ARTICHILL 2M BMS POINTS LIST AS OF 1/22/2013								
BACNET MSTP/IP/ETH T	BACNET GATEWAY BV instance	MODBUS Coil	CAREL Digital	LON Name	LON Type	R/W	DESCRIPTION	VALUE RANGE
1	1	10002	1			R/W	Enter water temperature sensor enable	1=Enabled
2	2	10003	2			R	Enter water temperature sensor out of range	1=Failed
3	3	10004	3			R/W	Panel temperature (B8) sensor enable	1=Enabled
4	4	10005	4			R	Panel temperature sensor (B8) out of range	1=Failed
5	5	10006	5			R/W	Leaving water temperature sensor enable	1=Enabled
6	6	10007	6			R	Leaving water temperature sensor out of range	1=Failed
7	7	10008	7	nvoLwtHighAlm	95	R	Leaving water temperature high alarm	1=Alarm
8	8	10009	8	nvoLwtLowAlm	95	R	Leaving water temperature low alarm	1=Alarm
9	9	10010	9			R/W	Control type P or P+I	1=P+I
10	10	10011	10			R	Ambient temperature (B7) sensor enable	1=Enabled
11	11	10012	11			R	Ambient temperature sensor (B7) out of range	1=Alarm
12	12	10013	12			R/W	C1 low pressure sensor enable	1=Enabled
13	13	10014	13			R	C1 low pressure sensor out of range	1=Alarm
14	14	10015	14			R/W	C2 low pressure sensor enable	1=Enabled
15	15	10016	15			R	C2 low pressure sensor out of range	1=Alarm
16	16	10017	16			R/W	C1 high pressure sensor enable	1=Enabled
17	17	10018	17			R	C1 high pressure sensor out of range	1=Alarm
18	18	10019	18			R/W	C2 high pressure sensor enable	1=Enabled
19	19	10020	19			R	C2 high pressure sensor out of range	1=Alarm
20	20	10021	20			R	Alarm Present	1=Alarm
21	21	10022	21			R/W	Display buzzer enable	1=Enabled
22	22	10023	22			R	C1 high pressure switch alarm	1=Alarm
23	23	10024	23			R	C1 low pressure switch alarm	1=Alarm
24	24	10025	24			R	C2 high pressure switch alarm	1=Alarm
25	25	10026	25			R	C2 low pressure switch alarm	1=Alarm
26	26	10027	26			R/W	Temperature units	1=degrees C
27	27	10028	27			R/W	Compressor rotation enable	1=Enabled
28	28	10029	28			R	Digital input 1 position	1=open
29	29	10030	29			R	Digital input 10 position	1=open
30	30	10031	30			R	Digital input 11 position	1=open
31	31	10032	31			R	Digital input 12 position	1=open
32	32	10033	32			R	Digital input 13 position	1=open
33	33	10034	33			R	Digital input 14 position	1=open
34	34	10035	34			R	Digital input 2 position	1=open
35	35	10036	35			R	Digital input 3 position	1=open
36	36	10037	36			R	Digital input 4 position	1=open
37	37	10038	37			R	Digital input 5 position	1=open
38	38	10039	38			R	Digital input 6 position	1=open
39	39	10040	39			R	Digital input 7 position	1=open
40	40	10041	40			R	Digital input 8 position	1=open
41	41	10042	41			R	Digital input 9 position	1=open
42	42	10043	42	nvoC1Out	95	R	Compressor 1 status	1=ON
43	43	10044	43	nvoC2Out	95	R	Compressor 2 status	1=ON
44	44	10045	44			R	Evap flow alarm	1=Alarm
45	45	10046	45			R	Not used	N/A
46	46	10047	46			R	phase alarm	1=alarm
47	47	10048	47			R	Not used	N/A
48	48	10049	48			R	Not used	N/A
49	49	10050	49			R	pumps alarm	1=alarm
50	50	10051	50	nvo/nviAlarmRst	95	R/W	reset alarms	1=reset
51	51	10052	51	nvoGlobalAlm	95	R	Global alarm	1=alarm
52	52	10053	52			R	Not used	N/A
53	53	10054	53			R	Not used	N/A
54	54	10055	54	nvo/nviSysOnOff	95	R/W	system on/off	1=Enabled
55	55	10056	55			R	Tank low alarm	1=alarm
56	56	10057	56			R	Status of DO 17 (hot/cold split valve)	1=ON

57	57	10058	57			R	slave 1 alarm	1=alarm
58	58	10059	58			R	slave 2 alarm	1=alarm
59	59	10060	59			R	slave 3 alarm	1=alarm
60	60	10061	60			R	slave 4 alarm	1=alarm
61	61	10062	61			R	slave 5 alarm	1=alarm
62	62	10063	62			R	slave 6 alarm	1=alarm
63	63	10064	63			R	slave 7 alarm	1=alarm
64	64	10065	64			R	slave 8 alarm	1=alarm
65	65	10066	65			R	slave 9 alarm	1=alarm
66	66	10067	66			R	slave 10 alarm	1=alarm
67	67	10068	67			R	slave 11 alarm	1=alarm
68	68	10069	68			R	slave 12 alarm	1=alarm
69	69	10070	69			R	slave 13 alarm	1=alarm
70	70	10071	70			R	slave 14 alarm	1=alarm
71	71	10072	71			R	slave 15 alarm	1=alarm
72	72	10073	72			R	Flow detected from digital input	1=flow
73	73	10074	73			R	Low tank level detected on pump module	1=low
74	74	10075	74			R	Phase error	1=alarm
75	75	10076	75			R	Pump 1 overload alarm	1=alarm
76	76	10077	76			R	Pump 2 overload alarm	1=alarm
77	77	10078	77			R	Panel heat on	1=on
78	78	10079	78			R	Pumps alarm (pumps switched but still have no flow)	1=alarm
79	79	10080	79			R	Panel temp sensor out of range	1=alarm
80	80	10081	80			R	Pump suction diff sensor out of range	1=alarm
81	81	10082	81			R	Pump discharge diff sensor out of range	1=alarm
82	82	10083	82			R	Pump suction pressure out of range	1=alarm
83	83	10084	83			R	Pump discharge sensor out of range	1=alarm
84	84	10085	84			R	Pump flow sensor out of range	1=alarm
85	85	10086	85			R/W	Reset alarms of all modules	1=reset
86	86	10087	86			R	Pump has switched without confimation	1=alarm
87	87	10088	87			R	Pump module is in alarm	1=alarm
88	88	10089	88			R	Low tank alarm on pump module (latched)	1=alarm
89	89	10090	89			R	Phase alarm on pump module (latched)	1=alarm
90	90	10091	90			R	Pump 1 overload alarm (latched)	1=alarm
91	91	10092	91			R	Pump 2 overload alarm (latched)	1=alarm
92	92	10093	92			R	Geothermal entering water temp sensor out of range	1=alarm
93	93	10094	93			R	Geothermal leaving water temp sensor out of range	1=alarm
94	94	10095	94			R	Not used	1=alarm
95	95	10096	95			R	Not used	1=alarm
96	96	10097	96			R	Not used	1=alarm
97	97	10098	97			R	Not used	N/A
98	98	10099	98			R	Not used	N/A
99	99	10100	99			R	Not used	N/A
100	100	10101	100			R	Not used	N/A
101	101	10102	101			R	Not used	N/A
102	102	10103	102			R	Not used	N/A
103	103	10104	103			R	Not used	N/A
104	104	10105	104			R	Not used	N/A
105	105	10106	105			R	Not used	N/A
106	106	10107	106			R	Not used	N/A
107	107	10108	107			R	Not used	N/A
108	108	10109	108			R	Not used	N/A
109	109	10110	109			R	Not used	N/A
110	110	10111	110			R	Not used	N/A
111	111	10112	111	nvoPUMP1_ON	95	R	Pump 1 status	1=on
112	112	10113	112	nvoPUMP2_ON	95	R	Pump 2 status	1=on
113	113	10114	113			R	Pumps switched alarm	1=alarm
114	114	10115	114			R	Pump phase alarm	1=alarm
115	115	10116	115			R	Pump 1 overload alarm	1=alarm

116	116	10117	116			R	Pump 2 overload alarm	1=alarm
117	117	10118	117			R	slave 1 compressor 1 status	1=on
118	118	10119	118			R	slave 1 compressor 2 status	1=on
119	119	10120	119			R	slave 2 compressor 1 status	1=on
120	120	10121	120			R	slave 2 compressor 2 status	1=on
121	121	10122	121			R	slave 3 compressor 1 status	1=on
122	122	10123	122			R	slave 3 compressor 2 status	1=on
123	123	10124	123			R	slave 4 compressor 1 status	1=on
124	124	10125	124			R	slave 4 compressor 2 status	1=on
125	125	10126	125			R	slave 5 compressor 1 status	1=on
126	126	10127	126			R	slave 5 compressor 2 status	1=on
127	127	10128	127			R	slave 6 compressor 1 status	1=on
128	128	10129	128			R	slave 6 compressor 2 status	1=on
129	129	10130	129			R	slave 7 compressor 1 status	1=on
130	130	10131	130			R	slave 7 compressor 2 status	1=on
131	131	10132	131			R	slave 8 compressor 1 status	1=on
132	132	10133	132			R	slave 8 compressor 2 status	1=on
133	133	10134	133			R	slave 9 compressor 1 status	1=on
134	134	10135	134			R	slave 9 compressor 2 status	1=on
135	135	10136	135			R	slave 10 compressor 1 status	1=on
136	136	10137	136			R	slave 10 compressor 2 status	1=on
137	137	10138	137			R	slave 11 compressor 1 status	1=on
138	138	10139	138			R	slave 11 compressor 2 status	1=on
139	139	10140	139			R	slave 12 compressor 1 status	1=on
140	140	10141	140			R	slave 12 compressor 2 status	1=on
141	141	10142	141			R	slave 13 compressor 1 status	1=on
142	142	10143	142			R	slave 13 compressor 2 status	1=on
143	143	10144	143			R	slave 14 compressor 1 status	1=on
144	144	10145	144			R	slave 14 compressor 2 status	1=on
145	145	10146	145			R	slave 15 compressor 1 status	1=on
146	146	10147	146			R	slave 15 compressor 2 status	1=on
AV instance	**AV instance**	**ANALOG**	**ANALOG**					
1	1	40002	1	nvoM_EWT_DISP	105	R	System Entering water temperature	-450 to 1850
2	2	40003	2			R	Panel / Condenser temperature (B8)	-450 to 1850
3	3	40004	3	nvoM_LWT_DISP	105	R	System Leaving water temperature	-450 to 1850
4	4	40005	4			R	Ambient / Condenser temperature or Remote Setpoint (B7)	-450 to 1850
5	5	40006	5		105	R	Low pressure c1	psi
6	6	40007	6		105	R	Low pressure c2	psi
7	7	40008	7	nvo/nviControlSet	105	R	High pressure c1	psi
8	8	40009	8			R	High pressure c2	psi
9	9	40010	9		105	R	Leaving water temperature of Master	
10	10	40011	10		105	R	Entering water temperature of Master	
11	11	40012	11			R	pump differential pressure 1	
12	12	40013	12			R	pump differential pressure 2	
13	13	40014	13			R	pump flow in GPM	
14	14	40015	14			R	pump suction pressure	
15	15	40016	15			R	pump discharge pressure	
16	16	40017	16			R	Flow demand in %	0 to 100
17	17	40018	17			R/W	Cooling setpoint	
18	18	40019	18			R/W	Heating setpoint	
19	19	40020	19			R	Hot water loop (from U2) entering temperature in H&C modes	
20	20	40021	20			R	Hot water loop (from U2) leaving temperature in H&C modes	
21	21	40022	21			R	Heating demand in H&C modes	
22	22	40023	22			R	Geothermal entering water temperature	
23	23	40024	23			R	Geothermal leaving water temperature	
24	24	40025	24			R	Panel temp of pump module	
25	25	40026	25			R/W	Low limit alarm for HW leaving temperature	
26	26	40027	26			R	Entering water temperature of Slave 1	
27	27	40028	27			R	Entering water temperature of Slave 2	

28	28	40029	28			R	Entering water temperature of Slave 3	
29	29	40030	29			R	Entering water temperature of Slave 4	
30	30	40031	30			R	Entering water temperature of Slave 5	
31	31	40032	31			R	Entering water temperature of Slave 6	
32	32	40033	32			R	Entering water temperature of Slave 7	
33	33	40034	33			R	Entering water temperature of Slave 8	
34	34	40035	34			R	Entering water temperature of Slave 9	
35	35	40036	35			R	Entering water temperature of Slave 10	
36	36	40037	36			R	Entering water temperature of Slave 11	
37	37	40038	37			R	Entering water temperature of Slave 12	
38	38	40039	38			R	Entering water temperature of Slave 13	
39	39	40040	39			R	Entering water temperature of Slave 14	
40	40	40041	40			R	Entering water temperature of Slave 15	
41	41	40042	41			R	Leaving water temperature of Slave 1	
42	42	40043	42			R	Leaving water temperature of Slave 2	
43	43	40044	43			R	Leaving water temperature of Slave 3	
44	44	40045	44			R	Leaving water temperature of Slave 4	
45	45	40046	45			R	Leaving water temperature of Slave 5	
46	46	40047	46			R	Leaving water temperature of Slave 6	
47	47	40048	47			R	Leaving water temperature of Slave 7	
48	48	40049	48			R	Leaving water temperature of Slave 8	
49	49	40050	49			R	Leaving water temperature of Slave 9	
50	50	40051	50			R	Leaving water temperature of Slave 10	
51	51	40052	51			R	Leaving water temperature of Slave 11	
52	52	40053	52			R	Leaving water temperature of Slave 12	
53	53	40054	53			R	Leaving water temperature of Slave 13	
54	54	40055	54			R	Leaving water temperature of Slave 14	
55	55	40056	55			R	Leaving water temperature of Slave 15	
56	56	40057	56			R	Condenser entering water temperature of Slave 1	
57	57	40058	57			R	Condenser entering water temperature of Slave 2	
58	58	40059	58			R	Condenser entering water temperature of Slave 3	
59	59	40060	59			R	Condenser entering water temperature of Slave 4	
60	60	40061	60			R	Condenser entering water temperature of Slave 5	
61	61	40062	61			R	Condenser entering water temperature of Slave 6	
62	62	40063	62			R	Condenser entering water temperature of Slave 7	
63	63	40064	63			R	Condenser entering water temperature of Slave 8	
64	64	40065	64			R	Condenser entering water temperature of Slave 9	
65	65	40066	65			R	Condenser entering water temperature of Slave 10	
66	66	40067	66			R	Condenser entering water temperature of Slave 11	
67	67	40068	67			R	Condenser entering water temperature of Slave 12	
68	68	40069	68			R	Condenser entering water temperature of Slave 13	
69	69	40070	69			R	Condenser entering water temperature of Slave 14	
70	70	40071	70			R	Condenser entering water temperature of Slave 15	
71	71	40072	71			R	Condenser leaving water temperature of Slave 1	
72	72	40073	72			R	Condenser leaving water temperature of Slave 2	
73	73	40074	73			R	Condenser leaving water temperature of Slave 3	
74	74	40075	74			R	Condenser leaving water temperature of Slave 4	
75	75	40076	75			R	Condenser leaving water temperature of Slave 5	
76	76	40077	76			R	Condenser leaving water temperature of Slave 6	
77	77	40078	77			R	Condenser leaving water temperature of Slave 7	
78	78	40079	78			R	Condenser leaving water temperature of Slave 8	
79	79	40080	79			R	Condenser leaving water temperature of Slave 9	
80	80	40081	80			R	Condenser leaving water temperature of Slave 10	
81	81	40082	81			R	Condenser leaving water temperature of Slave 11	
82	82	40083	82			R	Condenser leaving water temperature of Slave 12	
83	83	40084	83			R	Condenser leaving water temperature of Slave 13	
84	84	40085	84			R	Condenser leaving water temperature of Slave 14	
85	85	40086	85			R	Condenser leaving water temperature of Slave 15	
AV instance	**AV instance**	**ANALOG**	**INTEGER**					

1001	129	40210	1			R/W	Panel temperature set point	
1002	130	40211	2			R/W	Temperature control band	
1003	131	40212	3			R/W	Priority select: 0=BMS, 1=Cool, 2=Heat, 3=none, 4=set by term	0 to 4
1004	132	40213	4			R/W	BMS setting for units heating (priority must be set to BMS)	0 to 16
1005	133	40214	5	nvo/nviLwtHighSet		R/W	Leaving temperature high alarm set point	
1006	134	40215	6	nvo/nviLwtLowSet		R/W	Leaving temperature low alarm set point	
1007	135	40216	7			R/W	Pump diff pressure setpoint	
1008	136	40217	8			R/W	compressor minimum off	
1009	137	40218	9			R/W	compressor minimum on	
1010	138	40219	10			R/W	hot gas 1 off set point	0 to 999
1011	139	40220	11			R/W	temperature control integration time	
1012	140	40221	12			R/W	hot gas 2 off set point	0 to 999
1013	141	40222	13			R/W	hot gas 2 on set point	0 to 999
1014	142	40223	14			R/W	Initial start-up delay	0 to 999
1015	143	40224	15			R/W	Mode: 0=chl, 1=Cond, 2=Heat Rec, 3=HPmp, 4=H&C, 5=H&Crvs, 6=H&Cgeo, 7=H&CgeoRvs	0 to 5
1016	144	40225	16			R/W	Number of units reserved for the non priority mode	
1017	145	40226	17			R/W	Units heating	
1018	146	40227	18			R/W	Units cooling	
1019	147	40228	19			R/W	Entering water temperature sensor offset	N/A
1020	148	40229	20			R/W	Panel temperature (B8) sensor offset	0 to 999
1021	149	40230	21			R/W	Leaving water temperature sensor offset	N/A
1022	150	40231	22			R/W	Ambient temperature (B7) sensor offset	0 to 999
1023	151	40232	23			R/W	Low pressure c1 sensor offset	N/A
1024	152	40233	24			R/W	Low pressure c2 sensor offset	0 to 999
1025	153	40234	25			R/W	High pressure c1 sensor offset	N/A
1026	154	40235	26			R/W	High pressure c2 sensor offset	0 to 999
1027	155	40236	27			R/W	Hot gas 1 on set point	N/A
1028	156	40237	28			R/W	Pump diff pressure band	N/A
1029	157	40238	29			R	Pump diff pressure	N/A
1030	158	40239	30	nvoFlow_Demand		R	Flow demand	N/A
1031	159	40240	31			R/W	password 1 (Service)	0-9999
1032	160	40241	32			R/W	password 2 (Factory)	0-9999
1033	161	40242	33			R/W	Time setting for rotation by time	0-32767
1034	162	40243	34			R/W	Rotation index	
1035	163	40244	35			R/W	Geothermal entering water temp sensor offset	
1036	164	40245	36			R/W	Stage up time between compressors	0-999
1037	165	40246	37		8	R	compressor 1 run hours	0-32767
1038	166	40247	38		8	R	compressor 2 run hours	0-32767
1039	167	40248	39	nvoNUM_UNITS_CL		R	Number of units in the cooling mode	0 to 16
1040	168	40249	40	nvoNUM_UNITS_HT		R	Number of units in the heating mode	0 to 16
1041	169	40250	41			R	Software version day	
1042	170	40251	42			R	Software version month	
1043	171	40252	43			R	Software version year	
1044	172	40253	44			R/W	Geothermal leaving water temp sensor offset	
1045	173	40254	45			R	Hours of Pump 1 run time	
1046	174	40255	46			R	Hours of Pump 2 run time	
1047	175	40256	47	nvoLP_C1		R	master compressor 1 low pressure	0-650
1048	176	40257	48	nvoHP_C1		R	master compressor 1 high pressure	0-650
1049	177	40258	49	nvoLP_C2		R	master compressor 2 low pressure	0-650
1050	178	40259	50	nvoHP_C2		R	master compressor 2 high pressure	0-650
1051	179	40260	51	nvoLP_C3		R	slave 1 compressor 1 low pressure	0-650
1052	180	40261	52	nvoHP_C3		R	slave 1 compressor 1 high pressure	0-650
1053	181	40262	53	nvoLP_C4		R	slave 1 compressor 2 low pressure	0-650
1054	182	40263	54	nvoHP_C4		R	slave 1 compressor 2 high pressure	0-650
1055	183	40264	55	nvoLP_C5		R	slave 2 compressor 1 low pressure	0-650
1056	184	40265	56	nvoHP_C5		R	slave 2 compressor 1 high pressure	0-650
1057	185	40266	57	nvoLP_C6		R	slave 2 compressor 2 low pressure	0-650
1058	186	40267	58	nvoHP_C6		R	slave 2 compressor 2 high pressure	0-650
1059	187	40268	59	nvoLP_C7		R	slave 3 compressor 1 low pressure	0-650

1060	188	40269	60	nvoHP_C7		R	slave 3 compressor 1 high pressure	0-650
1061	189	40270	61	nvoLP_C8		R	slave 3 compressor 2 low pressure	0-650
1062	190	40271	62	nvoHP_C8		R	slave 3 compressor 2 high pressure	0-650
1063	191	40272	63	nvoLP_C9		R	slave 4 compressor 1 low pressure	0-650
1064	192	40273	64	nvoHP_C9		R	slave 4 compressor 1 high pressure	0-650
1065	193	40274	65	nvoLP_C10		R	slave 4 compressor 2 low pressure	0-650
1066	194	40275	66	nvoHP_C10		R	slave 4 compressor 2 high pressure	0-650
1067	195	40276	67	nvoLP_C11		R	slave 5 compressor 1 low pressure	0-650
1068	196	40277	68	nvoHP_C11		R	slave 5 compressor 1 high pressure	0-650
1069	197	40278	69	nvoLP_C12		R	slave 5 compressor 2 low pressure	0-650
1070	198	40279	70	nvoHP_C12		R	slave 5 compressor 2 high pressure	0-650
1071	199	40280	71	nvoLP_C13		R	slave 6 compressor 1 low pressure	0-650
1072	200	40281	72	nvoHP_C13		R	slave 6 compressor 1 high pressure	0-650
1073	201	40282	73	nvoLP_C14		R	slave 6 compressor 2 low pressure	0-650
1074	202	40283	74	nvoHP_C14		R	slave 6 compressor 2 high pressure	0-650
1075	203	40284	75	nvoLP_C15		R	slave7 compressor 1 low pressure	0-650
1076	204	40285	76	nvoHP_C15		R	slave 7 compressor 1 high pressure	0-650
1077	205	40286	77	nvoLP_C16		R	slave 7 compressor 2 low pressure	0-650
1078	206	40287	78			R	slave 7 compressor 2 high pressure	0-650
1079	207	40288	79			R	slave 8 compressor 1 low pressure	0-650
1080	208	40289	80			R	slave 8 compressor 1 high pressure	0-650
1081	209	40290	81			R	slave 8 compressor 2 low pressure	0-650
1082	210	40291	82			R	slave 8 compressor 2 high pressure	0-650
1083	211	40292	83			R	slave 9 compressor 1 low pressure	0-650
1084	212	40293	84			R	slave 9 compressor 1 high pressure	0-650
1085	213	40294	85			R	slave 9 compressor 2 low pressure	0-650
1086	214	40295	86			R	slave 9 compressor 2 high pressure	0-650
1087	215	40296	87			R	slave 10 compressor 1 low pressure	0-650
1088	216	40297	88			R	slave 10 compressor 1 high pressure	0-650
1089	217	40298	89			R	slave 10 compressor 2 low pressure	0-650
1090	218	40299	90			R	slave 10 compressor 2 high pressure	0-650
1091	219	40300	91			R	slave 11 compressor 1 low pressure	0-650
1092	220	40301	92			R	slave 11 compressor 1 high pressure	0-650
1093	221	40302	93			R	slave 11 compressor 2 low pressure	0-650
1094	222	40303	94			R	slave 11 compressor 2 high pressure	0-650
1095	223	40304	95			R	slave 12 compressor 1 low pressure	0-650
1096	224	40305	96			R	slave 12 compressor 1 high pressure	0-650
1097	225	40306	97			R	slave 12 compressor 2 low pressure	0-650
1098	226	40307	98			R	slave 12 compressor 2 high pressure	0-650
1099	227	40308	99			R	slave 13 compressor 1 low pressure	0-650
1100	228	40309	100			R	slave 13 compressor 1 high pressure	0-650
1101	229	40310	101			R	slave 13 compressor 2 low pressure	0-650
1102	230	40311	102			R	slave 13 compressor 2 high pressure	0-650
1103	231	40312	103			R	slave 14 compressor 1 low pressure	0-650
1104	232	40313	104			R	slave 14 compressor 1 high pressure	0-650
1105	233	40314	105			R	slave 14 compressor 2 low pressure	0-650
1106	234	40315	106			R	slave 14 compressor 2 high pressure	0-650
1107	235	40316	107			R	slave 15 compressor 1 low pressure	0-650
1108	236	40317	108			R	slave 15 compressor 1 high pressure	0-650
1109	237	40318	109			R	slave 15 compressor 2 low pressure	0-650
1110	238	40319	110			R	slave 15 compressor 2 high pressure	0-650
1111	239	40320	111			R	Isolation valve modulation in % of the master	0-100
1112	240	40321	112			R	Condensor fan vfd modulation in % of the master	0-100
1113	241	40322	113			R	Isolation valve modulation in % of slave 1	
1114	242	40323	114			R	Condensor fan vfd modulation in % of slave 1	
1115	243	40324	115			R	Isolation valve modulation in % of slave 2	
1116	244	40325	116			R	Condensor fan vfd modulation in % of slave 2	
1117	245	40326	117			R	Isolation valve modulation in % of slave 3	
1118	246	40327	118			R	Condensor fan vfd modulation in % of slave 3	

1119	247	40328	119			R/W	Bit mask of compressor disable (c1 to c16)	1=disable
1120	248	40329	120			R/W	Bit mask of compressor disable (c17 to c32)	1=disable
1121	249	40330	121			R	Bit mask#1 of alarms in U2	
1122	250	40331	122			R	Bit mask#1 of alarms in U3	
1123	251	40332	123			R	Bit mask#1 of alarms in U4	
1124	252	40333	124			R	Bit mask#1 of alarms in U5	
1125	253	40334	125			R	Bit mask#1 of alarms in U6	
1126	254	40335	126			R	Number of compressors running in cooling	
1127	255	40336	127			R	Number of compressors running in heating	
1128	256	40337	128	nvoStatus_Line		R	Status of the unit	
1129	257	40338	129	nvo_Cool_Demand		R	Cooling demand	
1130	258	40339	130			R	Isolation valve modulation in % of slave 4	
1131	259	40340	131			R	Isolation valve modulation in % of slave 5	
1132	260	40341	132			R	Isolation valve modulation in % of slave 6	
1133	261	40342	133			R	Isolation valve modulation in % of slave 7	
1134	262	40343	134			R	Isolation valve modulation in % of slave 8	
1135	263	40344	135			R	Isolation valve modulation in % of slave 9	
1136	264	40345	136			R	Isolation valve modulation in % of slave 10	
1137	265	40346	137			R	Isolation valve modulation in % of slave 11	
1138	266	40347	138			R	Isolation valve modulation in % of slave 12	
1139	267	40348	139			R	Isolation valve modulation in % of slave 13	
1140	268	40349	140			R	Isolation valve modulation in % of slave 14	
1141	269	40350	141			R	Isolation valve modulation in % of slave 15	
1142	270	40351	142			R	Condensor fan vfd modulation in % of slave 4	
1143	271	40352	143			R	Condensor fan vfd modulation in % of slave 5	
1144	272	40353	144			R	Condensor fan vfd modulation in % of slave 6	
1145	273	40354	145			R	Condensor fan vfd modulation in % of slave 7	
1146	274	40355	146			R	Condensor fan vfd modulation in % of slave 8	
1147	275	40356	147			R	Condensor fan vfd modulation in % of slave 9	
1148	276	40357	148			R	Condensor fan vfd modulation in % of slave 10	
1149	277	40358	149			R	Condensor fan vfd modulation in % of slave 11	
1150	278	40359	150			R	Condensor fan vfd modulation in % of slave 12	
1151	279	40360	151			R	Condensor fan vfd modulation in % of slave 13	
1152	280	40361	152			R	Condensor fan vfd modulation in % of slave 14	
1153	281	40362	153			R	Condensor fan vfd modulation in % of slave 15	
1154	282	40363	154				Unused	
1155	283	40364	155				Unused	
1156	284	40365	156				Unused	
1157	285	40366	157				Unused	
1158	286	40367	158				Unused	
1159	287	40368	159				Unused	
1160	288	40369	160				Unused	
1161	289	40370	161				Unused	
1162	290	40371	162				Unused	
1163	291	40372	163				Unused	
1164	292	40373	164				Unused	
1165	293	40374	165				Unused	
1166	294	40375	166			R	Bit mask#1 of alarms in U7	1=alarm
1167	295	40376	167			R	Bit mask#1 of alarms in U8	1=alarm
1168	296	40377	168			R	Bit mask#1 of alarms in U9	1=alarm
1169	297	40378	169			R	Bit mask#1 of alarms in U10	1=alarm
1170	298	40379	170			R	Bit mask#1 of alarms in U11	1=alarm
1171	299	40380	171			R	Bit mask#1 of alarms in U12	1=alarm
1172	300	40381	172			R	Bit mask#1 of alarms in U13	1=alarm
1173	301	40382	173			R	Bit mask#1 of alarms in U14	1=alarm
1174	302	40383	174			R	Bit mask#1 of alarms in U15	1=alarm
1175	303	40384	175			R	Bit mask#1 of alarms in U16	1=alarm
1176	304	40385	176			R	Bit mask#2 of alarms in U2	1=alarm
1177	305	40386	177			R	Bit mask#2 of alarms in U3	1=alarm

1178	306	40387	178			R	Bit mask#2 of alarms in U4	1=alarm
1179	307	40388	179			R	Bit mask#2 of alarms in U5	1=alarm
1180	308	40389	180			R	Bit mask#2 of alarms in U6	1=alarm
1181	309	40390	181			R	Bit mask#2 of alarms in U7	1=alarm
1182	310	40391	182			R	Bit mask#2 of alarms in U8	1=alarm
1183	311	40392	183			R	Bit mask#2 of alarms in U9	1=alarm
1184	312	40393	184			R	Bit mask#2 of alarms in U10	1=alarm
1185	313	40394	185			R	Bit mask#2 of alarms in U11	1=alarm
1186	314	40395	186			R	Bit mask#2 of alarms in U12	1=alarm
1187	315	40396	187			R	Bit mask#2 of alarms in U13	1=alarm
1188	316	40397	188			R	Bit mask#2 of alarms in U14	1=alarm
1189	317	40398	189			R	Bit mask#2 of alarms in U15	1=alarm
1190	318	40399	190			R	Bit mask#2 of alarms in U16	1=alarm
1191	319	40400	191			R	C1_Status (bit mapped)	1=On
1192	320	40401	192			R	C2_Status (bit mapped)	1=On

BMS INTEGER INDEXES 121-135 are the bit maps of alarms present in each slave

Bit 0 = Entering Water temperature sensor failure
Bit 1 = Leaving Water temperature sensor failure
Bit 2 = Analog input B8 sensor failure
Bit 3 = Analog input B7 sensor failure
Bit 4 = Circuit 1 Low Pressure sensor failure
Bit 5 = Circuit 1 High Pressure sensor failure
Bit 6 = Circuit 2 Low Pressure sensor failure
Bit 7 = Circuit 2 High Pressure sensor failure
Bit 8 = High Leaving Water temperature
Bit 9 = Low Leaving Water temperature
Bit 10 = Circuit 1 High Pressure
Bit 11 = Circuit 1 Low Pressure
Bit 12 = Circuit 2 High Pressure
Bit 13 = Circuit 2 Low Pressure
Bit 14 = Compressor 1 Overload
Bit 15 = Compressor 2 Overload

BMS INTEGER INDEXES 176-190 are the bit maps of alarms present in each slave

Bit 0 = Evaporator flow alarm
Bit 1 = Condenser flow alarm
Bit 2 = Phase Detector
Bit 3 = Low Oil Pressure Comp 1
Bit 4 = Low Oil Pressure Comp 2
Bit 5 = Compressor 1 Local switch is turned off
Bit 6 = Compressor 2 Local switch is turned off
Bit 7 = Not used
Bit 8 = Not used
Bit 9 = Not used
Bit 10 = Not used
Bit 11 = Not used
Bit 12 = Not used
Bit 13 = Not used
Bit 14 = Not used
Bit 15 = Not used

BMS INTEGER INDEX 191 is a bit map of Compressor #1 in all modules
Bit 0 = C1 of Master, Bit 1 = C1 of slave 1 ---------- Bit 15 = C1 of slave 15

BMS INTEGER INDEX 192 is a bit map of Compressor #2 in all modules
Bit 0 = C2 of Master, Bit 1 = C2 of slave 1 ---------- Bit 15 = C2 of slave 15