

**PARAMETER LISTS**

Ref.	Control Setpoints	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
G01	Cooling Setpoint	°C	6	12	6.5	X			
G02	Heating Setpoint	°C	0	0	0	-	-	X	X

Ref.	Configuration Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
H01	Maximum Heating Set Point	°C	0	90	0	-	-	X	X
H02	Minimum Heating Set Point	°C	-40	0	0	-	-	X	X
H03	Maximum Cooling Set Point	°C	6	90	12	-	X	X	
H04	Minimum Cooling Set Point	°C	-40	12	6	-	X	X	
H05	Number of Circuits (Chiller dependant)	Num	0	2	2	-	X	X	
H06	Compressors per Circuit (Chiller Dependant)	Num	0	4	2	-	X	X	
H07	Capacity Steps per compressor	Num	0	3	0	-	-	X	X
H08	Compressor ON sequence 0 = Start Compressor with least running hours, Stop Compressor with most running hours. 1 = Start Compressor 1, 2, 3. Stop Compressor 3,2,1	Flag	0	1	0	-	X		
H09	Circuit balancing 0 = Start Compressors in Circuit 1 before Circuit 2 1 = Balance the Compressors in both Circuits	Flag	0	1	0	-	X		
H10	Heat Pump 0 = Chiller, 1 = Heat Pump	Flag	0	1	0	-	-	X	X
H11	Configuration of Sensor ST1 1 = Entering Water Temperature	Num	0	4	1	-	X	X	
H12	Configuration of Sensor ST2 1 = Leaving Water Temperature	Num	0	3	1	-	X	X	
H13	Configuration of Sensor ST3 2 = 4-20Ma Condenser Pressure Circuit 1	Num	0	5	2	-	X	X	
H14	Configuration of Sensor ST4 3 = Outside Air Temperature	Num	0	3	3	-	X	X	
H15	Configuration of Sensor ST5 0 = No Probe	Num	0	1	0	-	X	X	
H16	Configuration of Sensor ST6 2 = 4-20Ma Condenser Pressure Circuit 2	Num	0	4	2	-	X	X	
H17	Bottom of scale pressure value	KPa*10	0	350	300	-	X		
H18	Polarity of Input ID1 ID2 ID3 ID4	Num	0	15	15	-	X	X	
H19	Polarity of Input ID5 ID6 ID7 ID8	Num	0	15	15	-	X	X	
H20	Polarity of Input ID9 ID10 ID11 ST4	Num	0	15	15	-	X	X	
H21	Polarity of Input ST1 (if Digital Input)	Flag	0	1	0	-	-	X	X
H22	Polarity of Input ST2 (if Digital Input)	Flag	0	1	0	-	-	X	X
H23	Configuration of Input ID1 10 = HIGH Pressure Circuit 1	Num	0	28	10	-	X	X	
H24	Configuration of Input ID2 12 = LOW Pressure Circuit 1	Num	0	28	12	-	X	X	
H25	Configuration of Input ID3 8 = Cond. Fan Thermal Overload Circuit 1	Num	0	28	8	-	X	X	
H26	Configuration of Input ID4 4 = Compressor Thermal Overload Circuit 1	Num	0	28	4	-	X	X	
H27	Configuration of Input ID5 11 = HIGH Pressure Circuit 2	Num	0	28	11	-	X	X	
H28	Configuration of Input ID6 13 = LOW Pressure Circuit 2	Num	0	28	13	-	X	X	
H29	Configuration of Input ID7 9 = Cond. Fan Thermal Overload Circuit 2	Num	0	28	9	-	X	X	
H30	Configuration of Input ID8 ? = Compressor Thermal Overload Circuit 2	Num	0	28	?	-	X	X	
H31	Configuration of Input ID9 0 = Not Used	Num	0	28	0	-	X	X	

**PARAMETER LISTS**

Ref.	Configuration Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
H32	Configuration of Input ID10 2 = Remote ON / OFF	Num	0	28	2	-	X	X	
H33	Configuration of Input ID11 1 = Flow Switch	Num	0	28	1	-	X	X	
H34	Configuration ST4 (if Digital Input)	Num	0	28	0	-	X	X	
H35	Configuration of output RL2 9 = Compressor step 2	Num	0	17	9	-	X	X	
H36	Configuration of output RL3 0 = Disabled, 11= Compressor step 4	Num	0	17	11	-	X	X	
H37	Configuration of output RL4 0 = Disabled, 16 = Compressor step 5	Num	0	17	16	-	X	X	
H38	Configuration of output RL5 12 = Fan 2 Circuit 1	Num	0	17	12	-	X	X	
H39	Configuration of output RL6 13 = Fan 3 Circuit 1 14 = Fan 2 Circuit 2	Num	0	17	13	-	X	X	
H40	Configuration of output RL7 7 = Pump	Num	0	17	7	-	X	X	
H41	Polarity RL2	Flag	0	1	0	-	X	X	
H42	Polarity RL3	Flag	0	1	0	-	X	X	
H43	Polarity RL4	Flag	0	1	0	-	X	X	
H44	Polarity RL5	Flag	0	1	0	-	X	X	
H45	Alarm relay polarity 0 = Output ON if Alarm Active 1 = Output OFF if Alarm Active	Flag	0	1	0	-	X		
H46	Configuration fan 1 Circuit 1 output 0 = Triac output from TK1 1 = 4-20mA output from AN1 2 = Solid State Relay Output from TK1	Flag	0	2	2	-	X	X	
H47	Configuration fan 1 Circuit 2 output 0 = Triac output from TK1 1 = 4-20mA output from AN1 2 = Solid State Relay Output from TK1	Flag	0	2	2	-	X	X	
H48	Configuration serial protocol 0 = BMS Communications Disabled 1 = BMS Communications enabled	Flag	0	1	0	-	X		
H49	Selection of operating mode 0 = Selection by Keyboard	Flag	0	1	0	-	X	X	
H50	Enable dynamic set point 0 = Disable, 1 = Enable	Flag	0	1	0	-	-	X	X
H51	Offset of dynamic set point during cooling	°C	-50	80	30	-	-	X	X
H52	Offset of dynamic set point during heating	°C	-50	80	30	-	-	X	X
H53	Dynamic outdoor temp. set point during cooling	°C	-127	127	35	-	-	X	X
H54	Dynamic outdoor temp. set point during heating	°C	-127	127	-5	-	-	X	X
H55	Delta dynamic outdoor temp. set point during cooling	°C	-50	80	25	-	-	X	X
H56	Delta dynamic outdoor temp. set point during heating	°C	-50	80	28	-	-	X	X
H57	Offset Sensor 1	°C	-12.7	12.7	0	-	X		
H58	Offset Sensor 2	°C	-12.7	12.7	0	-	X		
H59	Offset Sensor 3 (Note : °C/10, Kpa*10)	°C / Kpa	-127	127	-10	-	X		
H60	Offset Sensor 4	°C	-12.7	12.7	0	-	X		
H61	Offset Sensor 5	°C	-12.7	12.7	0	-	-	X	X
H62	Offset Sensor 6 (Note : °C/10, Kpa*10)	°C / Kpa	-127	127	-6	-	X		
H63	Voltage Frequency 0=50 Hz 1=60 Hz	Flag	0	1	0	-	X	X	
H64	Temperature Display	Flag	0	1	0	-	X	X	

Ecologic

	0= °C 1=°F								
H65	Family serial address Used to set the Address of the controller when using a Modbus Interface	Num	0	14	0	-	<b>X</b>		
H66	Device serial address Used to set the Address of the controller when using a Modbus Interface	Num	0	14	0	-	<b>X</b>		
H67	User password	Num	0	255	38	-	<b>X</b>	<b>X</b>	
H68	Copy card password Factory use only	Num	0	255	23	-	<b>X</b>	<b>X</b>	
H69	Keyboard Present	Flag	0	1	1	-	<b>X</b>	<b>X</b>	

**PARAMETER LISTS**

Ref.	Compressor Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
C01	ON-OFF safety time	s*10	0	255	6	-	X		
C02	ON-ON safety time	s*10	0	255	30	-	X		
C03	Cooling Control Hysteresis	°C	0	25.5	1	-	X		
C04	Heating Control Hysteresis	°C	0	25.5	1.5	-	-	X	X
C05	Regulation algorithm step intervention delta	°C	0	25.5	1.5	-	X		
C06	Compressor – compressor ON interval	s	0	255	60	-	X		
C07	Compressor – compressor OFF interval	s	0	255	30	-	X		
C08	Capacity step ON interval	s	0	255	60	-	-	X	X

Ref.	Condenser Fan Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
F01	Fan output mode	Num	0	2	0	-	X	X	
F02	Fan pick-up time	s/10	0	255	20	-	X		
F03	Fan-Shift	%	0	100	8	-	X	X	
F04	Impulse Duration triac start	uS*100	0	255	30	-	X	X	
F05	Functioning in response to compressor request	Flag	0	1	0	-	X		
F06	Minimum speed during cooling	%	0	100	0	-	X	X	
F07	Maximum silent speed during cooling	%	0	100	100	-	X	X	
F08	Minimum fan speed temperature/pressure set point during cooling	°C/10-Kpa*10	-500	800	120	-	X		
F09	Prop. Band during cooling	°C/10-Kpa*10	0	255	30	-	X		
F10	Delta cut-off	°C/10-Kpa*10	0	255	0	-	X		
F11	Cut-off hysteresis.	°C/10-Kpa*10	0	255	25	-	X		
F12	Bypass time cut-off	s	0	255	10	X			
F13	Max speed during cooling	%	0	100	100	-	X		
F14	Maximum fan speed temperature/pressure set point during cooling	°C/10-Kpa*10	-500	800	150	-	X		
F15	Minimum speed during heating	%	0	100	100	-	-	X	X
F16	Maximum silent speed during heating	%	0	100	100	-	-	X	X
F17	Minimum fan speed temperature/pressure set point during heating	°C/10-Kpa*10	-500	800	10	-	-	X	X
F18	Prop. Band during heating	°C/10-Kpa*10	0	255	50	-	-	X	X
F19	Maximum fan speed during heating	%	0	100	100	-	-	X	X
F20	Maximum fan speed temperature/pressure set point during heating	°C/10-Kpa*10	-500	800	450	-	-	X	X
F21	Preventilation in cooling mode	s	0	255	0	-	X		
F22	Combined or separate fan control 0= Fans control to separate Circuits 1= Fans control to common Circuits	Flag	0	1	1	-	X	X	
F23	Fan activation temperature/pressure set point during defrosting	°C/10-Kpa*10	-500	800	-500	-	-	X	X
F24	Fan activation hysteresis during defrosting	°C/10-Kpa*10	0	255	10	-	-	X	X
F25	Set 2nd fan step Cooling	°C/10-Kpa*10	-500	800	175	-	X		
F26	Set 3rd fan step Cooling	°C/10-Kpa*10	-500	800	190	-	X		
F27	Set 2nd fan step Heating	°C/10-Kpa*10	-500	800	-500	-	-	X	X
F28	Set 3rd fan step Heating	°C/10-Kpa*10	-500	800	-500	-	-	X	X
F29	Duty cycle period for "DC" output	s	1	10	5	-	X	X	

## PARAMETER LISTS

Ref.	Alarm Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
A01	L/P switch bypass time after compressor on	s	0	255	120	-	X		
A02	Low pressure alarm events per hour	Num	0	255	3	-	X	X	
A03	Flow switch bypass time after pump on	s	0	255	50	-	X	X	
A04	Duration of flow switch input active	s	0	255	10	-	X	X	
A05	Duration of flow switch input inactive	s	0	255	30	-	X	X	
A06	Number of flow switch alarm events per hour	Num	0	255	5	-	X	X	
A07	Bypass compressor thermal switch from compressor on	s	0	255	0	-	X	X	
A08	Number of compressor thermal switch alarms/hour	Num	0	255	3	-	X	X	
A09	Number of fan thermal switch alarms/hour	Num	0	255	20	-	X	X	
A10	Anti-freeze alarm bypass after ON-OFF	Min	0	255	0	-	X	X	
A11	Anti-freeze alarm activation set point	°C	-127	127	3	-	X	X	
A12	Hysteresis of anti-freeze alarm	°C	0	25.5	1	-	X	X	
A13	Anti-freeze alarm events/hour	Num	0	255	3	-	X	X	
A14	High pressure/temperature activation set point	°C/10-Kpa*10	0	900	350	-	-	X	X
A15	High pressure hysteresis	°C/10-Kpa*10	0	255	30	-	-	X	X
A16	Low pressure activation bypass	s	0	255	10	-	-	X	X
A17	Low pressure activation set point	°C/10-Kpa*10	-500	800	-500	-	-	X	X
A18	Low pressure hysteresis	°C/10-Kpa*10	0	255	20	-	-	X	X
A19	Low pressure alarm events per hour	Num	0	255	3	-	-	X	X
A20	Machine out of coolant differential	°C	0	255	1	-	-	X	X
A21	Machine out of coolant bypass	Min	0	255	1	-	-	X	X
A22	Machine out of coolant duration	Min	0	255	3	-	-	X	X
A23	Machine out of coolant alarm triggered	Flag	0	1	0	-	-	X	X
A24	Enable low pressure alarm during defrost	Flag	0	1	0	-	-	X	X
A25	Input over-temperature set point	°C	0	255	30	-	-	X	X
A26	Input over-temperature duration	s*10	0	255	60	-	-	X	X

Ref.	Pump Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
P01	Pump operating mode 0= Continuous operation 1= Pump start upon demand from controller	Flag	0	1	0	-	X	X	
P02	Delay between pump ON and compressor ON	s	0	255	120	-	X		
P03	Delay between compressor OFF and pump OFF	s	0	255	255	-	X		
P04	Set start Pump on external temperature	°C/10	-500	800	50	-	X		
P05	Set stand-by on external temperature	°C/10	-500	800	0	-	X		
P06	Hysteresis Pump on external temperature	°C/10	0	255	10	-	X		

**PARAMETER LISTS**

Ref.	Anti Freeze Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
R01	Configuration of electrical heaters in defrost mode	Flag	0	1	1	-	-	X	X
R02	Configuration of electrical heaters on in cooling mode 0= Off during cooling 1= On in cooling if called by the Anti freeze program	Flag	0	1	1	-	X	X	
R03	Configuration of electrical heaters on in heating mode 0= Off during heating 1= On in heating if called by the Anti freeze program	Flag	0	1	1	-	-	X	X
R04	Configuration of electrical heater 1 control probe	Num	0	3	1	-	-	X	X
R05	Configuration of electrical heater 2 control probe	Num	0	3	2	-	X	X	
R06	Configuration of electrical heaters when Unit is OFF or on STAND-BY 0= Off 1= On in if called by the Anti freeze program	Flag	0	1	1	-	X	X	
R07	Set point of electrical heater 1 in heating mode	°C	-7	8	4	-	-	X	X
R08	Set point of electrical heater 1 in cooling mode	°C	-7	8	4	-	X		
R09	Max. set point electrical heaters	°C	-7	127	8	-	X	X	
R10	Min. set point electrical heaters	°C	-127	8	-7	-	X	X	
R11	Hysteresis of anti-freeze heaters	°C	0	255	1	-	X	X	
R12	Parallel electrical heater enable	Flag	0	1	1	-	-	X	X
R13	Set point of electrical heater 2 in heating mode	°C	-7	8	4	-	-	X	X
R14	Set point of electrical heater 2 in cooling mode	°C	-7	8	4	-	-	X	X
R15	Enable supplementary electrical heaters	Flag	0	1	1	-	-	X	X
R16	Delta of activation of supplementary heater 1	°C	0	25.5	2	-	-	X	X
R17	Delta of activation of supplementary heater 2	°C	0	25.5	3	-	-	X	X
R18	Status of with pump OFF	Flag	0	1	0	X			

Ref.	Defrost Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
D01	Defrost enabled	Flag	0	1	0	-	-	X	X
D02	Defrost start temperature/pressure	°C/10-Kpa*10	-500	800	30	-	-	X	X
D03	Defrost interval	Min	0	255	4	-	-	X	X
D04	Defrost end temperature/pressure	°C/10-Kpa*10	-500	800	180	-	-	X	X
D05	Maximum defrost time	Min	0	255	6	-	-	X	X
D06	Compressor-reversing valve wait time	s	0	255	5	-	-	X	X
D07	Drip time	s	0	255	5	-	-	X	X
D08	Delay between defrosting of circuits	s * 10	0	255	5	-	-	X	X
D09	Output probe defrost circuit 1	Num	0	3	1	-	-	X	X
D10	Output probe defrost circuit 2	Num	0	3	1	-	-	X	X
D11	Delay in compressors on in defrost mode	s	0	255	0	-	-	X	X

Ref.	Expansion Card Parameters	Unit	Settings			Access			
			Min	Max	Factory	General	Password	Locked	Hidden
N01	Polarity of ID12 ID13 ID14 ID15	Num	0	15	0	-	-	X	X
N02	Configuration ID12	Num	0	28	0	-	-	X	X
N03	Configuration ID13	Num	0	28	0	-	-	X	X
N04	Configuration ID14	Num	0	28	0	-	-	X	X
N05	Configuration ID15	Num	0	28	0	-	-	X	X
N06	Configuration relay 9	Num	0	17	0	-	-	X	X
N07	Configuration relay 10	Num	0	17	0	-	-	X	X
N08	Configuration relay 11	Num	0	17	0	-	-	X	X
N09	Configuration relay 12	Num	0	17	0	-	-	X	X

Ecologic

N10	Configuration relay 13	Num	0	17	0	-	-	X	X
-----	------------------------	-----	---	----	---	---	---	---	---