Table de communication Modbus / Mapping Modbus table

The data format for each byte in RTU mode:
Coding System: 8-bit per byte
Data Format: 4 bytes (2 registers) per parameter.
Floating point format (to IEEE 754)
Most significant register first (Default).

Error Check Field: 2 byte Cyclical Redundancy Check (CRC)
Framing: 1 start bit
8 data bits, least significant bit sent first
1 bit for even/odd parity (or no parity)
1 stop bit if parity is used; 1 or 2 bits if no parity

The data coding information:
All data values are transferred as 32 bit IEEE754 floating point numbers, each value is transferred using two Modbus Protocol 16 bit registers. Bytes arrangement is big-endian (4-3-2-1).
All register read requests must specify an even number of registers.

The MEMO P200 can transfer a maximum of 40 values in a single transaction; exceeding this limit prompts the product to generate an exception response.
Data transmission speed : 2400, 4800, 9600, 19200, 38400 baud.

Input registers:
The following table details the registers parameter and units ,and the values of the address bytes.
Modbus Protocol function code 04 is used to access all parameters.

Parameter number	Register parameter (units)	Address Hex High	Address Hex Low
1	Phase 1 voltage line to neutral (Volts)	00	00
2	Phase 2 voltage line to neutral (Volts)	00	02
3	Phase 3 voltage line to neutral (Volts)	00	04
4	Phase 1 current (Amps)	00	06
5	Phase 2 current (Amps)	00	08
6	Phase 3 current (Amps)	00	0A
7	Phase 1 active power (Watts)	00	0C
8	Phase 2 active power (Watts)	00	0E
9	Phase 3 active power (Watts)	00	10
10	Phase 1 apparent power (VA)	00	12
11	Phase 2 apparent power (VA)	00	14
12	Phase 3 apparent power (VA)	00	16
13	Phase 1 reactive power (VAr)	00	18
14	Phase 2 reactive power (VAr)	00	1A
15	Phase 3 reactive power (VAr)	00	1C
16	Phase 1 power factor (1)	00	1E
17	Phase 2 power factor (1)	00	20
18	Phase 3 power factor (1)	00	22
19	Phase 1 phase angle (degrees)	00	24
20	Phase 2 phase angle (degrees)	00	26
21	Phase 3 phase angle (degrees)	00	28
22	Average voltage line to neutral (Volts)	00	2A
23	Average line current (Amps)	00	2E
24	Sum of line currents (Amps)	00	30
25	Total system active power (Watts)	00	34
26	Total system apparent power (VA)	00	38
27	Total system reactive power (VAr)	00	3C
28	Total system power factor	00	3E
29	Total system phase angle	00	42
30	Frequency (Hertz)	00	46
31	Import active energy (kWh)	00	48
32	Export active energy (kWh)	00	4A
33	Import reactive energy (kVArh)	00	4C
34	Export reactive energy (kVArh)	00	4E
35	Total apparent energy (kVAh)	00	50
36	Total cumulated current (Ah)	00	52
37	Total system active power demand (W)	00	54
38	Max total system active power demand (W)	00	56
39	Total system apparent power demand (VA)	00	64
40	Max total system apparent power demand (VA)	00	66
41	Neutral current demand (Amps)	00	68
42	Max neutral current demand (Amps)	00	6A
43	Line 1 to line 2 Voltage (Volts)	00	C8
44	Line 2 to line 3 Voltage (Volts)	00	CA

Parameter number	Register parameter (units)	Address Hex High	Address Hex Low
45	Line 3 to line 1 Voltage (Volts)	00	CC
46	Average line to line Voltage (Volts)	00	CE
47	Neutral current (Amps)	00	E0
48	Phase 1 L/N voltage THD (%)	00	EA
49	Phase 2 L/N voltage THD (%)	00	EC
50	Phase 3 L/N voltage THD (%)	00	EE
51	Phase 1 current THD (%)	00	F0
52	Phase 2 current THD (%)	00	F2
53	Phase 3 current THD (%)	00	F4
54	Average line to neutral Voltage THD (%)	00	F8
55	Average line current THD (%)	00	FA
56	Total system power factor (degrees)	00	FE
57	Phase 1 current demand (Amps)	01	02
58	Phase 2 current demand (Amps)	01	04
59	Phase 3 current demand (Amps)	01	06
60	Max phase 1 current demand (Amps)	01	08
61	Max phase 2 current demand (Amps)	01	0A
62	Max phase 3 current demand (Amps)	01	0C
63	Line 1 to line 2 voltage THD (%)	01	4E
64	Line 2 to line 3 voltage THD (%)	01	50
65	Line 3 to line 1 voltage THD (%)	01	52
66	Average line to line voltage THD (%)	01	54
67	Total active energy (kWh)	01	56
68	Total reactive energy (kVArh)	01	58
69	Phase 1 active energy import (kWh)	01	5A
70	Phase 2 active energy import (kWh)	01	5C
71	Phase 3 active energy import (kWh)	01	5E
72	Phase 1 active energy export (kWh)	01	60
73	Phase 2 active energy export (kWh)	01	62
74	Phase 3 active energy export (kWh)	01	64
75	Phase 1 active energy total (kWh)	01	66
76	Phase 2 active energy total (kWh)	01	68
77	Phase 3 active energy total (kWh)	01	6A
78	Phase 1 reactive energy import (kVArh)	01	6C
79	Phase 2 reactive energy import (kVArh)	01	6E
80	Phase 3 reactive energy import (kVArh)	01	70
81	Phase 1 reactive energy export (kVArh)	01	72
82	Phase 2 reactive energy export (kVArh)	01	74
83	Phase 3 reactive energy export (kVArh)	01	76
84	Phase 1 reactive energy total (kVArh)	01	78
85	Phase 2 reactive energy total (kVArh)	01	7A
86	Phase 3 reactive energy total (kVArh)	01	7C
87	Resettable total active energy (kWh)	01	80
88	Resettable total reactive energy (kVArh)	01	82

Parameter number	Register parameter (units)	Address Hex High	Address Hex Low
89	Resettable import active energy (kWh)	01	84
90	Resettable export active energy (kWh)	01	86
91	Resettable import reactive energy (kVArh)	01	88
92	Resettable export reactive energy (kVArh)	01	8A
93	Current KF (1)	01	8E
94	Voltage CF (1)	01	90
95	Net total active energy (Imp-Exp) (kWh)	04	CE
96	Net total reactive energy (Imp-Exp) (kVArh)	04	D0
97	Absolute total active energy (Imp+Exp) (kWh)	04	D2
98	Absolute total reactive energy (Imp+Exp) (kVArh)	04	D4
99	TIME1 active energy total (kWh)	13	0C
100	TIME2 active energy total (kWh)	13	0E
101	TIME3 active energy total (kWh)	13	10
102	TIME4 active energy total (kWh)	13	12
103	TIME1 active energy import (kWh)	13	14
104	TIME2 active energy import (kWh)	13	16
105	TIME3 active energy import (kWh)	13	18
106	TIME4 active energy import (kWh)	13	1A
107	TIME1 active energy export (kWh)	13	1C
108	TIME2 active energy export (kWh)	13	1E
109	TIME3 active energy export (kWh)	13	20
110	TIME4 reactive energy export (kWh)	13	22
111	TIME1 reactive energy total (kVArh)	13	24
112	TIME2 reactive energy total (kVArh)	13	26
113	TIME3 reactive energy total (kVArh)	13	28
114	TIME4 reactive energy total (kVArh)	13	2A
115	TIME1 reactive energy import (kVArh)	13	2C
116	TIME2 reactive energy import (kVArh)	13	2E
117	TIME3 reactive energy import (kVArh)	13	30
118	TIME4 reactive energy import (kVArh)	13	32
119	TIME1 reactive energy export (kVArh)	13	34
120	TIME2 reactive energy export (kVArh)	13	36
121	TIME3 reactive energy export (kVArh)	13	38
122	TIME4 reactive energy export (kVArh)	13	3A