9.7	0.94	4.03									
				600	90.3	13.1	10.0	0.92	4.18									
	3.8	1.9	4.4	400	100.2	13.0	9.7	0.99	3.86		400	53.5	17.8	11.4	19.6	0.53	33.8	
				500	94.7	13.4	10.1	0.94	4.15		500	56.3	19.0	12.8	20.8	0.54	35.5	
				600	91.0	13.6	10.4	0.93	4.30		600	58.4	19.6	14.0	21.5	0.55	35.9	
50	1.9	0.9	2.1	400	101.5	13.6	10.2	1.00	4.01		400	53.9	17.1	11.3	19.5	0.68	25.4	
				500	95.8	13.9	10.7	0.95	4.31		500	56.6	18.3	12.6	20.7	0.69	26.6	
				600	91.9	14.2	11.0	0.93	4.47		600	58.7	18.9	13.8	21.3	0.70	26.9	
	2.8	1.3	3.0	400	103.0	14.2	10.8	1.01	4.15		400	53.8	17.4	11.3	19.6	0.63	27.7	
				500	97.0	14.6	11.3	0.96	4.47		500	56.6	18.6	12.7	20.8	0.64	29.0	
				600	92.9	14.9	11.6	0.94	4.63		600	58.7	19.2	13.8	21.5	0.65	29.4	
	3.8	1.8	4.2	400	104.1	14.7	11.3	1.01	4.28		400	53.8	17.4	11.3	19.5	0.61	28.8	
				500	98.0	15.1	11.8	0.96	4.60		500	56.6	18.6	12.7	20.7	0.62	30.2	
				600	93.7	15.4	12.2	0.95	4.77		600	58.7	19.2	13.8	21.4	0.63	30.5	
60	1.9	0.9	2.0	400	105.2	15.2	11.8	1.01	4.40		400	55.0	16.3	10.8	18.9	0.78	20.9	
				500	98.9	15.6	12.3	0.96	4.74		500	57.6	17.3	12.1	20.1	0.79	21.8	
				600	94.5	15.9	12.6	0.95	4.91		600	59.7	17.9	13.2	20.7	0.81	22.1	
	2.8	1.2	2.8	400	106.8	15.9	12.4	1.02	4.56		400	55.0	16.5	10.8	19.0	0.73	22.8	
				500	100.2	16.3	13.0	0.97	4.90		500	57.6	17.6	12.1	20.1	0.74	23.9	
				600	95.6	16.6	13.3	0.96	5.08		600	59.6	18.2	13.2	20.8	0.76	24.1	
	3.8	1.7	3.9	400	108.1	16.5	13.0	1.03	4.69		400	55.0	16.5	10.8	18.9	0.70	23.6	
				500	101.2	16.9	13.5	0.98	5.05		500	57.6	17.6	12.1	20.0	0.71	24.8	
				600	96.5	17.2	13.9	0.96	5.23		600	59.6	18.2	13.2	20.7	0.73	25.0	
70	1.9	0.8	1.9	400	109.0	16.8	13.3	1.03	4.80		400	56.0	15.4	10.4	18.4	0.89	17.4	
				500	101.9	17.2	13.9	0.98	5.17		500	58.5	16.4	11.6	19.5	0.90	18.2	
				600	97.1	17.6	14.3	0.96	5.36		600	60.4	17.0	12.7	20.1	0.92	18.4	
	2.8	1.2	2.7	400	110.7	17.6	14.1	1.04	4.97		400	55.9	15.6	10.4	18.4	0.82	19.0	
				500	103.4	18.0	14.7	0.99	5.35		500	58.4	16.7	11.6	19.5	0.84	19.8	
				600	98.3	18.4	15.1	0.97	5.55		600	60.4	17.2	12.7	20.2	0.86	20.1	
	3.8	1.6	3.7	400	112.2	18.2	14.7	1.04	5.12		400	55.9	15.6	10.4	18.3	0.79	19.7	
				500	104.6	18.7	15.3	0.99	5.51		500	58.4	16.7	11.6	19.4	0.81	20.6	
				600	99.3	19.0	15.7	0.98	5.71		600	60.4	17.2	12.7	20.1	0.83	20.8	
80	1.9	0.8	1.8	400	112.8	18.5	14.9	1.04	5.22		400	56.6	14.6	10.1	18.0	0.99	14.8	
				500	105.1	18.9	15.6	0.99	5.62		500	59.0	15.6	11.3	19.1	1.01	15.4	
				600	99.8	19.3	16.0	0.97	5.82		600	60.9	16.2	12.4	19.7	1.03	15.6	
	2.8	1.1	2.6	400	114.7	19.3	15.8	1.05	5.41		400	56.5	14.9	10.1	18.0	0.92	16.1	
				500	106.7	19.8	16.4	1.00	5.82		500	59.0	15.9	11.3	19.1	0.94	16.9	
				600	101.1	20.2	16.8	0.98	6.03		600	60.9	16.4	12.4	19.7	0.96	17.1	
	3.8	1.5	3.5	400	116.3	20.0	16.4	1.05	5.57		400	56.5	14.9	10.1	17.9	0.89	16.7	
				500	108.0	20.5	17.1	1.00	5.99		500	59.0	15.9	11.3	18.9	0.91	17.5	
				600	102.2	20.9	17.5	0.99	6.21		600	60.9	16.4	12.4	19.6	0.93	17.7	
90	1.9	0.8	1.7	400	116.7	20.2	16.6	1.05	5.65		400	57.2	13.9	9.9	17.6	1.10	12.6	
				500	108.3	20.7	17.3	1.00	6.07		500	59.6	14.8	11.0	18.6	1.12	13.2	
				600	102.5	21.0	17.7	0.98	6.29		600	61.4	15.3	12.1	19.2	1.15	13.3	
	2.8	1.1	2.5	400	118.8	21.1	17.5	1.06	5.85		400	57.1	14.1	9.9	17.6	1.02	13.7	
				500	110.0	21.6	18.2	1.01	6.29		500	59.5	15.0	11.1	18.6	1.04	14.4	
				600	104.0	22.0	18.6	0.99	6.52		600	61.4	15.5	12.1	19.2	1.07	14.6	
	3.8	1.5	3.4	400	120.5	21.8	18.2	1.06	6.02		400	57.1	14.1	9.9	17.4	0.99	14.3	
				500	111.4	22.4	18.9	1.01	6.47		500	59.5	15.0	11.1	18.4	1.01	14.9	
				600	105.1	22.8	19.4	1.00	6.71		600	61.4	15.5	12.1	19.0	1.03	15.1	
100	1.9	0.7	1.7	Operation Not Recommended							400	58.1	12.9	9.4	17.0	1.21	10.6	
											500	60.4	13.8	10.6	18.0	1.24	11.1	
											600	62.2	14.2	11.5	18.5	1.27	11.2	
	2.8	1.0	2.4								400	58.1	13.1	9.5	16.9	1.13	11.6	
											500	60.4	14.0	10.6	17.9	1.15	12.1	
											600	62.2	14.5	11.6	18.5	1.18	12.3	
	3.8	1.4	3.2								400	58.1	13.1	9.5	16.8	1.09	12.0	
											500	60.4	14.0	10.6	17.8	1.11	12.6	
											600	62.2	14.5	11.6	18.3	1.13	12.7	
110	1.9	0.7	1.6								400	59.4	11.8	8.9	16.3	1.34	8.8	
											500	61.6	12.5	9.9	17.2	1.36	9.2	
											600	63.2	13.0	10.9	17.7	1.39	9.3	
	2.8	1.0	2.3								400	59.4	11.9	8.9	16.2	1.24	9.6	
											500	61.6	12.7	10.0	17.1	1.27	10.1	
											600	63.2	13.2	10.9	17.6	1.30	10.2	
	3.8	1.3	3.1								400	59.4	11.9	8.9	16.0	1.20	10.0	
											500	61.6	12.7	10.0	16.9	1.22	10.4	
											600	63.2	13.2	10.9	17.4	1.25	10.5	
120	1.9	0.7	1.6								400	60.1	10.9	8.6	15.9	1.47	7.4	
											500	62.2	11.6	9.6	16.7	1.49	7.8	
											600	63.8	12.0	10.5	17.2	1.53	7.8	
	2.8	0.9	2.2								400	60.1	11.0	8.6	15.7	1.37	8.1	
											500	62.2	11.8	9.6	16.5	1.39	8.5	
											600	63.8	12.2	10.5	17.0	1.42	8.6	
	3.8	1.3	3.0								400	60.1	11.0	8.6	15.5	1.32	8.4	
											500	62.2	11.8	9.6	16.3	1.34	8.8	
											600	63.8	12.2	10.5	16.9	1.37	8.9	

ENGINEERING SPECIFICATIONS:

Model VS015, 1.25 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	3.8	2.2	5.0	500	89.2	10.4	7.6	0.80	3.79		Operation Not Recommended							
				550	87.6	10.5	7.8	0.79	3.88									
30	1.9	1.0	2.4	500	89.1	10.3	7.6	0.80	3.77									
				550	87.5	10.4	7.7	0.79	3.86									
	2.8	1.5	3.4	500	90.0	10.8	8.1	0.81	3.92									
				550	88.4	10.9	8.2	0.80	4.01									
	3.8	2.0	4.7	500	90.6	11.1	8.4	0.81	4.02									
				550	88.9	11.3	8.5	0.80	4.11									
40	1.9	1.0	2.3	500	92.1	11.9	9.1	0.82	4.26									
				550	90.2	12.0	9.3	0.81	4.35									
	2.8	1.4	3.2	500	93.2	12.5	9.7	0.83	4.42									
				550	91.3	12.6	9.8	0.82	4.53									
	3.8	1.9	4.4	500	93.9	12.9	10.0	0.83	4.53		500	55.3	19.6	13.3	21.1	0.44	44.3	
				550	91.9	13.0	10.2	0.82	4.64		550	56.6	20.0	13.9	21.6	0.45	44.6	
50	1.9	0.9	2.1	500	95.1	13.5	10.7	0.84	4.73		500	55.8	18.8	13.1	20.8	0.60	31.3	
				550	93.0	13.7	10.9	0.83	4.84		550	57.0	19.2	13.7	21.2	0.61	31.6	
	2.8	1.3	3.0	500	96.4	14.2	11.3	0.85	4.92		500	55.7	19.1	13.1	20.9	0.55	34.4	
				550	94.2	14.4	11.5	0.84	5.03		550	56.9	19.5	13.7	21.4	0.56	34.7	
	3.8	1.8	4.2	500	97.2	14.7	11.8	0.85	5.04		500	55.6	19.2	13.2	21.0	0.52	37.0	
				550	94.9	14.8	11.9	0.84	5.15		550	56.8	19.6	13.8	21.4	0.53	37.3	
60	1.9	0.9	2.0	500	98.0	15.1	12.2	0.86	5.18		500	56.8	17.8	12.5	20.2	0.70	25.5	
				550	95.7	15.3	12.4	0.85	5.30		550	58.0	18.2	13.1	20.6	0.71	25.7	
	2.8	1.2	2.8	500	99.5	15.9	13.0	0.87	5.39		500	56.7	18.1	12.6	20.3	0.65	28.0	
				550	97.0	16.1	13.2	0.85	5.51		550	57.9	18.5	13.1	20.7	0.66	28.2	
	3.8	1.7	3.9	500	100.3	16.4	13.4	0.87	5.51		500	56.6	18.2	12.6	20.3	0.61	30.1	
				550	97.9	16.5	13.6	0.86	5.65		550	57.8	18.6	13.2	20.7	0.61	30.3	
70	1.9	0.8	1.9	500	101.0	16.7	13.8	0.87	5.64		500	57.7	16.9	12.1	19.6	0.81	20.8	
				550	98.5	16.9	14.0	0.86	5.77		550	58.8	17.2	12.6	20.0	0.82	21.0	
	2.8	1.2	2.7	500	102.6	17.6	14.6	0.88	5.87		500	57.6	17.1	12.1	19.7	0.75	22.9	
				550	99.9	17.8	14.8	0.87	6.00		550	58.7	17.5	12.6	20.1	0.76	23.1	
	3.8	1.6	3.7	500	103.6	18.1	15.1	0.89	6.00		500	57.5	17.3	12.2	19.7	0.70	24.6	
				550	100.8	18.3	15.3	0.87	6.14		550	58.6	17.6	12.7	20.1	0.71	24.8	
80	1.9	0.8	1.8	500	104.1	18.4	15.4	0.88	6.13		500	58.2	16.1	11.8	19.2	0.93	17.3	
				550	101.3	18.6	15.6	0.87	6.27		550	59.3	16.4	12.3	19.6	0.94	17.4	
	2.8	1.1	2.6	500	105.8	19.4	16.3	0.89	6.37		500	58.1	16.3	11.8	19.2	0.86	19.0	
				550	102.9	19.5	16.6	0.88	6.53		550	59.2	16.7	12.3	19.6	0.87	19.2	
	3.8	1.5	3.5	500	106.9	19.9	16.9	0.90	6.52		500	58.0	16.4	11.9	19.2	0.80	20.4	
				550	103.9	20.1	17.1	0.88	6.67		550	59.2	16.8	12.4	19.6	0.81	20.6	
90	1.9	0.8	1.7	500	107.2	20.1	17.1	0.89	6.62		500	58.7	15.2	11.5	18.8	1.05	14.5	
				550	104.2	20.3	17.3	0.88	6.77		550	59.8	15.6	12.0	19.2	1.07	14.6	
	2.8	1.1	2.5	500	109.1	21.1	18.0	0.90	6.88		500	58.7	15.5	11.5	18.8	0.97	15.9	
				550	105.9	21.3	18.3	0.89	7.04		550	59.7	15.8	12.0	19.2	0.99	16.0	
	3.8	1.5	3.4	500	110.3	21.8	18.7	0.91	7.04		500	58.6	15.6	11.6	18.7	0.91	17.1	
				550	107.0	22.0	18.9	0.89	7.21		550	59.7	15.9	12.1	19.1	0.92	17.2	
100	1.9	0.7	1.7	Operation Not Recommended							500	59.6	14.2	11.0	18.2	1.18	12.0	
											550	60.6	14.5	11.5	18.6	1.19	12.1	
	2.8	1.0	2.4								500	59.5	14.4	11.1	18.1	1.09	13.2	
											550	60.6	14.7	11.5	18.5	1.10	13.3	
	3.8	1.4	3.2								500	59.5	14.5	11.1	18.0	1.02	14.2	
											550	60.5	14.8	11.6	18.4	1.04	14.3	
110	1.9	0.7	1.6								500	60.8	13.0	10.4	17.4	1.31	9.9	
											550	61.8	13.2	10.8	17.8	1.33	10.0	
	2.8	1.0	2.3								500	60.7	13.2	10.4	17.3	1.21	10.9	
											550	61.7	13.5	10.9	17.6	1.23	11.0	
	3.8	1.3	3.1								500	60.6	13.3	10.5	17.1	1.13	11.7	
											550	61.6	13.6	10.9	17.5	1.15	11.8	
120	1.9	0.7	1.6								500	61.4	12.0	10.0	16.9	1.44	8.4	
											550	62.4	12.3	10.5	17.2	1.46	8.4	
	2.8	0.9	2.2								500	61.3	12.2	10.1	16.7	1.33	9.2	
											550	62.3	12.5	10.5	17.1	1.35	9.3	
	3.8	1.3	3.0								500	61.3	12.3	10.1	16.6	1.25	9.9	
											550	62.2	12.6	10.6	16.9	1.26	10.0	

Model VS018, 1.5 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
°F	GPM	PSI	FT	Aiflow CFM	LAT (DB) °F	HC MBtuh	HE MBtuh	Power kW	COP W/W	DH MBtuh	Aiflow CFM	LAT (DB) °F	TC MBtuh	SC MBtuh	HR MBtuh	Power kW	EER Btuh/W	DH MBtuh
25	4.5	2.7	6.2	485	98.6	15.0	9.6	1.57	2.79	4.5	Operation Not Recommended							
				600	93.2	15.0	10.2	1.42	3.11	3.9								
				715	89.6	15.1	10.5	1.35	3.29	3.5								
30	2.3	1.4	3.2	485	98.7	15.0	9.7	1.57	2.81	4.5								
				600	93.2	15.1	10.2	1.41	3.12	3.9								
				715	89.6	15.2	10.6	1.34	3.31	3.5								
	3.4	1.9	4.5	485	100.1	15.8	10.4	1.57	2.93	4.6								
				600	94.4	15.8	11.0	1.42	3.26	4.0								
				715	90.6	15.9	11.3	1.35	3.45	3.6								
	4.5	2.5	5.9	485	100.7	16.1	10.7	1.58	2.99	4.7								
				600	94.9	16.1	11.3	1.42	3.33	4.0								
				715	91.1	16.3	11.6	1.35	3.52	3.7								
40	2.3	1.3	3.0	485	102.7	17.1	11.7	1.58	3.18	4.9								
				600	96.5	17.2	12.3	1.42	3.54	4.2								
				715	92.4	17.3	12.7	1.35	3.75	3.8								
	3.4	1.8	4.1	485	104.3	18.0	12.6	1.58	3.32	5.0								
				600	97.8	18.0	13.1	1.43	3.70	4.3								
				715	93.5	18.1	13.5	1.36	3.91	3.9								
	4.5	2.4	5.4	485	105.1	18.4	13.0	1.59	3.39	5.1	485	54.2	23.0	13.5	25.8	0.82	28.0	1.5
				600	98.4	18.4	13.5	1.43	3.77	4.4	600	56.6	24.2	15.1	27.1	0.83	29.1	1.5
				715	94.0	18.5	13.9	1.36	4.00	4.0	715	58.6	24.9	16.5	27.8	0.86	28.9	1.6
50	2.3	1.2	2.8	485	106.5	19.1	13.7	1.58	3.54	5.3	485	54.7	21.6	13.2	25.1	1.02	21.2	3.1
				600	99.6	19.2	14.3	1.43	3.93	4.6	600	57.1	22.7	14.8	26.3	1.03	22.0	3.2
				715	95.0	19.3	14.7	1.36	4.16	4.1	715	59.0	23.4	16.2	27.0	1.07	21.8	3.4
	3.4	1.7	3.9	485	108.3	20.1	14.6	1.59	3.69	5.5	485	54.5	21.9	13.3	25.1	0.94	23.5	2.7
				600	101.0	20.1	15.2	1.44	4.11	4.7	600	56.9	23.1	15.0	26.3	0.95	24.4	2.7
				715	96.2	20.2	15.6	1.37	4.35	4.3	715	58.9	23.7	16.3	27.1	0.98	24.1	2.9
	4.5	2.2	5.1	485	109.1	20.5	15.1	1.60	3.77	5.6	485	54.4	22.3	13.4	25.4	0.92	24.3	2.4
				600	101.7	20.6	15.7	1.44	4.19	4.8	600	56.8	23.5	15.0	26.7	0.93	25.3	2.4
				715	96.8	20.7	16.0	1.37	4.44	4.3	715	58.8	24.1	16.4	27.4	0.96	25.0	2.6
60	2.3	1.1	2.7	485	110.1	21.0	15.6	1.59	3.87	5.9	485	55.1	20.9	13.0	24.7	1.14	18.4	4.0
				600	102.5	21.1	16.2	1.44	4.30	5.1	600	57.4	22.0	14.6	25.9	1.15	19.1	4.1
				715	97.5	21.2	16.5	1.37	4.55	4.6	715	59.4	22.6	15.9	26.6	1.19	18.9	4.3
	3.4	1.6	3.7	485	112.1	22.0	16.6	1.60	4.03	6.1	485	54.9	21.2	13.1	24.7	1.04	20.4	3.5
				600	104.1	22.1	17.2	1.44	4.49	5.2	600	57.3	22.3	14.7	25.9	1.06	21.1	3.6
				715	98.8	22.3	17.6	1.37	4.75	4.7	715	59.2	22.9	16.1	26.7	1.10	20.9	3.8
	4.5	2.1	4.8	485	113.0	22.5	17.1	1.60	4.12	6.2	485	54.8	21.5	13.2	25.0	1.02	21.1	3.2
				600	104.9	22.6	17.7	1.45	4.58	5.3	600	57.2	22.7	14.8	26.2	1.04	21.9	3.3
				715	99.5	22.8	18.1	1.38	4.85	4.8	715	59.1	23.3	16.1	27.0	1.07	21.7	3.5
70	2.3	1.1	2.5	485	113.8	23.0	17.5	1.61	4.19	6.6	485	55.7	20.1	12.7	24.4	1.27	15.8	4.9
				600	105.5	23.0	18.1	1.45	4.65	5.7	600	57.9	21.1	14.3	25.5	1.28	16.4	5.1
				715	100.0	23.2	18.5	1.38	4.93	5.1	715	59.8	21.7	15.6	26.2	1.33	16.3	5.4
	3.4	1.5	3.5	485	116.0	24.1	18.6	1.62	4.37	6.8	485	55.5	20.4	12.9	24.3	1.16	17.5	4.4
				600	107.3	24.2	19.2	1.46	4.86	5.9	600	57.7	21.5	14.4	25.5	1.18	18.2	4.5
				715	101.5	24.3	19.6	1.39	5.14	5.3	715	59.6	22.0	15.7	26.2	1.22	18.1	4.8
	4.5	2.0	4.6	485	117.0	24.6	19.1	1.62	4.46	7.0	485	55.4	20.7	12.9	24.6	1.14	18.2	4.1
				600	108.1	24.7	19.7	1.46	4.96	6.0	600	57.7	21.8	14.5	25.8	1.16	18.9	4.2
				715	102.2	24.9	20.1	1.39	5.25	5.4	715	59.6	22.4	15.8	26.5	1.20	18.7	4.4
80	2.3	1.1	2.4	485	117.9	25.1	19.5	1.63	4.51	7.4	485	56.3	19.2	12.4	24.0	1.42	13.5	6.0
				600	108.8	25.2	20.1	1.47	5.02	6.4	600	58.5	20.2	13.9	25.1	1.44	14.1	6.1
				715	102.8	25.3	20.6	1.40	5.31	5.8	715	60.4	20.7	15.2	25.8	1.49	13.9	6.4
	3.4	1.5	3.4	485	120.3	26.3	20.7	1.64	4.71	7.7	485	56.1	19.5	12.5	23.9	1.30	15.0	5.4
				600	110.8	26.4	21.4	1.48	5.24	6.6	600	58.4	20.5	14.0	25.0	1.32	15.6	5.5
				715	104.4	26.6	21.8	1.41	5.55	6.0	715	60.2	21.1	15.3	25.7	1.37	15.4	5.8
	4.5	1.9	4.5	485	121.4	26.9	21.3	1.64	4.81	7.9	485	56.1	19.8	12.5	24.2	1.28	15.5	5.0
				600	111.7	27.0	21.9	1.48	5.35	6.8	600	58.3	20.9	14.1	25.3	1.29	16.1	5.2
				715	105.2	27.2	22.4	1.41	5.66	6.1	715	60.1	21.4	15.4	26.0	1.34	16.0	5.4
90	2.3	1.0	2.4	485	122.1	27.3	21.7	1.66	4.83	8.4	485	57.1	18.2	12.0	23.6	1.59	11.4	7.1
				600	112.3	27.4	22.3	1.49	5.37	7.2	600	59.2	19.2	13.5	24.7	1.62	11.9	7.3
				715	105.7	27.6	22.7	1.42	5.69	6.5	715	61.0	19.7	14.7	25.4	1.68	11.8	7.6
	3.4	1.4	3.3	485	124.7	28.7	23.0	1.67	5.04	8.7	485	56.9	18.5	12.1	23.5	1.46	12.7	6.4
				600	114.3	28.7	23.6	1.50	5.61	7.5	600	59.0	19.5	13.6	24.5	1.48	13.2	6.6
				715	107.5	28.9	24.1	1.43	5.94	6.8	715	60.8	20.0	14.8	25.3	1.54	13.0	7.0
	4.5	1.9	4.3	485	125.9	29.3	23.6	1.67	5.15	8.9	485	56.8	18.8	12.1	23.7	1.43	13.1	6.0
				600	115.3	29.4	24.2	1.50	5.73	7.7	600	59.0	19.8	13.6	24.8	1.45	13.6	6.2
				715	108.3	29.6	24.7	1.43	6.06	6.9	715	60.8	20.3	14.9	25.5	1.51	13.5	6.5
100	2.3	1.0	2.3	Operation Not Recommended							485	57.9	17.1	11.6	23.3	1.80	9.5	8.3
											600	60.0	18.1	13.0	24.3	1.82	9.9	8.5
											715	61.7	18.5	14.1	25.0	1.89	9.8	8.9
	3.4	1.3	3.1								485	57.7	17.4	11.7	23.0	1.65	10.6	7.6
											600	59.8	18.3	13.1	24.0	1.67	11.0	7.8
											715	61.5	18.8	14.3	24.8	1.73	10.9	8.2
	4.5	1.7	4.0								485	57.7	17.7	11.7	23.2	1.62	11.0	7.1
											600	59.7	18.6	13.1	24.2	1.64	11.4	7.3
											715	61.5	19.2	14.3	25.0	1.70	11.3	7.7
110	2.3	1.0	2.3								485	58.8	16.0	11.1	22.9	2.04	7.8	9.5
											600	60.8	16.8	12.5	23.9	2.07	8.1	9.8
											715	62.4	17.3	13.6	24.6	2.14	8.1	10.2
	3.4	1.3	3.0								485	58.6	16.2	11.2	22.6	1.87	8.7	8.8
											600	60.6	17.1	12.6	23.6	1.90	9.0	9.0
											715	62.2	17.6	13.7	24.3	1.97	8.9	9.5
	4.5	1.7	3.9								485	58.5	16.5	11.2	22.7	1.83	9.0	8.2
											600	60.5	17.4	12.6	23.7	1.86	9.3	8.5
											715	62.2	17.8	13.8	24.4	1.93	9.3	8.9
120	2.3	0.9	2.2								485	59.7	14.7	10.6	22.6	2.32	6.3	10.6
											600	61.6	15.4	11.9	23.5	2.35	6.6	10.9
											715	63.1	15.9	13.0	24.2	2.44	6.5	11.4
	3.4	1.2	2.9								485	59.5	14.9	10.7	22.2	2.13	7.0	9.8
											600	61.4	15.7	12.0	23.0	2.16	7.3	10.1
											715	63.0	16.1	13.1	23.7	2.23	7.2	10.6
	4.5	1.6	3.7								485	59.4	15.2	10.8	22.3	2.08	7.3	9.3
											600	61.3	16.0	12.1	23.2	2.11	7.6	9.6
											715	62.9	16.4	13.2	23.9	2.19	7.5	10.0

Heating data based on 70°F EAT. Cooling data based on 80/67°F EAT. Any condition outside this table requires correction factor(s).

ENGINEERING SPECIFICATIONS:

Model VS018, 1.5 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	4.5	2.7	6.2	640	90.9	14.5	10.3	1.23	3.46	3.8	Operation Not Recommended							
				700	89.2	14.5	10.5	1.20	3.56	3.6								
30	2.3	1.4	3.2	640	91.0	14.5	10.3	1.22	3.48	3.8								
				700	89.3	14.6	10.5	1.19	3.58	3.6								
	3.4	1.9	4.5	640	92.0	15.2	11.1	1.23	3.64	3.8								
				700	90.3	15.3	11.2	1.20	3.75	3.6								
	4.5	2.5	5.9	640	92.6	15.6	11.4	1.23	3.71	3.9								
				700	90.7	15.7	11.6	1.20	3.82	3.7								
40	2.3	1.3	3.0	640	94.0	16.6	12.4	1.23	3.97	4.1								
				700	92.1	16.7	12.6	1.20	4.08	3.8								
	3.4	1.8	4.1	640	95.3	17.5	13.2	1.24	4.14	4.2								
				700	93.2	17.5	13.4	1.21	4.27	3.9								
	4.5	2.4	5.4	640	95.8	17.9	13.6	1.24	4.23	4.2	640	56.5	25.1	16.3	27.3	0.67	37.4	1.5
				700	93.7	17.9	13.8	1.21	4.35	4.0	700	57.6	25.4	16.9	27.7	0.69	36.9	1.6
50	2.3	1.2	2.8	640	96.9	18.6	14.4	1.23	4.42	4.4	640	56.9	23.6	15.9	26.5	0.87	27.2	3.2
				700	94.7	18.7	14.6	1.21	4.55	4.2	700	58.1	23.9	16.6	26.9	0.89	26.8	3.3
	3.4	1.7	3.9	640	98.3	19.6	15.3	1.24	4.62	4.6	640	56.7	23.9	16.1	26.6	0.79	30.2	2.7
				700	96.0	19.6	15.5	1.21	4.75	4.3	700	57.9	24.3	16.7	27.0	0.81	29.8	2.8
	4.5	2.2	5.1	640	98.9	20.0	15.8	1.24	4.71	4.6	640	56.6	24.4	16.1	27.0	0.76	31.9	2.4
				700	96.6	20.1	16.0	1.22	4.85	4.4	700	57.8	24.7	16.8	27.4	0.79	31.5	2.5
60	2.3	1.1	2.7	640	99.7	20.5	16.3	1.24	4.84	4.9	640	57.3	22.8	15.7	26.2	0.99	23.1	4.1
				700	97.2	20.6	16.5	1.21	4.98	4.6	700	58.4	23.1	16.4	26.6	1.01	22.8	4.3
	3.4	1.6	3.7	640	101.2	21.5	17.3	1.25	5.05	5.0	640	57.1	23.2	15.8	26.2	0.90	25.7	3.7
				700	98.6	21.6	17.5	1.22	5.20	4.7	700	58.2	23.5	16.5	26.6	0.93	25.4	3.8
	4.5	2.1	4.8	640	101.9	22.0	17.8	1.25	5.16	5.2	640	57.0	23.6	15.9	26.5	0.87	27.1	3.3
				700	99.3	22.1	18.0	1.22	5.31	4.9	700	58.1	23.9	16.6	26.9	0.89	26.8	3.4
70	2.3	1.1	2.5	640	102.5	22.5	18.2	1.26	5.25	5.5	640	57.7	22.0	15.4	25.8	1.12	19.6	5.1
				700	99.9	22.6	18.4	1.23	5.40	5.2	700	58.8	22.3	16.0	26.2	1.15	19.3	5.3
	3.4	1.5	3.5	640	104.2	23.6	19.3	1.26	5.48	5.6	640	57.5	22.3	15.5	25.8	1.03	21.7	4.6
				700	101.4	23.7	19.5	1.23	5.64	5.3	700	58.6	22.6	16.1	26.2	1.05	21.4	4.7
	4.5	2.0	4.6	640	104.9	24.2	19.8	1.27	5.59	5.8	640	57.5	22.7	15.6	26.1	0.99	23.0	4.2
				700	102.1	24.3	20.0	1.24	5.75	5.5	700	58.6	23.0	16.2	26.5	1.02	22.6	4.4
80	2.3	1.1	2.4	640	105.6	24.6	20.2	1.28	5.65	6.2	640	58.3	21.0	15.0	25.4	1.28	16.4	6.2
				700	102.7	24.7	20.5	1.25	5.82	5.8	700	59.4	21.3	15.6	25.8	1.32	16.2	6.3
	3.4	1.5	3.4	640	107.4	25.9	21.5	1.28	5.91	6.4	640	58.1	21.3	15.1	25.3	1.17	18.2	5.6
				700	104.4	26.0	21.7	1.25	6.08	6.0	700	59.2	21.6	15.7	25.7	1.20	18.0	5.8
	4.5	1.9	4.5	640	108.3	26.5	22.1	1.29	6.03	6.6	640	58.1	21.7	15.2	25.6	1.13	19.2	5.2
				700	105.2	26.6	22.3	1.26	6.20	6.2	700	59.1	22.0	15.8	26.0	1.16	19.0	5.3
90	2.3	1.0	2.4	640	108.8	26.8	22.4	1.30	6.05	7.0	640	59.0	20.0	14.5	25.0	1.47	13.6	7.3
				700	105.6	26.9	22.6	1.27	6.23	6.6	700	60.0	20.2	15.1	25.4	1.51	13.4	7.5
	3.4	1.4	3.3	640	110.8	28.2	23.7	1.31	6.32	7.2	640	58.8	20.3	14.6	24.9	1.34	15.1	6.7
				700	107.5	28.3	24.0	1.28	6.51	6.8	700	59.9	20.6	15.2	25.2	1.38	15.0	6.9
	4.5	1.9	4.3	640	111.7	28.8	24.4	1.31	6.45	7.4	640	58.7	20.6	14.7	25.1	1.29	16.0	6.3
				700	108.3	29.0	24.6	1.28	6.64	7.0	700	59.8	20.9	15.3	25.5	1.33	15.8	6.4
100	2.3	1.0	2.3	Operation Not Recommended							640	59.7	18.8	14.0	24.6	1.68	11.2	8.6
											700	60.7	19.1	14.6	25.0	1.73	11.0	8.8
	3.4	1.3	3.1								640	59.6	19.1	14.1	24.4	1.54	12.5	7.9
											700	60.6	19.4	14.7	24.8	1.58	12.3	8.1
	4.5	1.7	4.0								640	59.5	19.5	14.2	24.5	1.48	13.1	7.4
											700	60.5	19.7	14.8	24.9	1.52	13.0	7.6
110	2.3	1.0	2.3								640	60.5	17.6	13.5	24.2	1.93	9.1	9.9
											700	61.4	17.8	14.0	24.6	1.98	9.0	10.1
	3.4	1.3	3.0								640	60.3	17.9	13.6	23.9	1.76	10.1	9.1
											700	61.3	18.1	14.1	24.3	1.81	10.0	9.3
	4.5	1.7	3.9								640	60.3	18.2	13.6	24.0	1.70	10.7	8.6
											700	61.2	18.4	14.2	24.4	1.75	10.5	8.8
120	2.3	0.9	2.2								640	61.3	16.2	12.9	23.8	2.22	7.3	11.0
											700	62.2	16.4	13.5	24.2	2.28	7.2	11.3
	3.4	1.2	2.9								640	61.1	16.5	13.1	23.4	2.03	8.1	10.2
											700	62.0	16.7	13.6	23.8	2.08	8.0	10.5
	4.5	1.6	3.7								640	61.0	16.8	13.1	23.5	1.96	8.6	9.6
											700	62.0	17.0	13.6	23.9	2.01	8.5	9.9

Model VS024, 2 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	6.0	4.0	9.1	650	96.3	18.5	12.8	1.67	3.24	4.8	Operation Not Recommended							
				800	91.4	18.5	13.1	1.58	3.42	4.2								
				950	88.3	18.8	13.5	1.57	3.52	3.9								
30	3.0	1.6	3.8	650	97.1	19.0	13.3	1.67	3.34	4.9								
				800	92.0	19.0	13.6	1.58	3.53	4.4								
				950	88.9	19.3	14.0	1.57	3.62	4.0								
	4.5	2.6	5.9	650	98.1	19.7	14.0	1.67	3.46	5.0								
				800	92.9	19.7	14.3	1.58	3.66	4.5								
				950	89.6	20.1	14.7	1.57	3.76	4.1								
	6.0	3.6	8.4	650	99.0	20.3	14.6	1.68	3.55	5.1								
				800	93.5	20.3	14.9	1.59	3.75	4.6								
				950	90.2	20.7	15.3	1.57	3.86	4.2								
40	3.0	1.5	3.6	650	100.4	21.3	15.6	1.66	3.76	5.3								
				800	94.7	21.3	15.9	1.58	3.97	4.7								
				950	91.1	21.7	16.4	1.56	4.08	4.3								
	4.5	2.4	5.5	650	101.5	22.1	16.4	1.67	3.90	5.4								
				800	95.6	22.1	16.8	1.58	4.11	4.8								
				950	91.9	22.5	17.2	1.56	4.23	4.5								
	6.0	3.4	7.9	650	102.5	22.8	17.1	1.67	4.00	5.6	650	54.0	29.8	18.3	33.1	0.98	30.5	1.3
				800	96.4	22.8	17.4	1.58	4.22	4.9	800	56.6	30.8	20.2	34.3	1.02	30.1	1.3
				950	92.6	23.2	17.9	1.57	4.34	4.6	950	58.6	31.6	22.0	35.3	1.08	29.4	1.3
50	3.0	1.5	3.3	650	103.6	23.6	17.9	1.68	4.12	5.7	650	54.9	28.0	17.6	32.1	1.21	23.1	3.3
				800	97.3	23.6	18.2	1.59	4.35	5.1	800	57.4	28.9	19.6	33.2	1.27	22.8	3.4
				950	93.4	24.0	18.6	1.57	4.47	4.7	950	59.3	29.6	21.3	34.2	1.33	22.3	3.5
	4.5	2.2	5.2	650	104.9	24.5	18.8	1.68	4.28	5.9	650	54.7	28.3	17.8	32.1	1.13	25.1	2.7
				800	98.3	24.5	19.1	1.59	4.52	5.2	800	57.2	29.3	19.7	33.3	1.18	24.8	2.8
				950	94.3	24.9	19.5	1.57	4.64	4.8	950	59.2	30.0	21.4	34.2	1.24	24.2	2.9
	6.0	3.2	7.4	650	105.9	25.2	19.5	1.68	4.39	6.1	650	54.6	28.5	17.8	32.2	1.09	26.2	2.4
				800	99.2	25.2	19.8	1.60	4.63	5.4	800	57.2	29.5	19.7	33.3	1.14	25.9	2.5
				950	95.0	25.7	20.3	1.58	4.76	5.0	950	59.1	30.2	21.4	34.3	1.20	25.2	2.5
60	3.0	1.4	3.2	650	107.5	26.3	20.4	1.72	4.49	6.4	650	55.2	27.1	17.4	31.7	1.34	20.3	4.5
				800	100.4	26.3	20.8	1.63	4.74	5.7	800	57.7	28.0	19.3	32.8	1.40	20.0	4.6
				950	96.1	26.8	21.3	1.61	4.87	5.3	950	59.6	28.7	20.9	33.8	1.48	19.5	4.6
	4.5	2.1	4.9	650	108.9	27.3	21.4	1.72	4.66	6.7	650	55.1	27.4	17.5	31.7	1.25	22.0	3.8
				800	101.6	27.3	21.8	1.63	4.92	5.9	800	57.5	28.4	19.4	32.9	1.31	21.7	3.9
				950	97.1	27.8	22.3	1.61	5.05	5.5	950	59.5	29.1	21.1	33.8	1.38	21.2	4.0
	6.0	3.0	7.0	650	110.1	28.1	22.2	1.73	4.78	6.9	650	55.0	27.6	17.6	31.7	1.20	22.9	3.4
				800	102.6	28.1	22.6	1.63	5.05	6.1	800	57.5	28.6	19.5	32.9	1.26	22.6	3.5
				950	97.9	28.6	23.1	1.62	5.18	5.6	950	59.4	29.3	21.1	33.8	1.33	22.1	3.6
70	3.0	1.3	3.0	650	111.6	29.2	23.1	1.78	4.81	7.3	650	55.6	26.2	17.1	31.2	1.48	17.6	5.6
				800	103.8	29.2	23.5	1.68	5.09	6.5	800	58.1	27.1	19.0	32.4	1.56	17.4	5.8
				950	99.0	29.7	24.0	1.67	5.23	6.0	950	59.9	27.8	20.6	33.3	1.64	17.0	5.9
	4.5	2.0	4.6	650	113.2	30.3	24.2	1.78	4.99	7.6	650	55.5	26.5	17.2	31.2	1.38	19.2	4.9
				800	105.1	30.3	24.6	1.69	5.27	6.8	800	57.9	27.4	19.1	32.4	1.45	18.9	5.0
				950	100.1	30.8	25.1	1.67	5.42	6.2	950	59.8	28.1	20.7	33.3	1.53	18.4	5.1
	6.0	2.9	6.6	650	114.5	31.2	25.1	1.79	5.12	7.8	650	55.4	26.7	17.3	31.2	1.33	20.0	4.5
				800	106.2	31.2	25.5	1.69	5.41	6.9	800	57.9	27.6	19.1	32.4	1.40	19.7	4.6
				950	101.0	31.8	26.1	1.68	5.56	6.4	950	59.7	28.3	20.8	33.3	1.47	19.2	4.7
80	3.0	1.2	2.9	650	115.4	31.9	25.6	1.84	5.07	8.2	650	56.2	25.1	16.7	30.7	1.65	15.2	6.9
				800	106.9	31.9	25.9	1.74	5.36	7.3	800	58.6	25.9	18.5	31.8	1.73	15.0	7.0
				950	101.6	32.4	26.5	1.73	5.51	6.7	950	60.4	26.6	20.1	32.8	1.82	14.6	7.1
	4.5	1.9	4.4	650	117.2	33.1	26.8	1.84	5.26	8.5	650	56.1	25.4	16.8	30.6	1.54	16.5	6.1
				800	108.3	33.1	27.1	1.75	5.56	7.6	800	58.5	26.2	18.6	31.8	1.62	16.2	6.2
				950	102.8	33.7	27.8	1.73	5.71	7.0	950	60.3	26.9	20.2	32.7	1.70	15.8	6.3
	6.0	2.7	6.3	650	118.6	34.1	27.8	1.85	5.40	8.8	650	56.0	25.5	16.8	30.6	1.49	17.2	5.6
				800	109.5	34.1	28.1	1.75	5.70	7.8	800	58.4	26.4	18.7	31.7	1.56	16.9	5.7
				950	103.8	34.7	28.8	1.74	5.86	7.2	950	60.2	27.1	20.3	32.6	1.64	16.5	5.8
90	3.0	1.2	2.7	650	119.4	34.7	28.2	1.91	5.32	9.1	650	57.0	23.8	16.1	30.1	1.85	12.8	8.2
				800	110.1	34.7	28.5	1.81	5.62	8.1	800	59.3	24.6	17.9	31.2	1.94	12.7	8.4
				950	104.4	35.3	29.2	1.79	5.78	7.5	950	61.1	25.2	19.4	32.1	2.04	12.4	8.5
	4.5	1.8	4.2	650	121.3	36.0	29.5	1.91	5.52	9.5	650	56.9	24.0	16.2	29.9	1.72	13.9	7.3
				800	111.7	36.0	29.8	1.81	5.83	8.5	800	59.2	24.9	18.0	31.0	1.81	13.8	7.5
				950	105.7	36.6	30.5	1.79	5.99	7.9	950	60.9	25.5	19.6	32.0	1.90	13.4	7.6
	6.0	2.6	6.1	650	122.8	37.1	30.5	1.92	5.66	9.8	650	56.8	24.2	16.3	29.9	1.66	14.5	6.8
				800	112.9	37.1	30.9	1.82	5.98	8.7	800	59.1	25.0	18.0	31.0	1.75	14.3	7.0
				950	106.8	37.7	31.6	1.80	6.15	8.1	950	60.9	25.7	19.6	31.9	1.83	14.0	7.1
100	3.0	1.1	2.6	Operation Not Recommended							650	57.9	22.4	15.5	29.5	2.09	10.7	9.6
											800	60.1	23.2	17.2	30.6	2.19	10.6	9.9
											950	61.8	23.7	18.7	31.6	2.30	10.3	10.0
	4.5	1.7	4.0								650	57.7	22.7	15.6	29.3	1.94	11.7	8.7
											800	60.0	23.4	17.3	30.4	2.04	11.5	8.9
											950	61.7	24.0	18.8	31.3	2.14	11.2	9.1
	6.0	2.5	5.7								650	57.7	22.8	15.7	29.2	1.88	12.2	8.1
											800	59.9	23.6	17.4	30.3	1.97	12.0	8.3
											950	61.6	24.2	18.9	31.2	2.07	11.7	8.4
110	3.0	1.1	2.5								650	58.8	21.0	14.9	29.0	2.37	8.9	11.1
											800	60.9	21.7	16.5	30.2	2.48	8.7	11.4
											950	62.5	22.2	17.9	31.1	2.61	8.5	11.6
	4.5	1.7	3.8								650	58.7	21.2	15.0	28.7	2.21	9.6	10.1
											800	60.8	22.0	16.6	29.8	2.31	9.5	10.3
											950	62.4	22.5	18.0	30.8	2.43	9.3	10.5
	6.0	2.4	5.5								650	58.6	21.3	15.0	28.6	2.13	10.0	9.4
											800	60.7	22.1	16.6	29.7	2.23	9.9	9.7
											950	62.4	22.6	18.1	30.6	2.34	9.7	9.8
120	3.0	1.1	2.4								650	59.9	19.2	14.1	28.4	2.70	7.1	12.5
											800	61.9	19.9	15.6	29.5	2.83	7.0	12.8
											950	63.4	20.4	17.0	30.5	2.97	6.9	13.0
	4.5	1.6	3.7								650	59.8	19.4	14.2	28.0	2.52	7.7	11.4
											800	61.8	20.1	15.7	29.1	2.64	7.6	11.6
											950	63.3	20.6	17.1	30.1	2.77	7.4	11.8
	6.0	2.3	5.3								650	59.7	19.6	14.2	27.8	2.43	8.1	10.7
											800	61.7	20.2	15.8	28.9	2.55	8.0	10.9
											950	63.3	20.7	17.1	29.9	2.67	7.8	11.1

ENGINEERING SPECIFICATIONS:

Model VS024, 2 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	6.0	4.0	9.1	720	93.0	17.9	12.9	1.47	3.57	4.4	Operation Not Recommended							
				800	90.8	18.0	13.1	1.43	3.68	4.1								
30	3.0	1.6	3.8	720	93.9	18.6	13.5	1.48	3.68	4.5								
				800	91.6	18.7	13.7	1.44	3.79	4.2								
	4.5	2.6	5.9	720	94.8	19.3	14.3	1.48	3.82	4.6								
				800	92.4	19.4	14.5	1.44	3.94	4.3								
	6.0	3.6	8.4	720	95.5	19.9	14.8	1.49	3.91	4.7								
				800	93.1	19.9	15.0	1.45	4.03	4.4								
40	3.0	1.5	3.6	720	96.8	20.9	15.8	1.49	4.12	4.8								
				800	94.2	20.9	16.0	1.45	4.24	4.5								
	4.5	2.4	5.5	720	97.9	21.7	16.6	1.49	4.27	4.9								
				800	95.2	21.8	16.8	1.45	4.40	4.7								
	6.0	3.4	7.9	720	98.6	22.3	17.2	1.49	4.37	5.1	720	54.6	31.0	19.7	33.9	0.87	35.7	1.4
				800	95.9	22.4	17.4	1.45	4.51	4.8	800	55.9	31.6	20.8	34.7	0.89	35.7	1.4
50	3.0	1.5	3.3	720	99.7	23.1	18.0	1.50	4.52	5.2	720	55.5	28.7	19.1	32.4	1.10	26.0	3.3
				800	96.8	23.2	18.2	1.46	4.65	4.9	800	56.7	29.3	20.1	33.1	1.13	26.0	3.4
	4.5	2.2	5.2	720	100.8	24.0	18.9	1.50	4.69	5.4	720	55.3	29.0	19.2	32.5	1.02	28.4	2.7
				800	97.9	24.1	19.1	1.46	4.83	5.1	800	56.6	29.7	20.2	33.2	1.04	28.4	2.8
	6.0	3.2	7.4	720	101.7	24.6	19.5	1.51	4.80	5.5	720	55.2	29.3	19.2	32.7	0.98	29.9	2.4
				800	98.6	24.7	19.7	1.47	4.95	5.2	800	56.5	29.9	20.3	33.4	1.00	29.9	2.4
60	3.0	1.4	3.2	720	103.2	25.8	20.6	1.54	4.92	5.8	720	55.8	27.9	18.8	32.1	1.24	22.5	4.5
				800	100.0	25.9	20.8	1.50	5.07	5.5	800	57.0	28.5	19.8	32.8	1.26	22.5	4.5
	4.5	2.1	4.9	720	104.5	26.8	21.6	1.54	5.11	6.1	720	55.7	28.2	18.9	32.1	1.15	24.6	3.8
				800	101.2	26.9	21.8	1.50	5.26	5.7	800	56.9	28.8	20.0	32.8	1.17	24.6	3.9
	6.0	3.0	7.0	720	105.5	27.6	22.3	1.55	5.22	6.2	720	55.6	28.5	19.0	32.2	1.10	25.9	3.4
				800	102.1	27.7	22.5	1.51	5.38	5.9	800	56.8	29.1	20.0	32.9	1.13	25.9	3.5
70	3.0	1.3	3.0	720	107.0	28.8	23.3	1.60	5.28	6.7	720	56.2	27.0	18.5	31.7	1.39	19.5	5.6
				800	103.4	28.9	23.6	1.56	5.44	6.3	800	57.4	27.6	19.5	32.4	1.42	19.4	5.7
	4.5	2.0	4.6	720	108.4	29.9	24.4	1.60	5.47	6.9	720	56.1	27.3	18.6	31.7	1.29	21.3	4.9
				800	104.7	30.0	24.7	1.56	5.64	6.5	800	57.3	27.9	19.6	32.4	1.31	21.3	5.0
	6.0	2.9	6.6	720	109.5	30.7	25.2	1.61	5.60	7.1	720	56.0	27.6	18.7	31.8	1.23	22.3	4.5
				800	105.7	30.8	25.5	1.57	5.77	6.7	800	57.2	28.2	19.7	32.5	1.26	22.3	4.6
80	3.0	1.2	2.9	720	110.5	31.5	25.8	1.66	5.56	7.5	720	56.8	25.8	18.0	31.1	1.56	16.5	6.9
				800	106.6	31.6	26.1	1.62	5.73	7.0	800	58.0	26.4	19.0	31.8	1.59	16.5	7.0
	4.5	1.9	4.4	720	112.0	32.7	27.0	1.66	5.77	7.8	720	56.6	26.1	18.2	31.0	1.45	18.1	6.1
				800	108.0	32.8	27.3	1.62	5.94	7.3	800	57.8	26.7	19.1	31.7	1.48	18.1	6.2
	6.0	2.7	6.3	720	113.2	33.6	27.9	1.67	5.90	8.0	720	56.6	26.4	18.2	31.1	1.39	19.0	5.6
				800	109.0	33.7	28.2	1.63	6.08	7.6	800	57.8	26.9	19.2	31.8	1.42	19.0	5.7
90	3.0	1.2	2.7	720	114.1	34.3	28.4	1.73	5.82	8.4	720	57.5	24.4	17.5	30.4	1.76	13.8	8.2
				800	109.8	34.4	28.7	1.68	5.99	7.9	800	58.7	25.0	18.4	31.1	1.80	13.8	8.3
	4.5	1.8	4.2	720	115.8	35.6	29.7	1.73	6.03	8.7	720	57.4	24.7	17.6	30.3	1.63	15.1	7.3
				800	111.3	35.7	30.0	1.68	6.22	8.2	800	58.5	25.3	18.5	31.0	1.67	15.1	7.4
	6.0	2.6	6.1	720	117.0	36.6	30.6	1.74	6.18	9.0	720	57.3	25.0	17.6	30.3	1.57	15.9	6.8
				800	112.5	36.7	30.9	1.69	6.36	8.5	800	58.5	25.5	18.6	31.0	1.60	15.9	6.9
100	3.0	1.1	2.6	Operation Not Recommended							720	58.4	23.1	16.8	29.9	2.01	11.5	9.7
											800	59.5	23.6	17.8	30.5	2.05	11.5	9.8
	4.5	1.7	4.0								720	58.2	23.3	16.9	29.7	1.86	12.6	8.7
											800	59.3	23.8	17.9	30.3	1.90	12.6	8.8
	6.0	2.5	5.7								720	58.2	23.6	17.0	29.7	1.79	13.2	8.1
											800	59.3	24.1	17.9	30.3	1.82	13.2	8.3
110	3.0	1.1	2.5								720	59.2	21.6	16.1	29.4	2.29	9.4	11.1
											800	60.3	22.1	17.0	30.1	2.34	9.4	11.3
	4.5	1.7	3.8								720	59.1	21.9	16.3	29.1	2.13	10.3	10.1
											800	60.2	22.3	17.1	29.8	2.17	10.3	10.2
	6.0	2.4	5.5								720	59.0	22.1	16.3	29.0	2.04	10.8	9.5
											800	60.1	22.6	17.2	29.7	2.09	10.8	9.6
120	3.0	1.1	2.4								720	60.3	19.5	15.3	28.5	2.64	7.4	12.4
											800	61.3	19.9	16.2	29.1	2.69	7.4	12.6
	4.5	1.6	3.7								720	60.2	19.7	15.4	28.1	2.44	8.1	11.3
											800	61.2	20.2	16.3	28.7	2.50	8.1	11.5
	6.0	2.3	5.3								720	60.1	19.9	15.5	27.9	2.35	8.5	10.6
											800	61.1	20.3	16.3	28.5	2.40	8.5	10.8

Model VT024, 2 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Full Load Heating							Full Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	6.0	4.0	9.3	720	93.3	18.1	12.9	1.54	3.45	4.6	Operation Not Recommended							
				800	91.1	18.2	13.2	1.47	3.62	4.3								
30	3.0	1.8	4.1	720	93.7	18.4	13.1	1.54	3.50	4.6								
				800	91.4	18.5	13.5	1.47	3.68	4.3								
	4.5	2.7	6.2	720	94.6	19.2	13.9	1.55	3.63	4.7								
				800	92.3	19.3	14.2	1.48	3.82	4.4								
	6.0	3.8	8.7	720	95.1	19.6	14.3	1.55	3.70	4.8								
				800	92.7	19.7	14.6	1.48	3.88	4.5								
40	3.0	1.6	3.8	720	96.7	20.8	15.5	1.56	3.91	5.0								
				800	94.2	20.9	15.8	1.49	4.11	4.6								
	4.5	2.5	5.7	720	97.8	21.6	16.3	1.56	4.05	5.1								
				800	95.2	21.7	16.6	1.50	4.26	4.8								
	6.0	3.5	8.1	720	98.4	22.1	16.7	1.57	4.13	5.2	720	55.6	29.3	19.0	32.8	1.04	28.2	2.1
				800	95.7	22.2	17.1	1.50	4.34	4.9	800	57.0	30.3	19.9	33.9	1.06	28.6	2.1
50	3.0	1.5	3.6	720	99.9	23.2	17.8	1.59	4.28	5.5	720	55.8	28.2	18.8	32.4	1.25	22.5	3.8
				800	97.0	23.3	18.1	1.52	4.50	5.1	800	57.2	29.1	19.7	33.5	1.28	22.8	3.8
	4.5	2.3	5.4	720	101.1	24.2	18.7	1.60	4.44	5.7	720	55.7	28.5	18.9	32.5	1.17	24.3	3.3
				800	98.1	24.3	19.1	1.53	4.67	5.3	800	57.1	29.4	19.8	33.5	1.20	24.6	3.3
	6.0	3.3	7.6	720	101.7	24.7	19.2	1.60	4.52	5.8	720	55.6	28.8	19.0	32.7	1.13	25.5	3.0
				800	98.7	24.8	19.6	1.53	4.75	5.5	800	57.0	29.8	19.8	33.7	1.16	25.8	3.0
60	3.0	1.5	3.4	720	103.3	25.9	20.3	1.65	4.62	6.2	720	56.2	27.3	18.5	32.0	1.37	19.9	4.8
				800	100.2	26.1	20.7	1.57	4.85	5.8	800	57.6	28.2	19.3	33.0	1.40	20.2	4.9
	4.5	2.2	5.1	720	104.7	27.0	21.4	1.65	4.79	6.5	720	56.1	27.6	18.6	32.0	1.29	21.5	4.2
				800	101.4	27.1	21.7	1.58	5.03	6.0	800	57.5	28.5	19.4	33.0	1.31	21.8	4.3
	6.0	3.1	7.2	720	105.4	27.6	21.9	1.66	4.87	6.6	720	56.0	27.9	18.6	32.2	1.24	22.5	3.9
				800	102.1	27.7	22.3	1.59	5.12	6.2	800	57.4	28.9	19.5	33.2	1.26	22.8	4.0
70	3.0	1.4	3.2	720	107.0	28.8	22.9	1.73	4.88	7.1	720	56.8	26.2	18.0	31.4	1.51	17.4	5.9
				800	103.5	28.9	23.3	1.66	5.13	6.6	800	58.2	27.1	18.9	32.4	1.54	17.6	6.0
	4.5	2.1	4.8	720	108.6	30.0	24.1	1.74	5.06	7.4	720	56.7	26.5	18.1	31.3	1.42	18.7	5.2
				800	104.9	30.1	24.5	1.66	5.32	6.9	800	58.1	27.4	19.0	32.3	1.44	19.0	5.3
	6.0	2.9	6.8	720	109.4	30.6	24.7	1.74	5.15	7.6	720	56.6	26.9	18.2	31.5	1.37	19.7	4.9
				800	105.6	30.8	25.1	1.67	5.41	7.1	800	58.0	27.8	19.0	32.5	1.39	19.9	5.0
80	3.0	1.3	3.1	720	110.7	31.7	25.4	1.83	5.06	7.9	720	57.4	25.1	17.5	30.8	1.67	15.0	7.1
				800	106.9	31.8	25.9	1.76	5.32	7.4	800	58.8	26.0	18.3	31.8	1.70	15.2	7.2
	4.5	2.0	4.6	720	112.4	33.0	26.7	1.84	5.25	8.3	720	57.3	25.4	17.6	30.7	1.57	16.2	6.3
				800	108.4	33.2	27.2	1.76	5.51	7.7	800	58.7	26.2	18.4	31.7	1.60	16.4	6.4
	6.0	2.8	6.5	720	113.3	33.7	27.4	1.85	5.34	8.5	720	57.3	25.7	17.7	30.9	1.51	17.0	5.9
				800	109.2	33.9	27.8	1.77	5.61	7.9	800	58.6	26.6	18.5	31.8	1.54	17.2	6.0
90	3.0	1.3	2.9	720	114.5	34.6	28.0	1.95	5.21	8.8	720	58.2	23.9	17.0	30.3	1.86	12.9	8.4
				800	110.3	34.8	28.4	1.86	5.47	8.2	800	59.4	24.7	17.8	31.2	1.89	13.1	8.5
	4.5	1.9	4.4	720	116.4	36.1	29.4	1.96	5.40	9.2	720	58.0	24.2	17.1	30.1	1.74	13.9	7.5
				800	112.0	36.3	29.9	1.87	5.67	8.6	800	59.3	25.0	17.9	31.1	1.77	14.1	7.7
	6.0	2.7	6.2	720	117.3	36.8	30.1	1.96	5.49	9.5	720	58.0	24.5	17.1	30.3	1.68	14.6	7.1
				800	112.8	37.0	30.6	1.88	5.77	8.8	800	59.3	25.3	17.9	31.2	1.71	14.8	7.2
100	3.0	1.2	2.8	Operation Not Recommended							720	59.0	22.7	16.4	29.8	2.07	11.0	9.8
											800	60.2	23.4	17.1	30.6	2.11	11.1	9.9
	4.5	1.8	4.1								720	58.9	22.9	16.4	29.6	1.94	11.8	8.8
											800	60.1	23.7	17.2	30.5	1.98	12.0	9.0
	6.0	2.5	5.8								720	58.8	23.2	16.5	29.6	1.87	12.4	8.3
											800	60.0	24.0	17.2	30.5	1.91	12.6	8.5
110	3.0	1.2	2.7								720	59.8	21.3	15.7	29.3	2.32	9.2	11.3
											800	61.0	22.0	16.4	30.1	2.37	9.3	11.5
	4.5	1.7	4.0								720	59.7	21.6	15.8	29.0	2.18	9.9	10.3
											800	60.9	22.3	16.5	29.8	2.22	10.0	10.4
	6.0	2.5	5.7								720	59.6	21.8	15.8	29.0	2.10	10.4	9.7
											800	60.8	22.6	16.5	29.9	2.14	10.5	9.8
120	3.0	1.1	2.6								720	60.5	19.9	15.1	28.9	2.64	7.5	12.9
											800	61.7	20.5	15.8	29.7	2.69	7.6	13.1
	4.5	1.7	3.9								720	60.4	20.1	15.2	28.5	2.47	8.1	11.8
											800	61.6	20.8	15.9	29.4	2.52	8.2	12.0
	6.0	2.4	5.5								720	60.4	20.3	15.3	28.5	2.39	8.5	11.2
											800	61.5	21.0	16.0	29.3	2.43	8.6	11.3

ENGINEERING SPECIFICATIONS:

Model VT024, 2 Ton, ECM Blower, PART Load Performance Data

EWT	Flow	WPD		Part Load Heating							Part Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	4.0	2.4	5.5	450	95.6	12.4	8.1	1.28	2.85	3.9	Operation Not Recommended							
				500	93.3	12.6	8.5	1.20	3.06	3.6								
30	2.0	1.2	2.8	450	96.4	12.8	8.4	1.29	2.91	3.9								
				500	94.0	13.0	8.8	1.22	3.13	3.7								
	3.0	1.7	3.9	450	97.6	13.4	9.0	1.29	3.05	4.0								
				500	95.1	13.6	9.4	1.21	3.28	3.8								
	4.0	2.2	5.2	450	98.3	13.7	9.4	1.29	3.13	4.1								
				500	95.7	13.9	9.8	1.21	3.37	3.8								
40	2.0	1.2	2.7	450	100.3	14.7	10.3	1.30	3.34	4.3								
				500	97.6	14.9	10.7	1.22	3.58	4.0								
	3.0	1.6	3.7	450	101.7	15.4	11.0	1.29	3.50	4.4								
				500	98.9	15.6	11.4	1.22	3.76	4.1								
	4.0	2.1	4.9	450	102.5	15.8	11.4	1.29	3.59	4.5	450	52.4	21.5	13.4	23.4	0.58	37.0	1.4
				500	99.6	16.0	11.8	1.21	3.86	4.2	500	53.7	22.2	14.2	24.2	0.58	38.1	1.4
50	2.0	1.1	2.6	450	104.1	16.6	12.1	1.30	3.72	4.7	450	52.9	20.5	13.2	23.2	0.78	26.5	2.7
				500	101.0	16.8	12.6	1.23	4.00	4.4	500	54.3	21.2	13.9	23.9	0.78	27.3	2.7
	3.0	1.5	3.5	450	105.7	17.3	12.9	1.30	3.90	4.9	450	52.7	20.8	13.3	23.2	0.70	29.7	2.2
				500	102.4	17.5	13.3	1.23	4.19	4.5	500	54.1	21.5	14.0	23.9	0.70	30.7	2.3
	4.0	2.0	4.7	450	106.5	17.8	13.3	1.30	4.01	5.0	450	52.7	21.0	13.3	23.3	0.67	31.6	2.0
				500	103.2	18.0	13.8	1.22	4.30	4.6	500	54.0	21.7	14.0	24.0	0.67	32.6	2.1
60	2.0	1.1	2.4	450	108.2	18.5	14.0	1.33	4.10	5.3	450	53.6	19.8	12.8	22.9	0.90	22.1	3.5
				500	104.7	18.8	14.5	1.25	4.40	4.9	500	54.9	20.5	13.5	23.6	0.90	22.8	3.6
	3.0	1.5	3.4	450	109.9	19.4	14.9	1.32	4.30	5.5	450	53.4	20.1	12.9	22.8	0.81	24.9	3.0
				500	106.3	19.6	15.4	1.25	4.61	5.1	500	54.7	20.8	13.6	23.5	0.81	25.6	3.0
	4.0	1.9	4.5	450	110.9	19.9	15.4	1.32	4.41	5.7	450	53.4	20.3	12.9	22.9	0.77	26.4	2.7
				500	107.2	20.1	15.9	1.24	4.74	5.3	500	54.7	21.0	13.7	23.6	0.77	27.2	2.8
70	2.0	1.0	2.3	450	112.3	20.6	15.9	1.36	4.44	6.1	450	54.4	19.0	12.5	22.5	1.03	18.4	4.4
				500	108.5	20.8	16.4	1.28	4.77	5.7	500	55.6	19.6	13.2	23.2	1.04	18.9	4.5
	3.0	1.4	3.2	450	114.3	21.5	16.9	1.35	4.65	6.4	450	54.2	19.3	12.5	22.4	0.93	20.7	3.8
				500	110.3	21.7	17.4	1.28	5.00	5.9	500	55.5	19.9	13.2	23.1	0.94	21.3	3.9
	4.0	1.9	4.3	450	115.3	22.0	17.4	1.35	4.78	6.6	450	54.1	19.5	12.6	22.5	0.89	22.0	3.5
				500	111.3	22.3	17.9	1.27	5.13	6.1	500	55.4	20.1	13.3	23.2	0.89	22.6	3.6
80	2.0	1.0	2.3	450	116.3	22.5	17.7	1.39	4.74	7.0	450	55.1	18.2	12.1	22.2	1.19	15.2	5.4
				500	112.1	22.7	18.3	1.31	5.09	6.5	500	56.4	18.8	12.8	22.9	1.20	15.7	5.5
	3.0	1.4	3.1	450	118.4	23.5	18.8	1.39	4.96	7.4	450	55.0	18.4	12.2	22.1	1.08	17.1	4.7
				500	114.0	23.8	19.3	1.31	5.33	6.8	500	56.2	19.0	12.8	22.7	1.08	17.7	4.8
	4.0	1.8	4.1	450	119.6	24.1	19.4	1.39	5.10	7.5	450	54.9	18.6	12.2	22.1	1.02	18.2	4.4
				500	115.1	24.4	19.9	1.31	5.47	7.0	500	56.2	19.2	12.9	22.7	1.03	18.7	4.5
90	2.0	0.9	2.2	450	120.4	24.5	19.6	1.43	5.02	8.0	450	56.0	17.3	11.7	22.0	1.38	12.6	6.4
				500	115.8	24.7	20.2	1.35	5.39	7.5	500	57.2	17.9	12.3	22.6	1.38	13.0	6.5
	3.0	1.3	3.0	450	122.7	25.6	20.7	1.43	5.26	8.4	450	55.8	17.5	11.8	21.7	1.24	14.1	5.6
				500	117.9	25.9	21.3	1.34	5.65	7.8	500	57.0	18.1	12.4	22.4	1.24	14.6	5.7
	4.0	1.7	4.0	450	124.0	26.2	21.4	1.42	5.40	8.6	450	55.7	17.7	11.8	21.7	1.18	15.0	5.3
				500	119.1	26.5	21.9	1.34	5.80	8.0	500	56.9	18.3	12.5	22.3	1.18	15.5	5.4
100	2.0	0.9	2.1	Operation Not Recommended							450	56.9	16.3	11.2	21.7	1.58	10.3	7.5
											500	58.0	16.8	11.9	22.2	1.59	10.6	7.6
	3.0	1.2	2.8								450	56.7	16.5	11.3	21.4	1.43	11.6	6.6
											500	57.9	17.1	12.0	21.9	1.43	11.9	6.8
	4.0	1.6	3.8								450	56.7	16.6	11.3	21.3	1.36	12.3	6.3
											500	57.8	17.2	12.0	21.9	1.36	12.7	6.4
110	2.0	0.9	2.1								450	57.9	15.1	10.7	21.3	1.81	8.4	8.6
											500	59.0	15.6	11.3	21.8	1.81	8.6	8.8
	3.0	1.2	2.8								450	57.8	15.3	10.8	20.9	1.63	9.4	7.7
											500	58.9	15.8	11.4	21.4	1.64	9.7	7.9
	4.0	1.6	3.6								450	57.7	15.5	10.8	20.7	1.55	10.0	7.3
											500	58.8	16.0	11.4	21.3	1.56	10.3	7.5
120	2.0	0.9	2.0								450	59.0	13.8	10.2	20.8	2.06	6.7	9.8
											500	60.0	14.3	10.8	21.3	2.06	6.9	10.0
	3.0	1.2	2.7								450	58.8	14.0	10.3	20.3	1.85	7.6	8.8
											500	59.9	14.5	10.9	20.8	1.86	7.8	9.0
	4.0	1.5	3.5								450	58.8	14.2	10.3	20.2	1.76	8.0	8.4
											500	59.9	14.6	10.9	20.7	1.77	8.3	8.5

Model VS030, 2.5 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	7.5	3.0	6.9	815	95.4	22.3	15.7	1.94	3.37	5.0	Operation Not Recommended							
				1000	90.8	22.5	16.1	1.89	3.49	4.3								
				1185	87.6	22.5	16.1	1.86	3.54	4.0								
30	3.8	1.7	4.0	815	92.8	20.0	13.4	1.95	3.01	5.0								
				1000	88.7	20.2	13.7	1.90	3.12	4.3								
				1185	85.8	20.2	13.8	1.87	3.16	4.0								
	5.6	2.2	5.1	815	96.2	23.1	16.4	1.96	3.45	5.2								
				1000	91.5	23.2	16.7	1.90	3.58	4.5								
				1185	88.2	23.2	16.8	1.88	3.63	4.1								
	7.5	2.9	6.7	815	97.2	24.0	17.3	1.96	3.58	5.3								
				1000	92.3	24.1	17.6	1.91	3.71	4.6								
				1185	88.9	24.1	17.7	1.88	3.76	4.2								
40	3.8	1.7	3.9	815	95.8	22.7	16.0	1.98	3.37	5.5								
				1000	91.2	22.9	16.3	1.92	3.49	4.7								
				1185	87.9	22.9	16.4	1.90	3.54	4.4								
	5.6	2.2	5.0	815	99.7	26.2	19.4	1.99	3.86	5.7								
				1000	94.4	26.4	19.8	1.93	4.00	4.9								
				1185	90.6	26.4	19.9	1.90	4.06	4.5								
	7.5	2.8	6.5	815	100.9	27.2	20.4	1.99	4.00	5.8	815	55.2	34.1	21.9	38.2	1.20	28.5	1.0
				1000	95.4	27.4	20.8	1.94	4.15	5.0	1000	58.2	34.8	23.5	39.2	1.27	27.5	1.0
				1185	91.4	27.4	20.9	1.91	4.21	4.6	1185	59.9	35.6	25.7	40.1	1.32	27.0	1.0
50	3.8	1.7	3.8	815	98.9	25.4	18.6	2.01	3.72	6.1	815	55.6	32.9	21.4	37.9	1.45	22.8	3.0
				1000	93.7	25.6	19.0	1.95	3.85	5.2	1000	58.6	33.6	23.1	38.8	1.53	22.0	3.1
				1185	90.0	25.6	19.1	1.93	3.90	4.8	1185	60.3	34.3	25.2	39.8	1.59	21.6	3.2
	5.6	2.1	4.9	815	103.3	29.3	22.4	2.01	4.26	6.3	815	55.5	33.2	21.6	37.9	1.37	24.3	2.5
				1000	97.3	29.5	22.8	1.96	4.42	5.4	1000	58.5	33.9	23.2	38.9	1.45	23.5	2.6
				1185	93.1	29.5	22.9	1.93	4.48	5.0	1185	60.2	34.6	25.3	39.8	1.50	23.0	2.6
	7.5	2.8	6.4	815	104.6	30.4	23.5	2.02	4.41	6.5	815	55.4	33.5	21.7	38.0	1.32	25.5	2.2
				1000	98.4	30.6	23.9	1.96	4.57	5.5	1000	58.4	34.2	23.3	38.9	1.39	24.6	2.2
				1185	93.9	30.7	24.0	1.94	4.64	5.1	1185	60.1	34.9	25.5	39.8	1.45	24.1	2.3
60	3.8	1.6	3.8	815	102.2	28.4	21.3	2.07	4.02	6.8	815	56.0	32.0	21.1	37.4	1.59	20.1	4.3
				1000	96.4	28.6	21.7	2.01	4.17	5.9	1000	58.9	32.7	22.7	38.4	1.69	19.4	4.4
				1185	92.3	28.6	21.8	1.98	4.22	5.4	1185	60.6	33.3	24.8	39.3	1.75	19.0	4.4
	5.6	2.1	4.8	815	107.1	32.6	25.6	2.07	4.61	7.1	815	55.9	32.3	21.2	37.4	1.51	21.4	3.7
				1000	100.4	32.9	26.0	2.02	4.78	6.1	1000	58.8	33.0	22.9	38.4	1.59	20.7	3.7
				1185	95.7	32.9	26.1	1.99	4.85	5.6	1185	60.5	33.6	25.0	39.3	1.66	20.3	3.8
	7.5	2.7	6.3	815	108.5	33.9	26.8	2.08	4.78	7.3	815	55.7	32.5	21.3	37.5	1.45	22.4	3.3
				1000	101.6	34.1	27.2	2.02	4.95	6.2	1000	58.7	33.2	23.0	38.5	1.53	21.7	3.4
				1185	96.7	34.2	27.4	1.99	5.02	5.7	1185	60.4	33.9	25.1	39.4	1.59	21.3	3.4
70	3.8	1.6	3.7	815	105.9	31.6	24.2	2.17	4.26	7.7	815	56.5	30.8	20.7	36.8	1.76	17.5	5.5
				1000	99.5	31.9	24.6	2.11	4.42	6.6	1000	59.4	31.4	22.3	37.8	1.86	16.9	5.7
				1185	94.9	31.9	24.8	2.08	4.48	6.1	1185	61.0	32.1	24.3	38.7	1.94	16.6	5.8
	5.6	2.1	4.8	815	111.4	36.4	29.0	2.18	4.89	8.0	815	56.4	31.1	20.8	36.7	1.66	18.7	4.8
				1000	103.9	36.7	29.4	2.12	5.07	6.9	1000	59.3	31.7	22.4	37.7	1.76	18.0	5.0
				1185	98.7	36.7	29.5	2.09	5.14	6.3	1185	60.9	32.4	24.4	38.6	1.83	17.7	5.0
	7.5	2.7	6.2	815	112.9	37.8	30.3	2.19	5.07	8.2	815	56.3	31.3	20.9	36.8	1.60	19.6	4.4
				1000	105.3	38.1	30.8	2.13	5.25	7.1	1000	59.2	32.0	22.5	37.7	1.69	18.9	4.5
				1185	99.8	38.1	30.9	2.10	5.32	6.5	1185	60.8	32.6	24.6	38.6	1.76	18.5	4.6
80	3.8	1.6	3.7	815	109.8	35.1	27.2	2.30	4.47	8.8	815	57.1	29.4	20.1	36.0	1.95	15.1	6.9
				1000	102.7	35.3	27.7	2.23	4.63	7.6	1000	59.9	30.0	21.7	37.0	2.06	14.5	7.1
				1185	97.6	35.3	27.8	2.20	4.70	7.0	1185	61.5	30.6	23.6	37.9	2.15	14.3	7.2
	5.6	2.0	4.7	815	115.8	40.3	32.5	2.31	5.12	9.2	815	57.0	29.6	20.2	35.9	1.84	16.1	6.1
				1000	107.6	40.6	33.0	2.24	5.31	7.9	1000	59.8	30.3	21.8	36.9	1.95	15.5	6.3
				1185	101.8	40.6	33.1	2.21	5.39	7.3	1185	61.4	30.9	23.8	37.8	2.03	15.2	6.4
	7.5	2.7	6.2	815	117.6	41.9	34.0	2.31	5.31	9.4	815	56.9	29.9	20.3	35.9	1.77	16.8	5.6
				1000	109.1	42.2	34.5	2.25	5.50	8.1	1000	59.7	30.5	21.9	36.9	1.88	16.3	5.8
				1185	103.0	42.2	34.6	2.22	5.58	7.4	1185	61.3	31.1	23.9	37.8	1.95	16.0	5.9
90	3.8	1.6	3.7	815	112.9	37.8	29.8	2.34	4.74	10.0	815	57.9	27.8	19.5	35.2	2.17	12.8	8.4
				1000	105.3	38.1	30.3	2.27	4.91	8.6	1000	60.6	28.4	21.0	36.2	2.29	12.4	8.7
				1185	99.8	38.1	30.4	2.24	4.98	7.9	1185	62.1	29.0	22.9	37.1	2.38	12.2	8.8
	5.6	2.0	4.7	815	119.4	43.5	35.5	2.35	5.43	10.4	815	57.8	28.1	19.6	35.0	2.05	13.7	7.5
				1000	110.6	43.8	36.0	2.28	5.63	9.0	1000	60.5	28.6	21.1	36.0	2.17	13.2	7.7
				1185	104.3	43.8	36.2	2.25	5.71	8.3	1185	62.0	29.2	23.0	36.9	2.25	13.0	7.9
	7.5	2.6	6.1	815	121.3	45.2	37.2	2.35	5.63	10.6	815	57.7	28.3	19.7	35.0	1.97	14.3	7.0
				1000	112.1	45.5	37.7	2.29	5.83	9.2	1000	60.4	28.9	21.2	36.0	2.09	13.9	7.2
				1185	105.6	45.5	37.8	2.26	5.91	8.5	1185	61.9	29.5	23.1	36.9	2.17	13.6	7.3
100	3.8	1.5	3.5	Operation Not Recommended							815	58.6	26.2	18.8	34.4	2.42	10.8	10.1
											1000	61.3	26.7	20.2	35.4	2.55	10.5	10.3
											1185	62.7	27.3	22.1	36.3	2.66	10.3	10.5
	5.6	1.9	4.5								815	58.5	26.4	18.9	34.2	2.28	11.6	9.1
											1000	61.1	26.9	20.4	35.2	2.41	11.2	9.3
											1185	62.6	27.5	22.2	36.1	2.51	11.0	9.5
	7.5	2.6	6.0								815	58.4	26.6	19.0	34.1	2.20	12.1	8.4
											1000	61.1	27.2	20.5	35.1	2.32	11.7	8.7
											1185	62.5	27.7	22.3	36.0	2.42	11.5	8.8
110	3.8	1.5	3.5								815	59.3	24.5	18.2	33.7	2.70	9.1	11.7
											1000	61.8	25.0	19.6	34.7	2.85	8.8	12.0
											1185	63.3	25.5	21.4	35.6	2.97	8.6	12.2
	5.6	1.9	4.5								815	59.2	24.7	18.3	33.4	2.55	9.7	10.6
											1000	61.7	25.2	19.7	34.4	2.69	9.4	10.9
											1185	63.2	25.7	21.5	35.3	2.80	9.2	11.1
	7.5	2.6	6.0								815	59.1	24.9	18.4	33.3	2.45	10.1	9.9
											1000	61.7	25.4	19.8	34.3	2.59	9.8	10.2
											1185	63.1	25.9	21.6	35.1	2.70	9.6	10.4
120	3.8	1.5	3.5								815	59.8	22.8	17.8	33.1	3.02	7.6	13.2
											1000	62.3	23.3	19.2	34.1	3.19	7.3	13.6
											1185	63.6	23.8	20.9	35.1	3.32	7.2	13.8
	5.6	1.9	4.5								815	59.7	23.0	17.9	32.7	2.85	8.1	12.1
											1000	62.2	23.5	19.3	33.7	3.01	7.8	12.4
											1185	63.6	24.0	21.0	34.6	3.13	7.6	12.6
	7.5	2.6	6.0								815	59.6	23.2	18.0	32.5	2.74	8.4	11.3
											1000	62.1	23.7	19.4	33.6	2.90	8.2	11.7
											1185	63.5	24.2	21.1	34.4	3.02	8.0	11.8

ENGINEERING SPECIFICATIONS:

Model VT030, 2.5 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating								Cooling								
		PSI	FT	LWT	Aiflow	LAT	HC	HE	Power	COP	DH	LWT	Aiflow	TC	SC	S/T	HR	Power	EER	DH
°F	GPM			°F	CFM	°F	MBtuh	MBtuh	kW	W/W	Mbtuh	°F	CFM	MBtuh	MBtuh	-	MBtuh	kW	Btuh/W	Mbtuh
25	7.5	3.5	8.1	20.3	900	94.1	23.4	16.9	1.90	3.60	10.5	Operation not recommended								
				20.3	1000	91.7	23.5	17.1	1.88	3.66	10.3									
30	3.8	1.7	3.9	20.9	900	93.8	23.1	16.7	1.88	3.61	10.5	54.1	900	30.8	19.7	0.64	35.3	1.31	23.6	5.0
				20.8	1000	91.5	23.2	16.9	1.86	3.66	10.2	54.6	1000	31.6	20.6	0.65	36.2	1.36	23.3	5.0
	5.6	2.4	5.6	23.5	900	94.8	24.1	17.6	1.90	3.73	10.8	48.0	900	31.2	19.8	0.63	35.4	1.23	25.4	4.2
				23.4	1000	92.4	24.2	17.8	1.87	3.79	10.5	48.4	1000	32.0	20.7	0.65	36.3	1.27	25.1	4.2
	7.5	3.3	7.7	25.0	900	95.4	24.7	18.1	1.91	3.78	11.0	44.7	900	31.2	19.7	0.63	35.3	1.19	26.2	3.8
				25.0	1000	92.9	24.7	18.3	1.89	3.84	10.7	44.9	1000	32.0	20.6	0.64	36.2	1.23	25.9	3.8
40	3.8	1.6	3.7	29.5	900	96.7	25.9	19.3	1.93	3.94	11.5	59.9	900	31.9	20.6	0.65	36.6	1.39	22.9	5.9
				29.4	1000	94.1	26.0	19.5	1.90	4.01	11.3	60.4	1000	32.7	21.5	0.66	37.6	1.44	22.6	5.9
	5.6	2.3	5.3	32.5	900	97.8	27.0	20.4	1.94	4.08	11.9	53.5	900	32.3	20.7	0.64	36.8	1.31	24.7	5.0
				32.4	1000	95.1	27.1	20.6	1.92	4.14	11.6	53.9	1000	33.1	21.6	0.65	37.7	1.36	24.4	5.0
	7.5	3.2	7.4	34.2	900	98.4	27.6	20.9	1.96	4.13	12.1	50.1	900	32.3	20.6	0.64	36.6	1.27	25.5	4.5
				34.2	1000	95.7	27.7	21.1	1.93	4.20	11.8	50.3	1000	33.1	21.5	0.65	37.6	1.32	25.2	4.6
50	3.8	1.5	3.5	37.9	900	99.9	29.1	22.3	2.00	4.26	12.7	70.9	900	33.2	21.8	0.66	38.5	1.55	21.4	7.7
				37.8	1000	97.0	29.2	22.4	1.97	4.33	12.5	71.5	1000	34.1	22.8	0.67	39.6	1.61	21.1	7.7
	5.6	2.2	5.0	41.4	900	101.2	30.3	23.4	2.02	4.41	13.1	64.2	900	33.7	21.9	0.65	38.6	1.46	23.1	6.7
				41.3	1000	98.2	30.4	23.6	1.99	4.48	12.9	64.6	1000	34.5	22.9	0.67	39.7	1.51	22.8	6.8
	7.5	3.0	7.0	43.4	900	101.9	31.0	24.1	2.03	4.47	13.4	60.6	900	33.7	21.8	0.65	38.5	1.42	23.8	6.2
				43.3	1000	98.8	31.1	24.3	2.01	4.54	13.1	60.9	1000	34.5	22.8	0.66	39.5	1.47	23.5	6.3
60	3.8	1.4	3.3	46.3	900	103.4	32.4	25.3	2.09	4.54	13.9	81.4	900	33.6	22.4	0.67	39.4	1.71	19.6	9.7
				46.2	1000	100.1	32.5	25.5	2.07	4.61	13.6	82.0	1000	34.4	23.4	0.68	40.5	1.78	19.4	9.7
	5.6	2.1	4.8	50.2	900	104.8	33.8	26.6	2.11	4.69	14.4	74.5	900	34.0	22.5	0.66	39.5	1.61	21.2	8.6
				50.1	1000	101.4	33.9	26.8	2.09	4.77	14.1	74.9	1000	34.9	23.6	0.68	40.6	1.67	20.9	8.7
	7.5	2.9	6.6	52.5	900	105.6	34.6	27.3	2.13	4.76	14.6	70.8	900	34.0	22.4	0.66	39.4	1.56	21.8	8.1
				52.4	1000	102.1	34.7	27.5	2.10	4.83	14.3	71.1	1000	34.9	23.4	0.67	40.4	1.62	21.5	8.1
70	3.8	1.4	3.1	54.7	900	106.8	35.8	28.2	2.20	4.76	14.9	91.5	900	33.1	22.5	0.68	39.5	1.88	17.6	11.9
				54.6	1000	103.2	35.9	28.5	2.17	4.84	14.6	92.0	1000	33.9	23.5	0.69	40.6	1.95	17.4	11.9
	5.6	2.0	4.5	59.1	900	108.4	37.3	29.7	2.22	4.92	15.4	84.6	900	33.5	22.6	0.67	39.6	1.76	19.0	10.7
				59.0	1000	104.6	37.4	29.9	2.19	5.00	15.1	85.0	1000	34.4	23.6	0.69	40.6	1.83	18.8	10.7
	7.5	2.7	6.3	61.6	900	109.2	38.1	30.5	2.24	4.99	15.7	80.8	900	33.6	22.4	0.67	39.4	1.71	19.6	10.0
				61.6	1000	105.4	38.3	30.7	2.21	5.07	15.4	81.1	1000	34.4	23.5	0.68	40.4	1.78	19.4	10.1
80	3.8	1.3	3.0	63.2	900	110.0	38.9	31.0	2.32	4.92	15.7	101.2	900	32.0	22.1	0.69	39.0	2.06	15.5	14.3
				63.1	1000	106.1	39.0	31.2	2.29	5.00	15.3	101.8	1000	32.8	23.1	0.70	40.1	2.14	15.3	14.4
	5.6	1.9	4.3	68.0	900	111.7	40.5	32.5	2.34	5.08	16.2	94.4	900	32.4	22.2	0.69	39.0	1.94	16.7	12.9
				67.9	1000	107.6	40.7	32.8	2.31	5.16	15.8	94.8	1000	33.2	23.2	0.70	40.1	2.01	16.5	13.0
	7.5	2.6	6.0	70.8	900	112.6	41.4	33.4	2.36	5.15	16.4	90.7	900	32.4	22.1	0.68	38.8	1.88	17.3	12.2
				70.8	1000	108.5	41.6	33.6	2.33	5.23	16.1	91.0	1000	33.2	23.1	0.69	39.9	1.95	17.1	12.3
90	3.8	1.2	2.9	72.0	900	112.7	41.5	33.2	2.43	5.01	15.9	110.7	900	30.4	21.4	0.70	38.1	2.27	13.4	16.9
				71.8	1000	108.6	41.7	33.5	2.40	5.09	15.6	111.3	1000	31.1	22.3	0.72	39.2	2.36	13.2	17.0
	5.6	1.8	4.1	77.1	900	114.6	43.3	34.9	2.45	5.18	16.4	104.0	900	30.8	21.5	0.70	38.1	2.13	14.4	15.4
				77.0	1000	110.2	43.4	35.2	2.42	5.26	16.1	104.4	1000	31.5	22.5	0.71	39.1	2.21	14.3	15.4
	7.5	2.5	5.7	80.1	900	115.6	44.3	35.9	2.47	5.25	16.7	100.4	900	30.8	21.3	0.69	37.8	2.07	14.9	14.6
				80.1	1000	111.1	44.4	36.1	2.44	5.34	16.4	100.7	1000	31.6	22.3	0.71	38.9	2.15	14.7	14.6
100	3.8	1.3	2.9	Operation not recommended								120.1	900	28.5	20.4	0.72	37.1	2.52	11.3	19.7
												120.7	1000	29.2	21.4	0.73	38.1	2.61	11.2	19.8
	5.6	1.7	4.0									113.6	900	28.8	20.5	0.71	36.9	2.36	12.2	18.0
												114.0	1000	29.5	21.5	0.73	37.9	2.45	12.0	18.1
	7.5	2.4	5.5									110.1	900	28.8	20.4	0.71	36.7	2.29	12.6	17.1
												110.4	1000	29.6	21.3	0.72	37.7	2.38	12.4	17.2
110	3.8	1.2	2.8									129.5	900	26.4	19.4	0.73	36.0	2.81	9.4	22.8
												130.1	1000	27.0	20.3	0.75	37.0	2.92	9.3	22.9
	5.6	1.7	3.9									123.2	900	26.7	19.5	0.73	35.7	2.64	10.1	20.9
												123.5	1000	27.4	20.4	0.74	36.7	2.74	10.0	21.0
	7.5	2.3	5.3									119.8	900	26.7	19.4	0.72	35.5	2.56	10.4	19.9
												120.0	1000	27.4	20.2	0.74	36.5	2.66	10.3	20.0
120	3.8	1.2	2.7									139.1	900	24.3	18.3	0.75	35.2	3.17	7.7	26.1
												139.6	1000	25.0	19.1	0.77	36.2	3.29	7.6	26.3
	5.6	1.6	3.8									132.8	900	24.7	18.4	0.75	34.8	2.97	8.3	24.0
												133.2	1000	25.3	19.2	0.76	35.8	3.08	8.2	24.1
	7.5	2.2	5.2									129.5	900	24.7	18.3	0.74	34.5	2.88	8.6	22.9
												129.8	1000	25.3	19.1	0.76	35.5	2.99	8.4	23.1

Model VT030, 2.5 Ton, ECM Blower, Part Load Performance Data

EWT	Flow	WPD		Heating								Cooling								
		PSI	FT	LWT	Aiflow	LAT	HC	HE	Power	COP	DH	LWT	Aiflow	TC	SC	S/T	HR	Power	EER	DH
°F	GPM			°F	CFM	°F	MBtuh	MBtuh	kW	W/W	Mbtuh	°F	CFM	MBtuh	MBtuh	-	MBtuh	kW	Btuh/W	Mbtuh
25	5.0	2.2	5.1	20.3	725	91.1	16.5	11.4	1.49	3.25	9.1	Operation not recommended								
				20.3	740	90.7	16.5	11.5	1.48	3.27	8.5									
30	2.5	1.3	2.9	20.6	725	91.1	16.5	11.5	1.47	3.29	9.1	58.8	725	26.2	17.0	0.65	29.2	0.88	29.8	3.2
				20.6	740	90.7	16.5	11.5	1.47	3.31	8.5	59.0	760	26.4	17.4	0.66	29.5	0.89	29.7	3.2
	3.7	1.6	3.7	23.2	725	92.1	17.3	12.3	1.48	3.44	9.3	51.3	725	26.8	17.2	0.64	29.6	0.80	33.4	2.5
				23.2	740	91.7	17.3	12.3	1.47	3.45	8.8	51.4	760	27.0	17.6	0.65	29.8	0.81	33.4	2.5
	5.0	2.1	4.8	24.8	725	92.5	17.6	12.6	1.48	3.49	9.4	47.2	725	27.1	17.2	0.64	29.6	0.74	36.6	2.0
				24.8	740	92.0	17.6	12.6	1.47	3.51	8.8	47.3	760	27.3	17.6	0.64	29.8	0.75	36.6	2.0
40	2.5	1.2	2.8	28.8	725	93.9	18.7	13.7	1.47	3.73	9.9	64.1	725	26.4	18.1	0.69	29.6	0.93	28.3	4.0
				28.8	740	93.5	18.7	13.7	1.47	3.75	9.3	64.3	760	26.6	18.5	0.70	29.8	0.94	28.3	4.0
	3.7	1.5	3.5	31.9	725	95.0	19.6	14.6	1.47	3.90	10.2	56.5	725	27.0	18.3	0.68	29.9	0.85	31.8	3.2
				31.9	740	94.5	19.6	14.6	1.47	3.92	9.5	56.6	760	27.2	18.7	0.69	30.1	0.86	31.8	3.1
	5.0	2.0	4.6	33.9	725	95.5	19.9	14.9	1.48	3.96	10.3	52.3	725	27.3	18.4	0.67	29.9	0.78	34.8	2.6
				33.8	740	94.9	19.9	14.9	1.47	3.98	9.6	52.4	760	27.5	18.7	0.68	30.2	0.79	34.8	2.6
50	2.5	1.2	2.7	37.0	725	97.0	21.1	16.0	1.49	4.15	10.9	74.3	725	26.3	18.7	0.71	29.9	1.05	25.1	5.7
				36.9	740	96.4	21.1	16.1	1.49	4.17	10.2	74.5	760	26.5	19.1	0.72	30.1	1.06	25.0	5.7
	3.7	1.5	3.4	40.6	725	98.2	22.1	17.0	1.50	4.33	11.2	66.7	725	26.9	19.0	0.71	30.2	0.96	28.1	4.7
				40.6	740	97.6	22.1	17.0	1.49	4.35	10.5	66.8	760	27.1	19.4	0.71	30.4	0.96	28.1	4.7
	5.0	1.9	4.4	42.8	725	98.7	22.5	17.4	1.50	4.40	11.3	62.5	725	27.2	19.0	0.70	30.2	0.88	30.8	4.1
				42.8	740	98.1	22.5	17.4	1.49	4.42	10.6	62.5	760	27.4	19.4	0.71	30.4	0.89	30.8	4.1
60	2.5	1.1	2.6	45.0	725	100.2	23.6	18.4	1.53	4.53	12.0	84.3	725	25.8	18.3	0.71	29.8	1.19	21.6	7.5
				45.0	740	99.6	23.6	18.4	1.52	4.55	11.2	84.5	760	25.9	18.7	0.72	30.0	1.20	21.6	7.6
	3.7	1.4	3.2	49.2	725	101.6	24.7	19.5	1.53	4.74	12.4	76.6	725	26.3	18.6	0.71	30.0	1.09	24.3	6.4
				49.2	740	100.9	24.7	19.5	1.52	4.76	11.6	76.7	760	26.5	19.0	0.72	30.3	1.09	24.3	6.4
	5.0	1.8	4.2	51.8	725	102.1	25.1	19.9	1.53	4.81	12.5	72.4	725	26.6	18.6	0.70	30.0	1.00	26.6	5.7
				51.8	740	101.5	25.1	19.9	1.52	4.83	11.7	72.5	760	26.8	19.0	0.71	30.2	1.01	26.6	5.7
70	2.5	1.1	2.5	53.0	725	103.5	26.2	20.9	1.57	4.90	13.1	94.0	725	24.8	17.7	0.72	29.4	1.36	18.3	9.6
				53.0	740	102.8	26.2	20.9	1.56	4.92	12.3	94.1	760	25.0	18.1	0.72	29.7	1.37	18.3	9.6
	3.7	1.3	3.1	57.8	725	105.1	27.5	22.1	1.57	5.12	13.6	86.3	725	25.4	18.0	0.71	29.6	1.24	20.5	8.3
				57.8	740	104.4	27.5	22.1	1.56	5.14	12.8	86.5	760	25.6	18.3	0.72	29.8	1.25	20.5	8.3
	5.0	1.7	4.0	60.7	725	105.7	27.9	22.5	1.57	5.20	13.8	82.2	725	25.6	18.0	0.70	29.5	1.14	22.5	7.5
				60.7	740	104.9	27.9	22.6	1.57	5.22	12.9	82.3	760	25.8	18.3	0.71	29.7	1.15	22.5	7.5
80	2.5	1.0	2.4	60.9	725	106.9	28.9	23.4	1.61	5.27	14.3	103.5	725	23.6	17.2	0.73	28.9	1.55	15.3	11.8
				60.9	740	106.2	28.9	23.4	1.60	5.29	13.5	103.7	760	23.8	17.6	0.74	29.1	1.56	15.2	11.9
	3.7	1.3	3.0	66.3	725	108.6	30.2	24.7	1.61	5.50	14.8	96.0	725	24.1	17.4	0.72	28.9	1.41	17.1	10.4
				66.3	740	107.8	30.2	24.8	1.60	5.53	13.9	96.1	760	24.3	17.8	0.73	29.2	1.42	17.1	10.4
	5.0	1.7	3.9	69.6	725	109.3	30.7	25.2	1.61	5.59	15.0	91.9	725	24.4	17.4	0.72	28.8	1.30	18.8	9.4
				69.6	740	108.5	30.7	25.3	1.61	5.61	14.1	92.0	760	24.6	17.8	0.73	29.0	1.31	18.8	9.5
90	2.5	1.0	2.3	68.9	725	110.3	31.6	26.0	1.64	5.64	15.4	113.0	725	22.2	16.7	0.75	28.2	1.76	12.6	14.2
				68.8	740	109.5	31.6	26.0	1.63	5.67	14.5	113.1	760	22.4	17.1	0.76	28.4	1.78	12.6	14.3
	3.7	1.2	2.8	74.8	725	112.2	33.0	27.4	1.64	5.90	15.9	105.6	725	22.7	16.9	0.75	28.2	1.61	14.1	12.6
				74.8	740	111.3	33.0	27.5	1.63	5.93	15.0	105.7	760	22.9	17.3	0.76	28.4	1.62	14.1	12.7
	5.0	1.6	3.7	78.5	725	112.9	33.6	28.0	1.64	5.99	16.1	101.5	725	22.9	16.9	0.74	28.0	1.48	15.5	11.6
				78.4	740	112.0	33.6	28.0	1.64	6.02	15.2	101.6	760	23.1	17.3	0.75	28.2	1.49	15.5	11.6
100	2.5	1.0	2.2	Operation not recommended								122.4	725	20.7	16.1	0.78	27.6	2.01	10.3	16.7
												122.6	760	20.8	16.5	0.79	27.8	2.03	10.3	16.8
	3.7	1.2	2.8									115.1	725	21.2	16.3	0.77	27.4	1.83	11.6	14.9
												115.3	760	21.3	16.7	0.78	27.6	1.85	11.6	15.1
	5.0	1.6	3.6									111.2	725	21.4	16.3	0.76	27.1	1.69	12.7	13.8
												111.3	760	21.5	16.7	0.77	27.3	1.70	12.7	13.9
110	2.5	0.9	2.2									132.0	725	19.2	15.3	0.80	27.0	2.29	8.4	19.4
												132.2	760	19.4	15.7	0.81	27.2	2.30	8.4	19.5
	3.7	1.2	2.7									124.8	725	19.6	15.5	0.79	26.7	2.08	9.4	17.5
												124.9	760	19.8	15.8	0.80	27.0	2.10	9.4	17.6
	5.0	1.5	3.5									120.9	725	19.8	15.5	0.78	26.4	1.92	10.3	16.2
												121.0	760	20.0	15.9	0.79	26.6	1.94	10.3	16.4
120	2.5	0.9	2.1									141.7	725	17.8	14.5	0.81	26.7	2.59	6.9	22.2
												141.9	760	18.0	14.8	0.83	26.9	2.61	6.9	22.4
	3.7	1.1	2.7									134.5	725	18.2	14.7	0.81	26.3	2.36	7.7	20.1
												134.6	760	18.4	15.0	0.82	26.5	2.38	7.7	20.3
	5.0	1.5	3.5									130.7	725	18.4	14.7	0.80	25.9	2.18	8.5	18.8
												130.7	760	18.6	15.0	0.81	26.1	2.19	8.5	18.9

ENGINEERING SPECIFICATIONS:

Model VS030, 2.5 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	7.5	3.0	6.9	900	92.5	21.9	15.9	1.75	3.65	4.7	Operation Not Recommended							
				1000	90.3	21.9	16.0	1.72	3.74	4.4								
30	3.8	1.7	4.0	900	92.7	22.0	16.0	1.76	3.66	4.7								
				1000	90.4	22.1	16.2	1.73	3.74	4.4								
	5.6	2.2	5.1	900	93.5	22.8	16.8	1.77	3.78	4.9								
				1000	91.2	22.9	17.0	1.73	3.87	4.5								
	7.5	2.9	6.7	900	94.2	23.5	17.4	1.77	3.88	5.0								
				1000	91.8	23.5	17.6	1.74	3.97	4.6								
40	3.8	1.7	3.9	900	95.8	25.1	18.9	1.79	4.10	5.2								
				1000	93.2	25.1	19.1	1.75	4.20	4.8								
	5.6	2.1	5.0	900	96.7	26.0	19.9	1.79	4.25	5.4								
				1000	94.1	26.0	20.0	1.76	4.35	5.0								
	7.5	2.8	6.5	900	97.5	26.7	20.6	1.80	4.35	5.5	900	56.1	35.1	23.2	38.8	1.08	32.5	1.0
				1000	94.8	26.8	20.8	1.76	4.46	5.1	1000	57.6	35.3	24.2	39.1	1.11	32.0	1.0
50	3.8	1.7	3.8	900	98.9	28.1	21.9	1.82	4.53	5.7	900	56.6	33.7	22.8	38.3	1.33	25.3	3.1
				1000	96.1	28.2	22.1	1.78	4.64	5.3	1000	58.0	34.0	23.8	38.6	1.36	24.9	3.1
	5.6	2.1	4.9	900	100.0	29.2	22.9	1.83	4.68	5.9	900	56.4	34.2	22.9	38.5	1.25	27.3	2.5
				1000	97.1	29.2	23.1	1.79	4.79	5.5	1000	57.9	34.4	23.9	38.8	1.28	26.9	2.6
	7.5	2.8	6.4	900	100.9	30.0	23.8	1.83	4.80	6.1	900	56.3	34.5	23.0	38.6	1.20	28.7	2.2
				1000	97.8	30.0	23.9	1.79	4.92	5.6	1000	57.8	34.7	24.0	38.9	1.23	28.3	2.2
60	3.8	1.6	3.8	900	102.2	31.3	24.9	1.87	4.90	6.4	900	56.9	32.8	22.5	37.9	1.49	22.1	4.3
				1000	99.1	31.4	25.1	1.83	5.02	5.9	1000	58.3	33.0	23.4	38.2	1.52	21.8	4.3
	5.6	2.1	4.8	900	103.4	32.5	26.1	1.88	5.07	6.6	900	56.8	33.2	22.6	38.0	1.40	23.8	3.7
				1000	100.1	32.6	26.3	1.84	5.19	6.2	1000	58.2	33.5	23.6	38.3	1.43	23.5	3.7
	7.5	2.7	6.3	900	104.4	33.4	27.0	1.88	5.20	6.8	900	56.7	33.5	22.7	38.1	1.34	25.1	3.3
				1000	101.0	33.5	27.2	1.84	5.33	6.3	1000	58.1	33.7	23.7	38.4	1.37	24.7	3.3
70	3.8	1.6	3.8	900	105.7	34.7	28.1	1.95	5.22	7.2	900	57.4	31.6	22.0	37.2	1.66	19.1	5.6
				1000	102.2	34.8	28.3	1.91	5.35	6.7	1000	58.8	31.8	22.9	37.6	1.70	18.8	5.6
	5.6	2.1	4.8	900	107.1	36.0	29.4	1.96	5.40	7.5	900	57.3	32.0	22.1	37.3	1.56	20.5	4.9
				1000	103.4	36.1	29.6	1.91	5.53	7.0	1000	58.6	32.2	23.1	37.7	1.59	20.2	4.9
	7.5	2.7	6.2	900	108.1	37.0	30.4	1.96	5.54	7.7	900	57.1	32.3	22.2	37.4	1.49	21.6	4.4
				1000	104.3	37.1	30.6	1.92	5.67	7.2	1000	58.5	32.5	23.2	37.7	1.53	21.3	4.5
80	3.8	1.6	3.7	900	109.4	38.3	31.3	2.04	5.50	8.2	900	58.0	30.2	21.4	36.5	1.86	16.3	7.0
				1000	105.5	38.4	31.6	2.00	5.63	7.7	1000	59.3	30.4	22.3	36.9	1.90	16.0	7.1
	5.6	2.0	4.7	900	110.9	39.7	32.8	2.05	5.69	8.6	900	57.9	30.6	21.5	36.5	1.74	17.5	6.2
				1000	106.9	39.8	33.0	2.00	5.82	8.0	1000	59.2	30.8	22.4	36.9	1.78	17.3	6.3
	7.5	2.7	6.2	900	112.0	40.9	33.9	2.05	5.84	8.8	900	57.8	30.8	21.6	36.5	1.67	18.4	5.7
				1000	107.9	40.9	34.1	2.01	5.97	8.2	1000	59.1	31.0	22.6	36.9	1.71	18.2	5.8
90	3.8	1.6	3.7	900	113.2	42.0	34.7	2.14	5.74	9.4	900	58.7	28.6	20.7	35.7	2.08	13.7	8.5
				1000	108.9	42.0	34.9	2.10	5.87	8.7	1000	60.0	28.8	21.6	36.1	2.13	13.5	8.6
	5.6	2.0	4.7	900	114.8	43.5	36.2	2.15	5.93	9.7	900	58.6	29.0	20.8	35.6	1.96	14.8	7.6
				1000	110.4	43.6	36.4	2.10	6.08	9.1	1000	59.9	29.2	21.7	36.0	2.00	14.6	7.7
	7.5	2.6	6.1	900	116.0	44.8	37.4	2.16	6.09	10.0	900	58.5	29.2	20.9	35.6	1.88	15.6	7.1
				1000	111.5	44.8	37.6	2.11	6.23	9.3	1000	59.8	29.4	21.8	35.9	1.92	15.3	7.2
100	3.8	1.5	3.5	Operation Not Recommended							900	59.4	26.9	20.0	34.9	2.34	11.5	10.2
											1000	60.6	27.1	20.9	35.3	2.39	11.3	10.3
	5.6	1.9	4.5								900	59.3	27.3	20.2	34.8	2.20	12.4	9.2
											1000	60.5	27.5	21.0	35.1	2.25	12.2	9.3
	7.5	2.6	6.0								900	59.2	27.5	20.3	34.7	2.11	13.0	8.5
											1000	60.4	27.7	21.1	35.0	2.16	12.8	8.6
110	3.8	1.5	3.5								900	60.0	25.2	19.4	34.2	2.63	9.6	11.8
											1000	61.2	25.4	20.3	34.6	2.69	9.4	12.0
	5.6	1.9	4.5								900	59.9	25.5	19.5	34.0	2.47	10.3	10.7
											1000	61.1	25.7	20.4	34.3	2.53	10.2	10.9
	7.5	2.6	6.0								900	59.8	25.7	19.6	33.8	2.37	10.9	10.1
											1000	61.0	25.9	20.5	34.2	2.42	10.7	10.2
120	3.8	1.5	3.5								900	60.4	23.5	19.0	33.6	2.96	7.9	13.4
											1000	61.6	23.7	19.8	34.0	3.03	7.8	13.5
	5.6	1.9	4.5								900	60.3	23.8	19.1	33.3	2.78	8.6	12.2
											1000	61.5	24.0	19.9	33.7	2.85	8.4	12.3
	7.5	2.6	6.0								900	60.2	24.0	19.2	33.1	2.67	9.0	11.5
											1000	61.5	24.2	20.0	33.5	2.73	8.9	11.6

Model VS036, 3 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	9.0	4.0	9.2	900	98.5	27.7	18.8	2.60	3.13	6.3	Operation Not Recommended							
				1100	94.0	28.6	20.0	2.52	3.32	5.6								
				1300	90.5	28.9	20.4	2.49	3.40	5.1								
30	4.5	1.9	4.4	900	98.4	27.6	18.8	2.58	3.14	6.3								
				1100	93.9	28.5	19.9	2.50	3.34	5.6								
				1300	90.5	28.8	20.3	2.47	3.41	5.1								
	7.0	2.7	6.2	900	99.7	28.9	20.0	2.59	3.27	6.4								
				1100	95.0	29.8	21.2	2.51	3.47	5.8								
				1300	91.4	30.1	21.6	2.48	3.55	5.2								
	9.0	3.7	8.5	900	100.4	29.6	20.7	2.61	3.32	6.5								
				1100	95.7	30.5	21.9	2.53	3.53	5.9								
				1300	91.9	30.8	22.3	2.50	3.61	5.3								
40	4.5	1.9	4.4	900	101.9	31.0	22.1	2.60	3.49	6.7								
				1100	96.9	32.0	23.4	2.52	3.72	6.0								
				1300	93.0	32.3	23.8	2.49	3.80	5.4								
	7.0	2.7	6.2	900	103.4	32.4	23.5	2.61	3.64	6.9								
				1100	98.1	33.4	24.8	2.53	3.87	6.2								
				1300	94.1	33.8	25.2	2.51	3.95	5.6								
	9.0	3.7	8.5	900	104.2	33.2	24.2	2.63	3.70	7.1	900	52.9	42.5	26.4	47.8	1.57	27.1	1.3
				1100	98.8	34.3	25.5	2.55	3.93	6.3	1100	55.2	43.2	29.4	48.8	1.66	26.0	1.5
				1300	94.7	34.6	26.0	2.52	4.02	5.8	1300	57.5	44.1	31.6	50.0	1.73	25.6	1.7
50	4.5	1.9	4.4	900	105.8	34.8	25.7	2.65	3.84	7.3	900	54.6	41.1	24.6	47.6	1.90	21.7	4.1
				1100	100.2	35.8	27.1	2.57	4.08	6.6	1100	56.9	41.8	27.5	48.6	2.01	20.8	4.4
				1300	95.8	36.2	27.5	2.54	4.17	6.0	1300	59.0	42.7	29.5	49.9	2.09	20.4	4.5
	7.0	2.6	6.1	900	107.4	36.4	27.3	2.67	4.00	7.7	900	54.6	41.5	24.7	47.5	1.76	23.6	3.3
				1100	101.6	37.5	28.7	2.59	4.25	6.9	1100	56.8	42.2	27.6	48.6	1.86	22.6	3.6
				1300	97.0	37.9	29.2	2.56	4.34	6.3	1300	58.9	43.2	29.6	49.8	1.94	22.2	3.7
	9.0	3.6	8.4	900	108.3	37.3	28.1	2.69	4.07	7.9	900	54.6	41.7	24.7	47.5	1.71	24.4	3.0
				1100	102.3	38.4	29.5	2.60	4.32	7.1	1100	56.8	42.4	27.6	48.5	1.81	23.4	3.2
				1300	97.6	38.8	30.0	2.57	4.42	6.4	1300	58.9	43.3	29.6	49.7	1.89	23.0	3.4
60	4.5	1.9	4.3	900	110.1	39.0	29.6	2.75	4.16	8.3	900	55.0	40.0	24.3	47.1	2.08	19.3	5.3
				1100	103.8	40.2	31.1	2.66	4.42	7.5	1100	57.2	40.7	27.1	48.2	2.20	18.5	5.7
				1300	98.9	40.6	31.6	2.63	4.52	6.8	1300	59.3	41.6	29.1	49.4	2.29	18.1	5.8
	7.0	2.6	6.0	900	112.0	40.8	31.4	2.76	4.33	8.8	900	54.9	40.4	24.4	47.0	1.93	21.0	4.5
				1100	105.4	42.0	32.9	2.68	4.61	7.9	1100	57.1	41.1	27.2	48.0	2.04	20.1	4.8
				1300	100.3	42.5	33.5	2.65	4.71	7.2	1300	59.2	42.0	29.2	49.2	2.13	19.7	4.9
	9.0	3.6	8.2	900	113.0	41.8	32.3	2.78	4.41	9.1	900	54.9	40.5	24.4	46.9	1.87	21.6	4.1
				1100	106.3	43.1	33.9	2.69	4.69	8.2	1100	57.1	41.2	27.2	48.0	1.99	20.8	4.4
				1300	101.0	43.5	34.4	2.66	4.79	7.5	1300	59.2	42.1	29.2	49.2	2.07	20.4	4.5
70	4.5	1.8	4.2	900	114.7	43.4	33.7	2.87	4.44	9.6	900	55.4	38.6	23.9	46.4	2.29	16.9	6.7
				1100	107.7	44.8	35.3	2.78	4.72	8.6	1100	57.5	39.2	26.7	47.5	2.42	16.2	7.1
				1300	102.2	45.3	35.9	2.75	4.83	7.9	1300	59.6	40.1	28.6	48.7	2.52	15.9	7.3
	7.0	2.5	5.8	900	116.7	45.4	35.6	2.88	4.62	10.2	900	55.3	39.0	24.0	46.2	2.12	18.4	5.7
				1100	109.4	46.8	37.3	2.79	4.92	9.2	1100	57.5	39.6	26.8	47.3	2.25	17.6	6.1
				1300	103.7	47.3	37.9	2.76	5.02	8.4	1300	59.5	40.5	28.7	48.5	2.34	17.3	6.2
	9.0	3.5	8.0	900	117.9	46.6	36.7	2.90	4.70	10.6	900	55.3	39.1	24.0	46.1	2.06	19.0	5.3
				1100	110.4	48.0	38.4	2.81	5.00	9.5	1100	57.5	39.8	26.8	47.2	2.19	18.2	5.7
				1300	104.5	48.5	39.0	2.78	5.11	8.7	1300	59.5	40.7	28.7	48.4	2.28	17.9	5.8
80	4.5	1.7	4.0	900	119.3	47.9	37.7	3.00	4.68	11.0	900	56.1	36.9	23.2	45.6	2.53	14.6	8.3
				1100	111.6	49.4	39.5	2.91	4.98	9.9	1100	58.2	37.6	25.9	46.7	2.68	14.0	8.7
				1300	105.5	49.9	40.1	2.87	5.09	9.0	1300	60.2	38.4	27.7	47.9	2.79	13.8	8.9
	7.0	2.4	5.6	900	121.5	50.1	39.8	3.01	4.87	11.7	900	56.1	37.3	23.3	45.3	2.35	15.9	7.1
				1100	113.5	51.7	41.7	2.92	5.18	10.6	1100	58.2	37.9	25.9	46.4	2.49	15.3	7.5
				1300	107.2	52.2	42.3	2.89	5.30	9.8	1300	60.2	38.8	27.8	47.6	2.59	15.0	7.7
	9.0	3.3	7.6	900	122.8	51.3	41.0	3.03	4.96	12.2	900	56.1	37.4	23.3	45.2	2.28	16.4	6.7
				1100	114.5	52.9	42.9	2.94	5.27	11.0	1100	58.2	38.1	25.9	46.3	2.42	15.7	7.1
				1300	108.1	53.5	43.6	2.91	5.39	10.1	1300	60.2	38.9	27.8	47.5	2.52	15.5	7.2
90	4.5	1.6	3.8	900	123.9	52.4	41.7	3.13	4.91	12.4	900	57.0	35.1	22.3	44.7	2.82	12.5	10.0
				1100	115.5	54.1	43.7	3.04	5.22	11.3	1100	59.0	35.7	24.9	45.9	2.98	12.0	10.5
				1300	108.9	54.6	44.4	3.00	5.33	10.3	1300	60.9	36.5	26.7	47.1	3.11	11.7	10.7
	7.0	2.3	5.3	900	126.4	54.8	44.1	3.15	5.11	13.4	900	56.9	35.5	22.4	44.4	2.61	13.6	8.7
				1100	117.6	56.5	46.1	3.05	5.43	12.2	1100	58.9	36.0	25.0	45.5	2.77	13.0	9.2
				1300	110.7	57.1	46.8	3.02	5.55	11.2	1300	60.9	36.9	26.8	46.7	2.88	12.8	9.4
	9.0	3.1	7.2	900	127.8	56.2	45.4	3.17	5.20	13.9	900	56.9	35.6	22.4	44.2	2.54	14.0	8.2
				1100	118.7	57.9	47.4	3.07	5.53	12.6	1100	58.9	36.2	25.0	45.4	2.69	13.4	8.6
				1300	111.7	58.5	48.2	3.04	5.65	11.7	1300	60.9	37.0	26.8	46.5	2.80	13.2	8.9
100	4.5	1.6	3.6	Operation Not Recommended							900	57.7	33.1	21.7	43.9	3.15	10.5	11.9
											1100	59.6	33.7	24.2	45.0	3.34	10.1	12.5
											1300	61.5	34.4	25.9	46.3	3.47	9.9	12.7
	7.0	2.2	5.0								900	57.6	33.4	21.7	43.4	2.92	11.4	10.5
											1100	59.6	34.0	24.3	44.6	3.10	11.0	11.0
											1300	61.5	34.8	26.0	45.8	3.22	10.8	11.2
	9.0	2.9	6.8								900	57.6	33.6	21.7	43.3	2.84	11.8	9.9
											1100	59.6	34.1	24.3	44.4	3.01	11.3	10.4
											1300	61.5	34.9	26.0	45.6	3.13	11.1	10.7
110	4.5	1.5	3.5								900	58.4	31.0	21.0	43.1	3.54	8.8	13.8
											1100	60.3	31.5	23.4	44.3	3.75	8.4	14.5
											1300	62.1	32.2	25.1	45.5	3.90	8.3	14.8
	7.0	2.1	4.8								900	58.4	31.3	21.0	42.5	3.28	9.6	12.3
											1100	60.3	31.8	23.5	43.7	3.48	9.2	12.9
											1300	62.1	32.6	25.2	44.9	3.62	9.0	13.1
	9.0	2.8	6.5								900	58.4	31.4	21.0	42.3	3.19	9.9	11.6
											1100	60.3	32.0	23.5	43.5	3.38	9.5	12.2
											1300	62.1	32.7	25.2	44.7	3.52	9.3	12.5
120	4.5	1.4	3.3								900	60.4	28.9	19.0	42.4	3.98	7.2	15.5
											1100	62.1	29.3	21.2	43.7	4.22	6.9	16.2
											1300	63.8	30.0	22.8	45.0	4.40	6.8	16.6
	7.0	2.0	4.6								900	60.4	29.1	19.1	41.8	3.70	7.9	13.9
											1100	62.1	29.6	21.3	43.0	3.92	7.6	14.5
											1300	63.7	30.3	22.8	44.2	4.08	7.4	14.8
	9.0	2.7	6.2								900	60.4	29.2	19.1	41.5	3.59	8.1	13.2
											1100	62.1	29.7	21.3	42.7	3.81	7.8	13.8
											1300	63.7	30.4	22.8	43.9	3.97	7.7	14.1

ENGINEERING SPECIFICATIONS:

Model VS036, 3 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	9.0	4.0	9.2	1080	93.8	27.8	19.9	2.31	3.54	5.8								
				1200	91.6	28.0	20.1	2.31	3.56	5.5								
30	4.5	1.9	4.4	1080	93.7	27.7	19.9	2.27	3.57	5.7								
				1200	91.5	27.9	20.1	2.27	3.59	5.3								
	7.0	2.7	6.2	1080	94.8	29.0	21.2	2.29	3.72	5.9								
				1200	92.5	29.2	21.4	2.29	3.74	5.5								
	9.0	3.7	8.5	1080	95.5	29.7	21.8	2.32	3.76	6.0								
				1200	93.1	30.0	22.0	2.32	3.78	5.7								
40	4.5	1.9	4.4	1080	96.7	31.2	23.3	2.30	3.97	6.1								
				1200	94.3	31.4	23.6	2.31	3.99	5.7								
	7.0	2.7	6.2	1080	98.0	32.7	24.8	2.32	4.13	6.4								
				1200	95.4	32.9	25.0	2.32	4.15	6.0								
	9.0	3.7	8.5	1080	98.7	33.5	25.5	2.35	4.18	6.5	990	52.9	43.2	29.0	48.0	1.41	30.7	1.4
				1200	96.1	33.8	25.7	2.35	4.20	6.1	1100	54.5	43.9	30.3	48.9	1.45	30.2	1.4
50	4.5	1.9	4.4	1080	100.1	35.1	27.0	2.36	4.36	6.8	990	54.9	41.8	26.8	47.7	1.74	24.0	4.0
				1200	97.3	35.3	27.3	2.36	4.39	6.3	1100	56.4	42.5	28.0	48.7	1.80	23.6	4.1
	7.0	2.6	6.1	1080	101.5	36.7	28.6	2.37	4.54	7.1	990	54.9	42.2	26.9	47.7	1.61	26.3	3.1
				1200	98.5	37.0	28.9	2.38	4.56	6.6	1100	56.3	42.9	28.1	48.6	1.66	25.8	3.2
	9.0	3.6	8.4	1080	102.3	37.7	29.5	2.41	4.59	7.3	990	54.8	42.3	27.0	47.7	1.56	27.1	2.8
				1200	99.3	38.0	29.7	2.41	4.62	6.8	1100	56.3	43.1	28.2	48.6	1.61	26.7	2.8
60	4.5	1.9	4.3	1080	103.7	39.4	31.0	2.44	4.73	7.7	990	55.2	40.7	26.5	47.2	1.93	21.1	5.6
				1200	100.6	39.7	31.3	2.44	4.76	7.2	1100	56.7	41.4	27.7	48.2	2.00	20.7	5.6
	7.0	2.6	6.0	1080	105.3	41.2	32.8	2.45	4.92	8.0	990	55.2	41.1	26.6	47.1	1.78	23.1	4.6
				1200	102.0	41.5	33.1	2.46	4.95	7.6	1100	56.6	41.8	27.8	48.0	1.84	22.7	4.7
	9.0	3.6	8.2	1080	106.3	42.3	33.8	2.49	4.98	8.3	990	55.1	41.2	26.7	47.1	1.73	23.8	4.2
				1200	102.9	42.6	34.1	2.49	5.01	7.8	1100	56.5	41.9	27.9	48.0	1.79	23.4	4.3
70	4.5	1.8	4.2	1080	107.6	43.9	35.2	2.54	5.06	8.8	990	55.6	39.3	26.1	46.6	2.14	18.3	7.1
				1200	104.1	44.2	35.5	2.55	5.09	8.3	1100	57.0	39.9	27.3	47.5	2.21	18.0	7.2
	7.0	2.5	5.8	1080	109.4	45.9	37.2	2.56	5.26	9.2	990	55.5	39.6	26.2	46.4	1.98	20.1	6.1
				1200	105.7	46.3	37.5	2.56	5.29	8.7	1100	56.9	40.3	27.4	47.3	2.04	19.7	6.2
	9.0	3.5	8.0	1080	110.4	47.2	38.3	2.60	5.33	9.5	990	55.4	39.8	26.3	46.3	1.92	20.7	5.6
				1200	106.7	47.5	38.6	2.60	5.36	9.0	1100	56.9	40.5	27.5	47.2	1.98	20.4	5.7
80	4.5	1.7	4.0	1080	111.5	48.4	39.4	2.66	5.33	10.0	990	56.3	37.6	25.3	45.8	2.39	15.8	8.8
				1200	107.7	48.8	39.7	2.67	5.36	9.4	1100	57.7	38.3	26.4	46.7	2.47	15.5	8.9
	7.0	2.4	5.6	1080	113.5	50.7	41.6	2.68	5.54	10.5	990	56.3	38.0	25.4	45.5	2.20	17.2	7.6
				1200	109.4	51.1	41.9	2.69	5.58	9.9	1100	57.7	38.6	26.5	46.4	2.28	17.0	7.7
	9.0	3.3	7.6	1080	114.6	52.0	42.8	2.72	5.61	10.8	990	56.2	38.1	25.5	45.4	2.14	17.8	7.1
				1200	110.5	52.4	43.1	2.72	5.64	10.2	1100	57.6	38.8	26.6	46.3	2.21	17.5	7.2
90	4.5	1.6	3.8	1080	115.5	53.1	43.5	2.79	5.58	11.3	990	57.2	35.8	24.4	44.9	2.67	13.4	10.6
				1200	111.3	53.5	43.9	2.79	5.61	10.7	1100	58.6	36.4	25.5	45.8	2.76	13.2	10.8
	7.0	2.3	5.3	1080	117.6	55.5	46.0	2.81	5.80	11.9	990	57.1	36.1	24.4	44.5	2.47	14.6	9.3
				1200	113.2	56.0	46.4	2.81	5.84	11.2	1100	58.5	36.8	25.6	45.5	2.55	14.4	9.4
	9.0	3.1	7.2	1080	118.9	57.0	47.3	2.85	5.87	12.2	990	57.1	36.2	24.5	44.4	2.40	15.1	8.7
				1200	114.3	57.4	47.7	2.85	5.91	11.6	1100	58.4	36.9	25.6	45.3	2.48	14.9	8.9
100	4.5	1.6	3.6								990	57.9	33.8	23.6	44.1	3.01	11.2	12.6
											1100	59.2	34.4	24.7	45.0	3.11	11.0	12.7
	7.0	2.2	5.0								990	57.8	34.1	23.7	43.6	2.78	12.3	11.1
											1100	59.1	34.7	24.8	44.5	2.87	12.1	11.2
	9.0	2.9	6.8								990	57.7	34.2	23.8	43.4	2.70	12.7	10.5
											1100	59.1	34.8	24.9	44.3	2.79	12.5	10.6
110	4.5	1.5	3.5								990	58.6	31.7	22.9	43.3	3.41	9.3	14.5
											1100	59.9	32.2	23.9	44.2	3.52	9.2	14.7
	7.0	2.1	4.8								990	58.5	32.0	23.0	42.7	3.14	10.2	12.9
											1100	59.8	32.5	24.0	43.6	3.25	10.0	13.1
	9.0	2.8	6.5								990	58.5	32.1	23.0	42.5	3.05	10.5	12.3
											1100	59.7	32.6	24.1	43.4	3.16	10.3	12.4
120	4.5	1.4	3.3								990	60.8	29.5	20.5	42.7	3.87	7.6	16.2
											1100	62.0	30.0	21.4	43.6	4.00	7.5	16.4
	7.0	2.0	4.6								990	60.8	29.8	20.6	42.0	3.57	8.3	14.5
											1100	61.9	30.3	21.5	42.9	3.69	8.2	14.7
	9.0	2.7	6.2								990	60.7	29.9	20.6	41.7	3.47	8.6	13.8
											1100	61.8	30.4	21.6	42.6	3.58	8.5	14.0

Operation Not Recommended

Model VT036, 3 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Full Load Heating							Full Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	9.0	3.7	8.5	1080	93.3	27.2	19.3	2.32	3.44	6.6	Operation Not Recommended							
				1200	91.1	27.4	19.7	2.25	3.57	6.0								
30	4.5	2.1	4.8	1080	93.2	27.0	19.1	2.31	3.42	6.7								
				1200	91.0	27.2	19.5	2.25	3.55	6.1								
	7.0	2.9	6.7	1080	94.3	28.4	20.4	2.33	3.57	6.8								
				1200	92.1	28.6	20.9	2.27	3.70	6.2								
	9.0	3.6	8.2	1080	95.0	29.1	21.1	2.34	3.65	6.9								
				1200	92.7	29.4	21.6	2.28	3.78	6.3								
40	4.5	2.0	4.7	1080	96.5	30.9	22.8	2.36	3.83	7.2								
				1200	94.0	31.1	23.3	2.30	3.98	6.6								
	7.0	2.8	6.5	1080	97.8	32.5	24.3	2.38	3.99	7.5								
				1200	95.2	32.7	24.8	2.31	4.14	6.8								
	9.0	3.5	8.0	1080	98.6	33.3	25.2	2.39	4.08	7.6	990	54.8	42.1	27.0	47.3	1.53	27.6	3.1
				1200	95.9	33.6	25.7	2.32	4.24	6.9	1100	56.5	43.0	27.9	48.4	1.59	27.0	3.2
50	4.5	2.0	4.6	1080	99.9	34.9	26.5	2.45	4.17	8.0	990	55.1	40.8	26.6	47.1	1.84	22.1	5.0
				1200	97.1	35.2	27.0	2.38	4.33	7.3	1100	56.8	41.7	27.6	48.3	1.93	21.7	5.1
	7.0	2.8	6.4	1080	101.4	36.6	28.2	2.47	4.35	8.3	990	55.0	41.3	26.7	47.1	1.72	24.0	4.4
				1200	98.5	36.9	28.8	2.40	4.51	7.5	1100	56.7	42.2	27.7	48.3	1.80	23.4	4.5
	9.0	3.4	7.9	1080	102.3	37.6	29.2	2.48	4.45	8.4	990	55.0	41.4	26.8	47.1	1.67	24.8	4.1
				1200	99.3	37.9	29.7	2.41	4.61	7.6	1100	56.7	42.3	27.7	48.2	1.75	24.2	4.2
60	4.5	2.0	4.6	1080	103.3	38.9	30.1	2.58	4.41	9.1	990	55.6	39.6	26.1	46.6	2.03	19.6	6.3
				1200	100.3	39.2	30.6	2.51	4.58	8.3	1100	57.2	40.5	27.1	47.7	2.12	19.1	6.5
	7.0	2.7	6.3	1080	105.0	40.9	32.0	2.60	4.60	9.4	990	55.5	40.0	26.2	46.5	1.89	21.2	5.5
				1200	101.8	41.2	32.6	2.53	4.77	8.5	1100	57.1	40.9	27.2	47.7	1.98	20.7	5.7
	9.0	3.4	7.8	1080	106.0	42.0	33.0	2.61	4.71	9.5	990	55.4	40.2	26.3	46.4	1.84	21.9	5.2
				1200	102.6	42.3	33.6	2.54	4.88	8.7	1100	57.1	41.0	27.2	47.6	1.92	21.4	5.3
70	4.5	2.0	4.5	1080	106.9	43.0	33.6	2.74	4.60	10.3	990	56.1	38.3	25.6	45.9	2.24	17.1	7.8
				1200	103.4	43.3	34.3	2.66	4.77	9.4	1100	57.7	39.1	26.5	47.1	2.34	16.7	7.9
	7.0	2.7	6.3	1080	108.7	45.2	35.7	2.76	4.79	10.7	990	56.0	38.7	25.7	45.8	2.09	18.5	6.9
				1200	105.1	45.5	36.4	2.68	4.97	9.8	1100	57.6	39.5	26.6	46.9	2.18	18.1	7.0
	9.0	3.4	7.8	1080	109.8	46.4	36.9	2.77	4.90	10.9	990	56.0	38.8	25.7	45.7	2.03	19.1	6.5
				1200	106.1	46.8	37.6	2.69	5.09	9.9	1100	57.6	39.6	26.6	46.8	2.12	18.7	6.6
80	4.5	2.0	4.5	1080	110.5	47.2	37.3	2.90	4.77	11.7	990	56.7	36.8	24.9	45.3	2.48	14.9	9.4
				1200	106.7	47.6	38.0	2.82	4.95	10.7	1100	58.3	37.6	25.8	46.4	2.59	14.5	9.6
	7.0	2.7	6.3	1080	112.5	49.6	39.6	2.92	4.97	12.1	990	56.6	37.2	25.0	45.1	2.31	16.1	8.3
				1200	108.6	50.0	40.3	2.84	5.16	11.1	1100	58.2	38.0	25.9	46.2	2.42	15.7	8.5
	9.0	3.4	7.7	1080	113.7	51.0	40.9	2.94	5.09	12.3	990	56.5	37.3	25.1	45.0	2.25	16.6	7.9
				1200	109.6	51.4	41.6	2.85	5.28	11.2	1100	58.1	38.1	26.0	46.1	2.35	16.3	8.1
90	4.5	2.0	4.5	1080	114.1	51.5	41.0	3.06	4.93	13.1	990	57.3	35.2	24.2	44.6	2.75	12.8	11.1
				1200	110.1	51.9	41.8	2.98	5.11	12.0	1100	58.9	36.0	25.1	45.8	2.87	12.5	11.3
	7.0	2.7	6.2	1080	116.4	54.1	43.6	3.09	5.13	13.5	990	57.3	35.6	24.3	44.3	2.57	13.8	9.9
				1200	112.1	54.5	44.3	3.00	5.33	12.4	1100	58.8	36.3	25.2	45.5	2.68	13.5	10.1
	9.0	3.3	7.7	1080	117.6	55.6	45.0	3.10	5.25	13.7	990	57.2	35.7	24.4	44.2	2.49	14.3	9.4
				1200	113.2	56.0	45.7	3.01	5.45	12.6	1100	58.8	36.4	25.2	45.3	2.60	14.0	9.6
100	4.5	1.8	4.1	Operation Not Recommended							990	58.2	33.3	23.3	43.8	3.06	10.9	12.9
											1100	59.7	34.1	24.2	45.0	3.20	10.7	13.2
	7.0	2.5	5.9								990	58.1	33.7	23.4	43.4	2.86	11.8	11.6
											1100	59.6	34.4	24.3	44.6	2.99	11.5	11.9
	9.0	3.3	7.7								990	58.1	33.8	23.5	43.2	2.78	12.2	11.1
											1100	59.5	34.5	24.3	44.4	2.90	11.9	11.3
110	4.5	1.8	4.1								990	59.2	31.2	22.3	42.9	3.42	9.1	14.8
											1100	60.6	31.9	23.1	44.1	3.58	8.9	15.1
	7.0	2.5	5.8								990	59.1	31.5	22.4	42.4	3.20	9.9	13.4
											1100	60.5	32.2	23.2	43.6	3.34	9.6	13.7
	9.0	3.3	7.7								990	59.1	31.6	22.4	42.2	3.10	10.2	12.8
											1100	60.5	32.3	23.2	43.4	3.24	10.0	13.1
120	4.5	1.8	4.1								990	60.2	29.1	21.2	42.2	3.86	7.5	16.7
											1100	61.5	29.7	22.0	43.4	4.03	7.4	17.0
	7.0	2.5	5.8								990	60.1	29.3	21.3	41.6	3.60	8.2	15.3
											1100	61.4	30.0	22.1	42.8	3.76	8.0	15.5
	9.0	3.3	7.6								990	60.0	29.4	21.3	41.4	3.50	8.4	14.6
											1100	61.4	30.1	22.1	42.5	3.65	8.2	14.9

ENGINEERING SPECIFICATIONS:

Model VT036, 3 Ton, ECM Blower, PART Load Performance Data

EWT	Flow	WPD		Part Load Heating							Part Load Cooling							
°F	GPM	PSI	FT	Aiflow CFM	LAT (DB) °F	HC MBtuh	HE MBtuh	Power kW	COP W/W	DH MBtuh	Aiflow CFM	LAT (DB) °F	TC MBtuh	SC MBtuh	HR MBtuh	Power kW	EER Btuh/W	DH MBtuh
25	6.0	2.6	6.0	720	93.7	18.5	12.5	1.76	3.08	5.3	Operation Not Recommended							
				800	91.5	18.6	12.9	1.65	3.29	4.8								
30	3.0	1.7	3.9	720	93.6	18.4	12.4	1.76	3.06	5.3								
				800	91.4	18.5	12.8	1.65	3.28	4.8								
	4.5	1.9	4.4	720	94.8	19.3	13.3	1.76	3.22	5.4								
				800	92.5	19.4	13.8	1.65	3.44	4.9								
	6.0	2.5	5.7	720	95.6	19.9	13.9	1.76	3.31	5.5								
				800	93.2	20.0	14.4	1.65	3.55	4.9								
40	3.0	1.6	3.6	720	97.0	21.0	15.0	1.77	3.49	5.6								
				800	94.5	21.2	15.5	1.66	3.73	5.0								
	4.5	1.8	4.2	720	98.4	22.1	16.1	1.77	3.66	5.7								
				800	95.7	22.2	16.6	1.66	3.92	5.2								
	6.0	2.3	5.3	720	99.3	22.8	16.7	1.77	3.77	5.8	720	54.5	30.5	19.8	33.4	0.83	36.7	2.0
				800	96.5	22.9	17.2	1.66	4.04	5.3	800	55.8	31.5	20.9	34.4	0.84	37.3	2.1
50	3.0	1.5	3.5	720	100.6	23.8	17.7	1.79	3.90	6.1	720	55.0	29.3	19.4	33.0	1.11	26.3	3.7
				800	97.7	24.0	18.2	1.68	4.17	5.5	800	56.3	30.2	20.5	34.0	1.13	26.8	3.7
	4.5	1.7	4.0	720	102.2	25.0	18.9	1.79	4.10	6.3	720	54.8	29.8	19.6	33.2	0.99	29.9	3.0
				800	99.1	25.2	19.4	1.68	4.38	5.7	800	56.1	30.7	20.7	34.2	1.01	30.5	3.0
	6.0	2.2	5.1	720	103.2	25.8	19.7	1.79	4.22	6.5	720	54.7	30.0	19.7	33.2	0.96	31.4	2.8
				800	100.0	26.0	20.2	1.68	4.52	5.8	800	56.0	30.9	20.8	34.2	0.97	31.9	2.8
60	3.0	1.5	3.3	720	104.4	26.8	20.5	1.83	4.29	6.9	720	55.6	28.4	19.0	32.8	1.29	22.1	4.7
				800	101.2	26.9	21.1	1.72	4.59	6.2	800	56.8	29.3	20.0	33.7	1.30	22.5	4.8
	4.5	1.7	3.8	720	106.2	28.1	21.9	1.83	4.51	7.2	720	55.3	28.9	19.2	32.8	1.15	25.2	4.0
				800	102.7	28.3	22.4	1.72	4.82	6.5	800	56.6	29.8	20.2	33.8	1.16	25.6	4.0
	6.0	2.1	4.9	720	107.3	29.0	22.7	1.83	4.64	7.4	720	55.2	29.1	19.3	32.8	1.10	26.3	3.7
				800	103.7	29.2	23.3	1.72	4.97	6.6	800	56.5	30.0	20.3	33.8	1.12	26.8	3.8
70	3.0	1.4	3.3	720	108.3	29.8	23.3	1.88	4.64	7.9	720	56.2	27.3	18.5	32.4	1.48	18.4	5.9
				800	104.6	29.9	23.9	1.77	4.96	7.1	800	57.4	28.2	19.5	33.3	1.50	18.7	6.0
	4.5	1.6	3.7	720	110.2	31.3	24.8	1.88	4.87	8.3	720	56.0	27.8	18.7	32.3	1.33	21.0	5.1
				800	106.4	31.4	25.4	1.77	5.21	7.5	800	57.2	28.7	19.7	33.3	1.34	21.3	5.1
	6.0	2.1	4.8	720	111.4	32.2	25.8	1.88	5.02	8.5	720	55.9	28.0	18.8	32.3	1.27	21.9	4.7
				800	107.5	32.4	26.4	1.77	5.37	7.7	800	57.1	28.9	19.8	33.3	1.29	22.3	4.8
80	3.0	1.4	3.2	720	112.1	32.7	26.1	1.95	4.93	9.0	720	56.8	26.1	18.0	31.9	1.71	15.3	7.2
				800	108.1	32.9	26.7	1.83	5.27	8.1	800	58.0	26.9	19.0	32.8	1.73	15.6	7.3
	4.5	1.6	3.7	720	114.2	34.4	27.7	1.95	5.18	9.4	720	56.6	26.6	18.2	31.8	1.53	17.4	6.2
				800	110.0	34.6	28.3	1.83	5.54	8.5	800	57.8	27.4	19.2	32.7	1.55	17.7	6.3
	6.0	2.0	4.7	720	115.6	35.4	28.8	1.95	5.33	9.7	720	56.5	26.7	18.3	31.7	1.47	18.2	5.9
				800	111.3	35.7	29.4	1.83	5.71	8.8	800	57.7	27.6	19.2	32.7	1.49	18.6	5.9
90	3.0	1.4	3.2	720	115.9	35.7	28.8	2.02	5.19	10.1	720	57.5	24.8	17.5	31.5	1.96	12.7	8.6
				800	111.5	35.9	29.4	1.89	5.55	9.2	800	58.7	25.6	18.4	32.4	1.98	12.9	8.7
	4.5	1.6	3.6	720	118.2	37.5	30.6	2.02	5.45	10.7	720	57.3	25.3	17.7	31.2	1.75	14.5	7.5
				800	113.6	37.7	31.2	1.90	5.83	9.7	800	58.4	26.1	18.6	32.1	1.77	14.7	7.6
	6.0	2.0	4.6	720	119.7	38.6	31.8	2.02	5.62	11.0	720	57.2	25.4	17.7	31.1	1.68	15.1	7.1
				800	115.0	38.9	32.4	1.90	6.01	10.0	800	58.4	26.2	18.7	32.0	1.70	15.4	7.2
100	3.0	1.3	2.9	Operation Not Recommended							720	58.2	23.5	16.9	31.1	2.23	10.5	10.1
											800	59.4	24.2	17.8	31.9	2.26	10.7	10.2
	4.5	1.5	3.5								720	58.0	23.9	17.1	30.7	2.00	12.0	8.9
											800	59.2	24.6	18.0	31.5	2.02	12.2	9.0
	6.0	1.9	4.4								720	58.0	24.0	17.1	30.6	1.92	12.5	8.4
											800	59.1	24.8	18.1	31.4	1.94	12.8	8.5
110	3.0	1.2	2.9								720	59.1	22.0	16.2	30.7	2.56	8.6	11.6
											800	60.2	22.7	17.1	31.5	2.60	8.7	11.8
	4.5	1.5	3.4								720	58.9	22.4	16.4	30.2	2.29	9.8	10.3
											800	60.0	23.1	17.3	31.0	2.32	10.0	10.4
	6.0	1.9	4.3								720	58.8	22.5	16.5	30.0	2.20	10.2	9.8
											800	59.9	23.2	17.4	30.8	2.23	10.4	10.0
120	3.0	1.2	2.8								720	60.1	20.2	15.5	30.3	2.97	6.8	13.2
											800	61.1	20.9	16.3	31.1	3.01	6.9	13.3
	4.5	1.5	3.4								720	59.9	20.6	15.6	29.6	2.65	7.8	11.8
											800	60.9	21.2	16.5	30.4	2.69	7.9	12.0
	6.0	1.9	4.3								720	59.9	20.7	15.7	29.4	2.55	8.1	11.3
											800	60.9	21.4	16.5	30.2	2.58	8.3	11.5

Model VS041, 3 Ton, ECM Blower, Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	10.5	4.7	10.9	1200	93.0	29.7	21.5	2.43	3.59	6.5	Operation Not Recommended							
				1320	91.1	30.1	21.7	2.45	3.60	6.3								
30	5.3	1.7	4.0	1200	93.0	29.8	21.5	2.42	3.61	6.5								
				1320	91.1	30.1	21.8	2.44	3.62	6.3								
	7.9	2.9	6.8	1200	93.9	31.0	22.7	2.44	3.72	6.7								
				1320	92.0	31.4	23.0	2.47	3.73	6.4								
	10.5	4.4	10.2	1200	94.5	31.8	23.4	2.46	3.78	6.8								
				1320	92.6	32.2	23.7	2.49	3.79	6.6								
40	5.3	1.6	3.8	1200	95.9	33.6	25.1	2.49	3.96	7.1								
				1320	93.9	34.0	25.4	2.52	3.97	6.8								
	7.9	2.7	6.3	1200	97.0	35.0	26.4	2.52	4.08	7.3								
				1320	94.9	35.5	26.8	2.54	4.09	7.1								
	10.5	4.1	9.5	1200	97.7	35.9	27.2	2.54	4.14	7.5	1100	55.0	46.3	29.7	51.4	1.50	31.0	2.5
				1320	95.5	36.3	27.6	2.56	4.15	7.2	1210	56.3	47.0	31.0	52.3	1.55	30.3	2.6
50	5.3	1.5	3.5	1200	98.9	37.5	28.7	2.57	4.28	7.8	1100	55.2	45.0	29.5	51.2	1.84	24.5	4.1
				1320	96.6	38.0	29.1	2.60	4.28	7.5	1210	56.5	45.6	30.7	52.1	1.90	24.0	4.1
	7.9	2.6	5.9	1200	100.2	39.1	30.2	2.60	4.41	8.1	1100	55.0	45.5	29.7	51.4	1.71	26.6	3.5
				1320	97.7	39.6	30.6	2.63	4.42	7.8	1210	56.3	46.2	31.0	52.3	1.77	26.1	3.5
	10.5	3.9	8.9	1200	100.9	40.1	31.1	2.62	4.48	8.3	1100	54.9	45.9	29.8	51.5	1.66	27.6	3.3
				1320	98.4	40.5	31.5	2.65	4.49	8.0	1210	56.2	46.5	31.1	52.4	1.72	27.0	3.3
60	5.3	1.4	3.3	1200	102.0	41.4	32.4	2.66	4.57	8.7	1100	55.7	43.5	28.9	50.5	2.05	21.3	5.6
				1320	99.4	41.9	32.8	2.68	4.58	8.3	1210	57.0	44.2	30.1	51.4	2.12	20.8	5.6
	7.9	2.4	5.6	1200	103.3	43.2	34.0	2.69	4.71	9.1	1100	55.5	44.1	29.2	50.6	1.91	23.1	4.9
				1320	100.6	43.7	34.4	2.71	4.72	8.7	1210	56.8	44.7	30.4	51.5	1.98	22.6	4.9
	10.5	3.7	8.4	1200	104.1	44.2	35.0	2.71	4.79	9.3	1100	55.4	44.4	29.2	50.7	1.85	24.0	4.6
				1320	101.4	44.8	35.4	2.73	4.80	9.0	1210	56.7	45.1	30.4	51.6	1.92	23.5	4.6
70	5.3	1.4	3.2	1200	105.0	45.4	36.0	2.75	4.84	9.7	1100	56.3	41.8	28.1	49.6	2.29	18.3	7.2
				1320	102.2	45.9	36.4	2.77	4.85	9.3	1210	57.6	42.5	29.3	50.6	2.37	17.9	7.2
	7.9	2.3	5.3	1200	106.5	47.3	37.8	2.78	4.99	10.2	1100	56.1	42.4	28.4	49.6	2.13	19.9	6.3
				1320	103.6	47.8	38.3	2.80	5.00	9.8	1210	57.4	43.0	29.6	50.5	2.21	19.5	6.4
	10.5	3.5	8.0	1200	107.4	48.4	38.9	2.80	5.07	10.5	1100	56.0	42.7	28.5	49.7	2.07	20.6	6.0
				1320	104.4	49.0	39.4	2.83	5.08	10.1	1210	57.3	43.3	29.6	50.6	2.15	20.2	6.0
80	5.3	1.3	3.0	1200	108.1	49.3	39.6	2.84	5.09	10.8	1100	57.0	40.1	27.3	48.9	2.57	15.6	8.8
				1320	105.0	49.9	40.1	2.87	5.10	10.4	1210	58.2	40.7	28.5	49.8	2.66	15.3	8.9
	7.9	2.2	5.1	1200	109.7	51.4	41.6	2.87	5.24	11.4	1100	56.8	40.6	27.6	48.8	2.39	17.0	7.8
				1320	106.5	52.0	42.1	2.90	5.25	11.0	1210	58.0	41.2	28.7	49.7	2.48	16.6	7.9
	10.5	3.3	7.6	1200	110.7	52.7	42.8	2.90	5.33	11.8	1100	56.7	40.9	27.7	48.8	2.32	17.6	7.4
				1320	107.4	53.3	43.3	2.93	5.34	11.4	1210	58.0	41.5	28.8	49.7	2.40	17.3	7.5
90	5.3	1.3	2.9	1200	111.2	53.3	43.3	2.94	5.31	12.1	1100	57.7	38.2	26.5	48.1	2.88	13.3	10.5
				1320	107.9	54.0	43.8	2.97	5.33	11.6	1210	58.9	38.8	27.6	49.0	2.99	13.0	10.6
	7.9	2.1	4.9	1200	112.9	55.6	45.4	2.98	5.48	12.8	1100	57.5	38.7	26.7	47.9	2.68	14.4	9.4
				1320	109.5	56.3	46.0	3.00	5.49	12.3	1210	58.7	39.3	27.8	48.8	2.78	14.1	9.5
	10.5	3.2	7.3	1200	114.0	57.0	46.7	3.00	5.57	13.2	1100	57.5	39.0	26.8	47.9	2.60	15.0	9.0
				1320	110.4	57.7	47.3	3.03	5.58	12.7	1210	58.7	39.6	27.9	48.8	2.70	14.7	9.0
100	5.3	1.2	2.7	Operation Not Recommended							1100	58.6	36.1	25.4	47.1	3.23	11.2	12.4
											1210	59.7	36.6	26.5	48.1	3.35	10.9	12.5
	7.9	2.0	4.6								1100	58.4	36.5	25.7	46.8	3.01	12.1	11.2
											1210	59.6	37.1	26.7	47.7	3.12	11.9	11.3
	10.5	3.0	6.9								1100	58.4	36.8	25.7	46.8	2.92	12.6	10.7
											1210	59.5	37.4	26.8	47.7	3.03	12.3	10.8
110	5.3	1.1	2.6								1100	59.7	33.6	24.1	46.0	3.63	9.3	14.4
											1210	60.8	34.1	25.1	46.9	3.76	9.1	14.6
	7.9	1.9	4.4								1100	59.5	34.0	24.3	45.6	3.38	10.1	13.1
											1210	60.6	34.5	25.3	46.5	3.51	9.9	13.2
	10.5	2.9	6.6								1100	59.5	34.3	24.4	45.4	3.28	10.4	12.6
											1210	60.6	34.8	25.4	46.4	3.40	10.2	12.7
120	5.3	1.1	2.5								1100	61.0	31.0	22.6	44.9	4.07	7.6	16.4
											1210	62.0	31.5	23.6	45.9	4.22	7.5	16.6
	7.9	1.8	4.2								1100	60.8	31.4	22.8	44.3	3.79	8.3	15.0
											1210	61.8	31.9	23.8	45.3	3.93	8.1	15.1
	10.5	2.8	6.4								1100	60.7	31.6	22.9	44.2	3.68	8.6	14.4
											1210	61.8	32.1	23.8	45.1	3.81	8.4	14.5

ENGINEERING SPECIFICATIONS:

Model VS041, 3 Ton, PSC Blower, Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	10.5	4.7	10.9	1000	97.9	30.1	20.8	2.73	3.24	7.2	Operation Not Recommended							
				1150	94.5	30.4	21.3	2.65	3.36	6.7								
				1300	91.8	30.6	21.7	2.60	3.46	6.3								
30	5.3	1.7	4.0	1000	97.9	30.1	20.9	2.72	3.25	7.2								
				1150	94.5	30.4	21.4	2.63	3.38	6.6								
				1300	91.8	30.6	21.8	2.58	3.47	6.3								
	7.9	2.9	6.8	1000	99.1	31.4	22.0	2.74	3.35	7.4								
				1150	95.5	31.6	22.6	2.66	3.49	6.8								
				1300	92.7	31.9	23.0	2.61	3.58	6.5								
	10.5	4.4	10.2	1000	99.8	32.2	22.7	2.77	3.41	7.5								
				1150	96.1	32.4	23.3	2.68	3.54	7.0								
				1300	93.3	32.7	23.7	2.63	3.64	6.6								
40	5.3	1.6	3.8	1000	101.4	34.0	24.4	2.79	3.56	7.8								
				1150	97.6	34.2	25.0	2.71	3.70	7.3								
				1300	94.6	34.5	25.4	2.66	3.80	6.9								
	7.9	2.7	6.3	1000	102.7	35.4	25.7	2.82	3.67	8.1								
				1150	98.7	35.6	26.3	2.74	3.81	7.5								
				1300	95.6	35.9	26.7	2.69	3.92	7.1								
	10.5	4.1	9.5	1000	103.5	36.2	26.5	2.85	3.73	8.3	1000	54.4	44.6	27.7	50.4	1.69	26.5	2.5
				1150	99.4	36.5	27.1	2.76	3.88	7.7	1150	56.1	46.0	29.6	51.9	1.73	26.6	2.6
				1300	96.2	36.8	27.5	2.71	3.98	7.3	1300	57.7	46.9	31.3	53.0	1.79	26.2	2.5
50	5.3	1.5	3.5	1000	105.0	37.8	28.0	2.88	3.85	8.7	1000	54.6	43.3	27.4	50.2	2.03	21.4	4.1
				1150	100.7	38.1	28.6	2.79	4.00	8.0	1150	56.4	44.6	29.4	51.7	2.07	21.5	4.2
				1300	97.3	38.4	29.0	2.74	4.11	7.6	1300	57.9	45.5	31.0	52.8	2.15	21.2	4.1
	7.9	2.6	5.9	1000	106.5	39.4	29.5	2.91	3.97	9.0	1000	54.4	43.9	27.7	50.4	1.90	23.1	3.5
				1150	101.9	39.7	30.1	2.82	4.12	8.3	1150	56.1	45.2	29.6	51.8	1.94	23.2	3.5
				1300	98.5	40.0	30.5	2.77	4.23	7.9	1300	57.7	46.1	31.3	52.9	2.01	22.9	3.5
	10.5	3.9	8.9	1000	107.4	40.3	30.3	2.93	4.03	9.2	1000	54.3	44.2	27.7	50.5	1.85	23.9	3.2
				1150	102.7	40.6	30.9	2.84	4.19	8.5	1150	56.1	45.5	29.7	52.0	1.89	24.1	3.3
				1300	99.2	41.0	31.4	2.79	4.30	8.1	1300	57.6	46.4	31.4	53.1	1.96	23.7	3.2
60	5.3	1.4	3.3	1000	108.6	41.7	31.6	2.97	4.12	9.6	1000	55.1	41.9	26.9	49.5	2.23	18.8	5.5
				1150	103.8	42.0	32.2	2.88	4.28	8.9	1150	56.8	43.2	28.8	51.0	2.28	18.9	5.6
				1300	100.1	42.3	32.7	2.82	4.39	8.4	1300	58.3	44.0	30.4	52.1	2.36	18.6	5.6
	7.9	2.4	5.6	1000	110.2	43.4	33.2	3.00	4.24	10.1	1000	54.9	42.5	27.1	49.6	2.09	20.3	4.8
				1150	105.2	43.7	33.8	2.91	4.41	9.3	1150	56.6	43.7	29.0	51.0	2.14	20.4	4.9
				1300	101.4	44.1	34.3	2.85	4.53	8.8	1300	58.1	44.6	30.7	52.1	2.22	20.1	4.8
	10.5	3.7	8.4	1000	111.2	44.5	34.2	3.03	4.31	10.3	1000	54.8	42.8	27.2	49.7	2.04	21.0	4.5
				1150	106.1	44.8	34.8	2.93	4.48	9.5	1150	56.6	44.0	29.1	51.1	2.08	21.1	4.6
				1300	102.2	45.2	35.3	2.88	4.60	9.0	1300	58.1	44.9	30.8	52.2	2.16	20.8	4.6
70	5.3	1.4	3.2	1000	112.2	45.6	35.1	3.07	4.36	10.7	1000	55.8	40.3	26.2	48.7	2.47	16.3	7.1
				1150	107.0	46.0	35.8	2.97	4.53	9.9	1150	57.5	41.5	28.0	50.1	2.53	16.4	7.2
				1300	103.0	46.3	36.4	2.92	4.65	9.3	1300	58.9	42.3	29.6	51.2	2.61	16.2	7.2
	7.9	2.3	5.3	1000	114.0	47.5	36.9	3.10	4.49	11.2	1000	55.6	40.8	26.4	48.7	2.31	17.6	6.3
				1150	108.5	47.9	37.6	3.00	4.67	10.4	1150	57.2	42.0	28.3	50.1	2.37	17.7	6.4
				1300	104.3	48.2	38.2	2.95	4.80	9.9	1300	58.7	42.8	29.9	51.2	2.45	17.5	6.3
	10.5	3.5	8.0	1000	115.0	48.7	38.0	3.12	4.57	11.6	1000	55.5	41.1	26.5	48.7	2.25	18.2	5.9
				1150	109.5	49.0	38.7	3.03	4.74	10.7	1150	57.2	42.3	28.3	50.2	2.31	18.3	6.0
				1300	105.2	49.4	39.3	2.97	4.87	10.1	1300	58.7	43.1	29.9	51.2	2.38	18.1	6.0
80	5.3	1.3	3.0	1000	115.9	49.5	38.7	3.17	4.59	11.9	1000	56.5	38.6	25.4	47.9	2.74	14.1	8.7
				1150	110.2	49.9	39.4	3.07	4.76	11.0	1150	58.1	39.7	27.2	49.3	2.80	14.2	8.8
				1300	105.8	50.3	40.0	3.01	4.89	10.4	1300	59.5	40.5	28.7	50.4	2.90	14.0	8.9
	7.9	2.2	5.1	1000	117.8	51.6	40.7	3.20	4.73	12.6	1000	56.3	39.1	25.6	47.8	2.57	15.2	7.7
				1150	111.9	52.0	41.4	3.10	4.91	11.7	1150	57.9	40.2	27.4	49.2	2.63	15.3	7.8
				1300	107.3	52.4	42.0	3.04	5.04	11.1	1300	59.3	41.0	29.0	50.3	2.72	15.1	7.9
	10.5	3.3	7.6	1000	118.9	52.9	41.9	3.23	4.80	13.0	1000	56.2	39.3	25.7	47.9	2.50	15.7	7.3
				1150	112.9	53.3	42.6	3.13	4.99	12.0	1150	57.9	40.5	27.5	49.2	2.56	15.8	7.5
				1300	108.2	53.7	43.2	3.07	5.12	11.4	1300	59.3	41.3	29.1	50.3	2.65	15.6	7.5
90	5.3	1.3	2.9	1000	119.6	53.5	42.4	3.27	4.79	13.3	1000	57.3	36.7	24.6	47.1	3.05	12.1	10.4
				1150	113.4	53.9	43.1	3.18	4.98	12.3	1150	58.8	37.8	26.3	48.5	3.12	12.1	10.6
				1300	108.7	54.3	43.7	3.11	5.11	11.7	1300	60.2	38.6	27.8	49.6	3.23	12.0	10.6
	7.9	2.1	4.9	1000	121.6	55.7	44.4	3.31	4.94	14.1	1000	57.0	37.2	24.8	46.9	2.86	13.0	9.3
				1150	115.2	56.2	45.2	3.21	5.13	13.1	1150	58.6	38.3	26.6	48.3	2.92	13.1	9.4
				1300	110.3	56.6	45.8	3.15	5.27	12.4	1300	60.0	39.1	28.1	49.4	3.02	12.9	9.5
	10.5	3.2	7.3	1000	122.9	57.1	45.7	3.34	5.02	14.5	1000	57.0	37.5	24.9	46.9	2.78	13.5	8.9
				1150	116.3	57.5	46.5	3.23	5.21	13.5	1150	58.6	38.6	26.6	48.3	2.85	13.6	9.0
				1300	111.3	58.0	47.1	3.17	5.35	12.8	1300	60.0	39.3	28.1	49.4	2.94	13.4	9.0
100	5.3	1.2	2.7	Operation Not Recommended							1000	58.2	34.6	23.6	46.2	3.39	10.2	12.3
											1150	59.7	35.7	25.2	47.5	3.47	10.3	12.5
											1300	61.0	36.4	26.6	48.6	3.59	10.1	12.5
	7.9	2.0	4.6								1000	58.0	35.1	23.8	45.9	3.18	11.0	11.0
											1150	59.5	36.1	25.5	47.2	3.26	11.1	11.2
											1300	60.8	36.8	26.9	48.3	3.37	10.9	11.3
	10.5	3.0	6.9								1000	57.9	35.3	23.8	45.9	3.09	11.4	10.6
											1150	59.5	36.4	25.5	47.2	3.17	11.5	10.7
											1300	60.8	37.1	27.0	48.3	3.28	11.3	10.8
110	5.3	1.1	2.6								1000	59.4	32.2	22.3	45.1	3.78	8.5	14.3
											1150	60.8	33.1	23.9	46.3	3.87	8.6	14.5
											1300	62.0	33.8	25.2	47.4	4.00	8.4	14.6
	7.9	1.9	4.4	Operation Not Recommended							1000	59.2	32.6	22.5	44.7	3.54	9.2	13.0
											1150	60.6	33.6	24.1	45.9	3.63	9.3	13.2
											1300	61.9	34.2	25.5	47.0	3.75	9.1	13.3
	10.5	2.9	6.6								1000	59.1	32.8	22.5	44.6	3.45	9.5	12.4
											1150	60.6	33.8	24.1	45.8	3.53	9.6	12.6
											1300	61.8	34.5	25.5	46.9	3.65	9.4	12.7
120	5.3	1.1	2.5								1000	60.7	29.6	20.9	44.0	4.21	7.0	16.2
											1150	62.0	30.5	22.4	45.2	4.31	7.1	16.5
											1300	63.2	31.1	23.6	46.3	4.46	7.0	16.6
	7.9	1.8	4.2								1000	60.5	30.0	21.1	43.5	3.95	7.6	14.8
											1150	61.8	30.9	22.6	44.7	4.04	7.7	15.0
											1300	63.0	31.5	23.9	45.8	4.18	7.5	15.2
	10.5	2.8	6.4								1000	60.4	30.2	21.1	43.3	3.84	7.9	14.2
											1150	61.8	31.1	22.6	44.6	3.93	7.9	14.5
											1300	63.0	31.7	23.9	45.6	4.07	7.8	14.6

Model VT042, 3.5 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating								Cooling								
		PSI	FT	LWT	Aiflow	LAT	HC	HE	Power	COP	DH	LWT	Aiflow	TC	SC	S/T	HR	Power	EER	DH
°F	GPM			°F	CFM	°F	MBtuh	MBtuh	kW	W/W	Mbtuh	°F	CFM	MBtuh	MBtuh	-	MBtuh	kW	Btuh/W	Mbtuh
25	10.5	6.1	14.1	20.6	1220	93.6	31.1	22.4	2.55	3.57	10.5	Operation not recommended								
				20.5	1400	90.7	31.2	22.8	2.47	3.71	10.3									
30	5.3	2.2	5.2	21.5	1220	93.1	30.4	21.9	2.51	3.55	10.5	57.3	1300	51.1	32.8	0.64	57.4	1.85	27.6	5.0
				21.3	1400	90.3	30.6	22.3	2.43	3.70	10.2	57.9	1450	52.3	34.5	0.66	58.8	1.89	27.8	5.0
	7.9	3.7	8.6	23.9	1220	94.2	31.9	23.2	2.55	3.67	10.8	50.0	1300	51.7	33.1	0.64	57.6	1.73	29.9	4.2
				23.8	1400	91.2	32.1	23.7	2.46	3.82	10.5	50.4	1450	53.0	34.8	0.66	59.0	1.76	30.1	4.2
	10.5	5.6	12.9	25.3	1220	94.8	32.7	24.0	2.57	3.73	11.0	46.3	1300	51.9	33.2	0.64	57.7	1.67	31.1	3.8
				25.2	1400	91.8	32.9	24.5	2.49	3.88	10.7	46.6	1450	53.2	34.9	0.66	59.1	1.70	31.3	3.8
40	5.3	2.1	4.9	30.1	1220	96.0	34.3	25.5	2.59	3.88	11.5	62.4	1300	51.0	33.0	0.65	57.7	1.94	26.3	5.9
				29.9	1400	92.8	34.5	26.0	2.50	4.04	11.3	63.0	1450	52.3	34.7	0.66	59.0	1.98	26.4	5.9
	7.9	3.6	8.2	33.0	1220	97.3	35.9	27.0	2.63	4.01	11.9	55.1	1300	51.6	33.3	0.65	57.8	1.81	28.5	5.0
				32.8	1400	93.9	36.2	27.5	2.54	4.17	11.6	55.5	1450	52.9	35.0	0.66	59.2	1.85	28.6	5.0
	10.5	5.3	12.2	34.5	1220	98.0	36.9	27.8	2.65	4.08	12.1	51.4	1300	51.9	33.4	0.64	57.9	1.76	29.6	4.5
				34.4	1400	94.5	37.1	28.4	2.57	4.24	11.8	51.6	1450	53.2	35.1	0.66	59.3	1.79	29.8	4.6
50	5.3	2.0	4.6	38.5	1220	99.5	38.9	29.7	2.70	4.22	12.7	72.5	1300	50.5	33.2	0.66	57.8	2.14	23.6	7.7
				38.2	1400	95.9	39.1	30.2	2.61	4.39	12.5	73.0	1450	51.8	34.9	0.67	59.2	2.18	23.7	7.7
	7.9	3.3	7.7	41.8	1220	100.9	40.8	31.4	2.74	4.35	13.1	65.1	1300	51.2	33.4	0.65	58.0	2.00	25.6	6.7
				41.7	1400	97.1	41.0	32.0	2.65	4.53	12.9	65.5	1450	52.4	35.1	0.67	59.4	2.04	25.7	6.8
	10.5	5.0	11.5	43.6	1220	101.8	41.8	32.4	2.77	4.43	13.4	61.4	1300	51.4	33.6	0.65	58.0	1.93	26.6	6.2
				43.5	1400	97.8	42.1	33.0	2.68	4.61	13.1	61.7	1450	52.7	35.3	0.67	59.4	1.97	26.8	6.3
60	5.3	1.9	4.3	46.7	1220	103.4	44.0	34.3	2.84	4.54	13.9	82.4	1300	49.6	33.0	0.67	57.6	2.36	21.0	9.7
				46.4	1400	99.3	44.2	34.9	2.75	4.72	13.6	83.0	1450	50.8	34.7	0.68	59.0	2.41	21.1	9.7
	7.9	3.2	7.3	50.5	1220	105.0	46.1	36.3	2.88	4.68	14.4	75.1	1300	50.2	33.3	0.66	57.7	2.20	22.8	8.6
				50.4	1400	100.7	46.4	36.9	2.79	4.87	14.1	75.4	1450	51.4	35.0	0.68	59.1	2.25	22.9	8.7
	10.5	4.7	10.8	52.7	1220	105.9	47.3	37.4	2.91	4.76	14.6	71.3	1300	50.4	33.4	0.66	57.7	2.13	23.6	8.1
				52.5	1400	101.5	47.6	38.0	2.82	4.95	14.3	71.6	1450	51.7	35.1	0.68	59.1	2.17	23.8	8.1
70	5.3	1.8	4.1	54.8	1220	107.4	49.3	39.1	2.99	4.83	14.9	92.2	1300	48.1	32.6	0.68	57.0	2.61	18.4	11.9
				54.6	1400	102.8	49.6	39.7	2.89	5.02	14.6	92.7	1450	49.3	34.2	0.70	58.4	2.66	18.5	11.9
	7.9	3.0	6.9	59.2	1220	109.2	51.6	41.3	3.04	4.98	15.4	84.9	1300	48.7	32.8	0.67	57.0	2.44	20.0	10.7
				59.1	1400	104.4	51.9	41.9	2.94	5.18	15.1	85.2	1450	49.9	34.5	0.69	58.4	2.48	20.1	10.7
	10.5	4.4	10.2	61.6	1220	110.2	53.0	42.5	3.06	5.07	15.7	81.2	1300	48.9	33.0	0.67	57.0	2.36	20.8	10.0
				61.5	1400	105.3	53.3	43.2	2.96	5.27	15.4	81.5	1450	50.2	34.6	0.69	58.4	2.40	20.9	10.1
80	5.3	1.7	3.9	63.0	1220	111.4	54.5	43.8	3.14	5.09	15.7	101.8	1300	46.3	31.9	0.69	56.1	2.90	16.0	14.3
				62.7	1400	106.3	54.8	44.5	3.04	5.29	15.3	102.4	1450	47.4	33.5	0.71	57.5	2.95	16.0	14.4
	7.9	2.8	6.6	67.9	1220	113.3	57.1	46.2	3.19	5.25	16.2	94.6	1300	46.8	32.2	0.69	56.0	2.71	17.3	12.9
				67.7	1400	108.0	57.5	46.9	3.08	5.46	15.8	95.0	1450	48.0	33.8	0.71	57.4	2.76	17.4	13.0
	10.5	4.2	9.7	70.6	1220	114.5	58.6	47.6	3.22	5.34	16.4	91.0	1300	47.1	32.3	0.69	56.0	2.62	18.0	12.2
				70.5	1400	109.0	59.0	48.3	3.11	5.55	16.1	91.3	1450	48.2	33.9	0.70	57.3	2.67	18.1	12.3
90	5.3	1.6	3.7	71.2	1220	115.1	59.4	48.2	3.28	5.31	15.9	111.4	1300	44.0	31.0	0.71	55.1	3.23	13.6	16.9
				71.0	1400	109.5	59.7	48.9	3.17	5.53	15.6	111.9	1450	45.1	32.6	0.72	56.4	3.29	13.7	17.0
	7.9	2.7	6.3	76.7	1220	117.2	62.2	50.9	3.33	5.48	16.4	104.3	1300	44.6	31.3	0.70	54.9	3.02	14.8	15.4
				76.5	1400	111.4	62.6	51.6	3.22	5.70	16.1	104.7	1450	45.7	32.9	0.72	56.2	3.07	14.9	15.4
	10.5	4.0	9.3	79.7	1220	118.5	63.9	52.4	3.36	5.58	16.7	100.8	1300	44.8	31.4	0.70	54.8	2.92	15.4	14.6
				79.6	1400	112.5	64.3	53.2	3.25	5.80	16.4	101.0	1450	45.9	33.0	0.72	56.1	2.97	15.4	14.6
100	5.3	1.6	3.6	Operation not recommended								121.0	1300	41.5	30.0	0.72	53.9	3.62	11.5	19.7
												121.4	1450	42.6	31.5	0.74	55.1	3.69	11.6	19.8
	7.9	2.6	6.0									114.0	1300	42.0	30.2	0.72	53.6	3.38	12.5	18.0
												114.3	1450	43.1	31.8	0.74	54.8	3.44	12.5	18.1
	10.5	3.8	8.8									110.5	1300	42.3	30.4	0.72	53.4	3.27	12.9	17.1
												110.7	1450	43.3	31.9	0.74	54.7	3.33	13.0	17.2
110	5.3	1.5	3.5									130.5	1300	38.8	28.8	0.74	52.6	4.06	9.5	22.8
												130.9	1450	39.7	30.3	0.76	53.8	4.14	9.6	22.9
	7.9	2.5	5.8									123.6	1300	39.2	29.1	0.74	52.2	3.79	10.3	20.9
												123.9	1450	40.2	30.6	0.76	53.4	3.86	10.4	21.0
	10.5	3.7	8.6									120.2	1300	39.4	29.2	0.74	52.0	3.67	10.8	19.9
												120.4	1450	40.4	30.7	0.76	53.2	3.74	10.8	20.0
120	5.3	1.5	3.4									140.0	1300	35.8	27.6	0.77	51.4	4.57	7.8	26.1
												140.5	1450	36.7	29.0	0.79	52.6	4.66	7.9	26.3
	7.9	2.4	5.6									133.3	1300	36.2	27.8	0.77	50.8	4.27	8.5	24.0
												133.6	1450	37.1	29.2	0.79	52.0	4.35	8.5	24.1
	10.5	3.6	8.3									129.9	1300	36.4	27.9	0.77	50.5	4.13	8.8	22.9
												130.1	1450	37.3	29.3	0.79	51.7	4.21	8.9	23.1

ENGINEERING SPECIFICATIONS:

Model VT042, 3.5 Ton, ECM Blower, Part Load Performance Data

EWT	Flow	WPD		Heating								Cooling								
		PSI	FT	LWT	Aiflow	LAT	HC	HE	Power	COP	DH	LWT	Aiflow	TC	SC	S/T	HR	Power	EER	DH
°F	GPM			°F	CFM	°F	MBtuh	MBtuh	kW	W/W	Mbtuh	°F	CFM	MBtuh	MBtuh	-	MBtuh	kW	Btuh/W	Mbtuh
25	7.0	3.3	7.7	20.8	1000	89.3	20.8	14.3	1.90	3.21	9.1	Operation not recommended								
				20.7	1160	86.8	21.0	14.7	1.84	3.35	8.5									
30	3.5	1.4	3.2	21.6	1000	89.1	20.6	14.2	1.88	3.21	9.1	59.9	1025	38.7	25.8	0.67	42.3	1.05	36.7	3.2
				21.4	1160	86.6	20.8	14.6	1.83	3.34	8.5	60.5	1160	39.7	27.4	0.69	43.3	1.07	37.2	3.2
	5.3	2.2	5.1	24.0	1000	90.2	21.8	15.3	1.90	3.37	9.3	51.7	1025	39.7	26.2	0.66	42.9	0.95	41.9	2.5
				23.9	1160	87.6	22.0	15.7	1.84	3.51	8.8	52.1	1160	40.7	27.8	0.68	44.0	0.96	42.5	2.5
	7.0	3.1	7.1	25.3	1000	90.8	22.4	15.9	1.90	3.45	9.4	47.7	1025	40.0	26.3	0.66	43.0	0.88	45.5	2.0
				25.2	1160	88.1	22.6	16.3	1.85	3.60	8.8	48.0	1160	41.0	27.9	0.68	44.1	0.89	46.0	2.0
40	3.5	1.3	3.1	29.8	1000	92.0	23.8	17.3	1.91	3.66	9.9	64.8	1025	38.2	25.8	0.68	42.1	1.13	33.7	4.0
				29.6	1160	89.2	24.0	17.7	1.85	3.81	9.3	65.4	1160	39.2	27.4	0.70	43.1	1.15	34.2	4.0
	5.3	2.1	4.9	32.8	1000	93.3	25.2	18.6	1.92	3.84	10.2	56.6	1025	39.2	26.2	0.67	42.7	1.02	38.6	3.2
				32.6	1160	90.3	25.4	19.1	1.86	4.00	9.5	57.0	1160	40.2	27.8	0.69	43.8	1.03	39.1	3.1
	7.0	2.9	6.8	34.3	1000	94.0	25.9	19.3	1.93	3.93	10.3	52.6	1025	39.6	26.3	0.66	42.8	0.95	41.8	2.6
				34.2	1160	90.8	26.1	19.7	1.87	4.10	9.6	52.9	1160	40.6	27.9	0.69	43.8	0.96	42.3	2.6
50	3.5	1.3	2.9	37.9	1000	95.2	27.2	20.6	1.94	4.11	10.9	74.5	1025	37.2	25.6	0.69	41.7	1.32	28.2	5.7
				37.6	1160	91.9	27.4	21.0	1.88	4.29	10.2	75.1	1160	38.1	27.2	0.71	42.7	1.33	28.6	5.7
	5.3	2.0	4.6	41.4	1000	96.6	28.7	22.1	1.95	4.32	11.2	66.4	1025	38.1	25.9	0.68	42.2	1.18	32.3	4.7
				41.2	1160	93.2	29.0	22.6	1.89	4.50	10.5	66.8	1160	39.1	27.5	0.70	43.2	1.20	32.7	4.7
	7.0	2.8	6.4	43.3	1000	97.4	29.5	22.9	1.96	4.42	11.3	62.4	1025	38.5	26.0	0.68	42.2	1.10	35.0	4.1
				43.1	1160	93.8	29.8	23.4	1.90	4.61	10.6	62.7	1160	39.4	27.6	0.70	43.2	1.11	35.4	4.1
60	3.5	1.2	2.8	45.8	1000	98.5	30.7	24.0	1.97	4.57	12.0	84.2	1025	35.9	25.1	0.70	41.1	1.53	23.4	7.5
				45.6	1160	94.8	31.0	24.5	1.91	4.76	11.2	84.8	1160	36.8	26.7	0.73	42.1	1.55	23.7	7.6
	5.3	1.9	4.4	50.0	1000	100.1	32.5	25.8	1.98	4.80	12.4	76.1	1025	36.8	25.4	0.69	41.5	1.38	26.7	6.4
				49.8	1160	96.2	32.8	26.3	1.92	5.00	11.6	76.5	1160	37.8	27.0	0.72	42.5	1.39	27.1	6.4
	7.0	2.6	6.1	52.2	1000	101.0	33.4	26.6	1.99	4.92	12.5	72.2	1025	37.1	25.5	0.69	41.5	1.28	29.0	5.7
				52.0	1160	96.9	33.8	27.2	1.93	5.12	11.7	72.5	1160	38.1	27.1	0.71	42.5	1.30	29.3	5.7
70	3.5	1.1	2.6	53.7	1000	101.9	34.5	27.7	2.01	5.04	13.1	93.8	1025	34.3	24.5	0.72	40.4	1.78	19.3	9.6
				53.4	1160	97.8	34.8	28.2	1.95	5.25	12.3	94.4	1160	35.2	26.0	0.74	41.4	1.80	19.5	9.6
	5.3	1.8	4.2	58.5	1000	103.8	36.5	29.6	2.02	5.29	13.6	85.8	1025	35.2	24.8	0.71	40.7	1.60	22.0	8.3
				58.3	1160	99.4	36.8	30.2	1.96	5.51	12.8	86.2	1160	36.1	26.4	0.73	41.6	1.62	22.3	8.3
	7.0	2.5	5.8	61.0	1000	104.7	37.5	30.6	2.03	5.42	13.8	82.0	1025	35.5	24.9	0.70	40.6	1.49	23.9	7.5
				60.8	1160	100.2	37.9	31.2	1.97	5.64	12.9	82.2	1160	36.4	26.5	0.73	41.6	1.51	24.2	7.5
80	3.5	1.1	2.5	61.5	1000	105.6	38.4	31.4	2.05	5.50	14.3	103.3	1025	32.5	23.8	0.73	39.5	2.06	15.8	11.8
				61.1	1160	101.0	38.8	32.0	1.98	5.73	13.5	103.8	1160	33.4	25.3	0.76	40.5	2.09	16.0	11.9
	5.3	1.7	4.0	66.9	1000	107.6	40.6	33.6	2.06	5.78	14.8	95.4	1025	33.4	24.1	0.72	39.7	1.85	18.0	10.4
				66.7	1160	102.8	41.0	34.2	2.00	6.02	13.9	95.8	1160	34.2	25.6	0.75	40.6	1.87	18.3	10.4
	7.0	2.4	5.6	69.8	1000	108.7	41.8	34.7	2.07	5.92	15.0	91.6	1025	33.6	24.2	0.72	39.5	1.72	19.5	9.4
				69.6	1160	103.7	42.2	35.4	2.00	6.17	14.1	91.9	1160	34.5	25.7	0.75	40.4	1.74	19.8	9.5
90	3.5	1.1	2.4	69.2	1000	109.3	42.5	35.4	2.08	5.98	15.4	112.7	1025	30.5	23.0	0.76	38.5	2.37	12.8	14.2
				68.8	1160	104.2	42.9	36.0	2.02	6.23	14.5	113.2	1160	31.2	24.5	0.78	39.4	2.40	13.0	14.3
	5.3	1.7	3.8	75.3	1000	111.6	44.9	37.8	2.10	6.28	15.9	105.0	1025	31.2	23.3	0.75	38.5	2.13	14.7	12.6
				75.0	1160	106.2	45.4	38.4	2.03	6.54	15.0	105.3	1160	32.1	24.8	0.77	39.4	2.16	14.9	12.7
	7.0	2.3	5.3	78.5	1000	112.8	46.2	39.0	2.11	6.43	16.1	101.3	1025	31.5	23.4	0.74	38.3	1.98	15.9	11.6
				78.3	1160	107.2	46.6	39.7	2.04	6.70	15.2	101.5	1160	32.3	24.9	0.77	39.2	2.01	16.1	11.6
100	3.5	1.1	2.4	Operation not recommended								122.0	1025	28.1	22.2	0.79	37.4	2.71	10.4	16.7
												122.5	1160	28.9	23.6	0.82	38.2	2.75	10.5	16.8
	5.3	1.6	3.7									114.5	1025	28.9	22.5	0.78	37.2	2.44	11.8	14.9
												114.8	1160	29.6	23.9	0.81	38.0	2.47	12.0	15.1
	7.0	2.2	5.1									110.9	1025	29.1	22.6	0.78	36.8	2.27	12.8	13.8
												111.1	1160	29.9	24.0	0.80	37.7	2.30	13.0	13.9
110	3.5	1.0	2.4									131.3	1025	25.5	21.2	0.83	36.1	3.09	8.3	19.4
												131.7	1160	26.2	22.6	0.86	36.9	3.13	8.4	19.5
	5.3	1.6	3.6									123.9	1025	26.2	21.5	0.82	35.7	2.77	9.5	17.5
												124.2	1160	26.9	22.8	0.85	36.5	2.81	9.6	17.6
	7.0	2.1	4.9									120.4	1025	26.4	21.6	0.82	35.2	2.58	10.2	16.2
												120.6	1160	27.1	22.9	0.85	36.0	2.61	10.4	16.4
120	3.5	1.0	2.3									140.4	1025	22.7	20.2	0.89	34.6	3.49	6.5	22.2
												140.8	1160	23.3	21.4	0.92	35.3	3.54	6.6	22.4
	5.3	1.5	3.5									133.2	1025	23.3	20.4	0.88	34.0	3.14	7.4	20.1
												133.5	1160	23.9	21.7	0.91	34.7	3.18	7.5	20.3
	7.0	2.1	4.8									129.8	1025	23.5	20.5	0.87	33.4	2.92	8.0	18.8
												130.1	1160	24.1	21.8	0.90	34.2	2.96	8.1	18.9

Model VS042, 3.5 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	10.5	5.1	11.7	1400	90.1	30.4	21.5	2.62	3.41	6.0	Operation Not Recommended							
				1450	89.4	30.4	21.5	2.61	3.41	5.9								
				1500	88.8	30.5	21.5	2.62	3.41	5.8								
30	5.3	2.3	5.2	1400	90.1	30.4	21.6	2.60	3.43	5.9								
				1450	89.5	30.5	21.6	2.60	3.43	5.8								
				1500	88.8	30.5	21.6	2.61	3.43	5.7								
	7.9	3.3	7.7	1400	91.2	32.1	23.1	2.64	3.56	6.2								
				1450	90.5	32.1	23.1	2.64	3.57	6.1								
				1500	89.8	32.1	23.1	2.64	3.56	6.0								
	10.5	4.9	11.2	1400	91.7	32.8	23.7	2.66	3.62	6.3								
				1450	90.9	32.8	23.7	2.65	3.62	6.2								
				1500	90.3	32.8	23.8	2.66	3.62	6.1								
40	5.3	2.2	5.0	1400	93.1	34.9	25.8	2.68	3.81	6.6								
				1450	92.3	34.9	25.8	2.68	3.82	6.5								
				1500	91.6	35.0	25.8	2.69	3.82	6.4								
	7.9	3.2	7.4	1400	94.3	36.8	27.5	2.72	3.96	6.9								
				1450	93.5	36.8	27.5	2.72	3.97	6.8								
				1500	92.8	36.9	27.6	2.72	3.97	6.7								
	10.5	4.6	10.7	1400	94.8	37.6	28.2	2.74	4.02	7.1	1400	60.2	45.9	29.9	52.2	1.86	24.6	3.1
				1450	94.0	37.6	28.3	2.73	4.03	7.0	1450	60.6	46.1	30.4	52.5	1.88	24.5	3.1
				1500	93.2	37.7	28.3	2.74	4.03	6.8	1500	60.9	46.3	30.9	52.8	1.91	24.3	3.1
50	5.3	2.1	4.8	1400	96.1	39.5	30.1	2.76	4.19	7.4	1400	59.3	46.6	31.3	54.2	2.22	21.0	5.4
				1450	95.2	39.5	30.1	2.76	4.19	7.3	1450	59.7	46.8	31.7	54.5	2.24	20.9	5.4
				1500	94.4	39.6	30.1	2.77	4.19	7.1	1500	60.1	47.0	32.2	54.8	2.27	20.7	5.4
	7.9	3.1	7.1	1400	97.5	41.6	32.0	2.80	4.35	7.8	1400	59.2	47.1	31.4	54.2	2.08	22.6	4.6
				1450	96.6	41.6	32.1	2.80	4.36	7.7	1450	59.6	47.4	31.9	54.5	2.10	22.5	4.7
				1500	95.7	41.7	32.1	2.81	4.36	7.5	1500	60.0	47.6	32.4	54.8	2.13	22.3	4.7
	10.5	4.5	10.3	1400	98.1	42.5	32.9	2.82	4.42	8.0	1400	59.2	47.3	31.4	54.2	2.03	23.3	4.3
				1450	97.2	42.5	32.9	2.82	4.42	7.9	1450	59.6	47.5	31.9	54.5	2.05	23.2	4.3
				1500	96.3	42.6	33.0	2.82	4.42	7.7	1500	60.0	47.7	32.4	54.8	2.08	23.0	4.4
60	5.3	2.0	4.6	1400	99.2	44.2	34.5	2.85	4.55	8.3	1400	59.3	46.0	31.4	54.3	2.43	18.9	7.0
				1450	98.3	44.3	34.5	2.85	4.56	8.2	1450	59.7	46.2	31.9	54.6	2.46	18.8	7.0
				1500	97.4	44.3	34.6	2.85	4.55	8.0	1500	60.0	46.4	32.4	54.9	2.49	18.7	7.0
	7.9	3.0	6.8	1400	100.8	46.6	36.7	2.89	4.73	8.8	1400	59.2	46.5	31.5	54.3	2.28	20.4	6.1
				1450	99.8	46.6	36.8	2.89	4.73	8.6	1450	59.6	46.8	32.0	54.6	2.30	20.3	6.1
				1500	98.8	46.7	36.8	2.89	4.73	8.4	1500	59.9	47.0	32.5	54.9	2.33	20.2	6.1
	10.5	4.3	9.9	1400	101.5	47.6	37.7	2.91	4.80	9.0	1400	59.1	46.7	31.5	54.3	2.22	21.0	5.7
				1450	100.4	47.6	37.7	2.91	4.80	8.8	1450	59.5	46.9	32.0	54.6	2.25	20.9	5.7
				1500	99.4	47.7	37.8	2.91	4.80	8.7	1500	59.9	47.1	32.5	54.9	2.27	20.7	5.8
70	5.3	1.9	4.5	1400	102.4	49.1	39.0	2.94	4.89	9.4	1400	59.6	44.4	30.8	53.5	2.68	16.6	8.6
				1450	101.4	49.1	39.1	2.94	4.90	9.2	1450	60.0	44.6	31.3	53.8	2.70	16.5	8.7
				1500	100.4	49.2	39.1	2.94	4.90	9.0	1500	60.4	44.8	31.8	54.1	2.74	16.4	8.7
	7.9	2.9	6.6	1400	104.2	51.7	41.5	2.98	5.08	9.9	1400	59.6	44.9	30.9	53.5	2.51	17.9	7.6
				1450	103.0	51.7	41.6	2.98	5.09	9.7	1450	59.9	45.1	31.4	53.8	2.53	17.8	7.6
				1500	102.0	51.8	41.6	2.98	5.09	9.5	1500	60.3	45.3	31.9	54.1	2.56	17.7	7.7
	10.5	4.2	9.7	1400	104.9	52.8	42.6	3.00	5.16	10.2	1400	59.5	45.0	31.0	53.4	2.45	18.4	7.2
				1450	103.7	52.8	42.6	3.00	5.17	9.9	1450	59.9	45.3	31.4	53.7	2.47	18.3	7.2
				1500	102.7	52.9	42.7	3.00	5.17	9.8	1500	60.3	45.4	31.9	54.0	2.50	18.2	7.2
80	5.3	1.9	4.4	1400	105.7	54.0	43.7	3.03	5.23	10.5	1400	60.2	42.3	29.9	52.4	2.96	14.3	10.4
				1450	104.5	54.1	43.8	3.03	5.23	10.3	1450	60.6	42.5	30.4	52.7	2.99	14.2	10.4
				1500	103.4	54.2	43.8	3.03	5.23	10.1	1500	60.9	42.7	30.9	53.0	3.02	14.1	10.5
	7.9	2.8	6.5	1400	107.6	56.9	46.4	3.07	5.43	11.1	1400	60.1	42.8	30.1	52.3	2.77	15.4	9.3
				1450	106.4	57.0	46.5	3.07	5.44	10.9	1450	60.5	43.0	30.5	52.6	2.80	15.4	9.3
				1500	105.2	57.1	46.6	3.08	5.44	10.7	1500	60.9	43.2	31.0	52.9	2.84	15.2	9.3
	10.5	4.1	9.5	1400	108.5	58.2	47.6	3.09	5.51	11.4	1400	60.1	43.0	30.1	52.2	2.71	15.9	8.8
				1450	107.2	58.2	47.7	3.09	5.52	11.2	1450	60.5	43.2	30.6	52.5	2.73	15.8	8.8
				1500	106.0	58.3	47.7	3.10	5.52	10.9	1500	60.8	43.3	31.0	52.8	2.77	15.7	8.8
90	5.3	1.9	4.3	1400	109.1	59.1	48.5	3.13	5.55	11.7	1400	60.8	40.2	29.0	51.4	3.29	12.2	12.3
				1450	107.8	59.2	48.5	3.12	5.55	11.5	1450	61.2	40.4	29.5	51.7	3.32	12.2	12.3
				1500	106.6	59.3	48.6	3.13	5.55	11.3	1500	61.5	40.6	29.9	52.0	3.36	12.1	12.4
	7.9	2.8	6.4	1400	111.2	62.3	51.5	3.17	5.76	12.4	1400	60.7	40.7	29.1	51.2	3.08	13.2	11.0
				1450	109.8	62.4	51.5	3.17	5.77	12.1	1450	61.1	40.9	29.6	51.5	3.11	13.1	11.1
				1500	108.6	62.5	51.6	3.17	5.77	11.9	1500	61.4	41.0	30.1	51.8	3.15	13.0	11.1
	10.5	4.0	9.3	1400	112.1	63.6	52.8	3.19	5.85	12.7	1400	60.7	40.8	29.2	51.0	3.00	13.6	10.5
				1450	110.7	63.7	52.8	3.19	5.86	12.5	1450	61.1	41.0	29.6	51.3	3.04	13.5	10.5
				1500	109.4	63.8	52.9	3.19	5.85	12.2	1500	61.4	41.2	30.1	51.6	3.07	13.4	10.6
100	5.3	1.9	4.4	Operation Not Recommended							1400	61.4	38.1	28.2	50.6	3.66	10.4	14.3
											1450	61.7	38.3	28.6	50.9	3.70	10.3	14.3
											1500	62.1	38.4	29.0	51.2	3.75	10.3	14.4
	7.9	2.8	6.4								1400	61.3	38.5	28.3	50.3	3.44	11.2	12.9
											1450	61.7	38.7	28.7	50.6	3.47	11.2	12.9
											1500	62.0	38.9	29.2	50.9	3.51	11.1	13.0
	10.5	4.0	9.3								1400	61.3	38.7	28.3	50.1	3.35	11.5	12.3
											1450	61.6	38.8	28.7	50.4	3.38	11.5	12.4
											1500	62.0	39.0	29.2	50.7	3.42	11.4	12.4
110	5.3	1.9	4.3								1400	62.0	35.9	27.3	49.8	4.10	8.8	16.5
											1450	62.3	36.0	27.7	50.1	4.14	8.7	16.5
											1500	62.6	36.2	28.1	50.5	4.19	8.6	16.6
	7.9	2.8	6.4								1400	61.9	36.3	27.4	49.4	3.84	9.4	14.9
											1450	62.2	36.4	27.8	49.7	3.88	9.4	15.0
											1500	62.6	36.6	28.2	50.0	3.93	9.3	15.0
	10.5	4.0	9.3								1400	61.9	36.4	27.4	49.2	3.75	9.7	14.3
											1450	62.2	36.6	27.8	49.5	3.79	9.7	14.3
											1500	62.6	36.7	28.3	49.8	3.83	9.6	14.4
120	5.3	1.9	4.3								1400	62.6	33.1	26.2	48.8	4.59	7.2	18.8
											1450	63.0	33.3	26.7	49.1	4.64	7.2	18.9
											1500	63.3	33.4	27.1	49.4	4.69	7.1	18.9
	7.9	2.8	6.4								1400	62.6	33.5	26.4	48.2	4.31	7.8	17.2
											1450	62.9	33.7	26.8	48.5	4.35	7.7	17.2
											1500	63.2	33.8	27.2	48.8	4.40	7.7	17.3
	10.5	4.0	9.2								1400	62.5	33.6	26.4	47.9	4.20	8.0	16.5
											1450	62.9	33.8	26.8	48.2	4.24	8.0	16.5
											1500	63.2	33.9	27.2	48.5	4.29	7.9	16.6

ENGINEERING SPECIFICATIONS:

Model VS042, 3.5 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	10.5	5.1	11.7	1220	92.1	29.1	21.2	2.30	3.70	6.5	Operation Not Recommended							
				1400	89.3	29.1	21.5	2.24	3.80	6.0								
30	5.3	2.3	5.2	1220	92.1	29.1	21.3	2.29	3.73	6.4								
				1400	89.3	29.2	21.6	2.23	3.84	5.9								
	7.9	3.3	7.7	1220	93.3	30.7	22.8	2.33	3.87	6.7								
				1400	90.4	30.8	23.1	2.27	3.98	6.2								
	10.5	4.9	11.2	1220	93.8	31.4	23.4	2.34	3.93	6.9								
				1400	90.8	31.5	23.7	2.28	4.04	6.3								
40	5.3	2.2	5.0	1220	95.5	33.6	25.5	2.37	4.15	7.2								
				1400	92.3	33.7	25.8	2.31	4.27	6.6								
	7.9	3.2	7.4	1220	96.9	35.4	27.2	2.41	4.31	7.5								
				1400	93.5	35.5	27.5	2.35	4.43	7.0								
	10.5	4.6	10.7	1220	97.5	36.2	27.9	2.43	4.37	7.7	1300	58.5	46.6	30.3	51.6	1.46	31.9	3.0
				1400	94.0	36.2	28.2	2.36	4.50	7.1	1450	59.7	47.4	31.7	52.5	1.50	31.6	3.1
50	5.3	2.1	4.8	1220	99.0	38.1	29.8	2.46	4.55	8.0	1300	57.5	47.3	31.5	53.5	1.80	26.2	5.4
				1400	95.3	38.2	30.1	2.39	4.68	7.4	1450	58.9	48.1	33.1	54.5	1.85	26.0	5.4
	7.9	3.1	7.1	1220	100.5	40.2	31.7	2.49	4.73	8.4	1300	57.4	47.9	31.7	53.6	1.67	28.6	4.6
				1400	96.7	40.3	32.0	2.43	4.86	7.8	1450	58.8	48.7	33.2	54.5	1.72	28.3	4.7
	10.5	4.5	10.3	1220	101.2	41.1	32.5	2.51	4.80	8.7	1300	57.4	48.0	31.7	53.5	1.62	29.6	4.3
				1400	97.2	41.2	32.8	2.45	4.93	8.0	1450	58.8	48.8	33.2	54.5	1.67	29.3	4.3
60	5.3	2.0	4.6	1220	102.5	42.8	34.2	2.54	4.94	9.0	1300	57.5	46.8	31.6	53.6	2.01	23.2	6.9
				1400	98.4	42.9	34.5	2.48	5.08	8.3	1450	58.8	47.5	33.2	54.6	2.07	23.0	7.0
	7.9	3.0	6.8	1220	104.3	45.2	36.4	2.58	5.13	9.5	1300	57.4	47.3	31.8	53.7	1.87	25.3	6.0
				1400	100.0	45.3	36.7	2.52	5.28	8.8	1450	58.7	48.1	33.3	54.6	1.92	25.1	6.1
	10.5	4.3	9.9	1220	105.0	46.2	37.3	2.60	5.20	9.7	1300	57.3	47.4	31.8	53.6	1.81	26.2	5.7
				1400	100.6	46.3	37.6	2.53	5.35	9.0	1450	58.7	48.2	33.4	54.6	1.86	25.9	5.7
70	5.3	1.9	4.5	1220	106.2	47.7	38.7	2.63	5.31	10.1	1300	57.9	45.2	31.1	52.8	2.26	20.0	8.6
				1400	101.6	47.8	39.0	2.57	5.46	9.4	1450	59.2	45.9	32.6	53.8	2.32	19.8	8.7
	7.9	2.9	6.6	1220	108.2	50.3	41.2	2.67	5.51	10.7	1300	57.8	45.7	31.2	52.8	2.09	21.8	7.6
				1400	103.3	50.4	41.5	2.61	5.67	9.9	1450	59.1	46.4	32.7	53.8	2.15	21.6	7.6
	10.5	4.2	9.7	1220	109.0	51.4	42.2	2.69	5.59	11.0	1300	57.8	45.8	31.2	52.7	2.03	22.6	7.1
				1400	104.0	51.5	42.5	2.62	5.75	10.2	1450	59.1	46.6	32.8	53.7	2.09	22.3	7.2
80	5.3	1.9	4.4	1220	110.0	52.6	43.3	2.73	5.66	11.3	1300	58.5	43.1	30.3	51.8	2.54	17.0	10.3
				1400	104.9	52.8	43.7	2.66	5.82	10.5	1450	59.7	43.9	31.7	52.8	2.61	16.8	10.4
	7.9	2.8	6.5	1220	112.1	55.5	46.1	2.77	5.88	11.9	1300	58.4	43.6	30.4	51.6	2.35	18.5	9.2
				1400	106.8	55.6	46.4	2.70	6.05	11.1	1450	59.7	44.4	31.9	52.6	2.42	18.4	9.3
	10.5	4.1	9.5	1220	113.0	56.7	47.2	2.79	5.96	12.3	1300	58.3	43.7	30.4	51.5	2.28	19.2	8.7
				1400	107.6	56.8	47.6	2.72	6.13	11.4	1450	59.6	44.5	31.9	52.5	2.35	19.0	8.8
90	5.3	1.9	4.3	1220	113.8	57.7	48.1	2.82	6.00	12.6	1300	59.1	41.0	29.4	50.8	2.86	14.3	12.2
				1400	108.3	57.9	48.5	2.75	6.17	11.7	1450	60.3	41.7	30.8	51.8	2.94	14.2	12.3
	7.9	2.8	6.4	1220	116.2	60.9	51.1	2.87	6.23	13.3	1300	59.0	41.5	29.5	50.5	2.65	15.6	10.9
				1400	110.4	61.0	51.5	2.79	6.40	12.4	1450	60.2	42.2	30.9	51.5	2.73	15.5	11.1
	10.5	4.0	9.3	1220	117.2	62.2	52.3	2.89	6.32	13.7	1300	59.0	41.6	29.5	50.4	2.58	16.2	10.4
				1400	111.2	62.3	52.7	2.81	6.50	12.7	1450	60.2	42.3	31.0	51.3	2.65	16.0	10.5
100	5.3	1.9	4.4	Operation Not Recommended							1300	59.7	38.9	28.5	50.0	3.24	12.0	14.2
											1450	60.9	39.6	29.9	50.9	3.33	11.9	14.3
	7.9	2.8	6.4								1300	59.6	39.4	28.7	49.6	3.00	13.1	12.8
											1450	60.8	40.1	30.0	50.6	3.08	13.0	12.9
	10.5	4.0	9.3								1300	59.6	39.5	28.7	49.4	2.92	13.5	12.2
											1450	60.8	40.2	30.1	50.4	2.99	13.4	12.4
110	5.3	1.9	4.3								1300	60.3	36.7	27.7	49.2	3.67	10.0	16.3
											1450	61.5	37.4	29.0	50.2	3.77	9.9	16.5
	7.9	2.8	6.4								1300	60.2	37.1	27.8	48.8	3.40	10.9	14.8
											1450	61.4	37.8	29.1	49.7	3.50	10.8	15.0
	10.5	4.0	9.3								1300	60.2	37.2	27.8	48.5	3.30	11.3	14.2
											1450	61.4	37.9	29.2	49.5	3.39	11.2	14.3
120	5.3	1.9	4.3								1300	61.0	34.0	26.7	48.2	4.16	8.2	18.7
											1450	62.1	34.6	28.0	49.2	4.28	8.1	18.9
	7.9	2.8	6.4								1300	60.9	34.4	26.8	47.6	3.86	8.9	17.0
											1450	62.1	35.0	28.1	48.5	3.96	8.8	17.2
	10.5	4.0	9.2								1300	60.9	34.5	26.8	47.3	3.75	9.2	16.4
											1450	62.0	35.1	28.1	48.2	3.85	9.1	16.5

Model VS048, 4 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	12.0	6.5	15.1	1400	94.7	37.4	25.8	3.39	3.23	8.1	Operation Not Recommended							
				1550	92.6	37.8	26.3	3.37	3.28	7.6								
				1750	90.1	38.0	26.8	3.30	3.38	7.1								
30	6.0	2.2	5.1	1400	94.5	37.0	25.6	3.36	3.23	7.9								
				1550	92.4	37.4	26.0	3.34	3.29	7.5								
				1750	89.9	37.7	26.5	3.26	3.38	7.0								
	9.0	3.9	9.1	1400	95.7	38.8	27.2	3.40	3.35	8.3								
				1550	93.4	39.2	27.7	3.38	3.41	7.8								
				1750	90.9	39.5	28.2	3.30	3.51	7.3								
	12.0	6.1	14.1	1400	96.3	39.8	28.2	3.42	3.41	8.5								
				1550	94.0	40.3	28.7	3.40	3.47	8.0								
				1750	91.4	40.5	29.2	3.32	3.57	7.4								
40	6.0	2.0	4.7	1400	97.6	41.7	30.1	3.42	3.57	8.6								
				1550	95.2	42.2	30.6	3.40	3.63	8.1								
				1750	92.5	42.5	31.1	3.33	3.74	7.6								
	9.0	3.7	8.5	1400	98.9	43.8	32.0	3.46	3.70	9.0								
				1550	96.4	44.2	32.5	3.44	3.77	8.5								
				1750	93.6	44.5	33.0	3.36	3.88	7.9								
	12.0	5.7	13.2	1400	99.7	44.9	33.0	3.49	3.78	9.3	1400	58.6	53.3	32.3	60.9	2.23	23.9	3.2
				1550	97.1	45.4	33.6	3.46	3.84	8.7	1550	59.9	54.2	33.6	62.0	2.29	23.7	3.3
				1750	94.2	45.7	34.1	3.39	3.95	8.1	1750	61.4	54.9	35.1	62.9	2.35	23.3	3.3
50	6.0	1.9	4.4	1400	100.8	46.6	34.7	3.50	3.90	9.5	1400	57.9	53.5	33.4	62.6	2.67	20.1	5.8
				1550	98.2	47.1	35.3	3.48	3.97	8.9	1550	59.2	54.4	34.8	63.8	2.73	19.9	5.9
				1750	95.1	47.4	35.8	3.40	4.09	8.3	1750	60.8	55.1	36.3	64.7	2.81	19.6	6.0
	9.0	3.4	7.9	1400	102.3	48.9	36.8	3.54	4.05	9.9	1400	57.7	54.1	33.8	62.7	2.50	21.7	4.9
				1550	99.5	49.4	37.4	3.52	4.12	9.4	1550	59.0	55.1	35.2	63.8	2.56	21.5	5.0
				1750	96.3	49.7	38.0	3.44	4.24	8.7	1750	60.6	55.8	36.7	64.8	2.63	21.2	5.1
	12.0	5.3	12.3	1400	103.2	50.2	38.0	3.56	4.13	10.2	1400	57.6	54.5	33.8	62.8	2.43	22.5	4.6
				1550	100.3	50.7	38.6	3.54	4.20	9.6	1550	59.0	55.4	35.2	63.9	2.49	22.3	4.7
				1750	97.0	51.0	39.2	3.46	4.32	8.9	1750	60.6	56.1	36.8	64.8	2.56	21.9	4.7
60	6.0	1.8	4.1	1400	104.2	51.7	39.4	3.59	4.22	10.5	1400	57.6	53.0	33.8	62.9	2.90	18.3	7.5
				1550	101.2	52.3	40.1	3.57	4.29	9.9	1550	59.0	53.9	35.2	64.1	2.97	18.1	7.6
				1750	97.8	52.6	40.7	3.49	4.41	9.2	1750	60.6	54.6	36.7	65.0	3.06	17.8	7.7
	9.0	3.2	7.5	1400	105.9	54.2	41.8	3.63	4.37	11.0	1400	57.4	53.6	34.2	62.9	2.72	19.7	6.5
				1550	102.7	54.8	42.5	3.61	4.45	10.4	1550	58.8	54.6	35.6	64.1	2.79	19.6	6.6
				1750	99.2	55.2	43.1	3.53	4.58	9.7	1750	60.4	55.2	37.1	65.0	2.87	19.3	6.7
	12.0	5.0	11.6	1400	106.8	55.6	43.1	3.66	4.46	11.3	1400	57.4	54.0	34.2	63.0	2.64	20.5	6.1
				1550	103.6	56.2	43.8	3.64	4.53	10.6	1550	58.7	54.9	35.6	64.2	2.71	20.3	6.2
				1750	99.9	56.6	44.5	3.55	4.67	9.9	1750	60.3	55.6	37.2	65.1	2.78	20.0	6.2
70	6.0	1.7	3.9	1400	107.7	57.0	44.3	3.70	4.51	11.6	1400	57.9	51.5	33.5	62.3	3.17	16.3	9.3
				1550	104.4	57.6	45.0	3.68	4.59	11.0	1550	59.2	52.4	34.8	63.5	3.25	16.2	9.4
				1750	100.7	57.9	45.7	3.60	4.72	10.2	1750	60.8	53.1	36.3	64.5	3.34	15.9	9.6
	9.0	3.1	7.1	1400	109.5	59.7	47.0	3.74	4.68	12.2	1400	57.6	52.2	33.8	62.3	2.97	17.6	8.1
				1550	106.1	60.4	47.7	3.72	4.76	11.5	1550	59.0	53.1	35.2	63.5	3.04	17.4	8.2
				1750	102.1	60.8	48.4	3.64	4.90	10.7	1750	60.6	53.7	36.7	64.4	3.13	17.2	8.4
	12.0	4.8	11.0	1400	110.5	61.3	48.4	3.77	4.77	12.6	1400	57.6	52.5	33.9	62.3	2.88	18.2	7.7
				1550	107.0	61.9	49.2	3.74	4.85	11.8	1550	58.9	53.4	35.3	63.5	2.95	18.1	7.8
				1750	103.0	62.3	49.9	3.66	4.99	11.1	1750	60.5	54.1	36.8	64.4	3.04	17.8	7.9
80	6.0	1.6	3.7	1400	111.3	62.4	49.4	3.82	4.79	12.9	1400	58.4	49.6	32.7	61.4	3.47	14.3	11.2
				1550	107.7	63.1	50.1	3.80	4.87	12.2	1550	59.7	50.5	34.0	62.6	3.56	14.2	11.4
				1750	103.6	63.5	50.8	3.71	5.01	11.4	1750	61.2	51.1	35.5	63.6	3.66	13.9	11.5
	9.0	2.9	6.7	1400	113.3	65.4	52.2	3.86	4.96	13.6	1400	58.2	50.2	33.0	61.3	3.26	15.4	9.9
				1550	109.5	66.1	53.0	3.84	5.05	12.8	1550	59.5	51.1	34.4	62.4	3.34	15.3	10.0
				1750	105.2	66.6	53.7	3.75	5.20	12.0	1750	61.0	51.7	35.9	63.4	3.43	15.1	10.2
	12.0	4.5	10.5	1400	114.4	67.1	53.9	3.89	5.06	13.9	1400	58.1	50.5	33.1	61.3	3.16	16.0	9.4
				1550	110.5	67.8	54.7	3.86	5.15	13.2	1550	59.4	51.4	34.5	62.4	3.24	15.9	9.5
				1750	106.1	68.3	55.4	3.78	5.30	12.3	1750	61.0	52.0	36.0	63.4	3.33	15.6	9.6
90	6.0	1.6	3.6	1400	115.0	68.0	54.5	3.96	5.04	14.3	1400	59.0	47.4	31.7	60.4	3.83	12.4	13.3
				1550	111.1	68.7	55.3	3.93	5.12	13.5	1550	60.3	48.2	33.0	61.6	3.92	12.3	13.4
				1750	106.6	69.2	56.1	3.84	5.27	12.7	1750	61.8	48.8	34.5	62.6	4.04	12.1	13.6
	9.0	2.8	6.5	1400	117.2	71.3	57.7	4.00	5.23	15.0	1400	58.8	47.9	32.1	60.2	3.59	13.4	11.8
				1550	113.1	72.1	58.5	3.97	5.32	14.2	1550	60.1	48.8	33.4	61.3	3.68	13.3	12.0
				1750	108.4	72.5	59.3	3.89	5.47	13.3	1750	61.6	49.4	34.8	62.3	3.78	13.0	12.1
	12.0	4.4	10.0	1400	118.4	73.2	59.4	4.03	5.32	15.5	1400	58.7	48.2	32.1	60.1	3.48	13.9	11.2
				1550	114.2	74.0	60.3	4.00	5.42	14.6	1550	60.0	49.1	33.5	61.3	3.57	13.7	11.4
				1750	109.4	74.4	61.1	3.91	5.58	13.7	1750	61.5	49.7	34.9	62.2	3.67	13.5	11.5
100	6.0	1.4	3.3	Operation Not Recommended							1400	59.7	45.0	30.7	59.4	4.24	10.6	15.4
											1550	60.9	45.7	31.9	60.6	4.35	10.5	15.6
											1750	62.4	46.3	33.3	61.5	4.47	10.4	15.9
	9.0	2.6	6.0								1400	59.5	45.5	31.0	59.0	3.97	11.4	13.8
											1550	60.7	46.3	32.3	60.2	4.07	11.4	14.0
											1750	62.2	46.8	33.7	61.1	4.19	11.2	14.2
	12.0	4.1	9.4								1400	59.5	45.8	31.1	58.9	3.86	11.9	13.2
											1550	60.7	46.6	32.3	60.1	3.95	11.8	13.3
											1750	62.1	47.1	33.7	61.0	4.07	11.6	13.5
110	6.0	1.4	3.2								1400	60.5	42.3	29.4	58.4	4.72	9.0	17.7
											1550	61.7	43.0	30.6	59.5	4.83	8.9	18.0
											1750	63.1	43.5	32.0	60.5	4.97	8.8	18.2
	9.0	2.5	5.8	Operation Not Recommended							1400	60.3	42.8	29.7	57.9	4.42	9.7	16.0
											1550	61.5	43.5	31.0	59.0	4.53	9.6	16.2
											1750	62.9	44.0	32.3	60.0	4.66	9.5	16.4
	12.0	3.9	9.1								1400	60.3	43.0	29.8	57.7	4.29	10.0	15.3
											1550	61.5	43.8	31.0	58.8	4.40	10.0	15.5
											1750	62.9	44.3	32.4	59.8	4.53	9.8	15.7
120	6.0	1.3	3.1								1400	61.7	39.2	27.7	57.2	5.26	7.4	20.2
											1550	62.8	39.9	28.9	58.3	5.40	7.4	20.4
											1750	64.1	40.4	30.1	59.3	5.55	7.3	20.7
	9.0	2.4	5.6								1400	61.5	39.7	28.0	56.5	4.93	8.0	18.3
											1550	62.6	40.4	29.2	57.6	5.06	8.0	18.5
											1750	63.9	40.9	30.4	58.6	5.20	7.9	18.8
	12.0	3.8	8.8								1400	61.4	39.9	28.1	56.3	4.79	8.3	17.5
											1550	62.5	40.6	29.2	57.4	4.91	8.3	17.7
											1750	63.9	41.1	30.5	58.3	5.05	8.1	18.0

ENGINEERING SPECIFICATIONS:

Model VS048, 4 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	12.0	6.5	15.1	1400	93.7	35.8	25.8	2.93	3.58	8.1	Operation Not Recommended							
				1540	91.7	36.1	26.3	2.88	3.68	7.7								
30	6.0	2.2	5.1	1400	93.5	35.5	25.6	2.90	3.58	7.9								
				1540	91.5	35.8	26.1	2.85	3.68	7.5								
	9.0	3.9	9.1	1400	94.7	37.3	27.2	2.94	3.71	8.3								
				1540	92.6	37.6	27.7	2.89	3.82	7.8								
	12.0	6.1	14.1	1400	95.3	38.3	28.2	2.96	3.79	8.5								
				1540	93.2	38.6	28.7	2.91	3.89	8.0								
40	6.0	2.0	4.7	1400	96.6	40.2	30.1	2.98	3.96	8.6								
				1540	94.4	40.6	30.6	2.92	4.07	8.2								
	9.0	3.7	8.5	1400	97.9	42.2	32.0	3.02	4.10	9.0								
				1540	95.6	42.6	32.5	2.96	4.22	8.5								
	12.0	5.7	13.2	1400	98.7	43.4	33.0	3.04	4.18	9.3	1430	57.9	55.0	34.1	61.2	1.80	30.6	3.2
				1540	96.3	43.7	33.6	2.98	4.30	8.7	1610	59.5	55.9	35.6	62.3	1.86	30.1	3.3
50	6.0	1.9	4.4	1400	99.9	45.1	34.7	3.07	4.31	9.5	1430	57.2	55.3	35.3	62.8	2.22	24.9	5.8
				1540	97.4	45.5	35.2	3.01	4.43	9.0	1610	58.8	56.2	36.8	64.0	2.30	24.5	5.9
	9.0	3.4	7.9	1400	101.4	47.4	36.8	3.11	4.47	9.9	1430	57.0	55.9	35.6	62.9	2.06	27.2	5.0
				1540	98.7	47.8	37.4	3.05	4.60	9.4	1610	58.6	56.9	37.1	64.1	2.13	26.7	5.0
	12.0	5.3	12.3	1400	102.2	48.7	38.0	3.13	4.56	10.2	1430	56.9	56.2	35.7	63.0	1.99	28.2	4.6
				1540	99.5	49.1	38.6	3.07	4.68	9.6	1610	58.6	57.2	37.2	64.2	2.06	27.8	4.7
60	6.0	1.8	4.1	1400	103.2	50.2	39.4	3.17	4.64	10.5	1430	56.9	54.8	35.6	63.2	2.46	22.2	7.5
				1540	100.4	50.6	40.0	3.11	4.77	9.9	1610	58.6	55.7	37.2	64.4	2.54	21.9	7.6
	9.0	3.2	7.5	1400	104.9	52.8	41.8	3.21	4.82	11.0	1430	56.7	55.4	36.0	63.2	2.28	24.3	6.5
				1540	102.0	53.2	42.4	3.15	4.95	10.4	1610	58.4	56.3	37.5	64.4	2.36	23.9	6.6
	12.0	5.0	11.6	1400	105.8	54.2	43.1	3.24	4.91	11.3	1430	56.7	55.7	36.0	63.2	2.21	25.2	6.1
				1540	102.8	54.6	43.8	3.17	5.04	10.7	1610	58.4	56.6	37.6	64.4	2.29	24.8	6.2
70	6.0	1.7	3.9	1400	106.7	55.5	44.3	3.29	4.95	11.6	1430	57.1	53.3	35.3	62.6	2.74	19.5	9.3
				1540	103.6	56.0	45.0	3.23	5.08	11.0	1610	58.8	54.2	36.8	63.8	2.83	19.2	9.5
	9.0	3.1	7.1	1400	108.6	58.3	46.9	3.33	5.13	12.2	1430	56.9	53.9	35.6	62.6	2.54	21.3	8.1
				1540	105.3	58.8	47.6	3.27	5.27	11.6	1610	58.6	54.8	37.2	63.8	2.62	20.9	8.3
	12.0	4.8	11.0	1400	109.6	59.8	48.4	3.35	5.23	12.6	1430	56.9	54.2	35.7	62.6	2.46	22.1	7.7
				1540	106.3	60.3	49.1	3.29	5.38	11.9	1610	58.6	55.1	37.2	63.8	2.54	21.7	7.8
80	6.0	1.6	3.7	1400	110.3	60.9	49.3	3.42	5.23	12.9	1430	57.6	51.3	34.5	61.7	3.05	16.8	11.3
				1540	106.9	61.4	50.0	3.35	5.37	12.2	1610	59.3	52.2	36.0	63.0	3.15	16.6	11.4
	9.0	2.9	6.7	1400	112.3	64.0	52.2	3.46	5.42	13.6	1430	57.4	51.9	34.9	61.6	2.83	18.4	9.9
				1540	108.8	64.5	53.0	3.40	5.57	12.8	1610	59.1	52.8	36.4	62.8	2.92	18.1	10.1
	12.0	4.5	10.5	1400	113.5	65.7	53.8	3.49	5.53	13.9	1430	57.4	52.2	34.9	61.6	2.74	19.1	9.4
				1540	109.8	66.3	54.6	3.42	5.68	13.2	1610	59.0	53.1	36.4	62.8	2.83	18.8	9.5
90	6.0	1.6	3.6	1400	114.0	66.6	54.4	3.56	5.48	14.3	1430	58.3	49.1	33.6	60.8	3.41	14.4	13.3
				1540	110.4	67.1	55.2	3.49	5.63	13.6	1610	59.9	49.9	35.0	62.0	3.52	14.2	13.5
	9.0	2.8	6.5	1400	116.2	69.9	57.6	3.61	5.68	15.0	1430	58.1	49.7	33.9	60.5	3.16	15.7	11.8
				1540	112.4	70.5	58.4	3.54	5.84	14.2	1610	59.7	50.5	35.4	61.7	3.27	15.5	12.0
	12.0	4.4	10.0	1400	117.5	71.8	59.4	3.63	5.79	15.5	1430	58.0	50.0	33.9	60.4	3.06	16.3	11.2
				1540	113.5	72.4	60.2	3.57	5.95	14.6	1610	59.6	50.8	35.4	61.6	3.16	16.1	11.4
100	6.0	1.4	3.3	Operation Not Recommended							1430	59.0	46.7	32.5	59.7	3.83	12.2	15.5
											1610	60.5	47.5	33.9	61.0	3.96	12.0	15.7
	9.0	2.6	6.0								1430	58.8	47.2	32.8	59.3	3.55	13.3	13.9
											1610	60.3	48.0	34.2	60.5	3.67	13.1	14.1
	12.0	4.1	9.4								1430	58.7	47.5	32.8	59.2	3.44	13.8	13.2
											1610	60.3	48.3	34.3	60.4	3.55	13.6	13.4
110	6.0	1.4	3.2								1430	59.8	44.0	31.2	58.7	4.32	10.2	17.8
											1610	61.3	44.7	32.6	59.9	4.46	10.0	18.0
	9.0	2.5	5.8								1430	59.6	44.5	31.5	58.1	4.00	11.1	16.0
											1610	61.1	45.2	32.9	59.3	4.13	10.9	16.3
	12.0	3.9	9.1								1430	59.6	44.7	31.6	57.9	3.87	11.5	15.3
											1610	61.1	45.5	32.9	59.1	4.00	11.4	15.5
120	6.0	1.3	3.1								1430	60.9	40.9	29.5	57.6	4.88	8.4	20.2
											1610	62.3	41.6	30.8	58.8	5.04	8.3	20.5
	9.0	2.4	5.6								1430	60.7	41.4	29.8	56.8	4.52	9.2	18.3
											1610	62.1	42.1	31.1	58.0	4.67	9.0	18.6
	12.0	3.8	8.8								1430	60.7	41.6	29.8	56.6	4.38	9.5	17.6
											1610	62.1	42.3	31.1	57.8	4.52	9.4	17.8

Model VT048, 4 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Full Load Heating							Full Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	12.0	6.8	15.7	1400	93.6	35.7	25.7	2.91	3.59	8.1	Operation Not Recommended							
				1540	91.6	36.0	26.1	2.89	3.65	7.6								
30	6.0	2.7	6.1	1400	93.4	35.4	25.6	2.88	3.61	7.9								
				1540	91.5	35.7	26.0	2.86	3.66	7.4								
	9.0	4.2	9.7	1400	94.4	37.0	27.0	2.91	3.72	8.1								
				1540	92.4	37.2	27.4	2.89	3.78	7.6								
	12.0	6.4	14.8	1400	95.0	37.8	27.8	2.93	3.79	8.3								
				1540	92.9	38.1	28.2	2.91	3.84	7.8								
40	6.0	2.5	5.8	1400	96.5	40.0	30.0	2.94	3.98	8.5								
				1540	94.2	40.3	30.3	2.92	4.05	8.0								
	9.0	4.0	9.1	1400	97.6	41.7	31.6	2.97	4.11	8.7								
				1540	95.3	42.0	32.0	2.95	4.17	8.2								
	12.0	6.0	14.0	1400	98.2	42.7	32.5	3.00	4.18	8.9	1430	58.6	52.0	33.1	58.5	1.92	27.0	3.1
				1540	95.9	43.0	32.9	2.97	4.24	8.4	1610	60.0	53.0	34.9	59.8	1.99	26.6	3.2
50	6.0	2.4	5.5	1400	99.8	45.1	34.7	3.04	4.34	9.3	1430	57.3	53.4	35.0	61.5	2.37	22.5	5.9
				1540	97.3	45.4	35.1	3.02	4.41	8.8	1610	58.8	54.4	36.9	62.8	2.45	22.2	5.9
	9.0	3.8	8.7	1400	101.1	47.0	36.5	3.07	4.48	9.6	1430	57.2	53.9	35.2	61.4	2.21	24.4	5.0
				1540	98.5	47.3	36.9	3.05	4.55	9.1	1610	58.7	54.9	37.1	62.7	2.29	24.0	5.0
	12.0	5.8	13.3	1400	101.8	48.1	37.5	3.09	4.56	9.9	1430	57.1	54.1	35.3	61.4	2.14	25.3	4.6
				1540	99.1	48.5	38.0	3.07	4.63	9.3	1610	58.6	55.2	37.2	62.7	2.21	24.9	4.6
60	6.0	2.3	5.3	1400	103.3	50.4	39.6	3.16	4.67	10.3	1430	56.6	53.9	36.1	62.8	2.62	20.6	7.6
				1540	100.5	50.7	40.0	3.13	4.75	9.8	1610	58.1	54.9	38.0	64.2	2.71	20.3	7.7
	9.0	3.6	8.3	1400	104.7	52.5	41.6	3.19	4.82	10.7	1430	56.5	54.4	36.3	62.7	2.45	22.2	6.6
				1540	101.8	52.9	42.1	3.17	4.90	10.1	1610	58.0	55.4	38.2	64.0	2.53	21.9	6.7
	12.0	5.5	12.7	1400	105.6	53.8	42.8	3.22	4.90	11.0	1430	56.4	54.6	36.4	62.7	2.36	23.1	6.1
				1540	102.6	54.2	43.3	3.19	4.98	10.4	1610	58.0	55.7	38.3	64.0	2.45	22.8	6.2
70	6.0	2.2	5.1	1400	106.8	55.7	44.4	3.29	4.96	11.5	1430	56.5	53.1	36.3	63.0	2.90	18.3	9.5
				1540	103.7	56.1	45.0	3.26	5.04	10.8	1610	58.0	54.1	38.2	64.3	3.00	18.0	9.6
	9.0	3.5	8.1	1400	108.4	58.0	46.7	3.32	5.12	11.9	1430	56.4	53.5	36.5	62.8	2.70	19.8	8.3
				1540	105.2	58.5	47.2	3.30	5.20	11.2	1610	57.9	54.6	38.4	64.1	2.80	19.5	8.4
	12.0	5.3	12.3	1400	109.3	59.4	48.0	3.35	5.20	12.2	1430	56.3	53.8	36.5	62.7	2.61	20.6	7.8
				1540	106.0	59.9	48.5	3.32	5.29	11.5	1610	57.9	54.8	38.5	64.0	2.71	20.3	7.9
80	6.0	2.2	5.0	1400	110.2	60.7	49.1	3.42	5.21	12.6	1430	56.8	51.3	35.8	62.2	3.22	15.9	11.5
				1540	106.8	61.2	49.6	3.39	5.29	11.9	1610	58.3	52.2	37.7	63.6	3.33	15.7	11.7
	9.0	3.4	7.9	1400	111.9	63.3	51.5	3.45	5.38	13.0	1430	56.7	51.7	35.9	62.0	3.00	17.2	10.2
				1540	108.4	63.8	52.1	3.43	5.46	12.3	1610	58.2	52.7	37.9	63.3	3.10	17.0	10.3
	12.0	5.2	12.0	1400	112.9	64.8	53.0	3.48	5.46	13.3	1430	56.7	52.0	36.0	61.8	2.90	17.9	9.6
				1540	109.3	65.3	53.6	3.45	5.55	12.6	1610	58.2	52.9	37.9	63.2	3.00	17.6	9.7
90	6.0	2.1	4.9	1400	113.2	65.3	53.2	3.53	5.42	13.5	1430	57.5	48.8	34.8	61.0	3.58	13.6	13.7
				1540	109.6	65.8	53.8	3.51	5.50	12.8	1610	58.9	49.7	36.7	62.4	3.71	13.4	13.8
	9.0	3.4	7.8	1400	115.0	68.1	55.9	3.57	5.59	14.0	1430	57.4	49.2	35.0	60.6	3.34	14.7	12.2
				1540	111.3	68.6	56.5	3.54	5.68	13.3	1610	58.8	50.2	36.8	62.0	3.46	14.5	12.3
	12.0	5.2	11.9	1400	116.1	69.7	57.4	3.60	5.68	14.4	1430	57.3	49.4	35.1	60.5	3.23	15.3	11.5
				1540	112.2	70.2	58.1	3.57	5.77	13.6	1610	58.8	50.4	36.9	61.8	3.34	15.1	11.6
100	6.0	2.1	4.8	Operation Not Recommended							1430	58.2	46.0	33.6	59.7	4.01	11.5	15.9
											1610	59.6	46.8	35.4	61.0	4.15	11.3	16.1
	9.0	3.3	7.7								1430	58.1	46.4	33.8	59.1	3.74	12.4	14.3
											1610	59.5	47.3	35.6	60.5	3.87	12.2	14.4
	12.0	5.0	11.5								1430	58.1	46.6	33.9	58.9	3.62	12.9	13.5
											1610	59.5	47.5	35.7	60.2	3.74	12.7	13.6
110	6.0	2.1	4.8								1430	59.0	43.1	32.4	58.5	4.51	9.6	18.4
											1610	60.4	43.9	34.1	59.9	4.67	9.4	18.6
	9.0	3.3	7.6								1430	58.9	43.5	32.6	57.8	4.21	10.3	16.6
											1610	60.3	44.3	34.3	59.2	4.36	10.2	16.7
	12.0	5.0	11.4								1430	58.9	43.7	32.6	57.6	4.07	10.7	15.7
											1610	60.2	44.5	34.4	58.9	4.21	10.6	15.9
120	6.0	2.1	4.7								1430	59.7	40.5	31.4	57.9	5.10	7.9	21.1
											1610	61.0	41.3	33.1	59.3	5.28	7.8	21.3
	9.0	3.3	7.6								1430	59.6	40.9	31.6	57.1	4.76	8.6	19.1
											1610	60.9	41.7	33.2	58.5	4.93	8.5	19.3
	12.0	4.9	11.4								1430	59.5	41.1	31.6	56.8	4.60	8.9	18.1
											1610	60.8	41.8	33.3	58.1	4.76	8.8	18.3

ENGINEERING SPECIFICATIONS:

Model VT048, 4 Ton, ECM Blower, part Load Performance Data

EWT	Flow	WPD		Part Load Heating							Part Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	8.0	3.6	8.2	1130	89.7	24.0	16.6	2.16	3.25	5.9								
				1250	87.9	24.2	16.9	2.12	3.33	5.6								
30	4.0	1.9	4.3	1130	89.5	23.8	16.5	2.16	3.24	5.8								
				1250	87.7	24.0	16.7	2.12	3.31	5.5								
	6.0	2.5	5.8	1130	90.5	25.1	17.7	2.16	3.40	6.0								
				1250	88.7	25.2	18.0	2.12	3.48	5.6								
	8.0	3.4	7.9	1130	91.1	25.7	18.3	2.17	3.47	6.1								
				1250	89.2	25.9	18.6	2.13	3.56	5.7								
40	4.0	1.8	4.1	1130	92.3	27.3	19.8	2.17	3.68	6.2								
				1250	90.3	27.4	20.1	2.13	3.77	5.8								
	6.0	2.4	5.6	1130	93.5	28.7	21.3	2.18	3.86	6.4								
				1250	91.4	28.9	21.6	2.14	3.95	6.0								
	8.0	3.3	7.6	1130	94.1	29.4	22.0	2.19	3.94	6.5	1190	59.8	39.5	25.9	43.3	1.09	36.3	2.2
				1250	91.9	29.6	22.3	2.15	4.04	6.1	1270	60.5	39.8	26.8	43.6	1.10	36.2	2.2
50	4.0	1.7	4.0	1130	95.5	31.1	23.6	2.19	4.15	6.7	1190	59.0	39.3	27.0	44.5	1.51	26.1	4.8
				1250	93.2	31.3	23.9	2.15	4.26	6.3	1270	59.7	39.6	27.9	44.8	1.52	26.0	4.8
	6.0	2.3	5.4	1130	96.8	32.7	25.2	2.20	4.36	6.9	1190	58.7	40.2	27.3	44.8	1.35	29.7	3.9
				1250	94.4	32.9	25.5	2.16	4.47	6.5	1270	59.5	40.5	28.2	45.1	1.37	29.6	3.9
	8.0	3.2	7.4	1130	97.5	33.6	26.0	2.21	4.46	7.1	1190	58.6	40.5	27.5	44.8	1.25	32.3	3.3
				1250	95.0	33.8	26.4	2.17	4.56	6.7	1270	59.3	40.8	28.3	45.1	1.27	32.2	3.3
60	4.0	1.7	3.9	1130	98.9	35.2	27.7	2.22	4.66	7.4	1190	58.6	38.9	27.5	44.9	1.74	22.3	6.3
				1250	96.2	35.4	28.0	2.18	4.77	7.0	1270	59.4	39.2	28.3	45.2	1.76	22.2	6.3
	6.0	2.3	5.3	1130	100.4	37.1	29.5	2.22	4.89	7.7	1190	58.4	39.8	27.7	45.1	1.56	25.4	5.3
				1250	97.6	37.3	29.8	2.18	5.01	7.2	1270	59.1	40.1	28.6	45.5	1.58	25.4	5.3
	8.0	3.1	7.2	1130	101.2	38.0	30.4	2.23	5.00	7.9	1190	58.3	40.1	27.9	45.0	1.45	27.7	4.6
				1250	98.3	38.2	30.8	2.19	5.12	7.4	1270	59.0	40.4	28.8	45.4	1.46	27.6	4.7
70	4.0	1.7	3.9	1130	102.5	39.6	32.0	2.24	5.18	8.3	1190	58.9	37.5	27.1	44.4	2.02	18.6	7.9
				1250	99.5	39.9	32.4	2.20	5.31	7.8	1270	59.6	37.8	27.9	44.8	2.04	18.5	8.0
	6.0	2.3	5.2	1130	104.2	41.7	34.0	2.25	5.44	8.6	1190	58.7	38.4	27.3	44.5	1.81	21.2	6.8
				1250	101.1	41.9	34.4	2.20	5.58	8.1	1270	59.4	38.6	28.2	44.9	1.83	21.1	6.8
	8.0	3.1	7.1	1130	105.1	42.8	35.1	2.25	5.56	8.9	1190	58.6	38.7	27.5	44.4	1.68	23.0	6.1
				1250	101.9	43.0	35.5	2.21	5.70	8.3	1270	59.3	38.9	28.4	44.7	1.70	22.9	6.1
80	4.0	1.7	3.8	1130	106.3	44.2	36.5	2.27	5.72	9.3	1190	59.7	35.4	26.1	43.4	2.34	15.1	9.6
				1250	103.0	44.5	36.9	2.23	5.86	8.8	1270	60.3	35.7	27.0	43.7	2.36	15.1	9.7
	6.0	2.2	5.1	1130	108.2	46.6	38.8	2.27	6.01	9.7	1190	59.5	36.2	26.4	43.4	2.10	17.3	8.4
				1250	104.7	46.8	39.2	2.23	6.15	9.1	1270	60.1	36.5	27.2	43.7	2.12	17.2	8.4
	8.0	3.0	7.0	1130	109.1	47.8	40.0	2.28	6.14	10.0	1190	59.3	36.5	26.5	43.1	1.94	18.8	7.5
				1250	105.6	48.0	40.4	2.24	6.29	9.4	1270	60.0	36.7	27.4	43.4	1.96	18.7	7.6
90	4.0	1.6	3.8	1130	110.2	49.0	41.2	2.30	6.26	10.5	1190	60.6	32.9	25.0	42.1	2.70	12.2	11.4
				1250	106.5	49.3	41.6	2.26	6.41	9.9	1270	61.2	33.1	25.7	42.4	2.73	12.1	11.4
	6.0	2.2	5.1	1130	112.3	51.6	43.7	2.30	6.57	10.9	1190	60.4	33.6	25.2	41.9	2.42	13.9	10.0
				1250	108.4	51.9	44.2	2.26	6.73	10.3	1270	61.0	33.8	26.0	42.2	2.45	13.8	10.1
	8.0	3.0	6.9	1130	113.4	52.9	45.0	2.31	6.71	11.3	1190	60.3	33.9	25.3	41.5	2.24	15.1	9.1
				1250	109.4	53.2	45.5	2.27	6.88	10.6	1270	60.9	34.1	26.1	41.8	2.27	15.0	9.2
100	4.0	1.6	3.7								1190	61.5	30.2	23.8	40.8	3.11	9.7	13.2
											1270	62.1	30.4	24.5	41.2	3.14	9.7	13.3
	6.0	2.2	5.0								1190	61.3	30.9	24.0	40.4	2.79	11.1	11.7
											1270	61.9	31.1	24.8	40.7	2.82	11.1	11.8
	8.0	3.0	6.9								1190	61.2	31.1	24.2	40.0	2.58	12.1	10.8
											1270	61.8	31.4	24.9	40.3	2.61	12.0	10.8
110	4.0	1.6	3.7								1190	62.2	27.8	22.9	39.9	3.56	7.8	15.1
											1270	62.8	28.0	23.6	40.2	3.60	7.8	15.2
	6.0	2.2	5.0								1190	62.0	28.4	23.1	39.3	3.19	8.9	13.6
											1270	62.6	28.6	23.9	39.6	3.23	8.9	13.7
	8.0	3.0	6.8								1190	61.9	28.6	23.3	38.7	2.96	9.7	12.5
											1270	62.5	28.8	24.0	39.0	2.99	9.6	12.6
120	4.0	1.6	3.7								1190	62.4	25.8	22.6	39.6	4.07	6.3	17.2
											1270	63.0	25.9	23.3	40.0	4.11	6.3	17.3
	6.0	2.2	5.0								1190	62.2	26.3	22.8	38.8	3.65	7.2	15.5
											1270	62.8	26.5	23.5	39.1	3.68	7.2	15.6
	8.0	3.0	6.8								1190	62.1	26.5	22.9	38.1	3.38	7.9	14.4
											1270	62.7	26.7	23.7	38.4	3.41	7.8	14.5

Operation Not Recommended

Operation Not Recommended

Model VS060, 5 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	15.0	10.1	23.2	1600	95.3	43.6	30.2	3.93	3.26	8.9	Operation Not Recommended							
				1850	92.1	44.2	31.0	3.88	3.34	8.2								
				2100	89.7	44.7	31.4	3.88	3.38	7.6								
	7.5	3.6	8.2	1600	95.4	43.9	30.5	3.92	3.29	8.8								
				1850	92.3	44.5	31.3	3.87	3.37	8.1								
				2100	89.8	44.9	31.8	3.87	3.41	7.6								
30	11.3	6.2	14.2	1600	96.6	46.0	32.4	3.97	3.39	9.1								
				1850	93.3	46.6	33.2	3.93	3.48	8.4								
				2100	90.7	47.0	33.7	3.92	3.51	7.9								
	15.0	9.4	21.6	1600	97.1	46.8	33.2	4.00	3.43	9.3								
				1850	93.7	47.4	33.9	3.95	3.52	8.6								
				2100	91.1	47.9	34.4	3.95	3.56	8.1								
	7.5	3.3	7.7	1600	98.9	49.9	36.0	4.06	3.60	9.7								
				1850	95.3	50.6	36.9	4.01	3.69	9.0								
				2100	92.5	51.1	37.4	4.01	3.73	8.4								
40	11.3	5.8	13.3	1600	100.2	52.2	38.2	4.12	3.71	10.2								
				1850	96.5	52.9	39.0	4.07	3.81	9.4								
				2100	93.6	53.5	39.6	4.07	3.85	8.7								
	15.0	8.8	20.3	1600	100.8	53.2	39.0	4.15	3.76	10.4	1600	58.7	60.1	36.8	69.2	2.65	22.7	4.0
				1850	97.0	53.9	39.9	4.10	3.85	9.6	1850	60.5	61.3	39.1	70.7	2.76	22.2	4.1
				2100	94.0	54.5	40.5	4.10	3.90	9.0	2100	61.9	62.4	40.9	72.2	2.88	21.6	4.1
	7.5	3.2	7.3	1600	102.4	55.9	41.5	4.21	3.89	10.8	1600	57.7	61.4	38.5	72.1	3.15	19.5	6.7
				1850	98.4	56.7	42.5	4.16	3.99	10.0	1850	59.6	62.5	40.8	73.8	3.29	19.0	6.8
				2100	95.2	57.2	43.1	4.16	4.03	9.3	2100	61.2	63.7	42.8	75.4	3.43	18.6	6.9
50	11.3	5.4	12.6	1600	103.9	58.5	44.0	4.27	4.01	11.3	1600	57.6	62.0	38.7	72.1	2.97	20.9	5.8
				1850	99.7	59.3	44.9	4.22	4.12	10.4	1850	59.5	63.2	41.0	73.7	3.09	20.4	5.9
				2100	96.4	59.9	45.5	4.22	4.16	9.7	2100	61.0	64.3	43.0	75.3	3.23	19.9	5.9
	15.0	8.3	19.1	1600	104.5	59.6	44.9	4.30	4.06	11.6	1600	57.6	62.0	38.8	71.8	2.89	21.5	5.4
				1850	100.2	60.4	45.9	4.25	4.16	10.7	1850	59.4	63.2	41.1	73.4	3.01	21.0	5.5
				2100	96.9	61.0	46.5	4.25	4.21	10.0	2100	61.0	64.3	43.1	75.0	3.14	20.5	5.5
	7.5	3.0	6.9	1600	105.9	62.0	47.1	4.36	4.16	12.0	1600	57.4	61.0	39.0	72.7	3.44	17.7	8.5
				1850	101.4	62.8	48.1	4.31	4.27	11.0	1850	59.3	62.1	41.3	74.4	3.59	17.3	8.6
				2100	98.0	63.4	48.7	4.31	4.31	10.3	2100	60.9	63.2	43.3	76.0	3.75	16.9	8.7
60	11.3	5.2	11.9	1600	107.5	64.9	49.8	4.43	4.29	12.5	1600	57.3	61.5	39.2	72.6	3.24	19.0	7.4
				1850	102.9	65.7	50.8	4.38	4.40	11.6	1850	59.2	62.7	41.6	74.3	3.37	18.6	7.5
				2100	99.3	66.4	51.5	4.37	4.45	10.8	2100	60.8	63.9	43.6	75.9	3.52	18.1	7.6
	15.0	7.9	18.1	1600	108.2	66.1	50.9	4.46	4.34	12.9	1600	57.3	61.6	39.3	72.3	3.15	19.5	7.0
				1850	103.5	67.0	51.9	4.41	4.45	11.9	1850	59.1	62.8	41.7	74.0	3.28	19.1	7.1
				2100	99.8	67.6	52.6	4.40	4.50	11.1	2100	60.7	63.9	43.7	75.6	3.43	18.6	7.2
	7.5	2.9	6.6	1600	109.4	68.1	52.6	4.52	4.41	13.2	1600	57.7	59.4	38.6	72.2	3.77	15.7	10.5
				1850	104.5	69.0	53.7	4.47	4.52	12.2	1850	59.5	60.5	40.9	73.9	3.93	15.4	10.6
				2100	100.7	69.7	54.4	4.46	4.58	11.4	2100	61.1	61.6	42.9	75.6	4.10	15.0	10.7
70	11.3	5.0	11.5	1600	111.2	71.3	55.6	4.59	4.55	13.8	1600	57.5	60.0	38.9	72.0	3.54	16.9	9.2
				1850	106.1	72.2	56.7	4.53	4.67	12.8	1850	59.4	61.1	41.2	73.7	3.69	16.5	9.4
				2100	102.2	72.9	57.5	4.53	4.72	12.0	2100	61.0	62.2	43.2	75.3	3.85	16.1	9.4
	15.0	7.5	17.4	1600	112.0	72.6	56.8	4.62	4.61	14.2	1600	57.5	60.0	38.9	71.7	3.45	17.4	8.7
				1850	106.8	73.5	58.0	4.56	4.72	13.1	1850	59.3	61.1	41.3	73.4	3.60	17.0	8.8
				2100	102.8	74.3	58.7	4.56	4.78	12.3	2100	60.9	62.2	43.3	75.0	3.75	16.6	8.9
	7.5	2.8	6.4	1600	112.9	74.2	58.2	4.68	4.65	14.5	1600	58.2	57.2	37.7	71.3	4.14	13.8	12.6
				1850	107.6	75.2	59.4	4.62	4.76	13.4	1850	60.0	58.3	40.0	73.0	4.32	13.5	12.7
				2100	103.5	75.9	60.2	4.62	4.82	12.6	2100	61.5	59.3	41.9	74.7	4.51	13.2	12.9
80	11.3	4.8	11.1	1600	114.9	77.7	61.5	4.75	4.79	15.2	1600	58.0	57.8	38.0	71.0	3.89	14.8	11.2
				1850	109.4	78.7	62.7	4.69	4.91	14.0	1850	59.9	58.9	40.2	72.7	4.06	14.5	11.3
				2100	105.1	79.5	63.5	4.69	4.97	13.2	2100	61.4	59.9	42.2	74.4	4.24	14.1	11.4
	15.0	7.3	16.9	1600	115.8	79.1	62.8	4.78	4.85	15.6	1600	58.0	57.8	38.0	70.7	3.79	15.2	10.6
				1850	110.1	80.2	64.0	4.72	4.97	14.4	1850	59.8	58.9	40.3	72.4	3.95	14.9	10.7
				2100	105.7	81.0	64.9	4.72	5.03	13.5	2100	61.4	59.9	42.3	74.0	4.12	14.5	10.8
	7.5	2.7	6.3	1600	116.5	80.3	63.8	4.84	4.86	15.9	1600	58.8	54.7	36.6	70.2	4.57	12.0	14.8
				1850	110.7	81.4	65.1	4.79	4.99	14.7	1850	60.6	55.7	38.8	72.0	4.76	11.7	15.0
				2100	106.3	82.3	65.9	4.78	5.04	13.8	2100	62.1	56.7	40.7	73.7	4.97	11.4	15.2
90	11.3	4.7	10.9	1600	118.7	84.1	67.3	4.91	5.02	16.6	1600	58.7	55.2	36.8	69.8	4.29	12.9	13.2
				1850	112.7	85.2	68.7	4.86	5.14	15.3	1850	60.5	56.3	39.0	71.5	4.48	12.6	13.4
				2100	108.0	86.1	69.5	4.85	5.20	14.4	2100	62.0	57.3	40.9	73.2	4.67	12.3	13.6
	15.0	7.2	16.5	1600	119.6	85.7	68.8	4.95	5.08	17.0	1600	58.7	55.2	36.9	69.5	4.18	13.2	12.6
				1850	113.4	86.8	70.1	4.89	5.21	15.7	1850	60.4	56.3	39.1	71.2	4.36	12.9	12.7
				2100	108.7	87.7	71.0	4.88	5.26	14.7	2100	61.9	57.3	41.0	72.8	4.55	12.6	12.9
	7.5	2.7	6.3	Operation Not Recommended							1600	59.6	51.8	35.3	69.0	5.05	10.3	17.2
											1850	61.3	52.8	37.4	70.8	5.27	10.0	17.4
											2100	62.7	53.7	39.2	72.5	5.50	9.8	17.6
100	11.3	4.6	10.5								1600	59.4	52.3	35.5	68.5	4.75	11.0	15.5
											1850	61.2	53.3	37.7	70.2	4.95	10.8	15.6
											2100	62.6	54.3	39.5	71.9	5.16	10.5	15.8
	15.0	6.9	15.8								1600	59.4	52.3	35.6	68.1	4.62	11.3	14.7
											1850	61.1	53.3	37.7	69.8	4.82	11.1	14.9
											2100	62.6	54.3	39.6	71.4	5.03	10.8	15.0
	7.5	2.7	6.2								1600	60.4	48.5	33.8	67.7	5.60	8.7	19.7
											1850	62.1	49.5	35.9	69.4	5.84	8.5	19.9
											2100	63.4	50.4	37.6	71.2	6.10	8.3	20.1
110	11.3	4.5	10.4	Operation Not Recommended							1600	60.3	49.0	34.0	67.0	5.27	9.3	17.8
											1850	61.9	50.0	36.1	68.7	5.49	9.1	18.0
											2100	63.3	50.8	37.8	70.4	5.73	8.9	18.2
	15.0	6.8	15.6								1600	60.3	49.0	34.1	66.5	5.13	9.6	17.0
											1850	61.9	50.0	36.2	68.2	5.34	9.4	17.2
											2100	63.3	50.9	37.9	69.9	5.58	9.1	17.4
	7.5	2.7	6.1								1600	61.5	44.8	31.9	66.1	6.23	7.2	22.3
											1850	63.1	45.7	33.8	67.9	6.49	7.0	22.6
											2100	64.4	46.5	35.5	69.7	6.78	6.9	22.8
120	11.3	4.5	10.3								1600	61.4	45.3	32.1	65.3	5.86	7.7	20.3
											1850	63.0	46.2	34.1	67.0	6.10	7.6	20.5
											2100	64.3	47.0	35.7	68.7	6.37	7.4	20.7
	15.0	6.7	15.5								1600	61.4	45.3	32.2	64.8	5.70	7.9	19.4
											1850	62.9	46.2	34.1	66.5	5.94	7.8	19.6
											2100	64.2	47.0	35.8	68.2	6.20	7.6	19.8

ENGINEERING SPECIFICATIONS:

Model VS060, 5 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	15.0	10.1	23.2	1700	93.2	42.6	30.6	3.51	3.56	8.6	Operation Not Recommended							
				1980	90.2	43.2	31.2	3.50	3.61	7.9								
30	7.5	3.6	8.2	1700	93.3	42.8	30.9	3.49	3.59	8.5								
				1980	90.3	43.5	31.6	3.49	3.65	7.8								
	11.3	6.2	14.2	1700	94.5	44.9	32.8	3.55	3.71	8.9								
				1980	91.3	45.5	33.4	3.55	3.76	8.1								
	15.0	9.4	21.6	1700	94.9	45.8	33.6	3.58	3.75	9.1								
				1980	91.7	46.4	34.2	3.58	3.80	8.3								
40	7.5	3.3	7.7	1700	96.6	48.9	36.4	3.64	3.93	9.5								
				1980	93.2	49.6	37.2	3.64	3.99	8.6								
	11.3	5.8	13.3	1700	97.9	51.2	38.6	3.70	4.06	9.9								
				1980	94.3	51.9	39.3	3.70	4.12	9.0								
	15.0	8.8	20.3	1700	98.4	52.2	39.5	3.73	4.10	10.1	1750	59.0	62.3	39.7	70.1	2.30	27.1	4.1
				1980	94.8	52.9	40.2	3.73	4.16	9.2	2000	60.7	63.3	41.6	71.6	2.42	26.1	4.1
50	7.5	3.2	7.3	1700	99.9	54.9	42.0	3.79	4.25	10.5	1750	58.1	63.5	41.3	73.1	2.81	22.6	6.7
				1980	96.0	55.7	42.8	3.78	4.31	9.6	2000	59.9	64.6	43.3	74.7	2.96	21.8	6.8
	11.3	5.4	12.6	1700	101.3	57.5	44.4	3.85	4.38	11.0	1750	58.0	64.1	41.6	73.1	2.62	24.5	5.8
				1980	97.3	58.4	45.2	3.84	4.45	10.0	2000	59.8	65.2	43.6	74.6	2.76	23.6	5.9
	15.0	8.3	19.1	1700	101.9	58.6	45.4	3.88	4.43	11.3	1750	57.9	64.2	41.7	72.8	2.54	25.3	5.5
				1980	97.8	59.5	46.3	3.88	4.50	10.3	2000	59.8	65.2	43.7	74.4	2.68	24.4	5.5
60	7.5	3.0	6.9	1700	103.2	61.0	47.5	3.94	4.54	11.7	1750	57.8	63.1	41.9	73.7	3.11	20.3	8.6
				1980	98.9	61.9	48.4	3.93	4.61	10.6	2000	59.7	64.1	43.9	75.3	3.28	19.6	8.7
	11.3	5.2	11.9	1700	104.8	63.9	50.3	4.00	4.68	12.2	1750	57.7	63.7	42.1	73.6	2.90	22.0	7.5
				1980	100.3	64.8	51.2	4.00	4.75	11.1	2000	59.5	64.8	44.2	75.2	3.06	21.2	7.6
	15.0	7.9	18.1	1700	105.5	65.1	51.4	4.03	4.73	12.5	1750	57.7	63.7	42.2	73.3	2.81	22.7	7.0
				1980	100.9	66.1	52.3	4.03	4.81	11.4	2000	59.5	64.8	44.3	74.9	2.96	21.9	7.1
70	7.5	2.9	6.6	1700	106.5	67.1	53.1	4.09	4.81	12.9	1750	58.0	61.5	41.5	73.3	3.45	17.9	10.5
				1980	101.8	68.0	54.1	4.08	4.88	11.8	2000	59.9	62.5	43.5	74.9	3.64	17.2	10.7
	11.3	5.0	11.5	1700	108.3	70.3	56.1	4.15	4.96	13.5	1750	57.9	62.1	41.8	73.1	3.21	19.3	9.3
				1980	103.3	71.3	57.1	4.15	5.04	12.3	2000	59.7	63.1	43.8	74.7	3.39	18.6	9.4
	15.0	7.5	17.4	1700	109.0	71.6	57.4	4.19	5.01	13.8	1750	57.9	62.1	41.8	72.8	3.11	20.0	8.8
				1980	104.0	72.7	58.4	4.18	5.09	12.6	2000	59.7	63.2	43.8	74.4	3.29	19.2	8.9
80	7.5	2.8	6.4	1700	109.9	73.2	58.7	4.24	5.06	14.1	1750	58.5	59.3	40.6	72.4	3.83	15.5	12.6
				1980	104.7	74.3	59.8	4.24	5.14	12.9	2000	60.3	60.3	42.5	74.1	4.04	14.9	12.8
	11.3	4.8	11.1	1700	111.8	76.7	62.0	4.31	5.22	14.8	1750	58.4	59.9	40.8	72.1	3.57	16.8	11.2
				1980	106.4	77.8	63.1	4.30	5.30	13.5	2000	60.2	60.9	42.8	73.7	3.77	16.1	11.4
	15.0	7.3	16.9	1700	112.6	78.2	63.4	4.34	5.28	15.2	1750	58.4	59.9	40.9	71.7	3.46	17.3	10.6
				1980	107.1	79.3	64.5	4.34	5.36	13.9	2000	60.2	60.9	42.9	73.4	3.66	16.7	10.8
90	7.5	2.7	6.3	1700	113.2	79.4	64.4	4.39	5.29	15.5	1750	59.2	56.7	39.4	71.3	4.27	13.3	14.9
				1980	107.7	80.5	65.5	4.39	5.37	14.2	2000	60.9	57.7	41.3	73.1	4.51	12.8	15.1
	11.3	4.7	10.9	1700	115.3	83.2	67.9	4.46	5.46	16.1	1750	59.0	57.3	39.6	70.9	3.98	14.4	13.3
				1980	109.5	84.4	69.2	4.46	5.54	14.8	2000	60.8	58.2	41.6	72.6	4.20	13.9	13.5
	15.0	7.2	16.5	1700	116.2	84.8	69.4	4.50	5.52	16.6	1750	59.0	57.3	39.7	70.5	3.86	14.9	12.6
				1980	110.2	86.0	70.6	4.50	5.60	15.2	2000	60.7	58.3	41.6	72.2	4.07	14.3	12.8
100	7.5	2.7	6.3	Operation Not Recommended							1750	59.9	53.9	38.1	70.1	4.77	11.3	17.3
											2000	61.5	54.7	39.9	71.9	5.04	10.9	17.5
	11.3	4.6	10.5								1750	59.7	54.4	38.3	69.5	4.45	12.2	15.5
											2000	61.4	55.3	40.1	71.3	4.69	11.8	15.8
	15.0	6.9	15.8								1750	59.7	54.4	38.4	69.1	4.31	12.6	14.8
											2000	61.4	55.3	40.2	70.8	4.55	12.1	15.0
110	7.5	2.7	6.2								1750	60.7	50.6	36.5	68.8	5.34	9.5	19.8
											2000	62.3	51.4	38.3	70.6	5.64	9.1	20.1
	11.3	4.5	10.4								1750	60.5	51.0	36.8	68.0	4.98	10.3	17.9
											2000	62.2	51.9	38.5	69.8	5.26	9.9	18.1
	15.0	6.8	15.6								1750	60.5	51.1	36.8	67.5	4.83	10.6	17.1
											2000	62.1	51.9	38.6	69.3	5.10	10.2	17.3
120	7.5	2.7	6.1								1750	61.7	46.8	34.6	67.3	5.99	7.8	22.4
											2000	63.2	47.6	36.2	69.2	6.32	7.5	22.7
	11.3	4.5	10.3								1750	61.6	47.3	34.8	66.3	5.58	8.5	20.4
											2000	63.1	48.1	36.5	68.2	5.89	8.2	20.7
	15.0	6.7	15.5								1750	61.6	47.3	34.8	65.8	5.41	8.7	19.5
											2000	63.1	48.1	36.5	67.6	5.71	8.4	19.8

Model VT060, 5 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Full Load Heating							Full Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	15.0	9.9	22.9	1700	93.9	43.8	31.4	3.64	3.53	9.1	Operation Not Recommended							
				1980	90.8	44.4	32.1	3.62	3.60	8.4								
30	7.5	3.4	7.8	1700	93.6	43.3	31.0	3.59	3.54	8.9								
				1980	90.5	43.9	31.7	3.57	3.60	8.2								
	11.3	6.1	14.0	1700	94.7	45.3	32.9	3.65	3.64	9.3								
				1980	91.5	46.0	33.6	3.63	3.71	8.5								
	15.0	9.3	21.4	1700	95.3	46.5	33.9	3.68	3.70	9.5								
				1980	92.0	47.1	34.6	3.67	3.77	8.7								
40	7.5	3.2	7.3	1700	96.6	48.8	36.1	3.70	3.86	9.7								
				1980	93.1	49.4	36.9	3.69	3.93	8.9								
	11.3	5.7	13.1	1700	97.8	51.1	38.2	3.77	3.98	10.1								
				1980	94.2	51.8	39.0	3.75	4.05	9.3								
	15.0	8.6	19.9	1700	98.5	52.4	39.4	3.80	4.04	10.3	1750	59.2	62.7	39.4	71.1	2.49	25.2	4.4
				1980	94.8	53.1	40.2	3.79	4.11	9.5	2000	60.7	64.3	41.7	73.2	2.63	24.4	4.4
50	7.5	3.0	6.8	1700	99.9	54.9	41.7	3.85	4.18	10.7	1750	58.1	63.9	41.4	74.1	2.99	21.4	7.1
				1980	96.0	55.6	42.5	3.84	4.25	9.8	2000	59.7	65.5	43.8	76.3	3.16	20.7	7.2
	11.3	5.3	12.3	1700	101.3	57.5	44.1	3.92	4.30	11.1	1750	58.0	64.6	41.6	74.2	2.81	23.0	6.2
				1980	97.2	58.3	45.0	3.90	4.38	10.2	2000	59.6	66.2	44.1	76.4	2.98	22.3	6.3
	15.0	8.1	18.7	1700	102.1	58.9	45.4	3.95	4.37	11.4	1750	57.9	65.2	41.7	74.5	2.74	23.8	5.9
				1980	97.9	59.7	46.3	3.94	4.45	10.5	2000	59.5	66.8	44.2	76.7	2.90	23.1	5.9
60	7.5	2.8	6.4	1700	103.4	61.4	47.7	4.03	4.47	11.9	1750	57.5	64.5	42.5	75.8	3.29	19.6	8.9
				1980	99.1	62.3	48.6	4.01	4.55	10.9	2000	59.1	66.2	45.1	78.0	3.48	19.0	9.1
	11.3	5.0	11.6	1700	105.0	64.3	50.4	4.09	4.61	12.4	1750	57.4	65.3	42.8	75.8	3.09	21.1	7.9
				1980	100.5	65.2	51.3	4.08	4.69	11.5	2000	59.0	66.9	45.4	78.1	3.27	20.5	8.0
	15.0	7.7	17.7	1700	105.9	65.9	51.8	4.13	4.67	12.7	1750	57.3	65.9	42.9	76.2	3.01	21.9	7.5
				1980	101.3	66.8	52.8	4.12	4.76	11.7	2000	58.9	67.6	45.5	78.4	3.18	21.2	7.6
70	7.5	2.7	6.1	1700	107.2	68.3	53.8	4.23	4.73	13.3	1750	57.4	63.8	42.7	76.1	3.61	17.6	10.9
				1980	102.4	69.2	54.8	4.21	4.82	12.3	2000	59.0	65.4	45.3	78.4	3.82	17.1	11.1
	11.3	4.8	11.0	1700	108.9	71.5	56.8	4.30	4.88	13.9	1750	57.3	64.5	43.0	76.1	3.40	19.0	9.7
				1980	103.9	72.5	57.9	4.28	4.97	12.9	2000	58.9	66.1	45.6	78.4	3.60	18.4	9.9
	15.0	7.3	16.8	1700	109.9	73.3	58.5	4.34	4.95	14.3	1750	57.2	65.1	43.1	76.4	3.31	19.7	9.2
				1980	104.7	74.3	59.5	4.32	5.04	13.2	2000	58.9	66.7	45.7	78.7	3.50	19.1	9.4
80	7.5	2.5	5.9	1700	111.0	75.3	60.1	4.45	4.96	14.9	1750	57.7	61.8	42.1	75.4	3.98	15.5	13.0
				1980	105.7	76.3	61.2	4.43	5.05	13.8	2000	59.3	63.4	44.6	77.8	4.21	15.1	13.2
	11.3	4.6	10.6	1700	112.9	78.8	63.4	4.52	5.11	15.6	1750	57.6	62.5	42.4	75.3	3.75	16.7	11.7
				1980	107.4	79.9	64.6	4.51	5.20	14.4	2000	59.2	64.1	44.9	77.7	3.96	16.2	11.9
	15.0	7.0	16.1	1700	114.0	80.8	65.2	4.57	5.18	16.0	1750	57.5	63.1	42.5	75.6	3.65	17.3	11.1
				1980	108.3	81.9	66.4	4.55	5.28	14.8	2000	59.1	64.7	45.0	77.9	3.86	16.8	11.2
90	7.5	2.5	5.7	1700	114.8	82.3	66.2	4.69	5.14	16.6	1750	58.3	59.1	41.0	74.1	4.40	13.4	15.3
				1980	109.0	83.4	67.4	4.67	5.23	15.4	2000	59.9	60.6	43.5	76.5	4.66	13.0	15.5
	11.3	4.4	10.2	1700	116.9	86.2	69.9	4.77	5.29	17.3	1750	58.2	59.7	41.3	73.9	4.15	14.4	13.8
				1980	110.8	87.4	71.1	4.75	5.39	16.1	2000	59.8	61.3	43.7	76.2	4.38	14.0	14.0
	15.0	6.7	15.5	1700	118.1	88.3	71.9	4.82	5.37	17.8	1750	58.1	60.3	41.4	74.1	4.04	14.9	13.1
				1980	111.9	89.5	73.2	4.80	5.47	16.5	2000	59.7	61.8	43.8	76.4	4.27	14.5	13.3
100	7.5	2.3	5.3	Operation Not Recommended							1750	59.1	55.8	39.5	72.5	4.89	11.4	17.7
											2000	60.6	57.2	41.9	74.9	5.17	11.1	17.9
	11.3	4.1	9.5								1750	58.9	56.4	39.8	72.1	4.60	12.3	16.0
											2000	60.5	57.9	42.2	74.5	4.87	11.9	16.2
	15.0	6.3	14.6								1750	58.9	56.9	39.9	72.2	4.48	12.7	15.3
											2000	60.4	58.4	42.3	74.6	4.74	12.3	15.5
110	7.5	2.2	5.1								1750	59.9	52.3	38.0	70.9	5.45	9.6	20.2
											2000	61.4	53.6	40.3	73.3	5.77	9.3	20.5
	11.3	4.0	9.3								1750	59.8	52.9	38.2	70.4	5.13	10.3	18.4
											2000	61.2	54.3	40.5	72.8	5.43	10.0	18.7
	15.0	6.2	14.2								1750	59.7	53.4	38.3	70.4	5.00	10.7	17.6
											2000	61.2	54.8	40.6	72.8	5.28	10.4	17.8
120	7.5	2.2	5.0								1750	60.7	49.0	36.5	69.8	6.10	8.0	22.9
											2000	62.1	50.2	38.7	72.2	6.45	7.8	23.2
	11.3	3.9	9.0								1750	60.6	49.5	36.8	69.1	5.74	8.6	21.0
											2000	62.0	50.8	39.0	71.5	6.07	8.4	21.2
	15.0	6.0	13.8								1750	60.5	50.0	36.9	69.0	5.59	8.9	20.1
											2000	61.9	51.2	39.1	71.4	5.91	8.7	20.3

ENGINEERING SPECIFICATIONS:

Model VT060, 5 Ton, ECM Blower, part Load Performance Data

EWT	Flow	WPD		Part Load Heating							Part Load Cooling							
°F	GPM	PSI	FT	Aiflow CFM	LAT (DB) °F	HC MBtuh	HE MBtuh	Power kW	COP W/W	DH MBtuh	Aiflow CFM	LAT (DB) °F	TC MBtuh	SC MBtuh	HR MBtuh	Power kW	EER Btuh/W	DH MBtuh
25	10.0	5.4	12.4	1500	89.1	31.0	21.8	2.68	3.39	7.0								
				1680	87.3	31.4	22.3	2.66	3.46	6.6								
30	5.0	2.0	4.6	1500	88.8	30.4	21.3	2.65	3.36	6.8								
				1680	87.0	30.8	21.8	2.63	3.43	6.4								
	7.5	3.3	7.7	1500	89.8	32.1	22.9	2.68	3.51	7.0								
				1680	87.9	32.5	23.4	2.66	3.58	6.6								
	10.0	5.0	11.5	1500	90.4	33.0	23.8	2.69	3.60	7.2								
				1680	88.4	33.5	24.3	2.67	3.67	6.8								
40	5.0	1.9	4.3	1500	91.4	34.6	25.4	2.69	3.77	7.2								
				1680	89.3	35.1	26.0	2.67	3.85	6.8								
	7.5	3.1	7.2	1500	92.5	36.5	27.2	2.71	3.94	7.5								
				1680	90.4	37.0	27.8	2.70	4.02	7.1								
	10.0	4.7	10.8	1500	93.2	37.6	28.3	2.73	4.04	7.7	1430	59.9	47.1	31.0	51.9	1.42	33.1	2.5
				1680	91.0	38.1	28.8	2.71	4.12	7.3	1580	61.0	47.9	32.4	52.9	1.46	32.9	2.5
50	5.0	1.8	4.1	1500	94.2	39.3	29.9	2.73	4.21	7.9	1430	59.1	47.1	32.3	53.6	1.89	24.9	5.1
				1680	91.9	39.8	30.5	2.72	4.29	7.4	1580	60.2	48.0	33.8	54.6	1.94	24.7	5.1
	7.5	2.9	6.8	1500	95.6	41.4	32.0	2.76	4.40	8.2	1430	58.9	48.0	32.6	53.9	1.72	27.9	4.2
				1680	93.1	42.0	32.6	2.74	4.48	7.7	1580	60.0	48.9	34.1	54.9	1.77	27.7	4.2
	10.0	4.4	10.2	1500	96.3	42.7	33.2	2.78	4.51	8.4	1430	58.8	48.3	32.7	53.9	1.62	29.9	3.7
				1680	93.8	43.2	33.8	2.76	4.59	7.9	1580	59.9	49.2	34.2	54.9	1.66	29.7	3.7
60	5.0	1.7	3.8	1500	97.3	44.2	34.7	2.79	4.65	8.7	1430	58.6	47.0	33.0	54.4	2.17	21.7	6.7
				1680	94.7	44.8	35.4	2.77	4.75	8.2	1580	59.7	47.9	34.6	55.5	2.22	21.6	6.8
	7.5	2.8	6.4	1500	98.8	46.6	37.1	2.81	4.86	9.1	1430	58.4	48.0	33.3	54.7	1.97	24.3	5.7
				1680	96.1	47.3	37.7	2.80	4.96	8.6	1580	59.5	48.9	34.9	55.8	2.02	24.2	5.7
	10.0	4.2	9.6	1500	99.7	48.0	38.4	2.83	4.98	9.3	1430	58.3	48.3	33.5	54.6	1.85	26.1	5.1
				1680	96.8	48.7	39.1	2.81	5.08	8.8	1580	59.5	49.2	35.0	55.6	1.90	25.9	5.1
70	5.0	1.6	3.7	1500	100.4	49.3	39.6	2.84	5.09	9.6	1430	58.6	46.0	33.1	54.4	2.48	18.5	8.5
				1680	97.5	49.9	40.3	2.82	5.19	9.1	1580	59.7	46.8	34.7	55.5	2.54	18.4	8.6
	7.5	2.6	6.1	1500	102.1	52.0	42.2	2.87	5.32	10.0	1430	58.4	46.9	33.4	54.6	2.26	20.8	7.4
				1680	99.0	52.7	43.0	2.85	5.42	9.5	1580	59.5	47.7	35.0	55.6	2.32	20.6	7.4
	10.0	4.0	9.2	1500	103.0	53.5	43.7	2.88	5.45	10.3	1430	58.3	47.2	33.5	54.4	2.12	22.3	6.6
				1680	99.9	54.3	44.5	2.86	5.55	9.8	1580	59.4	48.0	35.1	55.5	2.17	22.1	6.7
80	5.0	1.5	3.5	1500	103.5	54.3	44.4	2.89	5.51	10.6	1430	58.9	44.1	32.6	53.8	2.84	15.5	10.4
				1680	100.3	55.0	45.2	2.87	5.62	10.1	1580	60.0	44.9	34.1	54.8	2.92	15.4	10.5
	7.5	2.5	5.8	1500	105.3	57.2	47.3	2.91	5.76	11.1	1430	58.7	44.9	32.9	53.8	2.59	17.4	9.2
				1680	102.0	58.0	48.1	2.90	5.87	10.6	1580	59.8	45.8	34.4	54.8	2.65	17.3	9.2
	10.0	3.8	8.8	1500	106.4	58.9	49.0	2.93	5.90	11.5	1430	58.6	45.2	33.0	53.5	2.43	18.6	8.4
				1680	102.9	59.8	49.8	2.91	6.02	10.9	1580	59.7	46.1	34.6	54.6	2.49	18.5	8.4
90	5.0	1.5	3.4	1500	106.4	59.0	49.0	2.93	5.91	11.7	1430	59.5	41.6	31.7	52.7	3.25	12.8	12.4
				1680	103.0	59.8	49.9	2.91	6.03	11.1	1580	60.6	42.4	33.2	53.8	3.33	12.7	12.6
	7.5	2.4	5.6	1500	108.4	62.2	52.2	2.95	6.18	12.3	1430	59.3	42.5	32.0	52.6	2.96	14.3	11.0
				1680	104.8	63.1	53.1	2.94	6.30	11.6	1580	60.4	43.2	33.5	53.6	3.03	14.3	11.1
	10.0	3.6	8.4	1500	109.6	64.1	54.0	2.97	6.33	12.7	1430	59.2	42.7	32.1	52.2	2.78	15.4	10.2
				1680	105.8	65.0	54.9	2.95	6.45	12.0	1580	60.3	43.5	33.6	53.2	2.85	15.3	10.2
100	5.0	1.4	3.1								1430	60.2	38.9	30.5	51.6	3.71	10.5	14.5
											1580	61.3	39.6	32.0	52.6	3.80	10.4	14.6
	7.5	2.3	5.2								1430	60.0	39.7	30.8	51.2	3.38	11.8	13.0
											1580	61.1	40.4	32.3	52.2	3.46	11.7	13.1
	10.0	3.4	7.9								1430	60.0	39.9	30.9	50.7	3.17	12.6	12.0
											1580	61.0	40.7	32.4	51.7	3.25	12.5	12.1
110	5.0	1.3	3.0								1430	61.0	36.1	29.3	50.5	4.22	8.6	16.6
											1580	62.0	36.8	30.7	51.5	4.32	8.5	16.7
	7.5	2.2	5.1								1430	60.9	36.8	29.6	49.9	3.84	9.6	15.0
											1580	61.9	37.5	31.0	50.9	3.93	9.5	15.1
	10.0	3.3	7.6								1430	60.8	37.0	29.7	49.3	3.60	10.3	14.0
											1580	61.8	37.7	31.1	50.3	3.69	10.2	14.1
120	5.0	1.3	2.9								1430	61.8	33.5	28.1	49.7	4.77	7.0	18.8
											1580	62.7	34.1	29.5	50.8	4.89	7.0	18.9
	7.5	2.1	4.9								1430	61.6	34.1	28.4	48.9	4.34	7.9	17.1
											1580	62.6	34.8	29.7	49.9	4.45	7.8	17.2
	10.0	3.2	7.4								1430	61.5	34.3	28.5	48.3	4.08	8.4	16.0
											1580	62.5	35.0	29.9	49.2	4.18	8.4	16.1

Operation Not Recommended

Operation Not Recommended

Model VS072, 6 Ton, PSC Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	18.0	12.3	28.4	1900	93.4	47.9	32.0	4.67	3.01	10.0	Operation Not Recommended							
				2100	91.3	48.4	32.6	4.62	3.07	9.5								
				2250	90.0	48.7	33.0	4.61	3.09	9.1								
30	9.0	4.2	9.7	1900	93.6	48.4	32.5	4.65	3.05	9.9								
				2100	91.5	48.8	33.1	4.60	3.11	9.4								
				2250	90.2	49.1	33.5	4.59	3.14	9.0								
	13.5	7.5	17.3	1900	94.7	50.6	34.5	4.73	3.14	10.3								
				2100	92.5	51.1	35.1	4.68	3.20	9.7								
				2250	91.2	51.4	35.5	4.67	3.23	9.4								
	18.0	11.6	26.7	1900	95.3	51.9	35.6	4.77	3.19	10.5								
				2100	93.1	52.3	36.2	4.72	3.25	9.9								
				2250	91.7	52.7	36.6	4.71	3.28	9.5								
40	9.0	4.0	9.1	1900	97.2	55.7	39.2	4.85	3.37	10.9								
				2100	94.8	56.2	39.9	4.79	3.44	10.3								
				2250	93.3	56.6	40.3	4.79	3.47	9.9								
	13.5	7.0	16.2	1900	98.4	58.3	41.5	4.93	3.47	11.3								
				2100	95.9	58.8	42.2	4.88	3.54	10.7								
				2250	94.4	59.2	42.6	4.87	3.57	10.3								
	18.0	10.8	25.0	1900	99.1	59.8	42.8	4.98	3.52	11.5	1900	58.2	72.5	44.6	84.3	3.46	21.0	4.5
				2100	96.6	60.3	43.5	4.92	3.59	10.9	2100	59.4	74.1	46.6	86.2	3.54	20.9	4.5
				2250	95.0	60.7	43.9	4.92	3.62	10.5	2250	60.2	75.1	48.1	87.4	3.62	20.8	4.6
50	9.0	3.7	8.6	1900	100.8	63.1	45.9	5.06	3.66	12.0	1900	57.3	73.7	46.6	87.8	4.12	17.9	8.0
				2100	98.1	63.7	46.6	5.00	3.73	11.3	2100	58.5	75.3	48.7	89.7	4.21	17.9	8.1
				2250	96.4	64.1	47.1	5.00	3.76	10.9	2250	59.4	76.3	50.1	91.0	4.30	17.7	8.1
	13.5	6.6	15.3	1900	102.2	66.1	48.5	5.15	3.76	12.5	1900	57.1	74.6	46.9	87.8	3.88	19.2	6.9
				2100	99.4	66.6	49.3	5.09	3.84	11.8	2100	58.4	76.2	49.0	89.7	3.97	19.2	7.0
				2250	97.6	67.1	49.8	5.08	3.87	11.3	2250	59.2	77.2	50.5	91.0	4.05	19.0	7.0
	18.0	10.3	23.7	1900	103.0	67.7	50.0	5.20	3.82	12.7	1900	57.1	74.8	47.0	87.7	3.78	19.8	6.4
				2100	100.1	68.3	50.8	5.14	3.90	12.0	2100	58.4	76.4	49.1	89.6	3.87	19.8	6.5
				2250	98.3	68.8	51.3	5.13	3.93	11.6	2250	59.2	77.4	50.6	90.9	3.95	19.6	6.5
60	9.0	3.6	8.2	1900	104.4	70.5	52.5	5.28	3.91	13.2	1900	57.1	73.3	47.1	88.5	4.48	16.4	10.2
				2100	101.4	71.2	53.3	5.22	3.99	12.5	2100	58.3	74.9	49.2	90.5	4.58	16.3	10.2
				2250	99.5	71.7	53.8	5.22	4.02	12.0	2250	59.1	75.8	50.7	91.8	4.68	16.2	10.3
	13.5	6.3	14.6	1900	106.0	73.8	55.5	5.38	4.03	13.7	1900	56.9	74.1	47.4	88.5	4.21	17.6	8.9
				2100	102.8	74.5	56.3	5.31	4.11	13.0	2100	58.2	75.7	49.5	90.4	4.31	17.6	9.0
				2250	100.9	75.0	56.9	5.31	4.14	12.5	2250	59.0	76.7	51.1	91.7	4.41	17.4	9.0
	18.0	9.8	22.6	1900	106.9	75.7	57.2	5.42	4.09	14.0	1900	56.9	74.4	47.5	88.4	4.11	18.1	8.4
				2100	103.6	76.3	58.0	5.36	4.17	13.3	2100	58.1	76.0	49.6	90.3	4.20	18.1	8.4
				2250	101.6	76.8	58.6	5.36	4.20	12.8	2250	59.0	77.0	51.1	91.6	4.29	17.9	8.5
70	9.0	3.4	8.0	1900	108.0	78.0	59.2	5.52	4.14	14.5	1900	57.4	71.2	46.4	87.8	4.87	14.6	12.4
				2100	104.7	78.7	60.0	5.46	4.23	13.7	2100	58.6	72.7	48.5	89.7	4.98	14.6	12.5
				2250	102.6	79.2	60.6	5.45	4.26	13.3	2250	59.4	73.7	50.0	91.0	5.09	14.5	12.5
	13.5	6.1	14.1	1900	109.8	81.6	62.5	5.61	4.26	15.2	1900	57.2	72.0	46.8	87.6	4.58	15.7	11.0
				2100	106.3	82.3	63.4	5.55	4.35	14.3	2100	58.5	73.6	48.8	89.6	4.69	15.7	11.1
				2250	104.1	82.9	64.0	5.54	4.38	13.9	2250	59.3	74.5	50.3	90.9	4.79	15.5	11.1
	18.0	9.4	21.8	1900	110.8	83.7	64.3	5.67	4.33	15.5	1900	57.2	72.3	46.8	87.5	4.47	16.2	10.4
				2100	107.2	84.4	65.3	5.60	4.41	14.7	2100	58.4	73.8	48.9	89.4	4.57	16.1	10.4
				2250	105.0	85.0	65.9	5.59	4.45	14.2	2250	59.3	74.8	50.4	90.7	4.67	16.0	10.5
80	9.0	3.4	7.7	1900	111.7	85.5	65.8	5.76	4.35	16.0	1900	58.0	68.1	45.1	86.3	5.32	12.8	14.7
				2100	108.0	86.2	66.8	5.70	4.43	15.2	2100	59.2	69.6	47.2	88.2	5.45	12.8	14.8
				2250	105.7	86.8	67.4	5.69	4.47	14.6	2250	60.0	70.5	48.6	89.5	5.56	12.7	14.9
	13.5	5.9	13.7	1900	113.6	89.5	69.4	5.86	4.47	16.7	1900	57.8	68.9	45.5	86.0	5.01	13.8	13.2
				2100	109.8	90.2	70.4	5.80	4.56	15.8	2100	59.0	70.4	47.5	87.9	5.13	13.7	13.3
				2250	107.4	90.8	71.1	5.79	4.60	15.3	2250	59.8	71.3	49.0	89.2	5.24	13.6	13.3
	18.0	9.2	21.2	1900	114.7	91.7	71.5	5.92	4.54	17.0	1900	57.8	69.2	45.5	85.8	4.88	14.2	12.5
				2100	110.8	92.5	72.5	5.85	4.63	16.2	2100	59.0	70.7	47.6	87.7	4.99	14.1	12.6
				2250	108.3	93.1	73.2	5.84	4.67	15.6	2250	59.8	71.6	49.0	89.0	5.10	14.0	12.6
90	9.0	3.3	7.6	1900	115.3	93.0	72.4	6.02	4.53	17.5	1900	58.7	64.6	43.7	84.5	5.85	11.0	17.2
				2100	111.3	93.8	73.5	5.95	4.62	16.6	2100	59.9	66.0	45.7	86.4	5.98	11.0	17.3
				2250	108.9	94.4	74.1	5.95	4.66	16.1	2250	60.6	66.8	47.1	87.7	6.11	10.9	17.4
	13.5	5.8	13.4	1900	117.4	97.3	76.4	6.12	4.66	18.3	1900	58.5	65.3	44.1	84.1	5.50	11.9	15.5
				2100	113.3	98.1	77.5	6.06	4.75	17.4	2100	59.7	66.7	46.0	86.0	5.63	11.8	15.6
				2250	110.7	98.8	78.2	6.05	4.79	16.8	2250	60.5	67.6	47.4	87.2	5.75	11.8	15.7
	18.0	9.0	20.8	1900	118.6	99.7	78.6	6.18	4.73	18.7	1900	58.5	65.6	44.1	83.9	5.36	12.2	14.7
				2100	114.3	100.6	79.7	6.11	4.82	17.8	2100	59.7	67.0	46.1	85.7	5.49	12.2	14.8
				2250	111.7	101.3	80.5	6.10	4.86	17.2	2250	60.5	67.9	47.5	87.0	5.61	12.1	14.9
100	9.0	3.3	7.7	Operation Not Recommended							1900	59.4	60.8	42.3	82.9	6.47	9.4	19.9
											2100	60.5	62.1	44.2	84.7	6.63	9.4	20.0
											2250	61.3	62.9	45.5	86.0	6.77	9.3	20.1
	13.5	5.7	13.3								1900	59.2	61.5	42.6	82.3	6.09	10.1	18.0
											2100	60.4	62.8	44.5	84.1	6.24	10.1	18.1
											2250	61.1	63.6	45.9	85.4	6.37	10.0	18.2
	18.0	8.8	20.2								1900	59.2	61.7	42.7	82.0	5.94	10.4	17.2
											2100	60.3	63.0	44.6	83.8	6.08	10.4	17.3
											2250	61.1	63.9	45.9	85.0	6.21	10.3	17.3
110	9.0	3.3	7.6								1900	60.1	56.7	40.7	81.3	7.22	7.9	22.9
											2100	61.2	57.9	42.6	83.1	7.39	7.8	23.0
											2250	61.9	58.7	43.9	84.4	7.55	7.8	23.1
	13.5	5.6	13.0								1900	60.0	57.3	41.1	80.5	6.80	8.4	20.8
											2100	61.1	58.6	42.9	82.3	6.96	8.4	20.9
											2250	61.8	59.4	44.2	83.6	7.11	8.4	21.0
	18.0	8.6	19.8								1900	60.0	57.6	41.1	80.1	6.62	8.7	19.8
											2100	61.1	58.8	42.9	81.9	6.78	8.7	20.0
											2250	61.8	59.6	44.3	83.2	6.92	8.6	20.0
120	9.0	3.2	7.3								1900	61.2	52.1	38.6	79.7	8.11	6.4	26.1
											2100	62.2	53.2	40.3	81.5	8.30	6.4	26.3
											2250	62.9	53.9	41.5	82.8	8.48	6.4	26.4
	13.5	5.5	12.6								1900	61.1	52.7	38.9	78.7	7.63	6.9	23.8
											2100	62.1	53.8	40.6	80.5	7.81	6.9	24.0
											2250	62.8	54.5	41.8	81.7	7.98	6.8	24.0
	18.0	8.3	19.2								1900	61.0	52.8	38.9	78.2	7.44	7.1	22.8
											2100	62.1	54.0	40.6	80.0	7.61	7.1	22.9
											2250	62.8	54.7	41.9	81.2	7.77	7.0	23.0

ENGINEERING SPECIFICATIONS:

Model VS072, 6 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Heating							Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	18.0	12.3	28.4	1980	92.0	47.1	32.3	4.33	3.18	9.7	Operation Not Recommended							
				2180	90.2	47.6	32.8	4.34	3.22	9.3								
30	9.0	4.2	9.7	1980	92.2	47.5	32.8	4.31	3.23	9.6								
				2180	90.4	48.0	33.3	4.31	3.27	9.2								
	13.5	7.5	17.3	1980	93.3	49.7	34.8	4.38	3.32	10.0								
				2180	91.4	50.3	35.3	4.39	3.36	9.5								
	18.0	11.6	26.7	1980	93.8	51.0	35.9	4.43	3.38	10.2								
				2180	91.9	51.6	36.4	4.43	3.41	9.7								
40	9.0	4.0	9.1	1980	95.6	54.8	39.5	4.50	3.57	10.6								
				2180	93.6	55.5	40.1	4.51	3.61	10.1								
	13.5	7.0	16.2	1980	96.9	57.4	41.8	4.58	3.67	11.0								
				2180	94.7	58.1	42.4	4.59	3.71	10.5								
	18.0	10.8	25.0	1980	97.5	58.9	43.1	4.63	3.73	11.2	2000	58.3	74.6	46.9	85.3	3.13	23.8	4.6
				2180	95.3	59.6	43.7	4.63	3.77	10.7	2200	59.5	75.9	48.7	87.0	3.26	23.3	4.6
50	9.0	3.7	8.6	1980	99.1	62.2	46.2	4.71	3.88	11.6	2000	57.4	75.8	48.9	88.7	3.79	20.0	8.1
				2180	96.7	62.9	46.9	4.71	3.91	11.1	2200	58.6	77.1	50.8	90.5	3.94	19.6	8.1
	13.5	6.6	15.3	1980	100.5	65.2	48.8	4.79	3.99	12.1	2000	57.2	76.7	49.3	88.8	3.55	21.6	7.0
				2180	98.0	65.9	49.5	4.80	4.03	11.5	2200	58.5	77.9	51.1	90.5	3.69	21.1	7.0
	18.0	10.3	23.7	1980	101.2	66.8	50.3	4.84	4.05	12.4	2000	57.2	76.9	49.3	88.7	3.45	22.3	6.5
				2180	98.7	67.6	51.0	4.84	4.09	11.8	2200	58.5	78.2	51.2	90.5	3.59	21.8	6.5
60	9.0	3.6	8.2	1980	102.6	69.6	52.8	4.92	4.15	12.8	2000	57.1	75.4	49.4	89.5	4.15	18.2	10.2
				2180	99.9	70.4	53.6	4.93	4.19	12.2	2200	58.4	76.6	51.3	91.4	4.32	17.7	10.3
	13.5	6.3	14.6	1980	104.1	72.9	55.8	5.01	4.26	13.3	2000	57.0	76.2	49.8	89.5	3.89	19.6	9.0
				2180	101.3	73.8	56.6	5.02	4.31	12.7	2200	58.3	77.5	51.7	91.3	4.05	19.1	9.0
	18.0	9.8	22.6	1980	105.0	74.8	57.5	5.06	4.33	13.7	2000	56.9	76.5	49.8	89.4	3.78	20.2	8.4
				2180	102.1	75.6	58.3	5.07	4.37	13.0	2200	58.2	77.8	51.7	91.2	3.94	19.8	8.5
70	9.0	3.4	8.0	1980	106.1	77.1	59.5	5.15	4.38	14.1	2000	57.4	73.2	48.7	88.8	4.55	16.1	12.5
				2180	103.1	78.0	60.4	5.16	4.43	13.5	2200	58.7	74.5	50.6	90.6	4.74	15.7	12.5
	13.5	6.1	14.1	1980	107.8	80.7	62.8	5.25	4.51	14.7	2000	57.3	74.1	49.1	88.6	4.26	17.4	11.1
				2180	104.7	81.6	63.7	5.25	4.56	14.1	2200	58.6	75.3	50.9	90.4	4.44	17.0	11.1
	18.0	9.4	21.8	1980	108.7	82.8	64.7	5.30	4.58	15.1	2000	57.3	74.3	49.1	88.5	4.15	17.9	10.4
				2180	105.6	83.7	65.6	5.30	4.63	14.4	2200	58.5	75.6	51.0	90.3	4.32	17.5	10.5
80	9.0	3.4	7.7	1980	109.5	84.6	66.2	5.39	4.59	15.5	2000	58.0	70.1	47.4	87.2	5.01	14.0	14.8
				2180	106.3	85.5	67.1	5.40	4.64	14.9	2200	59.3	71.3	49.2	89.1	5.21	13.7	14.9
	13.5	5.9	13.7	1980	111.4	88.6	69.8	5.49	4.73	16.2	2000	57.9	70.9	47.8	87.0	4.69	15.1	13.3
				2180	108.0	89.6	70.8	5.50	4.77	15.5	2200	59.1	72.1	49.6	88.8	4.88	14.8	13.3
	18.0	9.2	21.2	1980	112.5	90.8	71.9	5.55	4.80	16.6	2000	57.9	71.2	47.8	86.8	4.57	15.6	12.6
				2180	109.0	91.8	72.9	5.55	4.85	15.9	2200	59.1	72.4	49.6	88.6	4.75	15.2	12.6
90	9.0	3.3	7.6	1980	113.1	92.1	72.8	5.65	4.78	17.1	2000	58.7	66.6	46.0	85.5	5.54	12.0	17.3
				2180	109.6	93.1	73.8	5.65	4.83	16.3	2200	59.9	67.7	47.7	87.3	5.77	11.7	17.4
	13.5	5.8	13.4	1980	115.1	96.4	76.8	5.75	4.92	17.8	2000	58.6	67.3	46.3	85.0	5.19	13.0	15.6
				2180	111.4	97.5	77.9	5.76	4.97	17.0	2200	59.8	68.4	48.0	86.9	5.41	12.7	15.6
	18.0	9.0	20.8	1980	116.2	98.9	79.1	5.81	4.99	18.2	2000	58.5	67.5	46.3	84.8	5.05	13.4	14.8
				2180	112.5	100.0	80.1	5.81	5.04	17.4	2200	59.8	68.7	48.1	86.6	5.26	13.1	14.9
100	9.0	3.3	7.7	Operation Not Recommended							2000	59.4	62.7	44.5	83.8	6.18	10.1	20.0
											2200	60.6	63.7	46.2	85.7	6.43	9.9	20.1
	13.5	5.7	13.3								2000	59.2	63.4	44.8	83.2	5.79	11.0	18.1
											2200	60.4	64.5	46.5	85.0	6.03	10.7	18.2
	18.0	8.8	20.2								2000	59.2	63.6	44.9	82.8	5.63	11.3	17.3
											2200	60.4	64.7	46.6	84.7	5.86	11.0	17.3
110	9.0	3.3	7.6								2000	60.1	58.6	42.9	82.2	6.93	8.4	23.0
											2200	61.3	59.5	44.5	84.2	7.22	8.2	23.1
	13.5	5.6	13.0								2000	60.0	59.2	43.2	81.4	6.50	9.1	20.9
											2200	61.1	60.2	44.8	83.3	6.76	8.9	21.0
	18.0	8.6	19.8								2000	60.0	59.4	43.3	81.0	6.32	9.4	19.9
											2200	61.1	60.4	44.9	82.9	6.58	9.2	20.0
120	9.0	3.2	7.3								2000	61.2	53.9	40.7	80.6	7.83	6.9	26.3
											2200	62.2	54.8	42.2	82.6	8.15	6.7	26.3
	13.5	5.5	12.6								2000	61.0	54.5	41.0	79.5	7.34	7.4	23.9
											2200	62.1	55.4	42.5	81.4	7.64	7.3	24.0
	18.0	8.3	19.2								2000	61.0	54.7	41.0	79.0	7.14	7.7	22.9
											2200	62.1	55.6	42.6	80.9	7.43	7.5	23.0

Model VT072, 6 Ton, ECM Blower, Full Load Performance Data

EWT	Flow	WPD		Full Load Heating							Full Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	18.0	12.2	28.2	1980	93.0	49.1	34.2	4.38	3.29	10.1	Operation Not Recommended							
				2180	91.1	49.6	34.5	4.41	3.29	9.6								
30	9.0	4.2	9.7	1980	92.9	49.0	34.1	4.34	3.30	9.9								
				2180	91.0	49.4	34.5	4.37	3.31	9.5								
	13.5	7.4	17.0	1980	93.9	51.1	36.1	4.41	3.40	10.3								
				2180	91.9	51.5	36.4	4.44	3.40	9.8								
	18.0	11.3	26.1	1980	94.5	52.3	37.1	4.46	3.44	10.5								
				2180	92.4	52.8	37.5	4.49	3.45	10.0								
40	9.0	3.9	9.1	1980	96.0	55.7	40.3	4.52	3.62	10.8								
				2180	93.9	56.2	40.7	4.55	3.62	10.3								
	13.5	6.9	16.0	1980	97.2	58.1	42.5	4.59	3.72	11.2								
				2180	94.9	58.6	42.9	4.62	3.72	10.7								
	18.0	10.6	24.6	1980	97.9	59.6	43.7	4.63	3.77	11.5	2000	59.9	69.7	43.5	80.4	3.15	22.1	4.9
				2180	95.5	60.1	44.2	4.67	3.77	10.9	2200	61.1	70.5	45.0	81.7	3.28	21.5	5.0
50	9.0	3.7	8.6	1980	99.5	63.1	47.0	4.72	3.92	12.0	2000	58.7	71.3	45.9	84.2	3.78	18.9	8.4
				2180	97.0	63.6	47.4	4.75	3.93	11.4	2200	60.0	72.1	47.5	85.6	3.94	18.3	8.4
	13.5	6.6	15.1	1980	100.8	65.8	49.5	4.79	4.03	12.4	2000	58.6	72.2	46.2	84.3	3.56	20.3	7.3
				2180	98.2	66.4	50.0	4.82	4.03	11.8	2200	59.9	72.9	47.8	85.6	3.71	19.7	7.4
	18.0	10.1	23.2	1980	101.5	67.4	50.9	4.84	4.08	12.7	2000	58.6	72.5	46.3	84.3	3.46	20.9	6.8
				2180	98.9	68.0	51.4	4.87	4.09	12.1	2200	59.9	73.3	47.9	85.6	3.61	20.3	6.9
60	9.0	3.6	8.2	1980	103.1	70.7	53.8	4.94	4.20	13.2	2000	58.1	72.1	47.4	86.2	4.14	17.4	10.5
				2180	100.3	71.3	54.3	4.97	4.21	12.6	2200	59.4	72.9	49.0	87.6	4.32	16.9	10.5
	13.5	6.2	14.4	1980	104.5	73.8	56.7	5.01	4.31	13.7	2000	57.9	72.9	47.7	86.2	3.90	18.7	9.3
				2180	101.6	74.4	57.2	5.05	4.32	13.1	2200	59.3	73.7	49.3	87.6	4.06	18.2	9.4
	18.0	9.6	22.1	1980	105.3	75.6	58.3	5.06	4.37	14.0	2000	57.9	73.3	47.7	86.2	3.79	19.3	8.7
				2180	102.4	76.2	58.8	5.10	4.38	13.4	2200	59.2	74.1	49.4	87.6	3.95	18.8	8.8
70	9.0	3.4	7.9	1980	106.5	78.1	60.5	5.16	4.44	14.5	2000	57.9	71.2	47.7	86.7	4.53	15.7	12.6
				2180	103.5	78.8	61.1	5.19	4.45	13.9	2200	59.2	72.0	49.3	88.1	4.72	15.2	12.7
	13.5	6.0	13.8	1980	108.1	81.5	63.7	5.24	4.56	15.1	2000	57.8	72.0	48.0	86.6	4.27	16.9	11.3
				2180	104.9	82.2	64.2	5.27	4.57	14.4	2200	59.1	72.8	49.6	88.0	4.44	16.4	11.4
	18.0	9.2	21.3	1980	109.1	83.5	65.5	5.29	4.63	15.4	2000	57.8	72.4	48.0	86.6	4.15	17.5	10.7
				2180	105.8	84.2	66.1	5.33	4.63	14.7	2200	59.1	73.2	49.7	87.9	4.32	16.9	10.8
80	9.0	3.3	7.6	1980	109.7	84.9	66.6	5.37	4.64	15.8	2000	58.2	69.0	47.1	86.0	4.98	13.9	14.9
				2180	106.4	85.6	67.2	5.40	4.65	15.1	2200	59.5	69.8	48.8	87.5	5.18	13.5	15.0
	13.5	5.8	13.4	1980	111.4	88.6	70.0	5.45	4.77	16.4	2000	58.0	69.8	47.4	85.8	4.68	14.9	13.5
				2180	108.0	89.4	70.7	5.49	4.77	15.7	2200	59.4	70.6	49.1	87.2	4.88	14.5	13.6
	18.0	9.0	20.6	1980	112.5	90.8	72.0	5.51	4.83	16.8	2000	58.0	70.2	47.5	85.7	4.55	15.4	12.8
				2180	108.9	91.6	72.7	5.54	4.84	16.0	2200	59.3	70.9	49.1	87.1	4.75	15.0	12.8
90	9.0	3.3	7.5	1980	112.4	90.7	71.8	5.55	4.79	16.9	2000	58.7	65.9	45.9	84.6	5.48	12.0	17.4
				2180	108.9	91.5	72.4	5.59	4.80	16.2	2200	60.0	66.6	47.5	86.1	5.72	11.7	17.5
	13.5	5.7	13.2	1980	114.3	94.7	75.4	5.64	4.92	17.5	2000	58.6	66.6	46.2	84.3	5.16	12.9	15.7
				2180	110.6	95.5	76.1	5.68	4.93	16.8	2200	59.9	67.4	47.8	85.7	5.38	12.5	15.9
	18.0	8.8	20.3	1980	115.4	97.0	77.5	5.70	4.99	17.9	2000	58.6	67.0	46.3	84.1	5.02	13.3	15.0
				2180	111.5	97.8	78.2	5.74	5.00	17.2	2200	59.9	67.7	47.9	85.6	5.23	12.9	15.1
100	9.0	3.3	7.5	Operation Not Recommended							2000	59.5	62.1	44.3	82.8	6.08	10.2	20.0
											2200	60.7	62.8	45.8	84.4	6.33	9.9	20.1
	13.5	5.5	12.8								2000	59.4	62.8	44.6	82.3	5.72	11.0	18.2
											2200	60.6	63.5	46.1	83.8	5.96	10.7	18.3
	18.0	8.4	19.4								2000	59.3	63.1	44.6	82.1	5.56	11.4	17.3
											2200	60.6	63.8	46.2	83.6	5.80	11.0	17.4
110	9.0	3.2	7.4								2000	60.3	58.1	42.5	81.2	6.77	8.6	22.8
											2200	61.5	58.7	43.9	82.8	7.06	8.3	23.0
	13.5	5.5	12.6								2000	60.2	58.7	42.7	80.5	6.37	9.2	20.8
											2200	61.4	59.4	44.2	82.0	6.64	8.9	21.0
	18.0	8.3	19.1								2000	60.2	59.0	42.8	80.2	6.20	9.5	19.9
											2200	61.4	59.7	44.3	81.7	6.46	9.2	20.0
120	9.0	3.2	7.4								2000	61.2	54.1	40.7	79.9	7.58	7.1	25.9
											2200	62.3	54.7	42.1	81.6	7.90	6.9	26.0
	13.5	5.4	12.5								2000	61.1	54.7	40.9	79.0	7.13	7.7	23.7
											2200	62.2	55.3	42.3	80.7	7.43	7.4	23.8
	18.0	8.2	19.0								2000	61.0	55.0	41.0	78.6	6.94	7.9	22.6
											2200	62.2	55.6	42.4	80.2	7.23	7.7	22.8

ENGINEERING SPECIFICATIONS:

Model VT072, 6 Ton, ECM Blower, part Load Performance Data

EWT	Flow	WPD		Part Load Heating							Part Load Cooling							
		PSI	FT	Aiflow	LAT (DB)	HC	HE	Power	COP	DH	Aiflow	LAT (DB)	TC	SC	HR	Power	EER	DH
°F	GPM			CFM	°F	MBtuh	MBtuh	kW	W/W	MBtuh	CFM	°F	MBtuh	MBtuh	MBtuh	kW	Btuh/W	MBtuh
25	12.0	6.4	14.7	1680	89.5	35.4	24.1	3.32	3.12	8.1	Operation Not Recommended							
				1850	87.8	35.6	24.3	3.32	3.15	7.7								
30	6.0	2.6	6.1	1680	89.3	35.1	23.9	3.29	3.12	8.0								
				1850	87.7	35.3	24.1	3.29	3.15	7.6								
	9.0	4.0	9.3	1680	90.4	37.1	25.7	3.33	3.27	8.2								
				1850	88.7	37.3	26.0	3.32	3.29	7.8								
	12.0	6.0	13.7	1680	91.0	38.2	26.7	3.35	3.33	8.4								
				1850	89.2	38.4	27.0	3.35	3.36	8.0								
40	6.0	2.5	5.8	1680	92.3	40.4	29.0	3.36	3.53	8.5								
				1850	90.4	40.7	29.3	3.36	3.55	8.2								
	9.0	3.8	8.8	1680	93.5	42.7	31.1	3.40	3.69	8.8								
				1850	91.5	43.0	31.4	3.39	3.72	8.4								
	12.0	5.6	13.0	1680	94.2	44.0	32.3	3.42	3.76	9.0	1580	59.2	55.7	35.4	62.2	1.91	29.2	4.1
				1850	92.2	44.3	32.6	3.42	3.80	8.6	1800	60.8	56.5	37.3	63.2	1.98	28.5	4.1
50	6.0	2.4	5.5	1680	95.4	46.1	34.4	3.44	3.93	9.3	1580	58.5	55.2	36.7	63.8	2.51	22.1	7.2
				1850	93.2	46.4	34.7	3.43	3.96	8.9	1800	60.1	56.1	38.6	64.9	2.60	21.5	7.2
	9.0	3.6	8.4	1680	96.8	48.7	36.8	3.47	4.11	9.6	1580	58.2	56.5	37.1	64.3	2.29	24.6	6.2
				1850	94.5	49.0	37.2	3.47	4.14	9.2	1800	59.9	57.3	39.1	65.4	2.38	24.0	6.2
	12.0	5.4	12.4	1680	97.6	50.1	38.2	3.50	4.19	9.9	1580	58.1	57.0	37.3	64.4	2.16	26.4	5.6
				1850	95.2	50.4	38.5	3.49	4.23	9.4	1800	59.8	57.8	39.3	65.5	2.25	25.7	5.6
60	6.0	2.3	5.3	1680	98.6	51.9	39.9	3.52	4.33	10.2	1580	58.1	54.8	37.3	64.5	2.84	19.3	9.0
				1850	96.2	52.3	40.3	3.51	4.36	9.7	1800	59.8	55.6	39.3	65.7	2.95	18.8	9.1
	9.0	3.5	8.1	1680	100.2	54.8	42.7	3.55	4.52	10.6	1580	57.9	56.0	37.7	64.9	2.60	21.5	7.9
				1850	97.6	55.2	43.1	3.55	4.56	10.1	1800	59.6	56.8	39.7	66.1	2.70	21.0	8.0
	12.0	5.2	11.9	1680	101.1	56.5	44.2	3.58	4.62	10.8	1580	57.8	56.5	38.0	64.9	2.45	23.1	7.2
				1850	98.4	56.8	44.6	3.58	4.66	10.3	1800	59.4	57.4	40.0	66.0	2.55	22.5	7.2
70	6.0	2.2	5.2	1680	101.9	57.9	45.6	3.60	4.71	11.2	1580	58.4	53.0	36.9	64.0	3.22	16.4	11.0
				1850	99.2	58.3	46.0	3.60	4.75	10.6	1800	60.0	53.8	38.9	65.2	3.35	16.1	11.1
	9.0	3.4	7.8	1680	103.7	61.1	48.7	3.64	4.93	11.6	1580	58.1	54.2	37.3	64.3	2.95	18.4	9.7
				1850	100.8	61.5	49.1	3.63	4.97	11.1	1800	59.8	55.0	39.3	65.5	3.07	17.9	9.8
	12.0	5.0	11.6	1680	104.7	62.9	50.4	3.67	5.03	11.9	1580	58.0	54.7	37.6	64.2	2.78	19.7	8.9
				1850	101.7	63.3	50.8	3.66	5.07	11.4	1800	59.6	55.5	39.6	65.3	2.89	19.2	9.0
80	6.0	2.2	5.0	1680	105.2	63.8	51.3	3.69	5.08	12.2	1580	59.0	50.3	35.8	62.7	3.66	13.7	13.1
				1850	102.2	64.3	51.7	3.68	5.12	11.7	1800	60.6	51.0	37.7	64.0	3.80	13.4	13.3
	9.0	3.3	7.6	1680	107.2	67.4	54.7	3.72	5.31	12.7	1580	58.8	51.4	36.2	62.8	3.35	15.3	11.7
				1850	104.0	67.9	55.2	3.72	5.35	12.2	1800	60.4	52.1	38.2	64.0	3.48	15.0	11.8
	12.0	4.9	11.3	1680	108.2	69.4	56.6	3.75	5.42	13.1	1580	58.6	51.8	36.5	62.6	3.16	16.4	10.8
				1850	105.0	69.9	57.1	3.75	5.46	12.5	1800	60.2	52.6	38.4	63.8	3.28	16.0	10.8
90	6.0	2.1	4.9	1680	108.4	69.7	56.8	3.77	5.42	13.3	1580	59.9	47.0	34.4	61.1	4.15	11.3	15.4
				1850	105.1	70.2	57.3	3.76	5.47	12.8	1800	61.4	47.7	36.2	62.4	4.32	11.0	15.5
	9.0	3.2	7.5	1680	110.6	73.6	60.6	3.80	5.67	13.9	1580	59.6	48.0	34.8	61.0	3.80	12.6	13.7
				1850	107.1	74.1	61.1	3.80	5.72	13.3	1800	61.2	48.7	36.6	62.2	3.95	12.3	13.9
	12.0	4.8	11.0	1680	111.8	75.8	62.7	3.84	5.79	14.3	1580	59.5	48.4	35.0	60.7	3.58	13.5	12.7
				1850	108.2	76.3	63.2	3.83	5.84	13.6	1800	61.1	49.2	36.8	61.9	3.72	13.2	12.8
100	6.0	2.1	4.9	Operation Not Recommended							1580	60.8	43.5	32.8	59.6	4.71	9.2	17.7
											1800	62.2	44.1	34.5	60.9	4.90	9.0	17.9
	9.0	3.3	7.5								1580	60.6	44.5	33.2	59.2	4.32	10.3	15.9
											1800	62.0	45.1	35.0	60.4	4.49	10.1	16.1
	12.0	4.8	11.0								1580	60.4	44.9	33.4	58.8	4.07	11.0	14.8
											1800	61.9	45.5	35.2	60.0	4.23	10.8	14.9
110	6.0	2.1	4.9								1580	61.6	40.3	31.5	58.5	5.35	7.5	20.2
											1800	63.0	40.9	33.1	59.9	5.56	7.4	20.4
	9.0	3.2	7.5								1580	61.3	41.2	31.8	57.9	4.90	8.4	18.3
											1800	62.8	41.8	33.5	59.2	5.09	8.2	18.4
	12.0	4.7	10.9								1580	61.2	41.6	32.0	57.3	4.62	9.0	17.0
											1800	62.6	42.2	33.7	58.5	4.80	8.8	17.2
120	6.0	2.1	4.9								1580	62.0	37.7	30.6	58.4	6.07	6.2	22.9
											1800	63.4	38.2	32.3	59.8	6.31	6.1	23.1
	9.0	3.2	7.5								1580	61.8	38.5	31.0	57.5	5.56	6.9	20.8
											1800	63.2	39.1	32.6	58.8	5.78	6.8	21.0
	12.0	4.7	10.9								1580	61.7	38.9	31.2	56.7	5.24	7.4	19.5
											1800	63.1	39.4	32.8	58.0	5.44	7.2	19.6

Unit Electrical Data VS Models 006 - 036, Standard PSC Blower

Model	Voltage Code/ HWG Option	60 Hz Power		Compressor		Fan Motor FLA	HWG Pump FLA	Ext. Loop Pump FLA	Total Unit FLA	Min Circuit AMPS	Max Brkr HACR
		Volts	Phase	LRA	RLA						
VS006	00	208/230	1	17.7	2.5	0.8	0.0	0.0	3.3	3.9	15
	10	208/230	1	17.7	2.5	0.8	0.0	4.0	7.3	7.9	15
	A0	265	1	13.5	2.1	0.7	0.0	0.0	2.8	3.3	15
	90	115	1	36.2	5.0	1.5	0.0	0.0	6.5	7.8	15
VS009	00	208/230	1	20.0	4.4	0.8	0.0	0.0	5.2	6.3	15
	10	208/230	1	20.0	4.4	0.8	0.0	4.0	9.2	10.3	15
	A0	265	1	21.0	3.4	0.7	0.0	0.0	4.1	4.9	15
	90	115	1	50.0	7.8	1.5	0.0	0.0	9.3	11.3	15
VS012	00	208/230	1	26.0	4.7	0.8	0.0	0.0	5.5	6.7	15
	10	208/230	1	26.0	4.7	0.8	0.0	4.0	9.5	10.7	15
	A0	265	1	22.0	4.2	0.7	0.0	0.0	4.9	6.0	15
VS015	00	208/230	1	26.0	5.5	1.5	0.0	0.0	7.0	8.4	15
	10	208/230	1	26.0	5.5	1.5	0.0	4.0	11.0	12.4	15
	A0	265	1	28.0	5.0	2.0	0.0	0.0	7.0	8.3	15
VS018	00	208/230	1	48.0	9.0	1.5	0.0	0.0	10.5	12.8	20
	01	208/230	1	48.0	9.0	1.5	0.5	0.0	11.0	13.3	20
	10	208/230	1	48.0	9.0	1.5	0.0	4.0	14.5	16.8	25
	11	208/230	1	48.0	9.0	1.5	0.5	4.0	15.0	17.3	25
	A	265	1	43.0	7.1	2.0	0.0	0.0	9.1	10.9	15
VS024	00	208/230	1	58.3	13.5	1.9	0.0	0.0	15.4	18.8	30
	01	208/230	1	58.3	13.5	1.9	0.5	0.0	15.9	19.3	30
	10	208/230	1	58.3	13.5	1.9	0.0	4.0	19.4	22.8	35
	11	208/230	1	58.3	13.5	1.9	0.5	4.0	19.9	23.3	35
	20	208/230	3	55.4	7.1	1.9	0.0	0.0	9.0	10.8	15
	21	208/230	3	55.4	7.1	1.9	0.5	0.0	9.5	11.3	15
	30/35	460	3	28.0	3.5	0.9	0.0	0.0	4.4	5.3	15
	40/45	575	3	24.5	2.9	1.1	0.0	0.0	4.0	4.7	15
	A	265	1	54.0	9.0	2.2	0.0	0.0	11.2	13.5	20
VS030	00	208/230	1	64.0	12.8	1.9	0.0	0.0	14.7	17.9	30
	01	208/230	1	64.0	12.8	1.9	0.5	0.0	15.2	18.4	30
	10	208/230	1	64.0	12.8	1.9	0.0	4.0	18.7	21.9	35
	11	208/230	1	64.0	12.8	1.9	0.5	4.0	19.2	22.4	35
	20	208/230	3	58.0	8.3	1.9	0.0	0.0	10.2	12.3	20
	21	208/230	3	58.0	8.3	1.9	0.5	0.0	10.7	12.8	20
	30/35	460	3	28.0	5.1	0.9	0.0	0.0	6.0	7.3	15
	40/45	575	3	23.7	3.3	1.1	0.0	0.0	4.4	5.2	15
	A	265	1	60.0	10.9	2.2	0.0	0.0	13.1	15.8	25
VS036	00	208/230	1	79.0	16.7	2.9	0.0	0.0	19.6	23.8	40
	01	208/230	1	79.0	16.7	2.9	0.5	0.0	20.1	24.3	40
	10	208/230	1	79.0	16.7	2.9	0.0	4.0	23.6	27.8	40
	11	208/230	1	79.0	16.7	2.9	0.5	4.0	24.1	28.3	45
	20	208/230	3	73.0	10.4	2.9	0.0	0.0	13.3	15.9	25
	21	208/230	3	73.0	10.4	2.9	0.5	0.0	13.8	16.4	25
	30/35	460	3	38.0	5.8	1.2	0.0	0.0	7.0	8.5	15
	40/45	575	3	36.5	3.8	1.0	0.0	0.0	4.8	5.8	15
	A	265	1	72.0	13.5	3.4	0.0	0.0	16.9	20.3	30

Notes:

1. All line and low voltage wiring must adhere to the National Electrical Code and local codes, whichever is the most stringent.
2. In determining the correct supply wire size and maximum length, reference NFPA 70, Section 310. If the calculation is close to the maximum allowable ampacity of a particular wire size, use the next size up. This will ensure that no adverse effects occur, such as light dimming and/or shortened compressor life.
3. Min/Max Voltage: 208/230/60 = 187-252, 460/60 = 432-504, 575/60 = 540-630, 265/60 = 249-291
4. See Wiring Diagrams for proper 460V and 575V power.

*The external loop pump FLA is based on a maximum of three UP26-116F-230V pumps (1/2hp) for 041-072 and two pumps for 006-036.

ENGINEERING SPECIFICATIONS:

Unit Electrical Data VS Models 041 - 072, Standard PSC Blower

Model	Voltage Code/ HWG Option	60 Hz Power		Compressor		Fan Motor FLA	HWG Pump FLA	Ext. Loop Pump FLA	Total Unit FLA	Min Circuit AMPS	Max Brkr HACR
		Volts	Phase	LRA	RLA						
VS041	00	208/230	1	109.0	16.7	2.9	0.0	0.0	19.6	23.8	40
	01	208/230	1	109.0	16.7	2.9	0.5	0.0	20.1	24.3	40
	10	208/230	1	109.0	16.7	2.9	0.0	5.5	25.1	29.3	45
	11	208/230	1	109.0	16.7	2.9	0.5	5.5	25.6	29.8	45
	20	208/230	3	88.0	11.2	2.9	0.0	0.0	14.1	16.9	25
	21	208/230	3	88.0	11.2	2.9	0.5	0.0	14.6	17.4	25
	30/35	460	3	44.0	5.6	1.2	0.0	0.0	6.8	8.2	15
	40/45	575	3	34.0	3.8	1.0	0.0	0.0	4.8	5.8	15
VS042	00	208/230	1	109.0	16.7	2.9	0.0	0.0	19.6	23.8	40
	01	208/230	1	109.0	16.7	2.9	0.5	0.0	20.1	24.3	40
	10	208/230	1	109.0	16.7	2.9	0.0	5.5	25.1	29.3	45
	11	208/230	1	109.0	16.7	2.9	0.5	5.5	25.6	29.8	45
	20	208/230	3	88.0	11.2	2.9	0.0	0.0	14.1	16.9	25
	21	208/230	3	88.0	11.2	2.9	0.5	0.0	14.6	17.4	25
	30/35	460	3	44.0	5.6	1.2	0.0	0.0	6.8	8.2	15
	40/45	575	3	34.0	3.8	1.0	0.0	0.0	4.8	5.8	15
VS048	00	208/230	1	130.0	19.6	4.0	0.0	0.0	23.6	28.5	45
	01	208/230	1	130.0	19.6	4.0	0.5	0.0	24.1	29.0	45
	10	208/230	1	130.0	19.6	4.0	0.0	5.5	29.1	34.0	50
	11	208/230	1	130.0	19.6	4.0	0.5	5.5	29.6	34.5	50
	20	208/230	3	83.1	13.7	4.0	0.0	0.0	17.7	21.1	35
	21	208/230	3	83.1	13.7	4.0	0.5	0.0	18.2	21.6	35
	30/35	460	3	41.0	6.2	2.1	0.0	0.0	8.3	9.9	15
	40/45	575	3	33.0	4.8	3.8	0.0	0.0	7.9	9.1	15
VS060	00	208/230	1	144.2	24.4	5.6	0.0	0.0	30.0	36.1	60
	01	208/230	1	144.2	24.4	5.6	0.5	0.0	30.5	36.6	60
	10	208/230	1	144.2	24.4	5.6	0.0	5.5	35.5	41.6	60
	11	208/230	1	144.2	24.4	5.6	0.5	5.5	36.0	42.1	60
	20	208/230	3	110.0	16.0	5.6	0.0	0.0	21.6	25.6	40
	21	208/230	3	110.0	16.0	5.6	0.5	0.0	22.1	26.1	40
	30/35	460	3	52.0	7.8	2.6	0.0	0.0	10.4	12.4	20
	40/45	575	3	38.9	5.7	2.1	0.0	0.0	7.8	9.2	15
VS072	00	208/230	1	178.0	30.8	5.6	0.0	0.0	36.4	44.1	70
	01	208/230	1	178.0	30.8	5.6	0.5	0.0	36.9	44.6	70
	10	208/230	1	178.0	30.8	5.6	0.0	5.5	41.9	49.6	80
	11	208/230	1	178.0	30.8	5.6	0.5	5.5	42.4	50.1	80
	20	208/230	3	136.0	19.6	5.6	0.0	0.0	25.2	30.1	50
	21	208/230	3	136.0	19.6	5.6	0.5	0.0	25.7	30.6	50
	30/35	460	3	66.1	8.2	2.6	0.0	0.0	10.8	12.9	20
	40/45	575	3	55.3	6.6	2.1	0.0	0.0	8.7	10.4	15

Notes:

1. All line and low voltage wiring must adhere to the National Electrical Code and local codes, whichever is the most stringent.
2. In determining the correct supply wire size and maximum length, reference NFPA 70, Section 310. If the calculation is close to the maximum allowable ampacity of a particular wire size, use the next size up. This will ensure that no adverse effects occur, such as light dimming and/or shortened compressor life.
3. Min/Max Voltage: 208/230/60 = 187-252, 460/60 = 432-504, 575/60 = 540-630, 265/60 = 249-291
4. See Wiring Diagrams for proper 460V and 575V power.

*The external loop pump FLA is based on a maximum of three UP26-116F-230V pumps (1/2hp) for 041-072 and two pumps for 006-036.

Unit Electrical Data VS Models 015 - 041, Optional ECM Blower

Model	Voltage Code/ HWG Option	60 Hz Power		Compressor		Fan Motor FLA	HWG Pump FLA	Ext. Loop Pump FLA	Total Unit FLA	Min Circuit AMPS	Max Brkr HACR
		Volts	Phase	LRA	RLA						
VS015	00	208/230	1	26.0	5.5	3.9	0.0	0.0	9.4	10.8	15
	10	208/230	1	26.0	5.5	3.9	0.0	4.0	13.4	14.8	20
	A	265	1	28.0	5.0	3.2	0.0	0.0	8.2	9.5	15
VS018	00	208/230	1	48.0	9.0	3.9	0.0	0.0	12.9	15.2	20
	01	208/230	1	48.0	9.0	3.9	0.5	0.0	13.4	15.7	25
	10	208/230	1	48.0	9.0	3.9	0.0	4.0	16.9	19.2	25
	11	208/230	1	48.0	9.0	3.9	0.5	4.0	17.4	19.7	25
	A	265	1	43.0	7.1	3.2	0.0	0.0	10.3	12.1	15
VS024	00	208/230	1	58.3	13.5	3.9	0.0	0.0	17.4	20.8	30
	01	208/230	1	58.3	13.5	3.9	0.5	0.0	17.9	21.3	35
	10	208/230	1	58.3	13.5	3.9	0.0	4.0	21.4	24.8	35
	11	208/230	1	58.3	13.5	3.9	0.5	4.0	21.9	25.3	35
	20	208/230	3	55.4	7.1	3.9	0.0	0.0	11.0	12.8	20
	21	208/230	3	55.4	7.1	3.9	0.5	0.0	11.5	13.3	20
	30/35	460	3	28.0	3.5	3.2	0.0	0.0	6.7	7.6	15
	A	265	1	54.0	9.0	3.2	0.0	0.0	12.2	14.5	20
VS030	00	208/230	1	64.0	12.8	3.9	0.0	0.0	16.7	19.9	30
	01	208/230	1	64.0	12.8	3.9	0.5	0.0	17.2	20.4	30
	10	208/230	1	64.0	12.8	3.9	0.0	4.0	20.7	23.9	35
	11	208/230	1	64.0	12.8	3.9	0.5	4.0	21.2	24.4	35
	20	208/230	3	58.0	8.3	3.9	0.0	0.0	12.2	14.3	20
	21	208/230	3	58.0	8.3	3.9	0.5	0.0	12.7	14.8	20
	30/35	460	3	28.0	5.1	3.2	0.0	0.0	8.3	9.6	15
	A	265	1	60.0	10.9	3.2	0.0	0.0	14.1	16.8	25
VS036	00	208/230	1	79.0	16.7	5.2	0.0	0.0	21.9	26.1	40
	01	208/230	1	79.0	16.7	5.2	0.5	0.0	22.4	26.6	40
	10	208/230	1	79.0	16.7	5.2	0.0	4.0	25.9	30.1	45
	11	208/230	1	79.0	16.7	5.2	0.5	4.0	26.4	30.6	45
	20	208/230	3	73.0	10.4	5.2	0.0	0.0	15.6	18.2	25
	21	208/230	3	73.0	10.4	5.2	0.5	0.0	16.1	18.7	25
	30/35	460	3	38.0	5.8	4.7	0.0	0.0	10.5	12.0	15
	A	265	1	72.0	13.5	4.7	0.0	0.0	18.2	21.6	35
VS041	00	208/230	1	109.0	16.7	5.2	0.0	0.0	21.9	26.1	40
	01	208/230	1	109.0	16.7	5.2	0.5	0.0	22.4	26.6	40
	10	208/230	1	109.0	16.7	5.2	0.0	5.5	27.4	31.6	45
	11	208/230	1	109.0	16.7	5.2	0.5	5.5	27.9	32.1	45
	20	208/230	3	88.0	11.2	5.2	0.0	0.0	16.4	19.2	30
	21	208/230	3	88.0	11.2	5.2	0.5	0.0	16.9	19.7	30
	30/35	460	3	44.0	5.6	4.7	0.0	0.0	10.3	11.7	15

Notes:

1. All line and low voltage wiring must adhere to the National Electrical Code and local codes, whichever is the most stringent.
2. In determining the correct supply wire size and maximum length, reference NFPA 70, Section 310. If the calculation is close to the maximum allowable ampacity of a particular wire size, use the next size up. This will ensure that no adverse effects occur, such as light dimming and/or shortened compressor life.
3. Min/Max Voltage: 208/230/60 = 187-252, 460/60 = 432-504, 575/60 = 540-630, 265/60 = 249-291
4. See Wiring Diagrams for proper 460V and 575V power.

*The external loop pump FLA is based on a maximum of three UP26-116F-230V pumps (1/2hp) for 041-072 and two pumps for 006-036.

Unit Electrical Data VS Models 042 - 072, Optional ECM Blower

Model	Voltage Code/ HWG Option	60 Hz Power		Compressor		Fan Motor FLA	HWG Pump FLA	Ext. Loop Pump FLA	Total Unit FLA	Min Circuit AMPS	Max Brkr HACR
		Volts	Phase	LRA	RLA						
VS042	00	208/230	1	109.0	16.7	5.2	0.0	0.0	21.9	26.1	40
	01	208/230	1	109.0	16.7	5.2	0.5	0.0	22.4	26.6	40
	10	208/230	1	109.0	16.7	5.2	0.0	5.5	27.4	31.6	45
	11	208/230	1	109.0	16.7	5.2	0.5	5.5	27.9	32.1	45
	20	208/230	3	88.0	11.2	5.2	0.0	0.0	16.4	19.2	30
	21	208/230	3	88.0	11.2	5.2	0.5	0.0	16.9	19.7	30
	30/35	460	3	44.0	5.6	4.7	0.0	0.0	10.3	11.7	15
VS048	00	208/230	1	130.0	19.6	5.2	0.0	0.0	24.8	29.7	45
	01	208/230	1	130.0	19.6	5.2	0.5	0.0	25.3	30.2	50
	10	208/230	1	130.0	19.6	5.2	0.0	5.5	30.3	35.2	50
	11	208/230	1	130.0	19.6	5.2	0.5	5.5	30.8	35.7	50
	20	208/230	3	83.1	13.7	5.2	0.0	0.0	18.9	22.3	35
	21	208/230	3	83.1	13.7	5.2	0.5	0.0	19.4	22.8	35
	30/35	460	3	41.0	6.2	4.7	0.0	0.0	10.9	12.5	15
VS060	00	208/230	1	144.2	24.4	6.9	0.0	0.0	31.3	37.4	60
	01	208/230	1	144.2	24.4	6.9	0.5	0.0	31.8	37.9	60
	10	208/230	1	144.2	24.4	6.9	0.0	5.5	36.8	42.9	60
	11	208/230	1	144.2	24.4	6.9	0.5	5.5	37.3	43.4	60
	20	208/230	3	110.0	16.0	6.9	0.0	0.0	22.9	26.9	40
	21	208/230	3	110.0	16.0	6.9	0.5	0.0	23.4	27.4	40
	30/35	460	3	52.0	7.8	6.0	0.0	0.0	13.8	15.8	20
VS072	00	208/230	1	178.0	30.8	6.9	0.0	0.0	37.7	45.4	70
	01	208/230	1	178.0	30.8	6.9	0.5	0.0	38.2	45.9	70
	10	208/230	1	178.0	30.8	6.9	0.0	5.5	43.2	50.9	80
	11	208/230	1	178.0	30.8	6.9	0.5	5.5	43.7	51.4	80
	20	208/230	3	136.0	19.6	6.9	0.0	0.0	26.5	31.4	50
	21	208/230	3	136.0	19.6	6.9	0.5	0.0	27.0	31.9	50
	30/35	460	3	66.1	8.2	6.0	0.0	0.0	14.2	16.3	20

Notes:

1. All line and low voltage wiring must adhere to the National Electrical Code and local codes, whichever is the most stringent.
2. In determining the correct supply wire size and maximum length, reference NFPA 70, Section 310. If the calculation is close to the maximum allowable ampacity of a particular wire size, use the next size up. This will ensure that no adverse effects occur, such as light dimming and/or shortened compressor life.
3. Min/Max Voltage: 208/230/60 = 187-252, 460/60 = 432-504, 575/60 = 540-630, 265/60 = 249-291
4. See Wiring Diagrams for proper 460V and 575V power.

*The external loop pump FLA is based on a maximum of three UP26-116F-230V pumps (1/2hp) for 041-072 and two pumps for 006-036.

VT - ECM Electrical Data - 024-048

Model	Voltage Code/ HWG Option	60 Hz Power		Compressor		Fan Motor FLA	HWG Pump FLA	Ext. Loop Pump FLA	Total Unit FLA	Min Circuit AMPS	Max Brkr HACR
		Volts	Phase	LRA	RLA						
VT024	00	208/230	1	58.3	11.7	3.9	0.0	0.0	15.6	18.5	30
	01	208/230	1	58.3	11.7	3.9	0.5	0.0	16.1	19.0	30
	10	208/230	1	58.3	11.7	3.9	0.0	4.0	19.6	22.5	30
	11	208/230	1	58.3	11.7	3.9	0.5	4.0	20.1	23.0	35
	20	208/230	3	55.4	6.5	3.9	0.0	0.0	10.4	12.0	15
	21	208/230	3	55.4	6.5	3.9	0.5	0.0	10.9	12.5	15
	30/35	460	3	28.0	3.5	3.2	0.0	0.0	6.7	7.6	15
	A	265	1	54.0	9.1	3.2	0.0	0.0	12.3	14.6	20
VT030	00	208/230	1	73.0	13.1	3.9	0.0	0.0	17.0	20.3	30
	01	208/230	1	73.0	13.1	3.9	0.5	0.0	17.5	20.8	30
	10	208/230	1	73.0	13.1	3.9	0.0	4.0	21.0	24.3	35
	11	208/230	1	73.0	13.1	3.9	0.5	4.0	21.5	24.8	35
	20	208/230	3	58.0	8.7	3.9	0.0	0.0	12.6	14.8	20
	21	208/230	3	58.0	8.7	3.9	0.5	0.0	13.1	15.3	20
	30/35	460	3	28.0	4.3	3.3	0.0	0.0	7.6	8.7	15
	A	265	1	60.0	10.2	3.3	0.0	0.0	13.5	16.1	25
VT036	00	208/230	1	83.0	15.6	5.2	0.0	0.0	20.8	24.7	40
	01	208/230	1	83.0	15.6	5.2	0.5	0.0	21.3	25.2	40
	10	208/230	1	83.0	15.6	5.2	0.0	4.0	24.8	28.7	40
	11	208/230	1	83.0	15.6	5.2	0.5	4.0	25.3	29.2	45
	20	208/230	3	73.0	11.6	5.2	0.0	0.0	16.8	19.7	30
	21	208/230	3	73.0	11.6	5.2	0.5	0.0	17.3	20.2	30
	30/35	460	3	38.0	5.7	4.7	0.0	0.0	10.4	11.8	15
	A	265	1	72.0	13.0	4.7	0.0	0.0	17.7	21.0	30
VT042	00	208/230	1	96.0	17.9	5.9	0.0	0.0	23.8	28.3	45
	01	208/230	1	96.0	17.9	5.9	0.5	0.0	24.3	28.8	45
	10	208/230	1	96.0	17.9	5.9	0.0	5.5	29.3	33.8	50
	11	208/230	1	96.0	17.9	5.9	0.5	5.5	29.8	34.3	50
	20	208/230	3	88.0	14.2	5.9	0.0	0.0	20.1	23.7	35
	21	208/230	3	88.0	14.2	5.9	0.5	0.0	20.6	24.2	35
	30/35	460	3	44.0	6.2	4.8	0.0	0.0	11.0	12.6	15
VT048	00	208/230	1	104.0	21.2	5.2	0.0	0.0	26.4	31.7	50
	01	208/230	1	104.0	21.2	5.2	0.5	0.0	26.9	32.2	50
	10	208/230	1	104.0	21.2	5.2	0.0	5.5	31.9	37.2	50
	11	208/230	1	104.0	21.2	5.2	0.5	5.5	32.4	37.7	50
	20	208/230	3	83.1	14.0	5.2	0.0	0.0	19.2	22.7	35
	21	208/230	3	83.1	14.0	5.2	0.5	0.0	19.7	23.2	35
	30/35	460	3	41.0	6.4	4.7	0.0	0.0	11.1	12.7	15
	A	265	1	109.7	16.0	4.7	0.0	0.0	20.7	24.7	40

Notes:
1. All line and low voltage wiring must adhere to the National Electrical Code and local codes, whichever is the most stringent.
2. In determining the correct supply wire size and maximum length, reference NFPA 70, Section 310. If the calculation is close to the maximum allowable ampacity of a particular wire size, use the next size up. This will ensure that no adverse effects occur, such as light dimming and/or shortened compressor life.
3. Min/Max Voltage: 208/230/60 = 187-252, 460/60 = 432-504, 575/60 = 540-630, 265/60 = 249-291
4. See Wiring Diagrams for proper 460V and 575V power.
*The external loop pump FLA is based on a maximum of three UP26-116F-230V pumps (1/2hp) for 042-072 and two pumps for 024-036.

ENGINEERING SPECIFICATIONS:

VT - ECM Electrical Data - 060-072

Model	Voltage Code/ HWG Option	60 Hz Power		Compressor		Fan Motor FLA	HWG Pump FLA	Ext. Loop Pump FLA	Total Unit FLA	Min Circuit AMPS	Max Brkr HACR
		Volts	Phase	LRA	RLA						
VT060	00	208/230	1	152.9	27.1	6.9	0.0	0.0	34.0	40.8	60
	01	208/230	1	152.9	27.1	6.9	0.5	0.0	34.5	41.3	60
	10	208/230	1	152.9	27.1	6.9	0.0	5.5	39.5	46.3	70
	11	208/230	1	152.9	27.1	6.9	0.5	5.5	40.0	46.8	70
	20	208/230	3	110.0	16.5	6.9	0.0	0.0	23.4	27.5	40
	21	208/230	3	110.0	16.5	6.9	0.5	0.0	23.9	28.0	45
	30/35	460	3	52.0	7.2	6.0	0.0	0.0	13.2	15.0	20
	A	265	1	130.0	22.4	6.0	0.0	0.0	28.4	34.0	50
VT072	00	208/230	1	179.2	29.7	6.9	0.0	0.0	36.6	44.0	70
	01	208/230	1	179.2	29.7	6.9	0.5	0.0	37.1	44.5	70
	10	208/230	1	179.2	29.7	6.9	0.0	5.5	42.1	49.5	70
	11	208/230	1	179.2	29.7	6.9	0.5	5.5	42.6	50.0	80
	20	208/230	3	136.0	17.6	6.9	0.0	0.0	24.5	28.9	45
	21	208/230	3	136.0	17.6	6.9	0.5	0.0	25.0	29.4	45
	30/35	460	3	66.1	8.5	6.0	0.0	0.0	14.5	16.6	25

Notes:
1. All line and low voltage wiring must adhere to the National Electrical Code and local codes, whichever is the most stringent.
2. In determining the correct supply wire size and maximum length, reference NFPA 70, Section 310. If the calculation is close to the maximum allowable ampacity of a particular wire size, use the next size up. This will ensure that no adverse effects occur, such as light dimming and/or shortened compressor life.
3. Min/Max Voltage: 208/230/60 = 187-252, 460/60 = 432-504, 575/60 = 540-630, 265/60 = 249-291
4. See Wiring Diagrams for proper 460V and 575V power.
*The external loop pump FLA is based on a maximum of three UP26-116F-230V pumps (1/2hp) for 042-072 and two pumps for 024-036.

General

Compact Packaged Single and Two-Stage Vertical "VS/VT" Series Water Source and Geothermal Heat Pumps shall be constructed based on all information to follow. Equipment shall be completely assembled, piped, internally wired, charged with refrigerant, and tested.

Units shall be supplied completely factory built capable of operating over an entering water temperature range from 20° to 120°F (-6.7° to 48.9°C) (extended data tables; Heating 25F – 90F, cooling 50F – 110F) as standard. All equipment listed in this section must be rated and certified in accordance with Air-Conditioning, Heating and Refrigeration Institute/International Standards Organization (AHRI/ISO 13256-1). All equipment must be tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada, by Intertek Testing Laboratories (ETL). The units shall have AHRI/ISO and ETL-US-C labels.

All units shall be fully quality tested by factory run testing under normal operating conditions as described herein. Quality control system shall automatically perform via computer: helium leak check of both the water and refrigerant circuits, pressure tests, double evacuation and accurately charged system, perform detailed heating and cooling mode run tests, and quality cross check all operational and test conditions to pass/fail criteria. Note: If unit fails on any cross check, it shall not be allowed to ship. Units tested without water flow are not acceptable.

Basic Construction

Vertical Units shall have one of the following air flow arrangements: Left Return/Top Discharge, Right Return/Top Discharge. The heat pumps shall be fabricated from heavy gauge galvanized steel. Cabinet air leakage rating must meet ASHRAE 193-2010 standards. All access panels on the air side of the cabinet must be gasketed to ensure proper seal.

Option: Cabinet finish to be "painted" heavy gauge galvanized steel. This corrosion protection system shall meet the stringent 1000 hour salt spray test per ASTM B117.

All units must have a minimum of three access panels for serviceability of compressor compartment. See EDSM manuals for service clearances. All units must have an insulated panel separating the fan compartment from the compressor compartment. All interior surfaces shall be lined with an 3/8 inch (9.5mm) thick, 3-6 lb/ft3 (24 kg/m3) NBR/PVC-based closed cell, non-porous, non-fibrous Nitrile/Vinyl, flexible elastomeric foam insulation passing QUV test chamber UV ASTM D4329, D4587 ISO 4892 , SAE J2020 resistance, Iit shall be free of CFCs, HFCs, HCFCs, PBDEs, formaldehyde and fibers.

Standard cabinet panel insulation must meet UL-1995 and ASTM E 84/UL 723 Flame 25 / Smoke 50 requirements, air erosion and mold growth limits of UL-181, stringent fungal resistance test per ASTM-C1071 and ASTM G21, and shall meet zero level bacteria growth per ASTM G22. The insulation shall be UL-GREENGUARD certified under the Children and Schools classification and approved by the Factory Mutual Research Corporation. For added protection it shall be protected with an EPA-approved antimicrobial agent.

All vertical units to have field installed discharge air duct collar, shipped loose. Return air duct collar to be factory installed

Option: Units shall have a factory installed deluxe galvanized filter rack provided by heat pump manufacturer. Filter removal from either side with access door as part of the bracket. Units shall have a 1" (25.4mm)(MERV 8) or 2" (50.8mm)(MERV 13) thick throwaway type pleated filter option.

Option: Units shall have a factory installed 1" or 2" filter rail (open on both sides) provided by heat pump manufacturer. Units shall have a 1" (25.4mm)(MERV 8) or 2" (50.8mm)(MERV 13) thick throwaway type pleated filter option.

Cabinets shall have separate holes and knockouts for entrance of line voltage and low voltage control wiring. All factory-installed wiring passing through factory knockouts and openings shall be protected from sheet metal edges at openings by plastic ferrules. Supply and return water connections shall be copper FPT fittings, and shall be securely mounted flush to the cabinet corner post allowing for connection to a flexible hose without the use of a back-up wrench. All water connections and electrical knockouts must be in the compressor compartment corner post as to not interfere with the serviceability of unit.

The unit shall be supplied with extended range internal insulation as standard. All internal water lines and the evaporator side refrigeration tubing shall all have closed cell EPDM insulation. The water to refrigerant coaxial heat exchanger shall have 8lb. Envelo-Seal rigid closed cell spray foam applied to a minimum of .5" thickness.

Option: Multi-Density sound attenuating compressor blanket for additional noise reduction.

Option: The unit will be supplied with internally factory mounted automatic water flow control valve (on/off).

Option: The unit will be supplied with internally mounted source fluid circulating pump for primary/secondary source piping applications.

Option: Insulation package for extended range can be omitted for standard range applications.

Fan and Motor Assembly

Blower shall have orifice rings to allow removal of wheel and motor from one side without removing housing. The fan assembly or housing shall be removable without removing the ductwork.

Units shall have a direct-drive centrifugal fan with a dynamic balanced wheel. The fan motor shall be a 3-speed PSC ball bearing type motor. The fan motor shall be isolated from the housing by rubber grommets. The motor shall be permanently lubricated and have thermal overload protection. speed blower motor type. The motor will have 3 fan speed selections, a constant fan operation mode, as well as a dehumidification mode. This ECM fan motor incorporates a soft start feature (ECM is standard with two-stage compressor).

Option: The unit shall have a high static PSC motor, available on certain sizes only.

Option: The unit shall have an ECM constant torque variable speed blower motor type. The motor will have 3 fan speed selections.

Refrigerant Circuit

All units shall contain R-410A sealed refrigerant circuit including a high efficiency single stage rotary or scroll or two-stage unloading scroll compressor designed for heat pump operation, a thermostatic expansion valve for refrigerant metering, micro-channel refrigerant to air heat exchanger, reversing valve, coaxial (tube in tube) refrigerant to water heat exchanger, and safety controls (see controls section). Refrigerant access ports shall be factory installed on high and low pressure refrigerant lines to facilitate field service.

Hermetic compressors shall be internally sprung. The compressor shall have a dual level vibration isolation system. The compressor will be mounted on rubber grommets secured to a large heavy gauge compressor mounting plate, which is then mounted to the cabinet base with specially engineered sound-tested elastomeric foam vibration isolation pads for maximized vibration attenuation. Compressor shall have thermal overload protection. Compressor discharge and suction refrigerant lines to have shock loops directly at compressor for additional vibration elimination. Compressor shall be located in an insulated compartment away from air stream to minimize sound transmission.

Refrigerant to air heat exchangers (air coil) shall utilize an all aluminium micro-channel construction and be rated to withstand 625 PSIG (4309 kPa) refrigerant working pressure. Refrigerant to water coaxial heat exchangers shall be of copper inner water tube and steel refrigerant outer tube design (water coil), shall have enhanced rifled and knurled inner tube, rated to withstand 625 PSIG (4309 kPa) working refrigerant pressure and 500 PSIG (3445 kPa) working water pressure, and designed to have a low water pressure drop (max. 15ft.hd.).

Refrigerant metering shall be accomplished by thermostatic expansion valve only. Expansion valves shall be dual port balanced types with external equalizer for optimum refrigerant metering. The expansion valves must be bi-directional without the use of check valves. Units shall be designed and tested for operating ranges of entering water temperatures from 20° to 120°F (-6.7° to 48.9°C). Reversing valve shall be four-way solenoid activated refrigerant valve, which shall default to heating mode should the solenoid fail to function.

Option: The unit will be supplied with a cupro-nickel coaxial water to refrigerant heat exchanger.

Option: The unit shall be supplied with a hot water generator (desuperheater) heat exchanger, which shall be double wall and vented. This option will also include an internal circulating pump.

Option: Unit shall include on/off hot gas reheat option. Control of reheat must be accomplished via a humidistat or dehumidistat contact closure. The reheat coil will also be constructed from all aluminium micro-channel design.

Option: Unit shall include hot gas bypass to keep the air coil from freezing in low load conditions.

Drain Pan

The drain pan shall be constructed of 304 Stainless Steel to inhibit corrosion. This corrosion protection system shall meet the stringent 1000 hour salt spray test per ASTM B117. Drain pan shall be fully insulated. The unit as standard will be supplied with solid-state electronic condensate overflow protection (see controls section). Units shall be furnished with a 3/4" PVC condensate drain connection. The drain pan must have a bottom drain vs. a side drain for full drainage of the pan to eliminate any bacteria growth.

Solid State Control Board System

Units shall have a solid-state control system. The control system microprocessor board shall be specifically designed to protect against building electrical system noise contamination, EMI, and RFI interference. The control system shall interface with a heat pump type 24V thermostat. The control system shall have the following features:

- Anti-short cycle time delay on compressor operation (5 minutes).
- Random start on power up mode.
- Low voltage protection.
- High voltage protection.Unit shutdown on high or low refrigerant pressures.
- Unit shutdown on low temperature (low source coil temp OR low air coil temp).
- Condensate overflow electronic protection.
- Option to reset unit at thermostat or disconnect (soft or hard reset functions)
- Fault retry logic. The same fault trip has to occur 3 times before a hard lockout. If a fault occurs 3 times sequentially without thermostat meeting temperature, then lockout requiring manual reset will occur. A soft or hard reset will restart the unit.
- Ability to defeat time delays for servicing (test mode).
- Light emitting diode (LED) on circuit board to indicate high pressure, low pressure, low/high voltage, low water/air temperature, condensate overflow, high discharge gas temperature, faulty temperature sensor(s), and control voltage status.
- The low-pressure switch shall not be monitored for the first 90 seconds after a compressor start command to prevent nuisance safety trips.
- 24V output to cycle a motorized water valve or other device with compressor contactor.
- Water coil low temperature sensing selectable for water or anti-freeze.
- Air coil low temperature sensing.
- High discharge gas temperature sensing.
- Smart desuperheater operation and logic to eliminate any heat transfer from the water tank to the source loop during cooling mode.
- Loss of charge compressor protection logic, which will not allow the unit to try and start when the low pressure switch is open on startup, indicating a loss of charge.

Solid State ECM Fan Control Board (optional with ECM blower)

Airflow selection shall be accomplished via dip switch settings on the ECM control board. Actual airflow shall be indicated by the CFM LED with each 100 CFM being represented by one flash of the LED. Airflow shall be automatically maintained (±5%) by the ECM motor regardless of external static pressure up to its maximum output capacity. A dip switch shall allow selection of a special dehumidification mode, which reduces airflow in cooling by 50 CFM/ton to increase the latent capacity of the unit. A terminal shall be provided on the control board to allow an external humidistat to activate dehumidification mode, or the control board can be set to constant dehumidification mode.

Option: MPC (Multiple Protocol Control) BAS interface system

Units shall have all the features listed above and the control board will be supplied with a Multiple Protocol Interface board.

Available protocols are BACnet MS/TP, Modbus, or Johnson Controls N2. The choice of protocol shall be field selectable/changeable via the use of a simple selector switch. Protocol selection shall not require any additional programming or special external hardware or software tools. This will permit all units to be daisy chain connected by a 2-wire twisted pair shielded cable.

The following points must be available at a central or remote computer location:

- Space temperature
- Leaving water temperature
- Discharge air temperature
- Command of space temperature setpoint
- Cooling status
- Heating status
- Low temperature sensor alarm
- Low pressure sensor alarm
- High pressure switch alarm
- Condensate overflow alarm
- Hi/low voltage alarm
- Fan “ON/AUTO” position of space Thermostat as specified above
- Unoccupied/occupied command
- Unoccupied/occupied command
- Cooling command
- Heating command
- Fan “ON/AUTO” command
- Fault reset command
- Itemized fault code revealing reason for specific shutdown fault (any one of 7)

ENGINEERING SPECIFICATIONS:

Warranty
Enertech shall warranty equipment for a period of 12 months from start up or 18 months from shipping (which ever occurs first). All warranty coverage is parts only, no labor.

Option: Extended 4-year compressor warranty covers compressor for a total of 5 years.

Option: Extended 4-year refrigeration circuit warranty covers heat exchanger coils, reversing valve, expansion valve and compressor for a total of 5 years.

Option: Extended 4-year all internal parts which covers the entire heat pump for a total of 5 years.

Field Installed Options
Hose Kits
All units shall be connected with hoses. The hoses shall be 2 feet (61cm) long, braided stainless steel; fire rated hoses complete with adapters. Only fire rated hoses will be accepted.

Valves
The following valves are available and will be shipped loose:

- Ball valve; bronze material, standard port full flow design, FPT connections.
- Ball valve with memory stop and PT port.
- "Y" strainer with blowdown valve; bronze material, FPT connections.
- Motorized water valve; slow acting, 24v, FPT connections.

Hose Kit Assemblies
The following assemblies ship with the valves already assembled to the hose described:

- Supply and return hoses having ball valve with PT port.
- Supply hose having ball valve with PT port; return hose having automatic flow regulator valve with PT ports, and ball valve.
- Supply hose having "Y" strainer with blowdown valve, and ball valve with PT port; return hose having automatic flow regulator with PT ports, and ball valve.
- Supply hose with "Y" strainer and blowdown valve, and ball valve with PT port; return hose having ball valve with PT port.

Thermostats
The thermostat shall be an electronic type thermostat as selected below with the described features:

- Multistage Digital Non-Programmable Automatic or Manual Changeover thermostat (24v)
- Thermostat shall be multi-stage (2H/2C), manual or automatic changeover with HEAT-OFF-COOL-AUTO-EM HEAT system settings and fan ON-AUTO settings. Thermostat shall have an LCD display with temperature, set-point(s), mode, and status indication. The temperature indication shall be selectable for ºF or ºC. The thermostat shall provide permanent memory of set-point(s) without batteries. A fault LED shall be provided to indicate specific fault condition(s).
- Multistage Digital Programmable Automatic or Manual Changeover thermostat (24v)
- Thermostat shall be 7 day programmable (with up to 4 set points per day), multi-stage (3H/2C), automatic or manual changeover with HEAT-OFF-COOL-AUTO-EM HEAT system settings and fan ON-AUTO settings.
- Thermostat shall have a blue backlit dot matrix LCD display with temperature, setpoints, mode, and status indication.
- The temperature indication shall be selectable for ºF or ºC.
- Time display shall be selectable for 12 or 24 hour clock.
- Fault identification shall be provided to simplify troubleshooting by providing specific unit fault at the thermostat with red backlit LCD during unit lockout.
- The thermostat shall provide permanent memory of setpoints without batteries
- Thermostat shall provide heating set-point range limit, cooling set-point range limit, temperature display offset, keypad lockout, dead-band range setting, and inter-stage differential settings.
- Thermostat shall provide progressive recovery to anticipate time required to bring space temperature to the next programmed event.
- Thermostat shall provide an installer setup for configuring options and for setup of servicing contractor name and contact information.
- Thermostat shall allow the use of an
- Accessory remote and/or outdoor temperature sensor.

DDC Sensors
Wall mounted DDC sensor to monitor room temperature and interfaces with optional interface system described above. Several types as described below:

- Sensor only with no display (LON and MPC).
- Sensor with override (LON only).
- Sensor with setpoint adjustment and override (MPC only).
- Sensor with setpoint adjustment and override, LCD display, status/fault indication (LON and MPC).

Revision Table

Date	Description of Revision	Page
02JAN2020	VT Electrical Data Tables updated	53,54
19DEC2019	VT030 and VT042 Extended Data added	24, 25 & 33, 34
11DEC2019	VT AHRI Data updated	3
	Unit Physical Data updated (VT030-042 added)	18
	Unit Electrical Data updated (VT030-042 added)	17
	ECM Performance Fan Chart updated (VT030-042 added)	12
	VT Nomenclature updated (VT030-042 added)	6
06SEP2019	Electrical Data Tables updated	13-17
27JUN2019	VS018 Refrigerant Charge changed from 43 oz. to 44 oz. VS024 Refrigerant Charge changed from 45 oz. to 43 oz. VT024 Refrigerant Charge changed from 45 oz. to 44 oz. VS036 Refrigerant Charge changed from 54 oz. to 51 oz.	18
10JUN2019	AHRI update on VT024 GW, P/L COP (Note [2]). Change to Note [1] 26.5 changed to 25.2.	6
19APR2019	VS Electrical Data Tables updated	12-15
	Fan Performance Charts updated	10,11
	Unit Physical Data table updated	17
	VS036 PSC and ECM Data Tables updated	33,34
	Added VS041 ECM and PC Data Tables	37,38
	Filter Rack table updated	10
	VS Nomenclature updated	7
11APR2018	Dimensional Data updated	10,11
09APR2018	Nomenclature drawings updated	8
23OCT2017	Updated Nomenclature drawings	9
01MAR2017	Revised Electrical Data Table	13-17
10OCT2016	Updated VS AHRI Data table	10
09AUG2016	Revised corrected extended data table	21
05JUL2016	Added 006 extended data	21
06JUN2016	Revised AHRI Data Tables	10
16MAR2016	Updated Fan and Electrical Data charts	4 - 6
02FEB2016	Updated drawing	9
19JAN2016	Revised Eng Specs, Nomenclature, Elec data, Fan charts, Physical data	3-7, 12, 13, 14-18
14AJN2016	Revised ECM and PSC fan charts	9
05JAN2016	Revised ECM fan chart, added extended data tables, physical data table	9
124DEC2015	Revised PSC fan, and AHRI perf charts	7, 9
21OCT2015	Corrected VT Perf Chart	7
01OCT2015	Revised ECM Fan Chart	7
22SEP2015	Revised physical data table	15
08SEP2015	Added 009-015 extended data	22-25
27AUG2015	Revised elec data tables	9-15
19AUG2015	Revise nomenclatures	6, 7
22JUL2015	Added VT 2,3 ton part load extended data tables	15, 17
06MAY2015	Inserted dim charts and tables	6
15APR2015	Revised Elec data tables	11
06APR2015	Revised Ex Data table	19, 23
02MAR2015	Revised Unit Physical Data table	9
14JAN2015	Document Created	All

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