

Item Ref Num	BACnet Name	BACnet Object Instance	Modbus Address	Modbus Data Type Supported	Modbus Scaling (See Note 5)	N2 Metasys	Engineering Units		Point List Code: S = Standard O = Optional N = Not Available																			
							Imperial	SI	Point List Description										1	2	3	4	5	6	7	8	9	10
32	S4_SUCT_PRES	AI24	537	03,04	x10	ADF 28	PSI	BAR	Sys 4 Suction Pressure	S																		
33	S1_DSCH_PRES	AI25	538	03,04	x10	ADF 29	PSI	BAR	Sys 1 Discharge Pressure	S																		
34	S2_DSCH_PRES	AI26	539	03,04	x10	ADF 30	PSI	BAR	Sys 2 Discharge Pressure	S																		
35	S3_DSCH_PRES	AI27	540	03,04	x10	ADF 31	PSI	BAR	Sys 3 Discharge Pressure	S																		
36	S4_DSCH_PRES	AI28	541	03,04	x10	ADF 32	PSI	BAR	Sys 4 Discharge Pressure	S																		
37	S1_MC_FL A	AI29	542	03,04	x10	ADF 33	%	%	Sys 1 Motor Current FLA	S																		
38	S2_MC_FL A	AI30	543	03,04	x10	ADF 34	%	%	Sys 2 Motor Current FLA	S																		
39	S3_MC_FL A	AI31	544	03,04	x10	ADF 35	%	%	Sys 3 Motor Current FLA	S																		
40	S4_MC_FL A	AI32	545	03,04	x10	ADF 36	%	%	Sys 4 Motor Current FLA	S																		
41	S1_OP_HRS	AI33	546	03,04	x1	ADF 37	None	None	Sys 1 Operating Hours	S																		
42	S2_OP_HRS	AI34	547	03,04	x1	ADF 38	None	None	Sys 2 Operating Hours	S																		
43	S3_OP_HRS	AI35	548	03,04	x1	ADF 39	None	None	Sys 3 Operating Hours	S																		
44	S4_OP_HRS	AI36	549	03,04	x1	ADF 40	None	None	Sys 4 Operating Hours	S																		
45	S1_COMP_ST	AI37	550	03,04	x1	ADF 41	None	None	Sys 1 Compressor Starts	S																		
46	S2_COMP_ST	AI38	551	03,04	x1	ADF 42	None	None	Sys 2 Compressor Starts	S																		
47	S3_COMP_ST	AI39	552	03,04	x1	ADF 43	None	None	Sys 3 Compressor Starts	S																		
48	S4_COMP_ST	AI40	553	03,04	x1	ADF 44	None	None	Sys 4 Compressor Starts	S																		
49	S1_HI_MTR_T	AI41	554	03,04	x10	ADF 45	°F	°C	Sys 1 Highest Motor Temperature	S																		
50	S2_HI_MTR_T	AI42	555	03,04	x10	ADF 46	°F	°C	Sys 2 Highest Motor Temperature	S																		
51	S3_HI_MTR_T	AI43	556	03,04	x10	ADF 47	°F	°C	Sys 3 Highest Motor Temperature	S																		
52	S4_HI_MTR_T	AI44	557	03,04	x10	ADF 48	°F	°C	Sys 4 Highest Motor Temperature	S																		
53	VSD_OUT_FR	AI45	558	03,04	x10	ADF 49	Hz	Hz	VSD Output Frequency	S																		
54	S1_FEED	AI46	559	03,04	x10	ADF 50	%	%	Sys 1 Flash Tank Feed Valve %	S																		
55	S2_FEED	AI47	560	03,04	x10	ADF 51	%	%	Sys 2 Flash Tank Feed Valve %	S																		
56	S3_FEED	AI48	561	03,04	x10	ADF 52	%	%	Sys 3 Flash Tank Feed Valve %	S																		
57	S4_FEED	AI49	562	03,04	x10	ADF 53	%	%	Sys 4 Flash Tank Feed Valve %	S																		
58	S1_OP_CODE	AI50	563	03,04	x1	ADF 54	None	None	Sys 1 Operational Code	S																		
59	S2_OP_CODE	AI51	564	03,04	x1	ADF 55	None	None	Sys 2 Operational Code	S																		
60	S3_OP_CODE	AI52	565	03,04	x1	ADF 56	None	None	Sys 3 Operational Code	S																		
61	S4_OP_CODE	AI53	566	03,04	x1	ADF 57	None	None	Sys 4 Operational Code	S																		
62	S1_FTL_CODE	AI54	567	03,04	x1	ADF 58	None	None	Sys 1 Fault Code	S																		
63	S2_FTL_CODE	AI55	568	03,04	x1	ADF 59	None	None	Sys 2 Fault Code	S																		
64	S3_FTL_CODE	AI56	569	03,04	x1	ADF 60	None	None	Sys 3 Fault Code	S																		
65	S4_FTL_CODE	AI57	570	03,04	x1	ADF 61	None	None	Sys 4 Fault Code	S																		
66	S1_LEVEL	AI58	571	03,04	x10	ADF 62	%	%	Sys 1 Flash Tank Level %	S																		
67	S2_LEVEL	AI59	572	03,04	x10	ADF 63	%	%	Sys 2 Flash Tank Level %	S																		
68	S3_LEVEL	AI60	573	03,04	x10	ADF 64	%	%	Sys 3 Flash Tank Level %	S																		
69	S4_LEVEL	AI61	574	03,04	x10	ADF 65	%	%	Sys 4 Flash Tank Level %	S																		
70	S1_FAN_STG	AI62	575	03,04	x1	ADF 66	None	None	Sys 1 Condenser Fan Stage	S																		
71	S2_FAN_STG	AI63	576	03,04	x1	ADF 67	None	None	Sys 2 Condenser Fan Stage	S																		
72	S3_FAN_STG	AI64	577	03,04	x1	ADF 68	None	None	Sys 3 Condenser Fan Stage	S																		
73	S4_FAN_STG	AI65	578	03,04	x1	ADF 69	None	None	Sys 4 Condenser Fan Stage	S																		
74	LEAD	AI66	579	03,04	x1	ADF 70	None	None	Lead System	S																		
75	LCHLT_SETP	AI67	580	03,04	x10	ADF 71	°F	°C	Leaving Chilled Liquid Setpoint	S																		
76	LCHLT_CUTOU T	AI68	581	03,04	x10	ADF 72	°F	°C	Leaving Chilled Liquid Cutout	S																		
77	S1_DRAIN	AI69	582	03,04	x10	ADF 73	%	%	Sys 1 Flash Tank Drain Valve %	S																		
78	S2_DRAIN	AI70	583	03,04	x10	ADF 74	%	%	Sys 2 Flash Tank Drain Valve %	S																		
79	S3_DRAIN	AI71	584	03,04	x10	ADF 75	%	%	Sys 3 Flash Tank Drain Valve %	S																		
80	S4_DRAIN	AI72	585	03,04	x10	ADF 76	%	%	Sys 4 Flash Tank Drain Valve %	S																		
81	SUCT_PRS_CU T	AI73	586	03,04	x10	ADF 77	PSI	BAR	Suction Pressure Cutout	S																		
82	VSD_DCB_V_13	AI74	587	03,04	x1	ADF 78	Volts	Volts	VSD DC Bus Voltage Sys 1/3	S																		

Item Ref Num	BACnet Name	BACnet Object Instance	Modbus Address	Modbus Data Type Supported	Modbus Scaling (See Note 5)	N2 Metasys	Engineering Units		Point List Code: S = Standard O = Optional N = Not Available										
							Imperial	SI	Point List Description										
									1	2	3	4	5	6	7	8	9	10	
83	VSD_DCB_V_24	AI75	588	03,04	x1	ADF 79	Volts	Volts	VSD DC Bus Voltage Sys 2/4										
84	REM_SETPOINT	AI76	589	03,04	x10	ADF 80	°F	°C	Remote Leaving Chilled Liquid Setpoint										
85	S1_SUC_SHEAT	AI77	590	03,04	x10	ADF 81	°F (diff)	°C (diff)	Sys 1 Suction Superheat										
86	S2_SUC_SHEAT	AI78	591	03,04	x10	ADF 82	°F (diff)	°C (diff)	Sys 2 Suction Superheat										
87	S3_SUC_SHEAT	AI79	592	03,04	x10	ADF 83	°F (diff)	°C (diff)	Sys 3 Suction Superheat										
88	S4_SUC_SHEAT	AI80	593	03,04	x10	ADF 84	°F (diff)	°C (diff)	Sys 4 Suction Superheat										
89	COOLING_RNG	AI81	594	03,04	x10	ADF 85	°F	°C	Cooling Range										
90	S1_DSC_SHEAT	AI82	595	03,04	x10	ADF 86	°F (diff)	°C (diff)	Sys 1 Discharge Superheat										
91	S2_DSC_SHEAT	AI83	596	03,04	x10	ADF 87	°F (diff)	°C (diff)	Sys 2 Discharge Superheat										
92	S3_DSC_SHEAT	AI84	597	03,04	x10	ADF 88	°F (diff)	°C (diff)	Sys 3 Discharge Superheat										
93	S4_DSC_SHEAT	AI85	598	03,04	x10	ADF 89	°F (diff)	°C (diff)	Sys 4 Discharge Superheat										
94	S1_SYS_STATE	AI86	599	03,04	x1	ADF 90	None	None	Sys 1 System State [0=Stopped, 1=Running, 2=Faulted, 4=Locked Out, 5=Pre-Run]										
95	S2_SYS_STATE	AI87	600	03,04	x1	ADF 91	None	None	Sys 2 System State [0=Stopped, 1=Running, 2=Faulted, 4=Locked Out, 5=Pre-Run]										
96	S3_SYS_STATE	AI88	601	03,04	x1	ADF 92	None	None	Sys 3 System State [0=Stopped, 1=Running, 2=Faulted, 4=Locked Out, 5=Pre-Run]										
97	S4_SYS_STATE	AI89	602	03,04	x1	ADF 93	None	None	Sys 4 System State [0=Stopped, 1=Running, 2=Faulted, 4=Locked Out, 5=Pre-Run]										
98	S1_MTR_OVER	AI90	603	03,04	x1	ADF 94	Amps	Amps	Sys 1 Motor Current Overload Setting										
99	S2_MTR_OVER	AI91	604	03,04	x1	ADF 95	Amps	Amps	Sys 2 Motor Current Overload Setting										
100	S3_MTR_OVER	AI92	605	03,04	x1	ADF 96	Amps	Amps	Sys 3 Motor Current Overload Setting										
101	S4_MTR_OVER	AI93	606	03,04	x1	ADF 97	Amps	Amps	Sys 4 Motor Current Overload Setting										
BINARY READ ONLY POINTS																			
102	S13_ALARM	BI1	1282	01,02,03	N/A	BD5	0/1	0/1	Sys 1/3 Alarm [0=No Alarm, 1=Alarm]										
103	S24_ALARM	BI2	1283	01,02,03	N/A	BD6	0/1	0/1	Sys 2/4 Alarm [0=No Alarm, 1=Alarm]										
104	EVAP_HEATER	BI3	1284	01,02,03	N/A	BD7	0/1	0/1	Evaporator Heater Status										
105	EVAP_PUMP	BI4	1285	01,02,03	N/A	BD8	0/1	0/1	Evaporator Pump Status										
106	S1_COMP_RUN	BI5	1286	01,02,03	N/A	BD9	0/1	0/1	Sys 1 Compressor Run Status										
107	S2_COMP_RUN	BI6	1287	01,02,03	N/A	BD10	0/1	0/1	Sys 2 Compressor Run Status										
108	S3_COMP_RUN	BI7	1288	01,02,03	N/A	BD11	0/1	0/1	Sys 3 Compressor Run Status										
109	S4_COMP_RUN	BI8	1289	01,02,03	N/A	BD12	0/1	0/1	Sys 4 Compressor Run Status										
110	S1_ECON_SV	BI9	1290	01,02,03	N/A	BD13	0/1	0/1	Sys 1 Economizer Solenoid Valve Status										
111	S2_ECON_SV	BI10	1291	01,02,03	N/A	BD14	0/1	0/1	Sys 2 Economizer Solenoid Valve Status										
112	S3_ECON_SV	BI11	1292	01,02,03	N/A	BD15	0/1	0/1	Sys 3 Economizer Solenoid Valve Status										
113	S4_ECON_SV	BI12	1293	01,02,03	N/A	BD16	0/1	0/1	Sys 4 Economizer Solenoid Valve Status										
114	WATER_GLYCOL	BI13	1294	01,02,03	N/A	BD17	0/1	0/1	Cooling Type [0=Water, 1=Glycol]										
115	LOCAL_REMOTE	BI14	1295	01,02,03	N/A	BD18	0/1	0/1	Local Remote Control Mode [0=Local, 1=Remote]										
116	DISP_UNITS	BI15	1296	01,02,03	N/A	BD19	0/1	0/1	Display Units [0=Imperial, 1=SI]										

NOTES												
1	Units have Native BACnet MS/TP, Modbus RTU, and N2 communications. No external Gateway is required for these interfaces unless the customer is using Connected Services.											
2	BACnet Object Types: 0 = Analog In, 1 = Analog Out, 2 = Analog Value, 3 = Binary In, 4 = Binary Out, 8 = Device, 15 = Alarm Notification (0-127 are reserved ASHRAE Objects)											
3	WC = Inches of water Column, CFM = Cubic Feet per Minute, FPM = Feet Per Minute, PSI = Pounds per Square Inch, Pa = Pascals, kPa = kiloPascals, PPM = Parts Per Million, kJ/kg = kiloJoules per kilogram											
4	Values that are not applicable due to unit configuration and options will be sent as zero (0).											
5	Modbus values are all of type signed. Scaling values in x10 (Bold) indicate scaling in metric is x100. Scaling and signing may not be modified in the field.											
6												
7												
8												
9												
10												

Code Value	Operational Code	Code Value	Fault/Inhibit Code
63	Manual Override	0	No Fault Code
64	Daily Schedule Shutdown	1	Low Ambient Temperature
65	Unit Switch OFF	2	High Ambient Temperature
66	Remote Controlled Shutdown	3	Low Chilled Liquid Temperature
67	Loss Of External Communications	4	
68	Flow Switch Shutdown	5	Low RTC Battery Voltage
69	VSD Cooling Shutdown	6	Invalid Number of Compressors Selected
70	Serial Number Shutdown	7	VSD Communications Failure
71	Password Shutdown (AGR)	8	Pre-charge Low DC Bus Voltage (Unit)
72		9	Pre-charge DC Bus Voltage Imbalance (Unit)
73		10	High DC Bus Voltage (Unit)
74	No Run Permissive	11	Low DC Bus Voltage (Unit)
75	Anti-Recycle Timer Active	12	DC Bus Voltage Imbalance (Unit)
76	System Switch OFF	13	High VSD Ambient Temperature
77	System Not Running	14	Single Phase Input (Unit)
78	System Running	15	VSD Power Supply Fault
79	Discharge Pressure Limiting	16	VSD Logic Board Fault
80	Suction Pressure Limiting	17	Motor Current Overload (Hardware)
81	Motor Current Limiting	18	CT Plug Fault
82		19	
83	ISN/BAS Motor Current Limiting	20	
84	Remote Motor Current Limiting	21	
85	System Shutting Down	22	
86	VSD Pre-Charging	23	
87	VSD Baseplate Temp Limiting	24	
88	VSD Internal Ambient Temp Limiting	25	
89	Sound Limiting	26	
90	ISN Sound Limiting	27	High Discharge Pressure (Software)
91	Remote Sound Limiting	28	High Differential Oil Pressure
92	Pulldown Motor Current Limiting	29	Low Differential Oil Pressure
93	Cooling Demand Shutdown	30	Low Suction Pressure
94	System HPCO (Fan Special)	31	High Discharge Temperature
95		32	High Oil Temperature
96		33	Low Suction Superheat
97		34	Sensor Failure
98		35	Low Motor Current
99		36	High Motor Temperature
100		37	Pre-charge Low DC Bus Voltage (System 1/3, 2/4)
101		38	Pre-charge DC Bus Voltage Imbalance (System 1/3, 2/4)
102		39	High DC Bus Voltage (System 1/3, 2/4)
103		40	Low DC Bus Voltage (System 1/3, 2/4)
104		41	DC Bus Voltage Imbalance (System 1/3, 2/4)
105		42	High Motor Current
106		43	Motor Current Overload (Software)
107		44	IGBT Gate Driver Fault
108		45	High Baseplate Temperature
109		46	Single Phase Input (System 1/3, 2/4)
110		47	VSD Run Signal Fault
111		48	High Discharge Pressure (Hardware - HPCO)
112		49	High Flash Tank Level
113		50	Control Voltage Fault
114		51	Low Discharge Superheat