Measuring class parameter [Floating point format data]

Input Register Parameter [Function code : 04H]				Register Address [Hex]	
Description	**Length (bytes)**	**Data Format**	**Units**	**High Byte**	**Low Byte**
Voltage.	4	Float	V	00	00
Current.	4	Float	A	00	06
Active power.	4	Float	W	00	0C
Reactive power.	4	Float	var	00	12
Apparent power.	4	Float	VA	00	18
Power factor (1).	4	Float	None	00	1E
Phase angle.	4	Float	Degrees	00	24
Frequency of supply voltages.	4	Float	Hz	00	30
Nature of load (Resistive=1, inductive=2, capacitive =3, Non Load=4)	4	Float	None	00	4E
Active power demand (2).	4	Float	W	00	8C
Reactive power demand (2).	4	Float	var	00	8E
Apparent power demand.	4	Float	VA	00	90
Current demand.	4	Float	A	00	92
Import active power demand	4	Float	W	00	9A
Export active power demand	4	Float	W	00	9C
Maximum active power demand (2).	4	Float	W	00	A2
Maximum reactive power demand (2).	4	Float	var	00	A4
Maximum apparent power demand.	4	Float	VA	00	A6
Maximum current demand.	4	Float	A	00	A8
Maximum import active power demand	4	Float	W	00	B0
Maximum export active power demand	4	Float	W	00	B2
Total import active energy.	4	Float	kWh	05	00
Total export active energy.	4	Float	kWh	05	02
Total active Energy.	4	Float	kWh	05	04
Total import reactive energy.	4	Float	kvarh	05	08
Total export reactive energy.	4	Float	kvarh	05	0A
Total reactive Energy.	4	Float	kvarh	05	0C
Total active energy of rate 1	4	Float	kWh	05	38
Total active energy of rate 2	4	Float	kWh	05	3A
Total active energy of rate 3	4	Float	kWh	05	3C
Total active energy of rate 4	4	Float	kWh	05	3E
Import active energy of rate 1	4	Float	kWh	05	40
Import active energy of rate 2	4	Float	kWh	05	42
Import active energy of rate 3	4	Float	kWh	05	44
Import active energy of rate 4	4	Float	kWh	05	46
Export active energy of rate 1	4	Float	kWh	05	48
Export active energy of rate 2	4	Float	kWh	05	4A
Export active energy of rate 3	4	Float	kWh	05	4C

Export active energy of rate 4	4	Float	kWh	05	4E
Total reactive energy of rate 1	4	Float	kvarh	05	50
Total reactive energy of rate 2	4	Float	kvarh	05	52
Total reactive energy of rate 3	4	Float	kvarh	05	54
Total reactive energy of rate 4	4	Float	kvarh	05	56
Import reactive energy of rate 1	4	Float	kvarh	05	58
Import reactive energy of rate 2	4	Float	kvarh	05	5A
Import reactive energy of rate 3	4	Float	kvarh	05	5C
Import reactive energy of rate 4	4	Float	kvarh	05	5E
Export reactive energy of rate 1	4	Float	kvarh	05	60
Export reactive energy of rate 2	4	Float	kvarh	05	62
Export reactive energy of rate 3	4	Float	kvarh	05	64
Export reactive energy of rate 4	4	Float	kvarh	05	66
Monthly energy consumption for the last 12 months					
Total active energy category (Each set of data includes the energy of all rate segments, the energy of rate 1, the energy of rate 2, the energy of rate 3 and the energy of rate 4 respectively)					
The total active energy consumption of the current months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	0C
The total active energy consumption of the last 1 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	16
The total active energy consumption of the last 2 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	20
The total active energy consumption of the last 3 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	2A
The total active energy consumption of the last 4 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	34
The total active energy consumption of the last 5 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	3E
The total active energy consumption of the last 6 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	48
The total active energy consumption of the last 7 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	52
The total active energy consumption of the last 8 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	5C
The total active energy consumption of the last 9 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	66
The total active energy consumption of the last 10 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	70
The total active energy consumption of the last 11 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	7A
The total active energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0A	84
Daily energy consumption for the last 31 days					

Total active energy category (Each set of data includes the energy of all rate segments, the energy of rate 1, the energy of rate 2, the energy of rate 3 and the energy of rate 4 respectively)					
The total active energy consumption of the current days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	18
The total active energy consumption of the last 1 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	22
The total active energy consumption of the last 2 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	2C
The total active energy consumption of the last 3 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	36
The total active energy consumption of the last 4 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	40
The total active energy consumption of the last 5 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	4A
The total active energy consumption of the last 6 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	54
The total active energy consumption of the last 7 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	5E
The total active energy consumption of the last 8 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	68
The total active energy consumption of the last 9 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	72
The total active energy consumption of the last 10 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	7C
The total active energy consumption of the last 11 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	86
The total active energy consumption of the last 12 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	90
The total active energy consumption of the last 13 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	9A
The total active energy consumption of the last 14	20	Float	kWh	0D	A4

days (Total、Rate1、Rate2、Rate3、Rate4)					
The total active energy consumption of the last 15 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	AE
The total active energy consumption of the last 16 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	B8
The total active energy consumption of the last 17 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	C2
The total active energy consumption of the last 18 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	CC
The total active energy consumption of the last 19 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	D6
The total active energy consumption of the last 20 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	E0
The total active energy consumption of the last 21 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	EA
The total active energy consumption of the last 22 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	F4
The total active energy consumption of the last 23 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0D	FE
The total active energy consumption of the last 24 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0E	08
The total active energy consumption of the last 25 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0E	12
The total active energy consumption of the last 26 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0E	1C
The total active energy consumption of the last 27 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0E	26
The total active energy consumption of the last 28 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0E	30
The total active energy consumption of the last 29	20	Float	kWh	0E	3A

days (Total、Rate1、Rate2、Rate3、Rate4)					
The total active energy consumption of the last 30 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0E	44
The total active energy consumption of the last 31 days (Total、Rate1、Rate2、Rate3、Rate4)	20	Float	kWh	0E	4E

Notes:

1. The power factor has its sign adjusted to indicate the direction of the current. Positive refers to forward current, negative refers to reverse current.

2. The power sum demand calculation is for import – export.

Measuring class parameter [Integer format data]

Holding Register Parameter				Register Address	
[Read : Function code : 03H]				[Hex]	
Description	Length (bytes)	Data Format	Units	High Byte	Low Byte
Voltage.	4	ULONG	0.01V	00	00
Current.	4	ULONG	0.001A	00	06
Active power.	4	LONG	0.001kW	00	0C
Reactive power.	4	LONG	0.001kvar	00	12
Apparent power.	4	ULONG	0.001kVA	00	18
Power factor (1).	2	INT	0.001	00	1E
Phase angle.	2	INT	0.01°	00	21
Frequency of supply voltages.	2	UINT	0.01Hz	00	2A
Nature of load (Resistive=1, inductive=2, capacitive =3, Non Load=4)	2	UINT	None	00	46
Active power demand (2).	4	LONG	0.001kW	00	66
Reactive power demand (2).	4	LONG	0.001kvar	00	68
Apparent power demand.	4	ULONG	0.001kVA	00	6A
Current demand.	4	ULONG	0.001A	00	6C
Import active power demand	4	ULONG	0.001kW	00	74
Export active power demand	4	ULONG	0.001kW	00	76
Maximum active power demand (2).	4	LONG	0.001kW	00	7C
Maximum reactive power demand (2).	4	LONG	0.001kvar	00	7E
Maximum apparent power demand.	4	ULONG	0.001kVA	00	80
Maximum current demand.	4	ULONG	0.001A	00	82
Maximum import active power demand	4	ULONG	0.001kW	00	8A
Maximum export active power demand	4	ULONG	0.001kW	00	8C
Total import active energy.	4	ULONG	0.01kWh	04	00
Total export active energy.	4	ULONG	0.01kWh	04	02
Total active Energy.	4	ULONG	0.01kWh	04	04
Total import reactive energy.	4	ULONG	0.01kvarh	04	08
Total export reactive energy.	4	ULONG	0.01kvarh	04	0A
Total reactive Energy.	4	ULONG	0.01kvarh	04	0C
Total active energy of rate 1	4	ULONG	0.01kWh	04	38
Total active energy of rate 2	4	ULONG	0.01kWh	04	3A
Total active energy of rate 3	4	ULONG	0.01kWh	04	3C
Total active energy of rate 4	4	ULONG	0.01kWh	04	3E
Import active energy of rate 1	4	ULONG	0.01kWh	04	40
Import active energy of rate 2	4	ULONG	0.01kWh	04	42
Import active energy of rate 3	4	ULONG	0.01kWh	04	44
Import active energy of rate 4	4	ULONG	0.01kWh	04	46
Export active energy of rate 1	4	ULONG	0.01kWh	04	48
Export active energy of rate 2	4	ULONG	0.01kWh	04	4A
Export active energy of rate 3	4	ULONG	0.01kWh	04	4C

Export active energy of rate 4	4	ULONG	0.01kWh	04	4E
Total reactive energy of rate 1	4	ULONG	0.01kvarh	04	50
Total reactive energy of rate 2	4	ULONG	0.01kvarh	04	52
Total reactive energy of rate 3	4	ULONG	0.01kvarh	04	54
Total reactive energy of rate 4	4	ULONG	0.01kvarh	04	56
Import reactive energy of rate 1	4	ULONG	0.01kvarh	04	58
Import reactive energy of rate 2	4	ULONG	0.01kvarh	04	5A
Import reactive energy of rate 3	4	ULONG	0.01kvarh	04	5C
Import reactive energy of rate 4	4	ULONG	0.01kvarh	04	5E
Export reactive energy of rate 1	4	ULONG	0.01kvarh	04	60
Export reactive energy of rate 2	4	ULONG	0.01kvarh	04	62
Export reactive energy of rate 3	4	ULONG	0.01kvarh	04	64
Export reactive energy of rate 4	4	ULONG	0.01kvarh	04	66
Monthly energy consumption for the last 12 months					
Total active energy category (Each set of data includes the energy of all rate segments, the energy of rate 1, the energy of rate 2, the energy of rate 3 and the energy of rate 4 respectively)					
The total active energy consumption of the current months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	0C
The total active energy consumption of the last 1 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	16
The total active energy consumption of the last 2 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	20
The total active energy consumption of the last 3 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	2A
The total active energy consumption of the last 4 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	34
The total active energy consumption of the last 5 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	3E
The total active energy consumption of the last 6 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	48
The total active energy consumption of the last 7 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	52
The total active energy consumption of the last 8 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	5C
The total active energy consumption of the last 9 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	66
The total active energy consumption of the last 10 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	70
The total active energy consumption of the last 11 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	7A
The total active energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	84
Import active energy category					

(Each set of data includes the energy of all rate segments, the energy of rate 1, the energy of rate 2, the energy of rate 3 and the energy of rate 4 respectively)					
The import active energy consumption of the current months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	8E
The import active energy consumption of the last 1 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	98
The import active energy consumption of the last 2 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	A2
The import active energy consumption of the last 3 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	AC
The import active energy consumption of the last 4 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	B6
The import active energy consumption of the last 5 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	C0
The import active energy consumption of the last 6 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	CA
The import active energy consumption of the last 7 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	D4
The import active energy consumption of the last 8 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	DE
The import active energy consumption of the last 9 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	E8
The import active energy consumption of the last 10 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	F2
The import active energy consumption of the last 11 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	09	FC
The import active energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	06
Export active energy category (Each set of data includes the energy of all rate segments, the energy of rate 1, the energy of rate 2, the energy of rate 3 and the energy of rate 4 respectively)					
The export active energy consumption of the current months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	10
The export active energy consumption of the last 1 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	1A
The export active energy consumption of the last 2 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	24
The export active energy consumption of the last 3 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	2E
The export active energy consumption of the last 4 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	38
The export active energy consumption of the last 5 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	42
The export active energy consumption of the last 6 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	4C

The export active energy consumption of the last 7 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	56
The export active energy consumption of the last 8 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	60
The export active energy consumption of the last 9 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	6A
The export active energy consumption of the last 10 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	74
The export active energy consumption of the last 11 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	7E
The export active energy consumption of the last 12 months (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0A	88
Daily energy consumption for the last 31 days					
Total active energy category (Each set of data includes the energy of all rate segments, the energy of rate 1, the energy of rate 2, the energy of rate 3 and the energy of rate 4 respectively)					
The total active energy consumption of the current days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	18
The total active energy consumption of the last 1 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	22
The total active energy consumption of the last 2 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	2C
The total active energy consumption of the last 3 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	36
The total active energy consumption of the last 4 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	40
The total active energy consumption of the last 5 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	4A
The total active energy consumption of the last 6 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	54
The total active energy consumption of the last 7 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	5E
The total active energy consumption of the last 8 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	68
The total active energy consumption of the last 9 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	72

The total active energy consumption of the last 10 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	7C
The total active energy consumption of the last 11 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	86
The total active energy consumption of the last 12 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	90
The total active energy consumption of the last 13 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	9A
The total active energy consumption of the last 14 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	A4
The total active energy consumption of the last 15 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	AE
The total active energy consumption of the last 16 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	B8
The total active energy consumption of the last 17 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	C2
The total active energy consumption of the last 18 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	CC
The total active energy consumption of the last 19 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	D6
The total active energy consumption of the last 20 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	E0
The total active energy consumption of the last 21 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	EA
The total active energy consumption of the last 22 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	F4
The total active energy consumption of the last 23 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0C	FE
The total active energy consumption of the last 24 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	08

The total active energy consumption of the last 25 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	12
The total active energy consumption of the last 26 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	1C
The total active energy consumption of the last 27 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	26
The total active energy consumption of the last 28 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	30
The total active energy consumption of the last 29 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	3A
The total active energy consumption of the last 30 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	44
The total active energy consumption of the last 31 days (Total、Rate1、Rate2、Rate3、Rate4)	20	ULONG	0.01kWh	0D	4E

Notes:

1. The power factor has its sign adjusted to indicate the direction of the current. Positive refers to forward current, negative refers to reverse current.

2. The power sum demand calculation is for import – export.

Set class parameters

Holding Register Parameter [Read : Function code : 03H ; Write : Function code : 10H]				Register Address [Hex]		
Parameter	**Description**	**Length (bytes)**	**Data Format**	**High Byte**	**Low Byte**	**Mode**
Key Parameter Programming Authorization (KPPA)	Read: to get the status of the KPPA 0 = not authorized；1 = authorized Write the correct password to get KPPA, enable to program key parameters.	2	UINT	50	00	**R/W**
Demand Period	Write demand period: 0~60 minutes, Default 60. Range: 0~60, 0 means function update every second.	2	UINT	50	02	**R/W**
Slide time	Default 1, min. Range：1 ~ (Demand Period -1).	2	UINT	50	03	**R/W**
Modbus address	Write the modbus address Range: 1 to 247 for MODBUS Protocol, default 1.	2	UINT	50	05	**R**
Network Baud Rate	Write the network port baud rate for MODBUS Protocol, where: 0 = 1200 baud. 1 = 2400 baud. 2 = 4800 baud. 3 = 9600 baud, default. 4 = 19200 baud.	2	UINT	50	06	**R**
Parity and stop bit	Write the network port parity/stop bits for MODBUS Protocol, where: 0 = One stop bit and no parity, default. 1 = One stop bit and even parity. 2 = One stop bit and odd parity. 3 = Two stop bits and no parity.	2	UINT	50	07	**R**
Password	Read: to get the password of the meter Write: to program the new password of the meter Default : 0000 **(KPPA is asked)**	2	UINT	50	08	**R/W**
Automatic Scroll Display Time	Automatic scroll display time, unit : second Range 0~60，default : 0 Note: 0 mean stop automatic scroll display	2	UINT	50	18	**R/W**
Backlit time	Backlit time, unit : minute. Default 60. Range 0~120 or 255，0 means backlit	2	UINT	50	19	**R/W**

	always on，255 means backlit always off.					
System time	Data definition： 20-Year-Month-Date-Week-Hour-Minute-Second	8	BCD	50	1A	**R/W**
Tariff	Data definition： Tariff number-Min-Hour Tariff number：00，01，02，03，04； 00 mean invalid tariff number Min：00-59 Hour：00-23	24	BCD	50	1E	**R/W**
Reset historical data	0 = reset max. demand 8 = reset monthly energy consumption 9 = reset daily energy consumption **(KPPA is asked)**	2	UINT	56	00	**W**
Meter code	The code of the meter	2	HEX	56	01	**R**
Serial number	The serial number of the meter	4	ULONG	56	02	**R**
Software version number	Software version number : XX.YY Data definition : The first byte represents XX, and the second byte represents YY	2	HEX	56	04	**R**
Hardware version number	Hardware version number : XX.YY Data definition : The first byte represents XX, and the second byte represents YY	2	HEX	56	05	**R**
version number of displayed	version number of displayed : XX.YY Data definition : The first byte represents XX, and the second byte represents YY	2	HEX	56	06	**R**
Fault code	Fault code 0 mean No fault. 1 mean Battery low voltage fault.	2	HEX	56	07	**R**

(1). Example for setting the tariff segment：

Example A: Setting T1 = 00:00 to 03:00, T2 = 03:00 to 06:00, T3 = 06:00 to 08:00, T4 = 08:00 to 00:00,

Send the following command (Hex):

01 10 50 1E 00 0C 18 01 00 00 02 00 03 03 00 06 04 00 08 00 00 00 00 00 00 00 00 00 00 00 00 F6 2D

Among them, red character 01 represents the Modbus communication address of the meter, and 50 1E represents the register address of the tariff. The red character F6 2D is the CRC check code.

01 00 00 represents the start time of T1,

02 00 03 represents the start time of T2,

03 00 06 represents the start time of T3,

04 00 08 represents the start time of T4.

If the remaining four time points are not used, write them all to 00 00 00

Example B: Setting T1 = 00:00 to 03:00 and 12:00 to 14:00; T2 = 03:00 to 06:00 and 14:00 to 16:00; T3 = 06:00 to 08:00 and 16:00 to 18:00; T4 = 08:00 to 12:00 and 18:00 to 00:00

Send the following command (Hex):

01 10 50 1E 00 0C 18 01 00 00 02 00 03 03 00 06 04 00 08 01 00 12 02 00 14 03 00 16 04 00 18 A3 60

Among them, red character 01 represents the Modbus communication address of the meter, and 50 1E represents the register address of the tariff. The red character A3 60 is the CRC check code.

01 00 00, 01 00 12 represents the start time of T1,

02 00 03, 02 00 14 represents the start time of T2,

03 00 06, 03 00 16 represents the start time of T3,

04 00 08, 04 00 18 represents the start time of T4.

Example:

1, Read Input Registers

Example: Read "Phase 1 line to neutral volts"

Request: 01 04 00 00 00 02 71 CB

Where,   01 = Meter address

04 = Function code

00 = High byte of registers starting address

00 = Low byte of registers starting address

00 = High byte of registers number

02 = Low byte of registers number

71 = CRC Low

CB = CRC High

Response: 01 04 04 43 66 33 34 1B 38

Where,   01 = Meter address

04 = Function code

04= Byte count

43 = Data, (High Word, High Byte)

66 = Data, (High Word, Low Byte)

33 = Data, (Low Word, High Byte)

34 = Data, (Low Word, Low Byte)

1B = CRC Low

38 = CRC High

 Note: 43 66 33 34(Hex) = 230.2 (Floating point)

Example: Read "Phase 1 line to neutral volts" (ULONG Format)

Request: 01 03 00 00 00 02 C4 B0

Where,   01 = Meter address

03 = Function code

00 = High byte of registers starting address

00 = Low byte of registers starting address

00 = High byte of registers number

02 = Low byte of registers number

C4 = CRC Low

B0 = CRC High

Response: 01 03 04 00 00 61 AA 53 DC

Where,   01 = Meter address

04 = Function code

04= Byte count

00 = Data, (High Word, High Byte)

00 = Data, (High Word, Low Byte)

61 = Data, (Low Word, High Byte)

AA = Data, (Low Word, Low Byte)

53 = CRC Low

DC = CRC High

 Note: 00 00 61 AA(Hex) = 25002(ULONG) * 0.01V = 250.02V

2, Read Holding Registers

Example: Read "Slide time"

Request: 01 03 50 03 00 01 65 0A

Where,   01 = Meter address

03 = Function code

50 = High byte of registers starting address

03 = Low byte of registers starting address

00 = High byte of registers number

01 = Low byte of registers number

65 = CRC Low

0A = CRC High

Response: 01 03 02 00 05 78 47

Where,   01 = Meter address

03 = Function code

04= Byte Count

00 = Data, (High Byte)

05 = Data, (Low Byte)

78 = CRC Low

47 = CRC High

Note: 00 05 (Hex) = 5 (UINT)

3, Write Holding Registers

Example: Write "Demand Period" = 30

Request: 01 10 50 02 00 01 02 00 1E 77 BF

Where,   01 = Meter address

10 = Function code

50 = High byte of registers starting address

02 = Low byte of registers starting address

00 = High byte of registers number

01 = Low byte of registers number

02 = Byte Count

00 = Data, (High Byte)

1E = Data, (Low Byte)

77 = CRC Low

BF = CRC High

Note: 00 1E (Hex) = 30(UINT)

Response: 01 10 50 02 00 01 B1 09

Where,   01 = Meter address

10 = Function code

50 = High byte of registers starting address

02 = Low byte of registers starting address

00 = High byte of registers number

01 = Low byte of registers number

B1 = CRC Low

09 = CRC High