POWERMETER
EPR-04S

MODBUS REGISTER MAP

MODBUS REGISTER MAP							
ADDRESS	ADDRESS (HEX)	REGISTER	R/W	RANGE	UNIT	MULTIPLIER	FORMAT
0	0000						
2	0002						
4	0004						
6	0006						
8	0008						
10	000A						
12	000C						
14	000E						
16	0010						
18	0012						
20	0014	L1 PHASE ACTIVE POWER	R	(-18000 - 18000)xCTxVT	Watt	0.1	int
22	0016	L2 PHASE ACTIVE POWER	R	(-18000 - 18000)xCTxVT	Watt	0.1	int
24	0018	L3 PHASE ACTIVE POWER	R	(-18000 - 18000)xCTxVT	Watt	0.1	int
26	001A	L1 PHASE REACTIVE POWER	R	(-18000 - 18000)xCTxVT	Var	0.1	int
28	001C	L2 PHASE REACTIVE POWER	R	(-18000 - 18000)xCTxVT	Var	0.1	int
30	001E	L3 PHASE REACTIVE POWER	R	(-18000 - 18000)xCTxVT	Var	0.1	int
32	0020	L1 PHASE APPARENT POWER	R	(0 -18000)xCTxVT	VA	0.1	unsigned int
34	0022	L2 PHASE APPARENT POWER	R	(0 -18000)xCTxVT	VA	0.1	unsigned int
36	0024	L3 PHASE APPARENT POWER	R	(0 -18000)xCTxVT	VA	0.1	unsigned int
38	0026	L1 PHASE COSφ	R	(-1000 -1000)	-	0.001	int
40	0028	L2 PHASE COSφ	R	(-1000 -1000)	-	0.001	int
42	002A	L3 PHASE COSφ	R	(-1000 -1000)	-	0.001	int
44	002C	TOTAL IMPORT ACTIVE POWER	R	(0 -54000)xCTxVT	Watt	0.1	int
46	002E	TOTAL EXPORT ACTIVE POWER	R	(0 -54000)xCTxVT	Watt	0.1	int
48	0030	TOTAL INDUCTIVE REACTIVE POWER	R	(0 -54000)xCTxVT	Var	0.1	int
50	0032	TOTAL CAPACITIVE REACTIVE POWER	R	(0 -54000)xCTxVT	Var	0.1	int
52	0034	TOTAL APPARENT POWER	R	(0 -54000)xCTxVT	VA	0.1	unsigned int
54	0036	AVERAGE INDUCTIVE COSφ	R	(-1000 -1000)	-	0.001	int
56	0038	AVERAGE CAPACITIVE COSφ	R	(-1000 -1000)	-	0.001	int
58	003A	FREQUENCY	R	(4000 -7000)	Hz	0.01	unsigned int
60	003C						
62	003E						
64	0040						
66	0042						
68	0044						
70	0046						
72	0048						
74	004A						
76	004C						
78	004E						
80	0050						
82	0052						
84	0054	DIGITAL INPUT STATUS	R	-	-	-	-
86	0056	IMPORT ACTIVE ENERGY-1	R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
88	0058		R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
90	005A	EXPORT ACTIVE ENERGY-1	R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
92	005C		R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
94	005E	INDUCTIVE REACTIVE ENERGY-1	R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
96	0060		R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
98	0062	CAPACITIVE REACTIVE ENERGY-1	R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
100	0064		R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
102	0066	IMPORT ACTIVE ENERGY-2	R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
104	0068		R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
106	006A	EXPORT ACTIVE ENERGY-2	R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
108	006C		R/W	0-FFFFFFFFFFFFFFFF	Wh	1	long int
110	006E	INDUCTIVE REACTIVE ENERGY-2	R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
112	0070		R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
114	0072	CAPACITIVE REACTIVE ENERGY-2	R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
116	0074		R/W	0-FFFFFFFFFFFFFFFF	VArh	1	long int
118	0076						
120	0078						
122	007A						
124	007C						
126	007E						
128	0080						
130	0082						
132	0084						
134	0086						
136	0088	L1 PHASE MIN. ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
138	008A	L2 PHASE MIN. ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
140	008C	L3 PHASE MIN. ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
142	008E	L1 PHASE MIN. REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
144	0090	L2 PHASE MIN. REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
146	0092	L3 PHASE MIN. REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
148	0094	L1 PHASE MIN. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
150	0096	L2 PHASE MIN. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int

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152	0098	L3 PHASE MIN. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
154	009A	TOTAL MIN. IMPORT ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
156	009C	TOTAL MIN. EXPORT ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
158	009E	TOTAL MIN. IMPORT REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
160	00A0	TOTAL MIN. EXPORT REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
162	00A2	TOTAL MIN. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
164	00A4						
166	00A6						
168	00A8						
170	00AA						
172	00AC						
174	00AE						
176	00B0						
178	00B2						
180	00B4						
182	00B6	L1 PHASE MAX. ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
184	00B8	L2 PHASE MAX. ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
186	00BA	L3 PHASE MAX. ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
188	00BC	L1 PHASE MAX. REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
190	00BE	L2 PHASE MAX. REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
192	00C0	L3 PHASE MAX. REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
194	00C2	L1 PHASE MAX. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
196	00C4	L2 PHASE MAX. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
198	00C6	L3 PHASE MAX. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
200	00C8	TOTAL MAX. IMPORT ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
202	00CA	TOTAL MAX. EXPORT ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
204	00CC	TOTAL MAX. IMPORT REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
206	00CE	TOTAL MAX. EXPORT REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
208	00D0	TOTAL MAX. APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
210	00D2						
212	00D4						
214	00D6						
216	00D8	L1 PHASE IMPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
218	00DA	L1 PHASE EXPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
220	00DC	L2 PHASE IMPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
222	00DE	L2 PHASE EXPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
224	00E0	L3 PHASE IMPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
226	00E2	L3 PHASE EXPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
228	00E4	L1 PHASE IMPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
230	00E6	L1 PHASE EXPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
232	00E8	L2 PHASE IMPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
234	00EA	L2 PHASE EXPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
236	00EC	L3 PHASE IMPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
238	00EE	L3 PHASE EXPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
240	00F0	L1 PHASE MAX. DEMAND APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
242	00F2	L2 PHASE MAX. DEMAND APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
244	00F4	L3 PHASE MAX. DEMAND APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int
246	00F6	TOTAL IMPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
248	00F8	TOTAL EXPORT MAX. DEMAND ACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Watt	0.1	int
250	00FA	TOTAL IMPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
252	00FC	TOTAL EXPORT MAX. DEMAND REACTIVE POWER	R/W	(-18000 - 18000)xCTxVT	Var	0.1	int
254	00FE	TOTAL MAX. DEMAND APPARENT POWER	R/W	(0 - 18000)xCTxVT	VA	0.1	unsigned int

ADDRESS	ADDRESS (HEX)	REGISTER	R/W	RANGE	UNIT	MULTIPLIER	FORMAT
32768	8000	VOLTAGE TRANSFORMER RATIO	R/W	0-40000	-	0.1	short-int
32769	8001	CURRENT TRANSFORMER RATIO	R/W	0-2000	-	1	short-int
32770	8002	CALCULATION METHOD	R/W	0-5	-	-	short-int
32771	8003	DEMAND TIME	R/W	1-60	minute	1	short-int
32772	8004	PULSE RATIO	R/W	0-6	-	-	short-int
32773	8005	PULSE OUTPUT 1 PARAMETER SETTING	R/W	0-5	-	-	short-int
32774	8006	PULSE OUTPUT 2 PARAMETER SETTING	R/W	0-5	-	-	short-int
32775	8007	ENERGY COUNTER 1 SELECTION	R/W	0-3	-	-	short-int
32776	8008	ENERGY COUNTER 2 SELECTION	R/W	0-3	-	-	short-int
32777	8009	COMMUNICATION ADDRESS	R/W	0 - 247	-	-	short-int
32778	800A	BAUD RATE	R/W	1 - 5	-	-	short-int
32779	800B	PARITY	R/W	0 - 2	-	-	short-int
32780	800C	PASSWORD ENABLE	R/W	0-1	-	-	short-int
32781	800D	PASSWORD	R/W	0-9999	-	-	short-int

PULSE OUTPUT 1-2 PARAMETER SETTING 0-5 :
0: Active
1: Active Import
2: Active Export
3: Reactive
4: Reactive Import
5: Reactive Export

PULSE RATIO 0-6 :
0: 1 Watt / Pulse
1: 10 Watt / Pulse
2: 100 Watt / Pulse
3: 1 kW / Pulse
4: 10 kW / Pulse
5: 100 kW / Pulse
6: 1 MW / Pulse

ENERGY COUNTER 1 SELECTION 0-3 :
0 : On (EC -Energy counter- will count on all conditions)
1: EC will count when Digital Input1 is 1 (1=active)
2: EC will count when Digital Input2 is 1 (1=active)
3: Inverse Energy Counter 2 (It will count when EC2 is not counted)

ENERGY COUNTER 2 SELECTION 0-3 :
0 : On (EC -Energy counter- will count on all conditions)
1: EC will count when Digital Input1 is 1 (1=active)
2: EC will count when Digital Input2 is 1 (1=active)
3: Inverse Energy Counter 1 (It will count when EC1 is not counted)

BAUD RATE 1-5 :
1: 38400 bps
2: 19200 bps
3: 9600 bps
4: 4800 bps
5: 2400 bps

PARITY 0-2 :
0: No
1: Odd
2: Even

PASSWORD ENABLE 0-1 :
0: Disable
1: Enable

CALCULATION 0-5 :
Refer to "Reactive Energy Calculation Method Setting" on page 2.