Carel address	Modbus Address	Description	Unit measure	Read - write	Min value	Max Value
DIGITAL VARIABLES (COILS)						
0	1	Not used				
1	2	System On		r		
2	3	Compressor 1		r		
3	4	Compressor 2		r		
4	5	Condensing Regulation Active		r		
5	6	Reserved Variable		…		
6	7	Reserved Variable		…		
7	8	Antifreeze heaters (option)		r		
8	9	Circuit Defrost (Heat pump only)		r		
9	10	Reserved Variable		…		
10	11	Winter mode (Heat pump only)		r		
11	12	---		…		
12	13	---		…		
13	14	---		…		
14	15	---		…		
15	16	---		…		
16	17	---		…		
17	18	---		…		
18	19	---		…		
19	20	Wrong password Alarm		r		
20	21	Water inlet High Temperature Alarm		r		
21	22	Water inlet Low Temperature Alarm		r		
22	23	Loss of water flow Alarm		r		
23	24	Low Pressure PreAlarm (Autom.Reset)		r		
24	25	Low Pressure Alarm		r		
25	26	High Pressure Alarm		r		
26	27	Compressor 1 Overload Alarm		r		
27	28	Compressor 2 Overload Alarm		r		
28	29	Circulating Pump Loss flow Alarm		r		
29	30	Circuit Antifreeze Alarm		r		
30	31	Interrupted LAN Alarm		r		
31	32	Water Inlet Temp. Sensor Failure/Disconnected		r		
32	33	Water Outlet Temp. Sensor Failure/Disconnected		r		
33	34	Outdoor air Temp. Sensor Failure/Disconnected		r		
34	35	Condensing Temp. Sensor Failure/Disconnected		r		
35	36	Circulating Pump 1		r		
36	37	---		…		
37	38	---		…		
38	39	---		…		
39	40	---		…		
40	41	---		…		
41	42	---		…		
42	43	---		…		
43	44	---		…		
44	45	---		…		
45	46	---		…		
46	47	---		…		
47	48	---		…		
48	49	---		…		
49	50	---		…		
50	51	---		…		
51	52	---		…		
52	53	---		…		
53	54	Compressor 1: hour counter threshold Alarm		r		
54	55	Compressor 2: hour counter threshold Alarm		r		
55	56	Circulating Pump: hour counter threshold Alarm		r		
56	57	General Alarm State		r		
57	58	2nd Level Alarm State		r		
58	59	---		…		
59	60	Summer/Winter mode remote control		r/w		
60	61	Unit Remote Switch-On/Off Control		r/w		
61	62	Buzzer and Alarm Remote Reset Control		r/w		
62	63	---		…		
63	64	Set Back Mode (Sleep Mode)		r/w		
64	65	Set Back mode: Cyclical Start of Fan		r/w		
65	66	Usage of Temp. Values: Local (0) / Mean (1)		r/w		
66	67	No. Of Stand-by Units: one (0) / two (1)		r		
67	68	Reserved Variable		…		
68	69	Operational Limits Of Evaporation		r		
69	70	Operational Limits Of Condensation		r		
70	71	Circuit Compressor malfunction		r		
71	72	High Condensing Temperature		r		
72	73	Circuit Compressor Operative Limits		r		
73	74	Defrost Limits		r		
74	75					
75	76					
ANALOG VARIABLES (HOLDING or INPUT REGISTERS) (all values x 10)						
0	1	Not used	-	-		
1	2	Water Outlet Temperature	°C	r		
2	3	Water Outlet Temp. used by regulator	°C	r		
3	4	Water Inlet Temperature	°C	r		

4	5	Outdoor Air Temperature	°C	r		
5	6	Condensing Temperature	°C	r		
6	7	Suction Pressure	Bar	r		
7	8	Evaporating Temperature	°C	r		
8	9	Suction Temperature	°C	r		
9	10	Fan Speed Modulation (0-100,0%)	%	r		
10	11	Regulation Ramp	°C	r		
11	12	Real Superheat	°C	r		
12	13	Actual Superheat circuit	°C	r		
13	14	---	-	-		
14	15	---	-	-		
15	16	Delivery Water Temp. Actual Set Point	°C	r		
16	17	Delivery Water Temp. Max. Hysteresi	°C	r		
17	18	Sending variables Offset		r/w	0,1	
18	19	Delivery Water Temp. Summer STD Set Point	°C	r/w	6.0 (2)	13.0 (2)
19	20	Delivery Water Temp. Summer OPT Set Point	°C	r/w	6.0 (2)	13.0 (2)
20	21	Del.Water T. Summer SetBack mode SetP.	°C	r/w	6.0 (2)	13.0 (2)
21	22	Delivery Water Temp. Winter Set Point	°C	r/w	28 (2)	53 (2)
22	23	Del.Water T. Winter SetBack mode SetP.	°C	r/w	28 (2)	53 (2)
23	24	CW inlet High Temp. Alarm Threshold	°C	r/w	-15,0	25,0
24	25	CW inlet Low Temp. Alarm Threshold	°C	r/w	-15,0	35,0
25	26	HW inlet High Temp. Alarm Threshold	°C	r/w	30,0	58,0
26	27	HW inlet Low Temp. Alarm Threshold	°C	r/w	20,0	50,0
27	28	Summer T.ext Compens.: P1 T.ext SetP.	°C	r/w	10,0	45,0
28	29	Summer T.ext Compens.: P2 T.wout SetP.	°C	r/w	6.0 (2)	13.0 (2)
29	30	Summer T.ext Compens.: P2 T.ext SetP.	°C	r/w	10,0	45,0
30	31	Winter T.ext Compens.: P1 T.ext SetP.	°C	r/w	-10,0	15,0
31	32	Winter T.ext Compens.: P2 T.wout SetP.	°C	r/w	28,0	53,0
32	33	Winter T.ext Compens.: P2 T.ext SetP.	°C	r/w	-10,0	15,0
33	34	Automatic switch summer/winter - External temperature on Winter	°C	r/w	8,0	24,0
34	35	Automatic switch summer/winter - External temperature on Summer	°C	r/w	12,0	28,0

INTEGER VARIABLES (HOLDING or INPUT REGISTERS)

0	129	Not Used	-	-		
1	130	Compressor 1 hour counter	h	r		
2	131	Compressor 2 hour counter	h	r		
3	132	Circulating Pump 1 hour counter	h	r		
4	133	Compressor 1 Starting counter	n	r		
5	134	Compressor 1 Starting counter x10.000	$nx10^4$	r		
6	135	Compressor 2 Starting counter	n	r		
7	136	Compressor 2 Starting counter x10.000	$nx10^4$	r		
8	137	Circuit Defrost counter	n	r		
9	138	Circuit Defrost counter x10.000	$nx10^4$	r		
10	139	Non Performing Defrost counter	n	r		
11	140	Non Performing Defrost counter x10.000	$nx10^4$	r		
12	141	---		...		
13	142	---		...		
14	143	---		...		
15	144	---		...		
16	145	---		...		
17	146	---		...		
18	147	---		...		
19	148	---		...		
20	149	---		...		
21	150	---		...		
22	151	---		...		
23	152	---		...		
24	153	Unit Type (0= STD Chiller, 1=Technologic Use Chiller, 2=Heat Pump)		r		
25	154	Position Valve	n	r		
26	155	Total of units connected in LAN	n	r		
27	156	Comp.1 Status (0=Off,1=On,2=AL,3=Pump.Down)	n	r		
28	157	Comp.2 Status		r		
29	158	Pump 1 Status		r		
30	159	Actual set Point mode (0=std,1= T.ext Compens., 2=OPT SetP., 3=Setback SetP., 4=Remote Offset		r		
31	160	Reserved Variable				
32	161	Last Defrost Lenght	s	r		
33	162	Restart Delay	s	r/w	0	300
34	163	Regulation Start Transitory	s	r/w	15	99
35	164	Low Pressure Delay	s	r/w	0	300
36	165	Water High/Low Temp. Alarm Delay	min	r/w	0	99
37	166	Reserved Variable				
38	167	---		...		
39	168	---		...		
40	169	---		...		
41	170	---		...		
42	171	---		...		
43	172	---		...		
44	173	---		...		
45	174	---		...		
46	175	---		...		
47	176	---		...		

48	177	---		…		
49	178	---		…		
50	179	---		…		
51	180	---		…		
52	181	---		…		
53	182	---		…		
54	183	---		…		
55	184	---		…		
56	185	---		…		
57	186	---		…		
58	187	---		…		
59	188	---		…		
60	189	Automatic switch summer/winter - Delay On Winter	min	r/w	1	300
61	190	Automatic switch summer/winter - Delay On Summer	min	r/w	1	300
62						