mP20II - ARANEW: DIGITAL VARIABLES (COILS)

variable address	description	variable type	MODBUS Database (e.g. address -> bit nr.)			
			unit 1	unit 2	unit 3	unit n
0	Not used	…	1	201	401	(n-1)*200+1
1	System On	r	2	202	402	(n-1)*200+2
2	Compressor 1	r	3	203	403	(n-1)*200+3
3	Compressor 2	r	4	204	404	(n-1)*200+4
4	Compressor 3	r	5	205	405	(n-1)*200+5
5	Compressor 4	r	6	206	406	(n-1)*200+6
6	Circulating Pump 1	r	7	207	407	(n-1)*200+7
7	Circulating Pump 2	r	8	208	408	(n-1)*200+8
8	Circ. 1 Refrigerant shut-off valve	r	9	209	409	(n-1)*200+9
9	Circ. 2 Refrigerant shut-off valve	r	10	210	410	(n-1)*200+10
10	100% Heat recovery (option)	r	11	211	411	(n-1)*200+11
11	Antifreeze heaters (option)	r	12	212	412	(n-1)*200+12
12	Fan Star connection (low speed)	r	13	213	413	(n-1)*200+13
13	Fan Delta connection (high speed)	r	14	214	414	(n-1)*200+14
14	Circuit 1 Defrost (Heat pump only)	r	15	215	415	(n-1)*200+15
15	Circuit 2 Defrost (Heat pump only)	r	16	216	416	(n-1)*200+16
16	Low power consumption mode	r	17	217	417	(n-1)*200+17
17	Winter mode (Heat pump only)	r	18	218	418	(n-1)*200+18
18	Free-cooling (pump)	r	19	219	419	(n-1)*200+19
19	Wrong password Alarm	r	20	220	420	(n-1)*200+20
20	Water inlet High Temperature Alarm	r	21	221	421	(n-1)*200+21
21	Water inlet Low Temperature Alarm	r	22	222	422	(n-1)*200+22
22	Loss of water flow Alarm	r	23	223	423	(n-1)*200+23
23	Low Pressure 1 PreAlarm (Autom.Reset)	r	24	224	424	(n-1)*200+24
24	Low Pressure 2 PreAlarm (Autom.Reset)	r	25	225	425	(n-1)*200+25
25	Low Pressure 1 Alarm	r	26	226	426	(n-1)*200+26
26	Low Pressure 2 Alarm	r	27	227	427	(n-1)*200+27
27	High Pressure 1 Alarm	r	28	228	428	(n-1)*200+28
28	High Pressure 2 Alarm	r	29	229	429	(n-1)*200+29
29	Compressor 1 Overload Alarm	r	30	230	430	(n-1)*200+30
30	Compressor 2 Overload Alarm	r	31	231	431	(n-1)*200+31
31	Compressor 3 Overload Alarm	r	32	232	432	(n-1)*200+32
32	Compressor 4 Overload Alarm	r	33	233	433	(n-1)*200+33
33	Circulating Pump 1 Overload Alarm	r	34	234	434	(n-1)*200+34
34	Circulating Pump 2 Overload Alarm	r	35	235	435	(n-1)*200+35
35	Free-cooling Pump Overload Alarm	r	36	236	436	(n-1)*200+36
36	Circuit 1 Antifreeze Alarm	r	37	237	437	(n-1)*200+37
37	Circuit 2 Antifreeze Alarm	r	38	238	438	(n-1)*200+38
38	Heat recovery limit Alarm	r	39	239	439	(n-1)*200+39
39	Heat recovery limit PreAlarm (Autom.Reset)	r	40	240	440	(n-1)*200+40
40	Interrupted LAN Alarm	r	41	241	441	(n-1)*200+41
41	Water Inlet Temp. Sensor Failure/Disconnected	r	42	242	442	(n-1)*200+42

mP20II - ARANEW: DIGITAL VARIABLES (COILS) (following)

variable address	Description	variable type	MODBUS Database (e.g. address -> bit nr.)			
			unit 1	unit 2	unit 3	unit n
42	Water Outlet Temp. Sensor Failure/Disconnected	r	43	243	443	(n-1)*200+43
43	Water Tank Temp. Sensor Failure/Disconnected	r	44	244	444	(n-1)*200+44
44	Outdoor air Temp. Sensor Failure/Disconnected	r	45	245	445	(n-1)*200+45
45	Condensing 1 Temp. Sensor Failure/Disconnected	r	46	246	446	(n-1)*200+46
46	Condensing 2 Temp. Sensor Failure/Disconnected	r	47	247	447	(n-1)*200+47
47	Condensing 1 Press. Sensor Failure/Disconnected	r	48	248	448	(n-1)*200+48
48	Condensing 2 Press. Sensor Failure/Disconnected	r	49	249	449	(n-1)*200+49
49	Evaporating 1 Press. Sensor Failure/Disconnected	r	50	250	450	(n-1)*200+50
50	Evaporating 2 Press. Sensor Failure/Disconnected	r	51	251	451	(n-1)*200+51
51	General Alarm State	r	52	252	452	(n-1)*200+52
52	2nd Level Alarm State	r	53	253	453	(n-1)*200+53
53	Compressor 1: hour counter threshold Alarm	r	54	254	454	(n-1)*200+54
54	Compressor 2: hour counter threshold Alarm	r	55	255	455	(n-1)*200+55
55	Compressor 3: hour counter threshold Alarm	r	56	256	456	(n-1)*200+56
56	Compressor 4: hour counter threshold Alarm	r	57	257	457	(n-1)*200+57
57	Circulating Pump 1: hour counter threshold Alarm	r	58	258	458	(n-1)*200+58
58	Circulating Pump 2: hour counter threshold Alarm	r	59	259	459	(n-1)*200+59
59	Summer/Winter mode remote control	r/w	60	260	460	(n-1)*200+60
60	Unit Remote Switch-On/Off Control	r/w	61	261	461	(n-1)*200+61
61	Buzzer and Alarm Remote Reset Control	r/w	62	262	462	(n-1)*200+62
62	Pump 1-2 Switch-over remote control	r/w	63	263	463	(n-1)*200+63
63	Set Back Mode (Sleep Mode)	r/w	64	264	464	(n-1)*200+64
64	Set Back mode: Cyclical Start of Fan	r/w	65	265	465	(n-1)*200+65
65	Usage of Temp. Values: Local (0) / Mean (1)	r/w	66	266	466	(n-1)*200+66
66	No. Of Stand-by Units: one (0) / two (1)	r	67	267	467	(n-1)*200+67
67	Water Tank Temp. Sensor Fitted	r	68	268	468	(n-1)*200+68
68	Condensing Pressure Sensor Fitted	r	69	269	469	(n-1)*200+69
69	Evaporating Pressure Sensor Fitted	r	70	270	470	(n-1)*200+70
70	Run+Stand-by Circulating Pumps Fitted	r	71	271	471	(n-1)*200+71
71	Circuit 1 Pump-down Failed	r	72	272	472	(n-1)*200+72
72	Circuit 2 Pump-down Failed	r	73	273	473	(n-1)*200+73
73	Circuit 1 Compressor malfunction	r	74	274	474	(n-1)*200+74
74	Circuit 2 Compressor malfunction	r	75	275	475	(n-1)*200+75
75	High Condensing Temperature	r	76	276	476	(n-1)*200+76
76	Circuit 1 Compressor Operative Limits	r	77	277	477	(n-1)*200+77
77	Circuit 2 Compressor Operative Limits	r	78	278	478	(n-1)*200+78
78	Defrost Limits	r	79	279	479	(n-1)*200+79
79	Wrong phase sequence alarm	r	80	280	480	(n-1)*200+80
80	Free-Cooling Pump: hour counter threshold Alarm	r	81	281	481	(n-1)*200+81

mP20II - ARANEW: ANALOG VARIABLES (HOLDING or INPUT REGISTERS)

(all values x 10)

variable address	description	m.u.	variable type	MODBUS Database (e.g. address -> bit nr.)			
				unit 1	unit 2	unit 3	unit n
0	Not used	-	-	1	257	513	(n-1)*256+1
1	Water Outlet Temperature	°C	r	2	258	514	(n-1)*256+2
2	Water Outlet Temp. used by regulator	°C	r	3	259	515	(n-1)*256+3
3	Water Inlet Temperature	°C	r	4	260	516	(n-1)*256+4
4	Water Tank Temperature	°C	r	5	261	517	(n-1)*256+5
5	Outdoor Air Temperature	°C	r	6	262	518	(n-1)*256+6
6	Circuit 1 Condensing Temperature	°C	r	7	263	519	(n-1)*256+7
7	Circuit 2 Condensing Temperature	°C	r	8	264	520	(n-1)*256+8
8	Circuit 1 Evaporating Temperature	°C	r	9	265	521	(n-1)*256+9
9	Circuit 2 Evaporating Temperature	°C	r	10	266	522	(n-1)*256+10
10	Circuit 1 Condensing Pressure	Bar	r	11	267	523	(n-1)*256+11
11	Circuit 2 Condensing Pressure	Bar	r	12	268	524	(n-1)*256+12
12	Circuit 1 Evaporating Pressure	Bar	r	13	269	525	(n-1)*256+13
13	Circuit 2 Evaporating Pressure	Bar	r	14	270	526	(n-1)*256+14
14	Fan Speed Modulation (0-100,0%)	%	r	15	271	527	(n-1)*256+15
15	Delivery Water Temp. Actual Set Point	°C	r	16	272	528	(n-1)*256+16
16	Delivery Water Temp. Max. Hysteresi	°C	r	17	273	529	(n-1)*256+17
17	Sending variables Offset		r/w	18	274	530	(n-1)*256+18
18	Delivery Water Temp. Summer STD Set Point	°C	r/w	19	275	531	(n-1)*256+19
19	Delivery Water Temp. Summer OPT Set Point	°C	r/w	20	276	532	(n-1)*256+20
20	Del.Water T. Summer SetBack mode SetP.	°C	r/w	21	277	533	(n-1)*256+21
21	Delivery Water Temp. Winter Set Point	°C	r/w	22	278	534	(n-1)*256+22
22	Del.Water T. Winter SetBack mode SetP.	°C	r/w	23	279	535	(n-1)*256+23
23	CW inlet High Temp. Alarm Threshold	°C	r/w	24	280	536	(n-1)*256+24
24	CW inlet Low Temp. Alarm Threshold	°C	r/w	25	281	537	(n-1)*256+25
25	HW inlet High Temp. Alarm Threshold	°C	r/w	26	282	538	(n-1)*256+26
26	HW inlet Low Temp. Alarm Threshold	°C	r/w	27	283	539	(n-1)*256+27
27	Summer T.ext Compens.: P1 T.ext SetP.	°C	r/w	28	284	540	(n-1)*256+28
28	Summer T.ext Compens.: P2 T.wout SetP.	°C	r/w	29	285	541	(n-1)*256+29
29	Summer T.ext Compens.: P2 T.ext SetP.	°C	r/w	30	286	542	(n-1)*256+30
30	Winter T.ext Compens.: P1 T.ext SetP.	°C	r/w	31	287	543	(n-1)*256+31
31	Winter T.ext Compens.: P2 T.wout SetP.	°C	r/w	32	288	544	(n-1)*256+32
32	Winter T.ext Compens.: P2 T.ext SetP.	°C	r/w	33	289	545	(n-1)*256+33
33	Free-Cooling Activation Set Point	°C	r/w	34	290	546	(n-1)*256+34

mP20II - ARANEW: INTEGER VARIABLES (HOLDING or INPUT REGISTERS)

variable address	description	m.u.	variable type	MODBUS Database (e.g. address -> bit nr.)			
				unit 1	unit 2	unit 3	unit n
0	Not Used	-	-	129	385	641	(n-1)*256+128+1
1	Compressor 1 hour counter	h	r	130	386	642	(n-1)*256+128+1
2	Compressor 2 hour counter	h	r	131	387	643	(n-1)*256+128+1
3	Compressor 3 hour counter	h	r	132	388	644	(n-1)*256+128+4
4	Compressor 4 hour counter	h	r	133	389	645	(n-1)*256+128+5
5	Circulating Pump 1 hour counter	h	r	134	390	646	(n-1)*256+128+6
6	Circulating Pump 2 hour counter	h	r	135	391	646	(n-1)*256+128+7
7	Free-cooling Pump hour counter	h	r	136	392	648	(n-1)*256+128+8
8	Compressor 1 Starting counter	n	r	137	393	649	(n-1)*256+128+9
9	Compressor 1 Starting counter x10.000	$nx10^4$	r	138	394	650	(n-1)*256+128+10
10	Compressor 2 Starting counter	n	r	139	395	651	(n-1)*256+128+11
11	Compressor 2 Starting counter x10.000	$nx10^4$	r	140	396	652	(n-1)*256+128+12
12	Compressor 3 Starting counter	n	r	141	397	653	(n-1)*256+128+13
13	Compressor 3 Starting counter x10.000	$nx10^4$	r	142	398	654	(n-1)*256+128+14
14	Compressor 4 Starting counter	n	r	143	399	655	(n-1)*256+128+15
15	Compressor 4 Starting counter x10.000	$nx10^4$	r	144	400	656	(n-1)*256+128+16
16	Circuit 1 Defrost counter	n	r	145	401	657	(n-1)*256+128+17
17	Circuit 1 Defrost counter x10.000	$nx10^4$	r	146	402	658	(n-1)*256+128+18
18	Circuit 2 Defrost counter	n	r	147	403	659	(n-1)*256+128+19
19	Circuit 2 Defrost counter x10.000	$nx10^4$	r	148	404	660	(n-1)*256+128+20
20	Both Circuit Defrost counter	n	r	149	405	661	(n-1)*256+128+21
21	Both Circuit Defrost counter x10.000	$nx10^4$	r	150	406	662	(n-1)*256+128+22
22	Non Performing Defrost counter	n	r	151	407	663	(n-1)*256+128+23
23	Non Performing Defrost counter x10.000	$nx10^4$	r	152	408	664	(n-1)*256+128+24
24	Unit Type (0= STD Chiller, 1=Low Temp. Ch., 2=Ch.+Heat Rec.; 3=Heat Pump, 4=HP+Heat Rec. 5=Ch.+Energy Saving)		r	153	409	665	(n-1)*256+128+25
25	Circulating Pump Config. (0,1 or 2 Pumps)		r	154	410	666	(n-1)*256+128+26
26	Total of units connected in LAN	n	r	155	411	667	(n-1)*256+128+27
27	Comp.1 Status (0=Off,1=On,2=AL,3=Pump.Down)	n	r	156	412	668	(n-1)*256+128+28
28	Comp.2 Status		r	157	413	669	(n-1)*256+128+29
29	Comp.3 Status		r	158	414	670	(n-1)*256+128+30
30	Comp.4 Status		r	159	415	671	(n-1)*256+128+31
31	Pump 1 Status		r	160	416	672	(n-1)*256+128+32
32	Pump 2 Status		r	161	417	673	(n-1)*256+128+33
33	FC Pump Status		r	162	418	674	(n-1)*256+128+34
34	Actual set Point mode (0=std,1= T.ext Compens., 2=OPT SetP., 3=Setback SetP., 4=Remote Offset		r	163	419	675	(n-1)*256+128+35
35	Reserved Variable			164	420	676	(n-1)*256+128+36
36	Reserved Variable			165	421	677	(n-1)*256+128+37
37	Last Defrost Lenght	s	r	166	422	678	(n-1)*256+128+38

mP20II - ARANEW: INTEGER VARIABLES (HOLDING or INPUT REGISTERS)

variable address	description	m.u.	variable type	MODBUS Database (e.g. address -> bit nr.)			
				unit 1	unit 2	unit 3	unit n
38	Restart Delay	s	r/w	167	423	679	(n-1)*256+128+39
39	Regulation Start Transitory	s	r/w	168	424	680	(n-1)*256+128+40
40	Low Pressure Delay	s	r/w	169	425	681	(n-1)*256+128+41
41	Water High/Low Temp. Alarm Delay	min	r/w	170	426	682	(n-1)*256+128+42
42	Reserved Variable			171	427	683	(n-1)*256+128+43
43	Stand-by Unit Switch-over time	h	r/w	172	428	684	(n-1)*256+128+44
44	Run-Stand-by pump switch-over time	h	r/w	173	429	685	(n-1)*256+128+45
45	Setback Mode Cyclical start	min	r/w	174	430	686	(n-1)*256+128+46
46	Compr.1 working hours threshold	hx100	r/w	175	431	687	(n-1)*256+128+47
47	Compr.2 working hours threshold	hx100	r/w	176	432	688	(n-1)*256+128+48
48	Compr.3 working hours threshold	hx100	r/w	177	433	689	(n-1)*256+128+49
49	Compr.4 working hours threshold	hx100	r/w	178	434	690	(n-1)*256+128+50
50	Pump 1 working hours threshold	hx100	r/w	179	435	691	(n-1)*256+128+51
51	Pump 2 working hours threshold	hx100	r/w	180	436	692	(n-1)*256+128+52
52	FC Pump working hours threshold	hx100	r/w	181	437	693	(n-1)*256+128+53