

Load Management Controller

**Procont<sup>®</sup>-EMC**

**Procont<sup>®</sup>-LMC**

**Procont<sup>®</sup>-LMC-LITE**

Modbus address list



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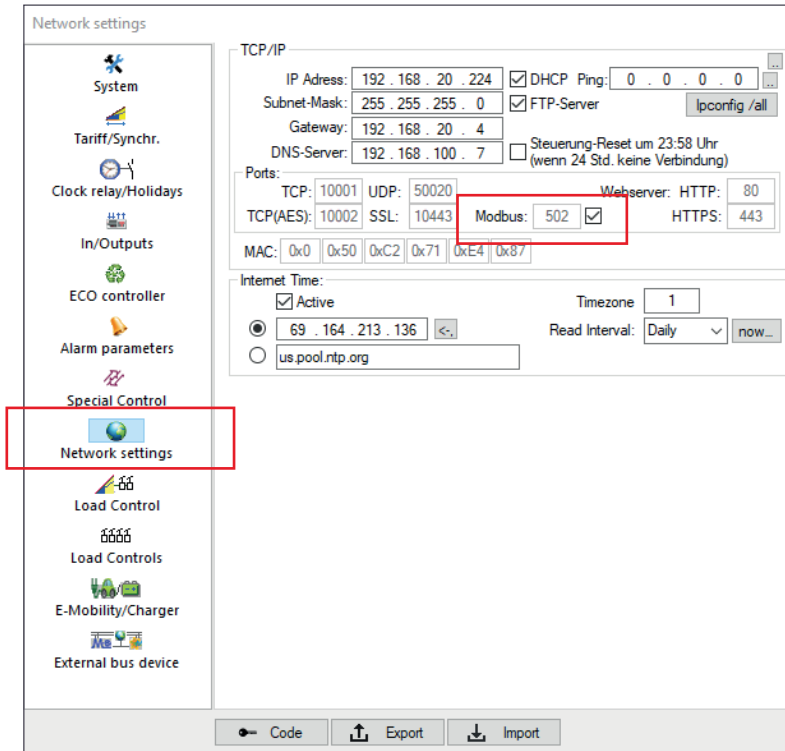
## Comments on the handbook

We welcome your comments. If anything appears to be unclear in this handbook, please let us know and send us an E-MAIL to: [info@janitza.com](mailto:info@janitza.com)

## Explanations

### Configuring the Modbus connections in the software Procont®Vis:

To be able to establish a Modbus connection to the Procont® devices, activate the checkbox for the Modbus connection in the Procont®Vis software under Network settings.



You release the external default values for each e-charging station in the Procont®Vis software under „Settings / E-Mobility/Charger / External target value : Active“ (Systemeinstellungen / E-Mobility/Speicher / Externer Vorgabewert: aktiv).

For register 280, set the external setpoint specification charging stations option in the Procont®Vis software to active under „Settings / System / Ext. target value Charging stations : Active“ (Systemeinstellungen / System / Ext.Sollwertvorgabe Ladestationen/ Freigabe: aktiv).

### **i** INFORMATION

**Register 280** can only be written with FC6 via Modbus.

## Types of format

Format	IEC data type	Description	Bits	Range	Byte
INT 16	INT	Integer	16	-32768 .. 32767	
UINT 16	INT	Unsigned integer	16	0 .. 65535	
INT 32	INT	Integer	32	$-2^{31} .. 2^{31}$	
UINT 32	INT	Unsigned integer	32	$0 .. 2^{32}-1$	ABCD
UINT 64	INT	Unsigned integer	64	$0 .. 2^{64}-1$	
FLOAT	FLOAT	Floating point according IEEE754 SB	32	$-(1 + [1 - 2^{-23}]) \times 2^{127} .. 2^{128}$	ABCD

Byte Ordner: Big Endian

## Address list Procont®

Modbus addresses with gray background are not available for all device types.

Address	Format	RD/WR	Range	Unit	Note
<b>Register addresses</b>					
0	UINT16	RD	0 ..0x3ff	-	Inputs (1-12)
1	UINT16	RD	0 ..0x3ff	-	Outputs (1-12)
2	UINT16	RD	0 .. 3	-	Tariff (0=HT,1=NT +2=Som)
3	UINT16	RD	0 .. 100	%	Output I1
4	UINT16	RD	0 .. 100	%	Output I2
5	UINT16	RD	0 .. 100	%	Output I3
6	UINT16	RD	0 .. 100	%	Output I4
7	UINT16	RD	0 .. 100	%	Output I5
8	UINT16	RD	0 .. 100	%	Output I6
9	UINT16	RD	0 .. 100	%	Output I7
10	UINT16	RD	0 .. 100	%	Output I8
11	UINT16	RD	0 .. 100	%	Output I9
12	UINT16	RD	0 .. 100	%	Output I10
13	UINT16	RD	0 .. 100	%	Output I11
14	UINT16	RD	0 .. 100	%	Output I12
15	UINT16	RD	1 .. 53		Week of the Year
16	UINT16	RD	1 .. 7		Day of the week: 1=mo, 2=th, 3=we, 4=th, 5=fr, 6=sa, 7=su
17	UINT16	RD	1970 .. 2199		Year
18	UINT16	RD	1 .. 12		Month
19	UINT16	RD	1 .. 31		Day of month
20	UINT16	RD	0 .. 23		Hour
21	UINT16	RD	0 .. 59		Minute
22	UINT16	RD	0 .. 59		Second
<b>System alarms</b>					
23	UINT16	RD	0 .. 1	-	Synchron Alarm
24	UINT16	RD	0 .. 1	-	Max. Value Exceeded
25	UINT16	RD	0 .. 1	-	Watchdog
26	UINT16	RD	0 .. 1	-	Emergency Off
27	UINT16	RD	0 .. 1	-	Data Transfer Alarm
28	UINT16	RD	0 .. 1	-	Main meter alarm
29	UINT16	RD	0 .. 1	-	TCP Module Alarm
30	UINT16	RD	0 .. 1	-	File-Error
31	UINT16	RD	0 .. 1	-	Bus device alarm
32	UINT16	RD	0 .. 1	-	E-Mail Transfer Alarm
33	UINT16	RD	0 .. 1	-	Clock error (RTC)
34	UINT16	RD	0 .. 1	-	Substation alarm (no connection)
35	UINT16	RD	0 .. 1	-	Carlo Gavazzi Analink Alarm
36	UINT16	RD	0 .. 1	-	KNX/EIB-Alarm
37	UINT16	RD	0 .. 1	-	FTP-Client-Alarm
38	UINT16	RD	0 .. 1	-	ChargingStation Alarm (No connection)
<b>Alarms (sequence can be seen in Procont®-Vis)</b>					
39	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
40	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
41	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
42	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
43	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
44	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
45	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
46	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
47	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
48	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis
49	UINT16	RD	0 .. 3*	-	Alarmname according to seetings in Procont®-Vis

\* 0=deactive,

1=not active but not acknowledged

2=acknowledged but active

3=active+not acknowledged



Address	Format	RD/WR	Range	Unit	Note
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### Load groups (only released load groups are provided with values)

#### INFORMATION

The following load groups are possible for the devices:

Device	Load group
Procont®-LMC	1-128
Procont®-LMC-LITE	1-16
Procont®-EMC	-

100	UINT16	RD	0 ..100	%	Load Group 1
101	UINT16	RD	0 ..100	%	Load Group 2
102	UINT16	RD	0 ..100	%	Load Group 3
103	UINT16	RD	0 ..100	%	Load Group 4
104	UINT16	RD	0 ..100	%	Load Group 5
105	UINT16	RD	0 ..100	%	Load Group 6
106	UINT16	RD	0 ..100	%	Load Group 7
107	UINT16	RD	0 ..100	%	Load Group 8
108	UINT16	RD	0 ..100	%	Load Group 9
109	UINT16	RD	0 ..100	%	Load Group 10
110	UINT16	RD	0 ..100	%	Load Group 11
111	UINT16	RD	0 ..100	%	Load Group 12
112	UINT16	RD	0 ..100	%	Load Group 13
113	UINT16	RD	0 ..100	%	Load Group 14
114	UINT16	RD	0 ..100	%	Load Group 15
115	UINT16	RD	0 ..100	%	Load Group 16
116	UINT16	RD	0 ..100	%	Load Group 17
117	UINT16	RD	0 ..100	%	Load Group 18
118	UINT16	RD	0 ..100	%	Load Group 19
119	UINT16	RD	0 ..100	%	Load Group 20
120	UINT16	RD	0 ..100	%	Load Group 21
121	UINT16	RD	0 ..100	%	Load Group 22
122	UINT16	RD	0 ..100	%	Load Group 23
123	UINT16	RD	0 ..100	%	Load Group 24
124	UINT16	RD	0 ..100	%	Load Group 25
125	UINT16	RD	0 ..100	%	Load Group 26
126	UINT16	RD	0 ..100	%	Load Group 27
127	UINT16	RD	0 ..100	%	Load Group 28
128	UINT16	RD	0 ..100	%	Load Group 29
129	UINT16	RD	0 ..100	%	Load Group 30
130	UINT16	RD	0 ..100	%	Load Group 31
131	UINT16	RD	0 ..100	%	Load Group 32
132	UINT16	RD	0 ..100	%	Load Group 33
133	UINT16	RD	0 ..100	%	Load Group 34
134	UINT16	RD	0 ..100	%	Load Group 35
135	UINT16	RD	0 ..100	%	Load Group 36
136	UINT16	RD	0 ..100	%	Load Group 37
137	UINT16	RD	0 ..100	%	Load Group 38
138	UINT16	RD	0 ..100	%	Load Group 39
139	UINT16	RD	0 ..100	%	Load Group 40



Address	Format	RD/WR	Range	Unit	Note
140	UINT16	RD	0 ..100	%	Load Group 41
141	UINT16	RD	0 ..100	%	Load Group 42
142	UINT16	RD	0 ..100	%	Load Group 43
143	UINT16	RD	0 ..100	%	Load Group 44
144	UINT16	RD	0 ..100	%	Load Group 45
145	UINT16	RD	0 ..100	%	Load Group 46
146	UINT16	RD	0 ..100	%	Load Group 47
147	UINT16	RD	0 ..100	%	Load Group 48
148	UINT16	RD	0 ..100	%	Load Group 49
149	UINT16	RD	0 ..100	%	Load Group 50
150	UINT16	RD	0 ..100	%	Load Group 51
151	UINT16	RD	0 ..100	%	Load Group 52
152	UINT16	RD	0 ..100	%	Load Group 53
153	UINT16	RD	0 ..100	%	Load Group 54
154	UINT16	RD	0 ..100	%	Load Group 55
155	UINT16	RD	0 ..100	%	Load Group 56
156	UINT16	RD	0 ..100	%	Load Group 57
157	UINT16	RD	0 ..100	%	Load Group 58
158	UINT16	RD	0 ..100	%	Load Group 59
159	UINT16	RD	0 ..100	%	Load Group 60
160	UINT16	RD	0 ..100	%	Load Group 61
161	UINT16	RD	0 ..100	%	Load Group 62
162	UINT16	RD	0 ..100	%	Load Group 63
163	UINT16	RD	0 ..100	%	Load Group 64
164	UINT16	RD	0 ..100	%	Load Group 65
165	UINT16	RD	0 ..100	%	Load Group 66
166	UINT16	RD	0 ..100	%	Load Group 67
167	UINT16	RD	0 ..100	%	Load Group 68
168	UINT16	RD	0 ..100	%	Load Group 69
169	UINT16	RD	0 ..100	%	Load Group 70
170	UINT16	RD	0 ..100	%	Load Group 71
171	UINT16	RD	0 ..100	%	Load Group 72
172	UINT16	RD	0 ..100	%	Load Group 73
173	UINT16	RD	0 ..100	%	Load Group 74
174	UINT16	RD	0 ..100	%	Load Group 75
175	UINT16	RD	0 ..100	%	Load Group 76
176	UINT16	RD	0 ..100	%	Load Group 77
177	UINT16	RD	0 ..100	%	Load Group 78
178	UINT16	RD	0 ..100	%	Load Group 79
179	UINT16	RD	0 ..100	%	Load Group 80
180	UINT16	RD	0 ..100	%	Load Group 81
181	UINT16	RD	0 ..100	%	Load Group 82
182	UINT16	RD	0 ..100	%	Load Group 83
183	UINT16	RD	0 ..100	%	Load Group 84
184	UINT16	RD	0 ..100	%	Load Group 85
185	UINT16	RD	0 ..100	%	Load Group 86
186	UINT16	RD	0 ..100	%	Load Group 87
187	UINT16	RD	0 ..100	%	Load Group 88
188	UINT16	RD	0 ..100	%	Load Group 89
189	UINT16	RD	0 ..100	%	Load Group 90

Address	Format	RD/WR	Range	Unit	Note
190	UINT16	RD	0 ..100	%	Load Group 91
191	UINT16	RD	0 ..100	%	Load Group 92
192	UINT16	RD	0 ..100	%	Load Group 93
193	UINT16	RD	0 ..100	%	Load Group 94
194	UINT16	RD	0 ..100	%	Load Group 95
195	UINT16	RD	0 ..100	%	Load Group 96
196	UINT16	RD	0 ..100	%	Load Group 97
197	UINT16	RD	0 ..100	%	Load Group 98
198	UINT16	RD	0 ..100	%	Load Group 99
199	UINT16	RD	0 ..100	%	Load Group 100
200	UINT16	RD	0 ..100	%	Load Group 101
201	UINT16	RD	0 ..100	%	Load Group 102
202	UINT16	RD	0 ..100	%	Load Group 103
203	UINT16	RD	0 ..100	%	Load Group 104
204	UINT16	RD	0 ..100	%	Load Group 105
205	UINT16	RD	0 ..100	%	Load Group 106
206	UINT16	RD	0 ..100	%	Load Group 107
207	UINT16	RD	0 ..100	%	Load Group 108
208	UINT16	RD	0 ..100	%	Load Group 109
209	UINT16	RD	0 ..100	%	Load Group 110
210	UINT16	RD	0 ..100	%	Load Group 111
211	UINT16	RD	0 ..100	%	Load Group 112
212	UINT16	RD	0 ..100	%	Load Group 113
213	UINT16	RD	0 ..100	%	Load Group 114
214	UINT16	RD	0 ..100	%	Load Group 115
215	UINT16	RD	0 ..100	%	Load Group 116
216	UINT16	RD	0 ..100	%	Load Group 117
217	UINT16	RD	0 ..100	%	Load Group 118
218	UINT16	RD	0 ..100	%	Load Group 119
219	UINT16	RD	0 ..100	%	Load Group 120
220	UINT16	RD	0 ..100	%	Load Group 121
221	UINT16	RD	0 ..100	%	Load Group 122
222	UINT16	RD	0 ..100	%	Load Group 123
223	UINT16	RD	0 ..100	%	Load Group 124
224	UINT16	RD	0 ..100	%	Load Group 125
225	UINT16	RD	0 ..100	%	Load Group 126
226	UINT16	RD	0 ..100	%	Load Group 127
227	UINT16	RD	0 ..100	%	Load Group 128

Address	Format	RD/WR	Range	Unit	Note
<b>Charging stations target values</b>					
228	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 1
229	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 2
230	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 3
231	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 4
232	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 5
233	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 6
234	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 7
235	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 8
236	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 9
237	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 10
238	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 11
239	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 12
240	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 13
241	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 14
242	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 15
243	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 16
244	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 17
245	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 18
246	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 19
247	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 20
248	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 21
249	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 22
250	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 23
251	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 24
252	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 25
253	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 26
254	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 27
255	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 28
256	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 29
257	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 30
258	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 31
259	UINT16	RD/WR	0 ..100	%	Charging Station Setpoint 32
280	UINT16	WR	0 .. 100		All Charging Stations Setpoint (only with FC6)
281	UINT16	WR	0 .. 1		All Charging Stations Emergency Off (only with FC6) Function: 0=normal,1=all to OFF
290	UINT16	RD	0 .. 100	%	All Charging Stations Actual Setpoint
291	UINT16	RD	0 .. 59	min	Lifebit, value of minutes
292	UINT16	RD	0 .. 255	s	RM-Timeout timer

## Diverse values

### INFORMATION

The following addresses are only valid for the Procont-LMC and LMC-LITE devices

293	UINT16	RD	0 ..3599	s	Time Since Period Start
294	-	-	-	-	Reserve
295	-	-	-	-	Reserve
296	-	-	-	-	Reserve
297	-	-	-	-	Reserve
298	-	-	-	-	Reserve
299	-	-	-	-	Reserve

Address	Format	RD/WR	Range	Unit	Note
<b>Actual values</b>					
300	FLOAT	RD		kW	ALS: Actual power
302	FLOAT	RD		kW	ALS: Power Main Meter
304	FLOAT	RD			Actual value IO1
306	FLOAT	RD			Actual value IO2
308	FLOAT	RD			Actual value IO3
310	FLOAT	RD			Actual value IO4
312	FLOAT	RD			Actual value IO5
314	FLOAT	RD			Actual value IO6
316	FLOAT	RD			Actual value IO7
318	FLOAT	RD			Actual value IO8
320	FLOAT	RD			Actual value IO9
322	FLOAT	RD			Actual value IO10
324	FLOAT	RD			Actual value IO11
326	FLOAT	RD			Actual value IO12
330	FLOAT	RD			Analog input 1
332	FLOAT	RD			Analog input 2
334	FLOAT	RD			Analog input 3
336	FLOAT	RD			Analog input 4
338	FLOAT	RD		°C	Processor temperature
<b>Load control system - Actual values</b>					
360	FLOAT	RD	ABCD	kW	Active Power
362	FLOAT	RD	ABCD	kW	Remaining Power
364	FLOAT	RD	ABCD	kWh/PD	Cumulated Power
366	FLOAT	RD	ABCD	kW	Corrected Power
368	FLOAT	RD	ABCD	kW	Average Maximum Power
370	FLOAT	RD	ABCD	kW	Trend Value Power
372	FLOAT	RD	ABCD	kW	Power Setpoint (1/4hour)
374	FLOAT	RD	ABCD	kW	Maximum Value Power Limit
<b>Bus counter</b>					
500	FLOAT	RD		kW	Power External Bus Meter 1
502	FLOAT	RD		kW	Power External Bus Meter 2
504	FLOAT	RD		kW	Power External Bus Meter 3
506	FLOAT	RD		kW	Power External Bus Meter 4
508	FLOAT	RD		kW	Power External Bus Meter 5
510	FLOAT	RD		kW	Power External Bus Meter 6
512	FLOAT	RD		kW	Power External Bus Meter 7
514	FLOAT	RD		kW	Power External Bus Meter 8
516	FLOAT	RD		kW	Power External Bus Meter 9
518	FLOAT	RD		kW	Power External Bus Meter 10
520	FLOAT	RD		kW	Power External Bus Meter 11
522	FLOAT	RD		kW	Power External Bus Meter 12
524	FLOAT	RD		kW	Power External Bus Meter 13
526	FLOAT	RD		kW	Power External Bus Meter 14
528	FLOAT	RD		kW	Power External Bus Meter 15
530	FLOAT	RD		kW	Power External Bus Meter 16
532	FLOAT	RD		kW	Power External Bus Meter 17
534	FLOAT	RD		kW	Power External Bus Meter 18
536	FLOAT	RD		kW	Power External Bus Meter 19
538	FLOAT	RD		kW	Power External Bus Meter 20
540	FLOAT	RD		kW	Power External Bus Meter 21
542	FLOAT	RD		kW	Power External Bus Meter 22
544	FLOAT	RD		kW	Power External Bus Meter 23
546	FLOAT	RD		kW	Power External Bus Meter 24
548	FLOAT	RD		kW	Power External Bus Meter 25
550	FLOAT	RD		kW	Power External Bus Meter 26
552	FLOAT	RD		kW	Power External Bus Meter 27
554	FLOAT	RD		kW	Power External Bus Meter 28

Address	Format	RD/WR	Range	Unit	Note
556	FLOAT	RD		kW	Power External Bus Meter 29
558	FLOAT	RD		kW	Power External Bus Meter 30
560	FLOAT	RD		kW	Power External Bus Meter 31
562	FLOAT	RD		kW	Power External Bus Meter 32
564	FLOAT	RD		kW	Power External Bus Meter 33
566	FLOAT	RD		kW	Power External Bus Meter 34
568	FLOAT	RD		kW	Power External Bus Meter 35
570	FLOAT	RD		kW	Power External Bus Meter 36
572	FLOAT	RD		kW	Power External Bus Meter 37
574	FLOAT	RD		kW	Power External Bus Meter 38
576	FLOAT	RD		kW	Power External Bus Meter 39
578	FLOAT	RD		kW	Power External Bus Meter 40

**Load groups - External state release: (deactivate reset in Procont®Vis!)**

660	UINT16	RD/WR	0, 1, 2	kW	Load Group State 1
661	UINT16	RD/WR	0, 1, 2	kW	Load Group State 2
662	UINT16	RD/WR	0, 1, 2	kW	Load Group State 3
663	UINT16	RD/WR	0, 1, 2	kW	Load Group State 4
664	UINT16	RD/WR	0, 1, 2	kW	Load Group State 5
665	UINT16	RD/WR	0, 1, 2	kW	Load Group State 6
666	UINT16	RD/WR	0, 1, 2	kW	Load Group State 7
667	UINT16	RD/WR	0, 1, 2	kW	Load Group State 8
668	UINT16	RD/WR	0, 1, 2	kW	Load Group State 9
669	UINT16	RD/WR	0, 1, 2	kW	Load Group State 10
670	UINT16	RD/WR	0, 1, 2	kW	Load Group State 11
671	UINT16	RD/WR	0, 1, 2	kW	Load Group State 12
672	UINT16	RD/WR	0, 1, 2	kW	Load Group State 13
673	UINT16	RD/WR	0, 1, 2	kW	Load Group State 14
674	UINT16	RD/WR	0, 1, 2	kW	Load Group State 15
675	UINT16	RD/WR	0, 1, 2	kW	Load Group State 16
676	UINT16	RD/WR	0, 1, 2	kW	Load Group State 17
677	UINT16	RD/WR	0, 1, 2	kW	Load Group State 18
678	UINT16	RD/WR	0, 1, 2	kW	Load Group State 19
679	UINT16	RD/WR	0, 1, 2	kW	Load Group State 20
680	UINT16	RD/WR	0, 1, 2	kW	Load Group State 21
681	UINT16	RD/WR	0, 1, 2	kW	Load Group State 22
682	UINT16	RD/WR	0, 1, 2	kW	Load Group State 23
683	UINT16	RD/WR	0, 1, 2	kW	Load Group State 24
684	UINT16	RD/WR	0, 1, 2	kW	Load Group State 25
685	UINT16	RD/WR	0, 1, 2	kW	Load Group State 26
686	UINT16	RD/WR	0, 1, 2	kW	Load Group State 27
687	UINT16	RD/WR	0, 1, 2	kW	Load Group State 28
688	UINT16	RD/WR	0, 1, 2	kW	Load Group State 29
689	UINT16	RD/WR	0, 1, 2	kW	Load Group State 30
690	UINT16	RD/WR	0, 1, 2	kW	Load Group State 31
691	UINT16	RD/WR	0, 1, 2	kW	Load Group State 32
692	UINT16	RD/WR	0, 1, 2	kW	Load Group State 33
693	UINT16	RD/WR	0, 1, 2	kW	Load Group State 34
694	UINT16	RD/WR	0, 1, 2	kW	Load Group State 35
695	UINT16	RD/WR	0, 1, 2	kW	Load Group State 36
696	UINT16	RD/WR	0, 1, 2	kW	Load Group State 37
697	UINT16	RD/WR	0, 1, 2	kW	Load Group State 38
698	UINT16	RD/WR	0, 1, 2	kW	Load Group State 39
699	UINT16	RD/WR	0, 1, 2	kW	Load Group State 40

Address	Format	RD/WR	Range	Unit	Note
700	UINT16	RD/WR	0, 1, 2	kW	Load Group State 41
701	UINT16	RD/WR	0, 1, 2	kW	Load Group State 42
702	UINT16	RD/WR	0, 1, 2	kW	Load Group State 43
703	UINT16	RD/WR	0, 1, 2	kW	Load Group State 44
704	UINT16	RD/WR	0, 1, 2	kW	Load Group State 45
705	UINT16	RD/WR	0, 1, 2	kW	Load Group State 46
706	UINT16	RD/WR	0, 1, 2	kW	Load Group State 47
707	UINT16	RD/WR	0, 1, 2	kW	Load Group State 48
708	UINT16	RD/WR	0, 1, 2	kW	Load Group State 49
709	UINT16	RD/WR	0, 1, 2	kW	Load Group State 50
710	UINT16	RD/WR	0, 1, 2	kW	Load Group State 51
711	UINT16	RD/WR	0, 1, 2	kW	Load Group State 52
712	UINT16	RD/WR	0, 1, 2	kW	Load Group State 53
713	UINT16	RD/WR	0, 1, 2	kW	Load Group State 54
714	UINT16	RD/WR	0, 1, 2	kW	Load Group State 55
715	UINT16	RD/WR	0, 1, 2	kW	Load Group State 56
716	UINT16	RD/WR	0, 1, 2	kW	Load Group State 57
717	UINT16	RD/WR	0, 1, 2	kW	Load Group State 58
718	UINT16	RD/WR	0, 1, 2	kW	Load Group State 59
719	UINT16	RD/WR	0, 1, 2	kW	Load Group State 60
720	UINT16	RD/WR	0, 1, 2	kW	Load Group State 61
721	UINT16	RD/WR	0, 1, 2	kW	Load Group State 62
722	UINT16	RD/WR	0, 1, 2	kW	Load Group State 63
723	UINT16	RD/WR	0, 1, 2	kW	Load Group State 64
724	UINT16	RD/WR	0, 1, 2	kW	Load Group State 65
725	UINT16	RD/WR	0, 1, 2	kW	Load Group State 66
726	UINT16	RD/WR	0, 1, 2	kW	Load Group State 67
727	UINT16	RD/WR	0, 1, 2	kW	Load Group State 68
728	UINT16	RD/WR	0, 1, 2	kW	Load Group State 69
729	UINT16	RD/WR	0, 1, 2	kW	Load Group State 70
730	UINT16	RD/WR	0, 1, 2	kW	Load Group State 71
731	UINT16	RD/WR	0, 1, 2	kW	Load Group State 72
732	UINT16	RD/WR	0, 1, 2	kW	Load Group State 73
733	UINT16	RD/WR	0, 1, 2	kW	Load Group State 74
734	UINT16	RD/WR	0, 1, 2	kW	Load Group State 75
735	UINT16	RD/WR	0, 1, 2	kW	Load Group State 76
736	UINT16	RD/WR	0, 1, 2	kW	Load Group State 77
737	UINT16	RD/WR	0, 1, 2	kW	Load Group State 78
738	UINT16	RD/WR	0, 1, 2	kW	Load Group State 79
739	UINT16	RD/WR	0, 1, 2	kW	Load Group State 80
740	UINT16	RD/WR	0, 1, 2	kW	Load Group State 81
741	UINT16	RD/WR	0, 1, 2	kW	Load Group State 82
742	UINT16	RD/WR	0, 1, 2	kW	Load Group State 83
743	UINT16	RD/WR	0, 1, 2	kW	Load Group State 84
744	UINT16	RD/WR	0, 1, 2	kW	Load Group State 85
745	UINT16	RD/WR	0, 1, 2	kW	Load Group State 86
746	UINT16	RD/WR	0, 1, 2	kW	Load Group State 87
747	UINT16	RD/WR	0, 1, 2	kW	Load Group State 88
748	UINT16	RD/WR	0, 1, 2	kW	Load Group State 89
749	UINT16	RD/WR	0, 1, 2	kW	Load Group State 90

Address	Format	RD/WR	Range	Unit	Note
750	UINT16	RD/WR	0, 1, 2	kW	Load Group State 91
751	UINT16	RD/WR	0, 1, 2	kW	Load Group State 92
752	UINT16	RD/WR	0, 1, 2	kW	Load Group State 93
753	UINT16	RD/WR	0, 1, 2	kW	Load Group State 94
754	UINT16	RD/WR	0, 1, 2	kW	Load Group State 95
755	UINT16	RD/WR	0, 1, 2	kW	Load Group State 96
756	UINT16	RD/WR	0, 1, 2	kW	Load Group State 97
757	UINT16	RD/WR	0, 1, 2	kW	Load Group State 98
758	UINT16	RD/WR	0, 1, 2	kW	Load Group State 99
759	UINT16	RD/WR	0, 1, 2	kW	Load Group State 100
760	UINT16	RD/WR	0, 1, 2	kW	Load Group State 101
761	UINT16	RD/WR	0, 1, 2	kW	Load Group State 102
762	UINT16	RD/WR	0, 1, 2	kW	Load Group State 103
763	UINT16	RD/WR	0, 1, 2	kW	Load Group State 104
764	UINT16	RD/WR	0, 1, 2	kW	Load Group State 105
765	UINT16	RD/WR	0, 1, 2	kW	Load Group State 106
766	UINT16	RD/WR	0, 1, 2	kW	Load Group State 107
767	UINT16	RD/WR	0, 1, 2	kW	Load Group State 108
768	UINT16	RD/WR	0, 1, 2	kW	Load Group State 109
769	UINT16	RD/WR	0, 1, 2	kW	Load Group State 110
770	UINT16	RD/WR	0, 1, 2	kW	Load Group State 111
771	UINT16	RD/WR	0, 1, 2	kW	Load Group State 112
772	UINT16	RD/WR	0, 1, 2	kW	Load Group State 113
773	UINT16	RD/WR	0, 1, 2	kW	Load Group State 114
774	UINT16	RD/WR	0, 1, 2	kW	Load Group State 115
775	UINT16	RD/WR	0, 1, 2	kW	Load Group State 116
776	UINT16	RD/WR	0, 1, 2	kW	Load Group State 117
777	UINT16	RD/WR	0, 1, 2	kW	Load Group State 118
778	UINT16	RD/WR	0, 1, 2	kW	Load Group State 119
779	UINT16	RD/WR	0, 1, 2	kW	Load Group State 120
780	UINT16	RD/WR	0, 1, 2	kW	Load Group State 121
781	UINT16	RD/WR	0, 1, 2	kW	Load Group State 122
782	UINT16	RD/WR	0, 1, 2	kW	Load Group State 123
783	UINT16	RD/WR	0, 1, 2	kW	Load Group State 124
784	UINT16	RD/WR	0, 1, 2	kW	Load Group State 125
785	UINT16	RD/WR	0, 1, 2	kW	Load Group State 126
786	UINT16	RD/WR	0, 1, 2	kW	Load Group State 127
787	UINT16	RD/WR	0, 1, 2	kW	Load Group State 128

**Ext. meter readings in kWh with one decimal place (are written externally via Modbus)**

788	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 1
790	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 2
792	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 3
794	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 4
796	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 5
798	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 6
800	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 7
802	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 8
804	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 9
806	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 10
808	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 11
810	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 12
812	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 13
814	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 14
816	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 15
818	UINT32	RD/WR	0 .. $2^{32}-1$	kWh	External meter count 16

Address	Format	RD/WR	Range	Unit	Note
<b>Ext. powers in W (are written externally via Modbus)</b>					
820	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 1
822	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 2
824	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 3
826	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 4
828	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 5
830	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 6
832	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 7
834	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 8
836	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 9
838	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 10
840	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 11
842	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 12
844	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 13
846	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 14
848	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 15
850	UINT16	RD/WR	0 .. 2 <sup>32</sup> -1	W	External Meter Power 16
<b>Ext. presets in W (are written externally via Modbus)</b>					
852	UINT32	RD/WR	0 .. 2 <sup>32</sup> -1	W	Load Value Setpoint
854	UINT32	RD/WR	0 .. 2 <sup>32</sup> -1	W	Maximum Load Value Setpoint
856	-	-	-	-	Reserve 1
858	-	-	-	-	Reserve 2
<b>Meter readings in kWh with one decimal place</b>					
1000	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 1 (Value *10)
1002	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 2 (Value *10)
1004	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 3 (Value *10)
1006	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 4 (Value *10)
1008	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 5 (Value *10)
1010	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 6 (Value *10)
1012	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 7 (Value *10)
1014	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 8 (Value *10)
1016	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 9 (Value *10)
1018	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 10 (Value *10)
1020	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 11 (Value *10)
1022	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	Meter Count IO 12 (Value *10)
<b>Meter readings bus meter in kWh with one decimal place</b>					
1100	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 1 (Value *10)
1102	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 2 (Value *10)
1104	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 3 (Value *10)
1106	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 4 (Value *10)
1108	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 5 (Value *10)
1110	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 6 (Value *10)
1112	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 7 (Value *10)
1114	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 8 (Value *10)
1116	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 9 (Value *10)
1118	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 10 (Value *10)
1120	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 11 (Value *10)
1122	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 12 (Value *10)
1124	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 13 (Value *10)
1126	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 14 (Value *10)
1128	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 15 (Value *10)
1130	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 16 (Value *10)
1132	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 17 (Value *10)
1134	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 18 (Value *10)
1136	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 19 (Value *10)
1138	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 20 (Value *10)
1140	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 21 (Value *10)
1142	UINT32	RD	0 .. 2 <sup>32</sup> -1	kWh	External Bus Meter Count 22 (Value *10)



Address	Format	RD/WR	Range	Unit	Note
1144	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 23 (Value *10)
1146	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 24 (Value *10)
1148	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 25 (Value *10)
1150	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 26 (Value *10)
1152	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 27 (Value *10)
1154	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 28 (Value *10)
1156	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 29 (Value *10)
1158	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 30 (Value *10)
1160	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 31 (Value *10)
1162	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 32 (Value *10)
1164	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 33 (Value *10)
1166	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 34 (Value *10)
1168	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 35 (Value *10)
1170	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 36 (Value *10)
1172	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 37 (Value *10)
1174	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 38 (Value *10)
1176	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 39 (Value *10)
1178	UINTEGER32	RD	0 .. $2^{32}-1$	kWh	External Bus Meter Count 40 (Value *10)