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DATE	12/07/21

CONFIGURATION MANUAL

DEFAULT JBUS MEMORY MAPPING FOR LEI GATEWAY

REV: A, 12/07/2021 (mm/dd/yyyy)

REVISION OF CHANGES		
REV LETTER	DESCRIPTION OF CHANGES	RELEASE DATE mm/dd/yy
Original	Original Release	10/10/2018
A	Add EREBA ACCESS Jbus Memory Mapping	12/07/2021

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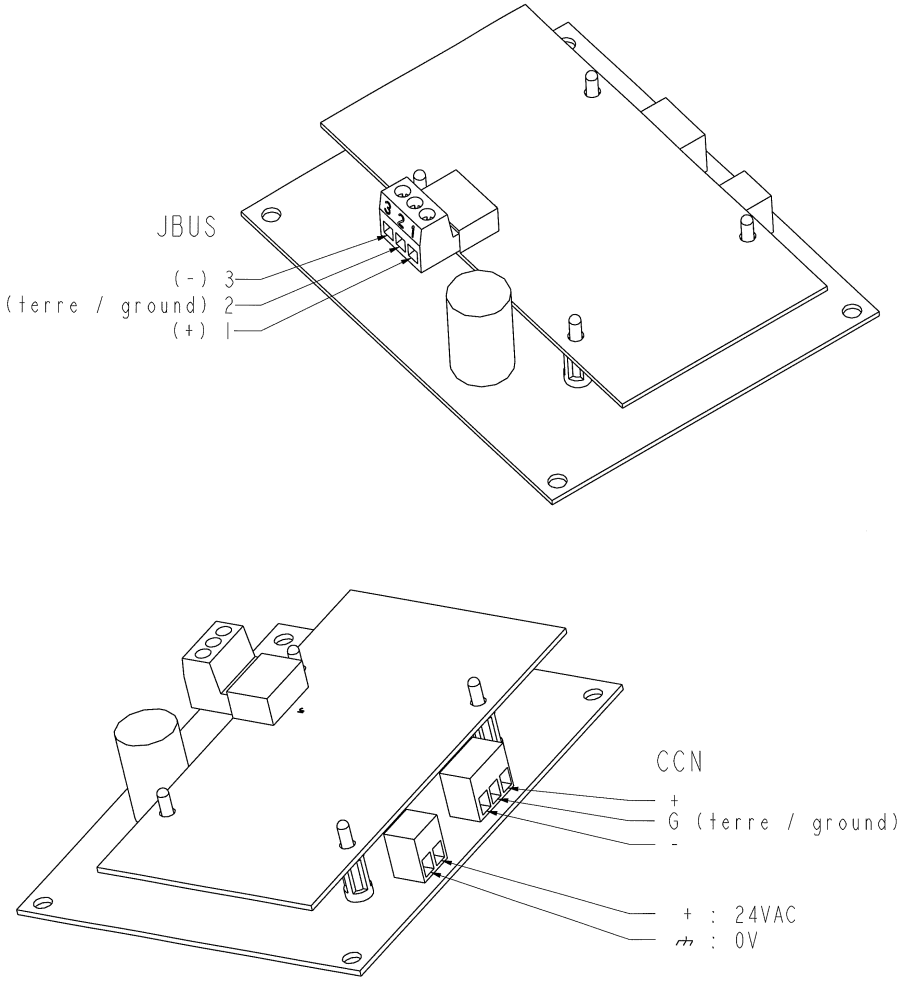
1. JBUS Connections

Figure 2
CCN/JBUS Gateway Connections



On this plan, the LEI board is plugged to its base board that provides supply and CCN connections.

2. JBUS Functions

a. COMMUNICATION PARAMETERS

The JBUS communication bus which uses RS-485 signalling, operates at 300, 600, 1200, 2400, 4800 or 9600 bits per second. It typically operates at 9600 bauds. The Gateway JBUS slave address can take any value between 1 and 255. The default JBUS Gateway address is 1. The JBUS operating rate and the JBUS address can be modified through the JBUS network.

To modify the JBUS communication parameters through the JBUS port:

Operate a write command on register 133[h88] for modifying the JBUS baud rate.

- 300 bauds [h12C]
- 600 bauds [h258]
- 1200 bauds [h4B0]
- 2400 bauds [h960]
- 4800 bauds [h12C0]
- 9600 bauds [h2580] (default value)

Operate a write command on register 134 [h8C] for modifying the JBUS address

- Value between 1 [h1] and 255 [hFF] (default value = 1)

Note: if an incorrect address or an incorrect baud rate is entered, they will be rejected and the Gateway will use the default values.

Maximum response time to complete a JBUS transaction: 700 ms (time out).

b. JBUS FRAME

General

All communications on the JBUS port are done in the Remote Terminal Unit (RTU) mode.

Data have the following frame (binary):

- 8 data bits
- 1 stop bit
- no parity

Reading

Format of data received by the JBUS off-network from the Gateway depends on the CCN Point Type.

- An integer point will be received as 2 bytes unsigned by the JBUS off-network.
- A float point will be received as 2 bytes signed by the JBUS off-network. This data must be divided by 10 when received by the off-network. If negative, it must be two's complemented.

Note: all values received by the JBUS off-network are **in metric** units.

Writing

Format of data sent (writing JBUS command) by the JBUS off-network to the Gateway depends on the Point Type.

- Integer point must be sent as 2 bytes unsigned by the JBUS off-network.
- Float point must be sent as 2 bytes signed by the JBUS off-network. This data must be multiplied by 10 before being sent to the Gateway. If negative, it must be two's complemented.

Note: all values sent by the JBUS off-network to the Gateway must be in **metric** units.

c. JBUS COMMANDS

The following JBUS commands are available:

- Function 1 or 2 : Reading of 1 to 1024 bits in the range 0 to 1824
- Function 3 or 4 : Reading of 1 to 114 registers in the range 0 to 7771
- Function 5 : Writing of 1 bit in the range 1392 to 1824
- Function 6 : Writing of 1 register in the range 91 to 135
- Function 15 : Writing of 1 to 432 bits in the range 1392 to 1824
- Function 16 : Writing of 1 to 27 registers in the range 91 to 137.

d. JBUS AUTO CONFIGURATION

The auto configuration sequence is launched automatically when the board is not configured. By default the board try to read the configuration parameters of the device attached at CCN address (0,1). The board will reboot as long as it as not been able to communicate with the device (0,1).
The CCN address of the device to attach can be changed by writing Jbus registers 136 and 137 (device bus nb and element nb). When theses registers have been written, the auto configuration sequence is launched again.

Warning: writing the jbus register may require many tries if the board tries to attach to an unexisting device at address (0,1). Actually the board will reboot trying to communicate with device (0,1).

e. JBUS MEMORY MAPPING

The Gateway uses 7772 registers of 2 bytes each for its exchange of data with a JBUS off-network. Since all address references in a JBUS message are numbered relative to 0, register are numbered from 0 to 7771.

Table below provides the registers allocation.

[ ] : numbers in brackets provide hexadecimal value
* : doesn't apply to this register type
** : 2 bytes
*** : Unit must be under CCN operating type control otherwise writing command will be ignored

3. JBus Memory Mapping - General

This allocation table provides the JBUS address of all registers accessible through JBUS commands.

R : Read
W : Write
* : doesn't apply to this register type
[ ] : numbers in brackets provide hexadecimal value
Point/Table : Gateway point and table where configuration must be done for this register to be active

REGISTER NUMBER/ADDRESS	REGISTER LSB ADDRESS	JBUS ACCESS	POINT/TABLE	DESCRIPTION	REMARKS
0 [h00]	8 [h8]	R	rp_r_0 / RPOINT1	Collect Point #1	These registers provide the value of points that have been configured (tables RPOINT1, RPOINT2, RPOINT3 and RPOINT4) to be collected from the interfaced controller. Registers are set to 0 when unused.
1 [h01]	24 [h18]	R	Rp_r_1 / RPOINT1	Collect Point #2	
2 [h02]	40 [h28]	R	rp_r_2 / RPOINT1	Collect Point #3	
3 [h03]	56 [h38]	R	rp_r_3 / RPOINT1	Collect Point #4	
4 [h04]	72 [h48]	R	rp_r_4 / RPOINT1	Collect Point #5	
5 [h05]	88 [h58]	R	rp_r_5 / RPOINT1	Collect Point #6	
6 [h06]	104 [h68]	R	rp_r_6 / RPOINT1	Collect Point #7	
7 [h07]	120 [h78]	R	rp_r_7 / RPOINT1	Collect Point #8	
8 [h08]	136 [h88]	R	rp_r_8 / RPOINT1	Collect Point #9	
9 [h09]	152 [h98]	R	rp_r_9 / RPOINT1	Collect Point #10	
10 [h0A]	168 [hA8]	R	rp_r_10 / RPOINT2	Collect Point #11	
11 [h0B]	184 [hB8]	R	rp_r_11 / RPOINT2	Collect Point #12	
12 [h0C]	200 [hC8]	R	rp_r_12 / RPOINT2	Collect Point #13	
13 [h0D]	216 [hD8]	R	rp_r_13 / RPOINT2	Collect Point #14	
14 [h0E]	232 [hE8]	R	rp_r_14 / RPOINT2	Collect Point #15	
15 [h0F]	248 [hF8]	R	rp_r_15 / RPOINT2	Collect Point #16	
16 [h10]	264 [h108]	R	rp_r_16 / RPOINT2	Collect Point #17	
17 [h11]	280 [h118]	R	rp_r_17 / RPOINT2	Collect Point #18	
18 [h12]	296 [h128]	R	rp_r_18 / RPOINT2	Collect Point #19	
19 [h13]	312 [h138]	R	rp_r_19 / RPOINT2	Collect Point #20	
20 [h14]	328 [h148]	R	rp_r_20 / RPOINT3	Collect Point #21	
21 [h15]	344 [h158]	R	rp_r_21 / RPOINT3	Collect Point #22	
22 [h16]	360 [h168]	R	rp_r_22 / RPOINT3	Collect Point #23	
23 [h17]	376 [h178]	R	rp_r_23 / RPOINT3	Collect Point #24	
24 [h18]	392 [h188]	R	rp_r_24 / RPOINT3	Collect Point #25	
25 [h19]	408 [h198]	R	rp_r_25 / RPOINT3	Collect Point #26	
26 [h1A]	424 [h1A8]	R	rp_r_26 / RPOINT3	Collect Point #27	
27 [h1B]	440 [h1B8]	R	rp_r_27 / RPOINT3	Collect Point #28	
28 [h1C]	456 [h1C8]	R	rp_r_28 / RPOINT3	Collect Point #29	
29 [h1D]	472 [h1D8]	R	rp_r_29 / RPOINT3	Collect Point #30	
30 [h1E]	488 [h1E8]	R	rp_r_30 / RPOINT4	Collect Point #31	
31 [h1F]	504 [h1F8]	R	rp_r_31 / RPOINT4	Collect Point #32	
32 [h20]	520 [h208]	R	rp_r_32 / RPOINT4	Collect Point #33	
33 [h21]	536 [h218]	R	rp_r_33 / RPOINT4	Collect Point #34	
34 [h22]	552 [h228]	R	rp_r_34 / RPOINT4	Collect Point #35	
35 [h23]	568 [h238]	R	rp_r_35 / RPOINT4	Collect Point #36	
36 [h24]	584 [h248]	R	rp_r_36 / RPOINT4	Collect Point #37	
37 [h25]	600 [h258]	R	rp_r_37 / RPOINT4	Collect Point #38	
38 [h26]	616 [h268]	R	rp_r_38 / RPOINT4	Collect Point #39	
39 [h27]	632 [h278]	R	rp_r_39 / RPOINT4	Collect Point #40	
40 [h28]	*	R		Controller Active alarms	Total nb of active alarms.
41 [h29]	*	R		Current Alarm 1	Provide the code of up to 5 active alarms collected from the controller interfaced by the Gateway. These are stored in arrival order. Used when alarm
42 [h2A]	*	R		Current Alarm 2	
43 [h2B]	*	R		Current Alarm 3	
44 [h2C]	*	R		Current Alarm 4	

REGISTER NUMBER/ADDRESS	REGISTER LSB ADDRESS	JBUS ACCESS	POINT/TABLE	DESCRIPTION	REMARKS
45 [h2D]	*	R		Current Alarm 5	collection has been configured.
46 [h2E]	744 [h2E8]	R	ra_r_46 / R_ALARM	Alarm #1	Configured Alarms. The register is set to 1 when its corresponding alarm is active. If not, the register is set to 0. Unused (not configured) registers are set to 0. Used when alarm collection has been configured.
47 [h2F]	760 [h2F8]	R	ra_r_47 / R_ALARM	Alarm #2	
48 [h30]	776 [h308]	R	ra_r_48 / R_ALARM	Alarm #3	
49 [h31]	792 [h318]	R	ra_r_49 / R_ALARM	Alarm #4	
50 [h32]	808 [h328]	R	ra_r_50 / R_ALARM	Alarm #5	
51 [h33]	824 [h338]	R	ra_r_51 / R_ALARM	Alarm #6	
52 [h34]	840 [h348]	R	ra_r_52 / R_ALARM	Alarm #7	
53 [h35]	856 [h358]	R	ra_r_53 / R_ALARM	Alarm #8	
54 [h36]	872 [h368]	R	ra_r_54 / R_ALARM	Alarm #9	
55 [h37]	888 [h378]	R	ra_r_55 / R_ALARM	Alarm #10	
56 [h38]	904 [h388]	R	ra_r_56 / R_ALARM	Alarm #11	
57 [h39]	920 [h398]	R	ra_r_57 / R_ALARM	Alarm #12	
58 [h3A]	936 [h3A8]	R	ra_r_58 / R_ALARM	Alarm #13	
59 [h3B]	952 [h3B8]	R	ra_r_59 / R_ALARM	Alarm #14	
60 [h3C]	968 [h3C8]	R	ra_r_60 / R_ALARM	Alarm #15	
61 [h3D]	*	R		Gateway Alarm Code	Gateway current alm code.
62 [h3E]	-	-		-	Unused
63 [h3F]	-	-		-	
64 [h40]	-	-		-	
65 [h41]	*	R	alm_tr_p/CCNCONF	Trigger Point Value	Value of alarm trigger.
66 [h42]	*	R		JBUS Alarm Number	Incorrect JBUS command.
67 [h43]	1080 [h438]	R		Setpoint #1 Update flag	This value is set to 1 when a writing setpoint operation is required by JBUS. When the writing operation is achieved this flag returns to 0.
68 [h44]	1096 [h448]	R		Setpoint #2 Update flag	
69 [h45]	1112 [h458]	R		Setpoint #3 Update flag	
70 [h46]	1128 [h468]	R		Setpoint #4 Update flag	
71 [h47]	1144 [h478]	R		Setpoint #5 Update flag	
72 [h48]	1160 [h488]	R		Setpoint #6 Update flag	
73 [h49]	1176 [h498]	R		Setpoint #7 Update flag	
74 [h4A]	1192 [h4B8]	R		Setpoint #8 Update flag	
75 [h4B]	1208 [h4B8]	R		Setpoint #9 Update flag	
76 [h4C]	1224 [h4A8]	R		Setpoint #10 Update flg	
77 [h4D]	1240 [h4B8]	R		Setpoint #11 Update flg	
78 [h4E]	1256 [h4C8]	R		Setpoint #12 Update flg	
79 [h4F]	*	R		Write setpoint #1 -Status	0 : Operation achieved 1 :Access denied 2 :CCN communication failure 3 :Operation in progress -1 :Illegal format
80 [h50]	*	R		Write setpoint #2 -Status	
81 [h51]	*	R		Write setpoint #3 -Status	
82 [h52]	*	R		Write setpoint #4 -Status	
83 [h53]	*	R		Write setpoint #5 -Status	
84 [h54]	*	R		Write setpoint #6 -Status	
85 [h55]	*	R		Write setpoint #7 -Status	
86 [h56]	*	R		Write setpoint #8 -Status	
87 [h57]	*	R		Write setpoint #9 -Status	
88 [h58]	*	R		Write setpoint #10Status	
89 [h59]	*	R		Write setpoint #11Status	
90 [h5A]	*	R		Write setpoint #12Status	
91 [h5B]	*	R/W		Forcing Flag #1	This value is set to 1 when a forcing operation is required by JBUS. When the forcing operation is achieved this flag returns to
92 [h5C]	*	R/W		Forcing Flag #2	
93 [h5D]	*	R/W		Forcing Flag #3	
94 [h5E]	*	R/W		Forcing Flag #4	
95 [h5F]	*	R/W		Forcing Flag #5	

REGISTER NUMBER/ADDRESS	REGISTER LSB ADDRESS	JBUS ACCESS	POINT/TABLE	DESCRIPTION	REMARKS
96 [h60]	*	R/W		Forcing Flag #6	0. This value must be set to 2 when auto is required.
97 [h61]	*	R/W		Forcing Flag #7	
98 [h62]	*	R/W		Forcing Flag #8	
99 [h63]	*	R/W		Forcing Flag #9	
100 [h64]	*	R/W		Forcing Flag #10	
101 [h65]	*	R		Forcing/Auto #1 - Status	0: Operation achieved 1: Access denied 2: CCN communication failure 3: Operation in progress -1: Illegal format
102 [h66]	*	R		Forcing/Auto #2 - Status	
103 [h67]	*	R		Forcing/Auto #3 - Status	
104 [h68]	*	R		Forcing/Auto #4 - Status	
105 [h69]	*	R		Forcing/Auto #5 - Status	
106 [h6A]	*	R		Forcing/Auto #6 - Status	
107 [h6B]	*	R		Forcing/Auto #7 - Status	
108 [h6C]	*	R		Forcing/Auto #8 - Status	
109 [h6D]	*	R		Forcing/Auto #9 - Status	
110 [h6E]	*	R		Forcing/Auto #10-Status	
111 [h6F]	*	R/W	wd_r_111	Setpoint value #1	Setpoints to be written into the CCN controller by the JBUS off-network. Registers 79 to 90 provide the status of the writing operation.
112 [h70]	*	R/W	wd_r_112	Setpoint value #2	
113 [h71]	*	R/W	wd_r_113	Setpoint value #3	
114 [h72]	*	R/W	wd_r_114	Setpoint value #4	
115 [h73]	*	R/W	wd_r_115	Setpoint value #5	
116 [h74]	*	R/W	wd_r_116	Setpoint value #6	
117 [h75]	*	R/W	wd_r_117	Setpoint value #7	
118 [h76]	*	R/W	wd_r_118	Setpoint value #8	
119 [h77]	*	R/W	wd_r_119	Setpoint value #9	
120 [h78]	*	R/W	wd_r_120	Setpoint value #10	
121 [h79]	*	R/W	wd_r_121	Setpoint value #11	
122 [h7A]	*	R/W	wd_r_122	Setpoint value #12	
123 [h7B]	1720 [h6B8]	R/W	fv_r_123	Forced Value #1	Values to be forced into the CCN controller that must be written by the JBUS off-network. Registers 101 to 110 provide the status of operation on forcing.
124 [h7C]	1736 [h6C8]	R/W	fv_r_124	Forced Value #2	
125 [h7D]	1752 [h6D8]	R/W	fv_r_125	Forced Value #3	
126 [h7E]	1768 [h6E8]	R/W	fv_r_126	Forced Value #4	
127 [h7F]	1784 [h6F8]	R/W	fv_r_127	Forced Value #5	
128 [h80]	1800 [h708]	R/W	fv_r_128	Forced Value #6	
129 [h81]	1816 [h718]	R/W	fv_r_129	Forced Value #7	
130 [h82]	1832 [h728]	R/W	fv_r_130	Forced Value #8	
131 [h83]	1848 [h738]	R/W	fv_r_131	Forced Value #9	
132 [h84]	1864 [h748]	R/W	fv_r_132	Forced Value #10	
133 [h85]	*	R/W	jbus_add/JBUSCONF	JBUS baud rate	Accessible from JBUS and CCN.
134 [h86]	*	R/W	jbus_bau/JBUSCONF	JBUS Address	
135 [h87]	*	R/W	jbus_par/JBUSCONF	JBUS parity and stop bit	
136 [h88]	*	R/W	dev_bus/CCNCONF	CCN device bus number	Modifying those registers through JBUS, launch the auto configuration sequence
137 [h89]	*	R/W	dev_elem/CCNCONF	CCN device element nb	
200 [C8h]	*	R	**	Instance collected point	
,	,	,	,		
,	,	,	,		
,	,	,	,		
4679 [1247h]	*	R	**	Instance collected point	
4680 [1248h]		R		Unused point	

REGISTER NUMBER/ADDRESS	REGISTER LSB ADDRESS	JBUS ACCESS	POINT/TABLE	DESCRIPTION	REMARKS
4699 [125Bh]		R		Unused point	
4700 [125Ch]	*	R/W	Ip_w_0 instance 1	Instance write value	
4701 [125Dh]	*	R/W	Ip_w_0 instance 2	Instance write value	
.	.	.	.	.	
.	.	.	.	.	
.	.	.	.	.	
5722 [165Ah]	*	R/W	Ip_w_7 instance 127	Instance write value	
5723 [165Bh]	*	R/W	Ip_w_7 instance 128	Instance write value	
5724 [165Ch]	*	R	*	Instance writing flag	For ip_w_0 instance 1
.	.	.	.	.	
.	*	.	*	.	
.	*	.	*	.	
6747 [1A5Bh]	*	R	*	Instance writing flag	For ip_w_7 instance 128
6748 [1A5Ch]	*	R	*	Instance writing status	For ip_w_0 instance 1
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
7771 [1E5Bh]	*	R	*	Instance writing status	For ip_w_7 instance 128

Note: At GW initialisation all registers are set to 0. During GW operations all unused registers are set to 0.

** : The points of registers 200 to 4679 are not fixed. The user can configure any the JBus address.

4. AQUACIAT^{POWER} LD Connect 3 JBus Memory Mapping Default Configuration

JBUS MEMORY MAPPING – AQUACIAT^{POWER} LD Connect Default configuration					
REGISTER ADDRESS	JBUS ACCESS	CONTENT	TYPE		REMARK
			INT	FLOAT	
0 [h00]	R	Entering fluid temperature		X	Read value must be divided by 10
1 [h01]	R	Leaving Fluid Temperature		X	Read value must be divided by 10
2 [h02]	R	Circuit A discharge Pressure		X	Read value must be divided by 10
3 [h03]	R	Circuit B discharge Pressure		X	Read value must be divided by 10
4 [h04]	R	Control Point		X	Read value must be divided by 10
5 [h05]	R	Unit percent active capacity	X		
6 [h06]	R	Demand limit	X		
7 [h07]	R	Chiller state	X		
8 [h08]	R	Alarm state	X		
9 [h09]	R	Heat cool select	X		0 = Cool, 1 = Heat 2 = Auto
10 [h0A]	R	Cooler pump 1 Status	X		
11 [h0B]	R	Cooler pump 2 Status	X		
12 [h0C]	R	Machine operating hours	X		
13 [h0D]	R	Compressor A1 Hours	X		
14 [h0E]	R	Compressor A2 Hours	X		
15 [h0F]	R	Compressor A3 Hours	X		
16 [h10]	R	Compressor A4 Hours	X		
17 [h10]	R	Compressor B1 Hours	X		
18 [h10]	R	Compressor B2 Hours	X		
19 [h10]	R	Compressor B3 Hours	X		
20 [h10]	R	Compressor B4 Hours	X		
21 [h10]	R	Compressor C1 Hours	X		
22 [h10]	R	Compressor C2 Hours	X		
23 [h10]	R	Compressor C3 Hours	X		
24 [h10]	R	Compressor C4 Hours	X		
25 [h10]	R	Circuit C discharge Pressure	X		
…					
40 [h28]	R	Number of active alarm	X		Provide the code of up to 5 active alarms. These are stored in arrival order. Alarms read from CCN/JBUS are alarm index bur not alarms codes.
41 [h29]	R	Active alarm 1	X		
42 [h2A]	R	Active alarm 2	X		
43 [h2B]	R	Active alarm 3	X		
44 [h2C]	R	Active alarm 4	X		
45 [h2D]	R	Active alarm 5	X		
46 [h2E]	R	Status of alarm code P-01	X		1=this alarm is active, 0=inactive
47 [h2F]	R	Status of alarm code P-14	X		1=this alarm is active, 0=inactive
48 [h30]	R	Status of alarm code P-28	X		1=this alarm is active, 0=inactive
49 [h31]	R	Status of alarm code A1-03	X		1=this alarm is active, 0=inactive
50 [h32]	R	Status of alarm code A2-03	X		1=this alarm is active, 0=inactive
51 [h33]	R	Status of alarm code A3-03	X		1=this alarm is active, 0=inactive
52 [h34]	R	Status of alarm code A4-03	X		1=this alarm is active, 0=inactive
53 [h35]	R	Status of alarm code B1-03	X		1=this alarm is active, 0=inactive
54 [h36]	R	Status of alarm code B2-03	X		1=this alarm is active, 0=inactive
55 [h37]	R	Status of alarm code B3-03	X		1=this alarm is active, 0=inactive
56 [h38]	R	Status of alarm code B4-03	X		1=this alarm is active, 0=inactive
57 [h39]	R	Status of alarm code C1-03	X		1=this alarm is active, 0=inactive
58 [h3A]	R	Status of alarm code C2-03	X		1=this alarm is active, 0=inactive
59 [h3B]	R	Status of alarm code C3-03	X		1=this alarm is active, 0=inactive
60 [h3C]	R	Status of alarm code C4-03	X		1=this alarm is active, 0=inactive
…					
66 [h42]	R	JBUS alarm code	X		
111 [h6F]	R/W	Cooling Setpoint 1		X	Write value must be multiplied by 10
112 [h70]	R/W	Cooling Setpoint 2		X	Write value must be multiplied by 10
113 [h71]	R/W	Heating Setpoint 1		X	Write value must be multiplied by 10
114 [h72]	R/W	Heating Setpoint 2		X	Write value must be multiplied by 10
…					
123[h7B]	R/W	Chiller start/stop	X		0 = Off 1 = On
124[h7C]	R/W	Control point		X	Write value must be multiplied by 10

JBUS MEMORY MAPPING – AQUACIAT^{POWER} LD Connect Default configuration					
REGISTER ADDRESS	**JBUS ACCESS**	**CONTENT**	**TYPE**		**REMARK**
			INT	**FLOAT**	
125[h7D]	R/W	Demand Limit value	**X**		
126[h7E]	R/W	Heat/Cool Select	**X**		0=Cool 1=Heat 2=Auto
…					
133 [h85]	R/W	Jbus baud rate	**X**		Default = 9600
134 [h86]	R/W	Jbus address	**X**		Default = 1
135 [h87]	R/W	Jbus parity and stop bit	**X**		Default = 0, no parity and 1 stop bit
136 [h88]	R/W	CCN device bus number	**X**		Default = 0 range = [0:230]
137 [h88]	R/W	CCN device element number	**X**		Default = 1 range = [1:239]

5. CIAT EREBA ACCESS JBus Memory Mapping Default Configuration

JBUS MEMORY MAPPING – EREBA ACCESS Default configuration					
REGISTER ADDRESS	JBUS ACCESS	CONTENT	TYPE		REMARK
			INT	FLOAT	
0 [h00]	R	Entering water temperature		X	Read value must be divided by 10
1 [h01]	R	Leaving water temperature		X	Read value must be divided by 10
2 [h02]	R	Discharge pressure circuit A		X	Read value must be divided by 10
3 [h03]	R	Discharge pressure circuit B		X	Read value must be divided by 10
4 [h04]	R	Run status	X		
5 [h05]	R	Alarm state	X		
6 [h06]	R	CCN heat/cool select	X		
7 [h07]	R	Control point		X	Read value must be divided by 10
8 [h08]	R	Percent total capacity	X		
9 [h09]	R	Active demand limit value	X		
10 [h0A]	R	Water pump #1 command	X		
11 [h0B]	R	Water pump #2 command	X		
12 [h0C]	R	Machine operating hours	X		
13 [h0D]	R	Compressor A1 hours	X		
14 [h0E]	R	Compressor A2 hours	X		
15 [h0F]	R	Compressor A3 hours	X		
16 [h10]	R	Circuit A defrost number	X		
17 [h11]	R	Compressor B1 hours	X		
18 [h12]	R	Compressor B2 hours	X		
19 [h13]	R	Circuit B defrost number	X		
20 [h14]	R	Circuit A fan #1 Hours	X		
21 [h15]	R	Circuit A fan #1 Starts	X		
22 [h16]	R	Circuit B fan #1 Hours	X		
23 [h17]	R	Circuit B fan #1 Starts	X		
24 [h18]	R	Inlet water pressure		X	Read value must be divided by 10
25 [h19]	R	outlet water pressure		X	Read value must be divided by 10
26 [h1A]		Water flow		X	Read value must be divided by 10
27 [h1B]		Actual power capacity		X	Read value must be divided by 10
…					
46 [h2E]	R	Status of alarm number #20	X		1=this alarm is active, 0=inactive
47 [h2F]	R	Status of alarm number #27	X		1=this alarm is active, 0=inactive
48 [h30]	R	Status of alarm number #53	X		1=this alarm is active, 0=inactive
49 [h31]	R	Status of alarm number #45	X		1=this alarm is active, 0=inactive
50 [h32]	R	Status of alarm number #38	X		1=this alarm is active, 0=inactive
51 [h33]	R	Status of alarm number #21	X		1=this alarm is active, 0=inactive
52 [h34]	R	Status of alarm number #23	X		1=this alarm is active, 0=inactive
53 [h35]	R	Status of alarm number #25	X		1=this alarm is active, 0=inactive
54 [h36]	R	Status of alarm number #41	X		1=this alarm is active, 0=inactive
55 [h37]	R	Status of alarm number #43	X		1=this alarm is active, 0=inactive
56 [h38]	R	Status of alarm number #22	X		1=this alarm is active, 0=inactive
57 [h39]	R	Status of alarm number #24	X		1=this alarm is active, 0=inactive
58 [h3A]	R	Status of alarm number #26	X		1=this alarm is active, 0=inactive
59 [h3B]	R	Status of alarm number #42	X		1=this alarm is active, 0=inactive
60 [h3C]	R	Status of alarm number #44	X		1=this alarm is active, 0=inactive
…					
66 [h42]	R	JBUS alarm code	X		
…					
111 [h6F]	R/W	Cooling setpoint 1		X	Write value must be multiplied by 10
112 [h70]	R/W	Cooling setpoint 2		X	Write value must be multiplied by 10
113 [h71]	R/W	Heating setpoint 1		X	Write value must be multiplied by 10
114 [h72]	R/W	Heating setpoint 2		X	Write value must be multiplied by 10
…					
123[h7B]	R/W	CCN chiller start stop	X		0 = Disable 1 = Enable
124[h7C]	R/W	Control point		X	Write value must be multiplied by 10
125[h7D]	R/W	Active demand limit val	X		
126[h7E]	R/W	CCN heat/cool select			0=Cool ; 1=Heat ; 2=Auto
…					
133 [h85]	R/W	Jbus baud rate	X		Default = 9600
134 [h86]	R/W	Jbus address	X		Default = 1

JBUS MEMORY MAPPING – EREBA ACCESS Default configuration					
REGISTER ADDRESS	**JBUS ACCESS**	**CONTENT**	**TYPE**		**REMARK**
			INT	**FLOAT**	
135 [h87]	R/W	Jbus parity and stop bit	**X**		Default = 0, no parity and 1 stop bit
136 [h88]	R/W	CCN device bus number	**X**		Default = 0 range = [0:230]
137 [h88]	R/W	CCN device element number	**X**		Default = 1 range = [1:239]

6. JBus Memory Mapping – Details of parameters values

Chiller state software variable is used on many chillers. Here are the Chiller state software variable values corresponding to the text labels that can be displayed:

Off	0
Running	1
Stopping	2
Delay	3
Tripout	4
Ready	5
override	6
defrost	7
Run Test	8
Test	9
Local	10
Network	11
Remote	12
Normal	13
Partial	14
Shutdown	15
Auto	16
Setp 1	17
Setp 2	18
4-20mA	19
Setp Sw	20
Ice_sp	21
Heat	22
Cool	23
Standby	24
Both	25
L-off	26
L-on	27
L-sched	28
CCN	29
Remote	30
Master	31